



GREEN LAKE COUNTY

571 County Road A, Green Lake, WI 54941

Original Post Date: 10/08/2020

Amended Post Date: 10/13/2020

The following documents are included in the packet for the Highway Committee on 10/14/2020:

- 1) Agenda
- 2) Minutes of 09/09/2020
- 3) ATV/UTV Policy, Permit, Ordinance
- 4) Traffic Speed Studies Request for Proposals
- 5) Equipment Purchases: Tri-Axle Cab & Chassis with Truck Equipment, and Sign Truck
- 6) Financials
- 7) 2021 Budget
- 8) Commissioner's Report



GREEN LAKE COUNTY HIGHWAY DEPARTMENT

Office: 920-294-4060

FAX: 920-294-4066

Highway Committee Meeting Notice

Date: October 14, 2020 Time: 4:00 pm

The Green Lake County Highway Committee will meet via virtual communication with limited available seating at the Green Lake County Government Center, County Board Room #0902, 571 County Rd A, Green Lake WI

AGENDA

Committee Members

David Abendroth
Chuck Buss
Dennis Mulder
Robert Schweder
Charlie Wielgosh

Becky Pence,
Secretary

1. Call to Order
2. Certification of Open Meeting Law
3. Pledge of Allegiance
4. Approval of Minutes 09/09/2020
5. Public Comment
6. Discuss and/or Take Action on Amending Chapter 257, All-Terrain/Utility Vehicles to:
 - Charge a \$200.00 Permit Fee relating to the cost to provide the service of working throughout the applications process
 - Add "Application for Permit ATV/UTV Routes on a County Trunk Highway will only be accepted in November of each year.
7. Revise ATV/UTV Routes Policy of 9/13/17 to change Safety Criteria (3) (i) from "notification letter" to "publication in papers 2x"
8. Traffic Speed Studies, Request for Proposals
 - CTH A, Town of Brooklyn from STH 23/49 Intersection to CTH K East Intersection
 - CTH F, Town of Berlin from the Berlin City Limits/Forest Ridge Road to CTH V Intersection
9. Equipment Purchases
 - Tri-Axle Cab & Chassis w/Truck Equipment–2021 Delivery
 - Tri-Axle Cab & Chassis w/Truck Equipment–2022 Delivery
 - Digger Derrick Sign Truck with Attachments
10. Financial Reports
11. 2021 Budget
12. Commissioner's Report
13. Future Meeting Date
 - Regular Meeting November 11, 2020
14. Future Agenda items for action & discussion
15. Adjourn

Due to the COVID-19 Pandemic, this meeting will be conducted and available through in person attendance (6 ft. social distancing required and face masks required) or audio/visual communication. Remote access can be obtained through the following link.

Join Zoom Meeting:

<https://zoom.us/j/97652137976?pwd=T0tjbStlRkFXNU9lSnVuS1hrcXVtdz09>

Meeting ID: 976 5213 7976

Passcode: 299600

Dial by your location

+1 312 626 6799 US (Chicago)

+1 301 715 8592 US (Germantown)

Kindly arrange to be present, if unable to do so, please notify our office. Sincerely, Becky Pence

Please note: Meeting area is accessible to the physically disabled. Anyone planning to attend who needs visual or Audio assistance, should contact the Highway Office, 920-294-4060 not later than 3 days before date of the meeting.

HIGHWAY COMMITTEE MEETING September 09, 2020

The meeting of the Highway Committee was called to order by Chair Mulder at 4:00 PM on Wednesday September 09, 2020 in the County Board Room, and via Zoom format at the Government Center, Green Lake, WI. The requirements of the open meeting law were certified as being met. The Pledge of Allegiance was recited.

Present: David Abendroth, Absent:
Chuck Buss,
Dennis Mulder,
Robert Schweder,
Charlie Wielgosh

Other county employees Present: Barry Mashuda, Highway Commissioner; Becky Pence, Administrative Assistant; Harley Reabe, County Board Chair; Liz Otto, County Clerk; Others Present via Zoom: Dawn Klockow, Corporation Counsel; Cathy Schmit, County Administrator

Approval of Minutes 07/08/2020

Motion/second (Buss/Abendroth) to approve the Minutes of 07/08/2020. All Ayes. Motion Carried.

Appearances

Ann Rogers, Town of Brooklyn resident appeared to speak about CTH A traffic, speed, shoulder width, and safety of all users.

Discuss and/or Take Action on Amending Chapter 257, All-Terrain/Utility Vehicles to charge a \$150.00 Permit Fee relating to the cost to provide the service of working throughout the application process

Motion/second (Abendroth/Wielgosh) recommended sending back to the Highway Commissioner for further review and cost detail with a possible increase in the permit fee to be consistent with Land Use Planning and Zoning. Discussion held. All Ayes. Motion Carried.

Discuss and/or Take Action on Amending Chapter 257, All-Terrain/Utility Vehicles to add "Application for Permit ATV/UTV Routes on a County Trunk Highway will only be accepted in November of each year."

This will be brought back to take action with the Permit Fee next month.

Revise ATV/UTV Routes Policy of 9/13/17 to change Safety Criteria (3)(i) from "notification letter" to "publication in papers 2x"

This will be brought back to take action with the Permit Fee, and application acceptance next month.

Discuss Deer Pickup

Commissioner Mashuda explained the deer contract that has been in place since 2016.

Discuss additional Highway Department Administrative Personnel

Committee Members were updated regarding the Financial Manager now assisting the Highway Department 8 hours per week.

Budget Adjustment

Motion/second (Buss/Schweder) to approve the Budget Adjustment as presented. All Ayes. Motion Carried.

Motion to Reconsider Postponement of CTH A Traffic Speed Study, Town of Brooklyn from STH 23/49 Intersection to CTH K East Intersection

Motion/second (Schweder/Buss) to reconsider Postponement of CTH A Traffic Speed Study and to bring back in original form. Discussion Held. Ayes (4), Nays (1) – Abendroth. Motion Carried.

Motion (Abendroth) to postpone speed study until May of 2021. No second. Motion failed.

Motion/second (WielgoshSchweder) to proceed with speed study as soon as possible. Discussion held. (4) ayes, (1) nay – Abendroth. Motion Carried.

CTH F East of Berlin, City Limits – CTH V Traffic Speed Study

Motion/second (Wielgosh/Schweder) to approve Traffic Speed Study on CTH F East of Berlin, City Limits – CTH V and attach with the CTH A Traffic Speed Study Proposal. Discussion held. All Ayes. Motion Carried.

Financial Reports

Highway financial reports were reviewed.

2021 Budget

Committee Members reviewed the 2021 Highway Budget. Discussion held.

Commissioner's Report

Committee reviewed the recent and future activities

Future Committee Meeting Date October 14, 2020.

Adjournment: Chair Mulder adjourned the meeting at 4:50 PM

Submitted by,

Becky Pence.
Highway Committee Secretary

DRAFT

Fee for ATV/UTV Application Permit

The Green Lake County Highway Department would like to charge a fee to cover some of the costs associated with the ATV/UTV Application Permit.

There is a considerable amount of time involved in the review process to determine if the proposed route is to be permitted. Below is a general breakdown of the time spent on an application.

Review a new application	3 hours
Drive the proposed route	2 hours + vehicle
Meet with Sheriff Department	1 hour
Cost of newspaper ad (2 weeks)	\$162.00

We would like to charge a fee of \$200.00 to cover the cost of the newspaper ad and vehicle for each application that we receive.

**Designation of All-Terrain Vehicle (ATV) /Utility-Terrain Vehicle (UTV) Routes on Green Lake County's
County Trunk System**

Policy:

1. **Purpose:** An ATV/UTV route is defined as a highway, or section of highway, designated for the use of ATV's/UTV's by the governmental agency having jurisdiction. A route is generally recognized as a means to connect the terminal ends of a trail or route when it is obstructed by a city, village, river, railroad track or other impediment. The Wisconsin state statutes give the Counties the authority to accommodate ATV's/UTV's on County Trunk Highways designated as routes.

2. **Permit:** Before a highway segment can be considered for designation as an ATV/UTV route, the petitioner(s) shall demonstrate to the Highway Committee that no other practical option as an off road trail exists. The petitioner must also apply for a permit and provide all required documents and maps. The following criteria shall be considered by the Highway Committee during the review and approval of reasonable requests for ATV/UTV route establishment.
 - a. Has the route application been submitted by a Trails Association or Town/Municipal Board
 - b. Has the route been approved by the Town or Municipality
 - c. Has the route been reviewed by the Traffic Safety Commission
 - d. Is the required application form completed with sufficient detail
 - e. Have all alternatives been fully investigated
 - f. Does the requested segment connect segments of ATV/UTV trail/route networks
 - g. Length of segment requested

3. **Safety Criteria:** The single most important route consideration is the safety of all users: ATV/UTV riders, pedestrians, bicyclists, motorcyclists, automobile and truck operators, and others. The following criteria shall be considered by the Highway Committee during the review and approval of reasonable requests for ATV/UTV route establishment.
 - a. Posted speed limit of the roadway
 - b. Traffic volume on requested segment
 - c. Pavement condition (PASER Rating)
 - d. Pavement width
 - e. Vertical or horizontal alignment safety concerns
 - f. Crossings free from obstructions
 - g. Is the route approved by the County Highway Department
 - h. Is the route approved by the County Sheriff's Department
 - i. A notification letter will be sent to property owners along the proposed route prior to approval consideration
 - j. A Safety Disclaimer letter will be sent to applicant if approved

4. **Signage:** The County as the unit of government that designates the routes is responsible by statute to post the proper route signs. Route signing must be clearly understandable to everyone. The County

Adopted by the Highway Committee September 13, 2017

Highway Department as the maintaining authority of the highways designated as ATV/UTV routes shall install and maintain the legally required signage.

No person may erect, remove, obscure, or deface any official designated ATV/UTV route sign unless authorized by the Highway Commissioner.

The ATV/UTV Route Petitioner shall sponsor and pay for the projected ten-year cost of procurement, installation, and maintenance of signs relating to the ATV/UTV route, as determined by the Highway Commissioner.

5. **Authority:** The Green Lake County Highway Committee and/or Highway Commissioner shall retain sole authority for closure or termination of any ATV/UTV route on the County Trunk Highway System. The designation and opening of an approved ATV/UTV route will become effective upon County Board action to add the route to the County Ordinance.

If a situation develops that warrants closure of a designated ATV/UTV route, the Highway Commissioner shall have authority to temporarily suspend or close the route subject to review and final determination by the Highway Committee. Should the designated route be permanently closed, the ATV/UTV route signage will be entirely removed.

6. **Effectiveness:** This policy shall become effective upon passage by the Green Lake County Highway Committee in accordance with Chapter 257 of the Green Lake County Ordinance, which designates all-terrain vehicle/utility terrain vehicle routes and their regulation on the County Trunk Highway System.
7. **Enforcement:** Any officer employed by the Green Lake County Sheriff's Office or any other law enforcement official as set forth in Wis. Stats. §23.33(12) shall enforce the use and restrictions of the ATV/UTV Route users.

Guidelines and Manuals:

- a. Wisconsin Department of Natural Resources, ***WISCONSIN OFF-HIGHWAY VEHICLE REGULATIONS Related to All-Terrain Vehicles, Utility-Terrain Vehicles & Off-Highway Motorcycles***
- b. Code of Green Lake County , **Chapter 257, Vehicles, All-Terrain/Utility-Terrain**



APPLICATION FOR PERMIT ATV/UTV ROUTES

ON A
COUNTY TRUNK HIGHWAY
§59.02 and 23.33 (8)(b) and (11) Wis. Stats. and Wis.
Admin. Code NR §64.12. and other applicable Wis. Stats.
Code of Green Lake County Ch. 257

GREEN LAKE COUNTY
HIGHWAY COMMISSION
570 South Street PO Box 159
Green Lake, WI 54941
Phone: (920) 294-4060
Fax: (920) 294-4066
Email: highway@co.green-lake.wi.us

For Highway Department Use Only

Posted Speed Limit(s): _____

Traffic Volume (ADT): _____ Year: _____

PASER rating: _____ Year: _____

Pavement Width(s): _____

Vertical or horizontal alignment safety concerns? Yes No

Crossings free from obstructions? Yes No

Notification Letter to property owners along route sent? Yes No

Safety Disclaimer letter sent to applicant if approved? Yes No

Comments/restrictions to this application: _____

Highway Department:	Approve: _____	Disapprove: _____	
Sheriff's Department:	Approve: _____	Disapprove: _____	
Township of _____	Approve: _____	Disapprove: _____	

Green Lake County Highway Committee: Approved: _____ Disapproved: _____ Date: _____

Provisions and Restrictions

1. The Highway Committee may temporarily modify or suspend any designation of an ATV/UTV route.
2. The Highway Commissioner may, without prior approval of the Highway Committee, modify or suspend any designation of an ATV/UTV route whenever emergency conditions require closure, up to 120 days.
3. The Green Lake County Sheriff may temporarily close any ATV/UTV route whenever emergency conditions require closure.
4. ATVs/UTVs may only be operated on an approved ATV/UTV route between one half hour before sunrise and one half hour after sunset from April 15th through November 15th.
5. Permit shall expire upon disbanding of organization.

*Changed per ordinance
5AM to midnight -
4x round*

Fee Ag't

Hwy

COPY

ORDINANCE NO. 18 -2017

Repealing and Recreating Chapter 257, Vehicles, All-Terrain/Utility Terrain

The County Board of Supervisors of Green Lake County, Green Lake Wisconsin, duly assembled at its regular meeting begun on the 15th day of August 2017, does ordain as follows:

WHEREAS, the Green Lake County Highway Committee has given due consideration to the recreational and economic value of designating certain County Trunk Highways as an ATV route and weighed the recreational and economic value against protecting the safety of motorists by maintaining the road edge, surface and integrity of the right-of-way, public safety, terrain involved, traffic density and history of automobile traffic; and,

WHEREAS, one or more individuals, associations or organizations are interested in sponsoring designated ATV routes on County Trunk Highways and have indicated a desire to support the costs involved in installing signs for the designated ATV routes by underwriting the costs involved; and,

WHEREAS, the Green Lake County Highway Committee and the Highway Department have received requests for designation of portions of County Trunk Highways as ATV routes.

NOW, THEREFORE, THE COUNTY BOARD OF SUPERVISORS OF THE COUNTY OF GREEN LAKE DOES ORDAIN AS FOLLOWS:

Section 1. Green Lake County Ordinance, Chapter 257, Vehicles, All-Terrain, Ordinance Number 407-90 enacted on February 20, 1990 be, and it hereby is, REPEALED.

Roll Call on Ordinance No. 18 - 2017
Aye 15, Nay 2, Absent 2, Abstain 0
Passed & Enacted/Rejected this 15th day of August, 2017

Submitted by Highway Committee

Paul Schwandt, Chair

Rich Slate

Vicki Bernhagen

Dennis Mulder

County Board Chairman

Attest: County Clerk

Approved as to Form:

Corporation Counsel

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§257-6. Delegation to Highway Committee.

The Green Lake County Highway Committee ("the Highway Committee") is authorized to designate segments of Green Lake County Trunk Highways as ATV routes, in accordance with the provisions of §23.33 Wis. Stats., Wis. Admin. Code Ch. NR §64, and the provisions of this Ordinance. Final approval of any ATV route shall be by the County Board of Supervisors enacting an Ordinance.

§257-7. Designation, Modification, Suspension and Termination of ATV Routes.

- A. ATV routes and proposed routes on or across a County Trunk Highway shall be investigated and monitored to ensure that the ATV route has been authorized and that the ATV route does not adversely affect the use of the highway or unreasonably interfere with the peaceful enjoyment of private or public property.
- B. The consideration of a designation of a segment of a County Trunk Highway as an ATV route may be based upon a request for a designation by any individual, municipality, ATV or UTV club or organization that desires a route along, or a crossing over, a County Trunk Highway and which agrees to sponsor the ATV route as required under §257-9.
- C. The Highway Committee shall develop policies and procedures for designation of ATV routes.
- D. The County Board of Supervisors may rescind or modify the designation of an ATV route by repeal of an ordinance granting final approval of the designation or by an enactment of an ordinance modifying the designation.
- E. The Highway Committee may temporarily modify or suspend any designation of an ATV route.
- F. The Highway Commissioner may, without prior approval of the Highway Committee, modify or suspend any designation of an ATV route whenever emergency conditions require closure, up to 120 days. The Green Lake County Sheriff may temporarily close any ATV route whenever emergency conditions require closure.
- G. Upon County Board approval of a designated ATV route, the County Clerk shall immediately send a copy of the Ordinance designating the ATV route to the Wisconsin Department of Natural Resources, the state traffic patrol, the Green Lake County Sheriff and any law enforcement agency of each town, city or village having jurisdiction over any of the county trunk highways to which the Ordinance designating the ATV applies.
- H. The designation of any segment of a County Trunk Highway as an ATV route within an incorporated municipality shall not take effect until the governing body of the municipality has passed a resolution approving the ATV route.

175 credit, or any other adequate form of monetary security prior to the installation of the
176 required ATV route signs.

177

178 C. Designation of segments of the Green Lake County Highway System as ATV routes
179 does not impose upon the Green Lake County Highway Department a greater duty of
180 care or responsibility for maintenance of those segments than for any other segment
181 of county highway. Operators of ATVs on county highways designated as an ATV
182 route assume all the usual and normal risks of ATV operation.

183

184 **§257-10. Signage of ATV Routes.**

185

186 A. The Green Lake County Highway Department is solely responsible for ATV route
187 signing. All required designated ATV route signs shall be installed and maintained
188 by the Highway Department.

189

190 B. All required signs shall be in accordance with state statutes and administrative codes
191 applicable to ATV routes on County Trunk Highways.

192

193 C. No person may erect, remove, obscure, or deface any official designated ATV route
194 sign unless authorized by the Highway Commissioner.

195

196 **§257-11. Operation on All-terrain/Utility-terrain Vehicle Routes.**

197

198 A. No person shall operate an ATV or UTV on a county trunk highway unless the
199 county trunk highway has been designated as an ATV route by the Highway
200 Committee and approved by the County Board of Supervisors, except for operation
201 that is allowed under state statute or administrative code.

202

203 B. No person shall operate an ATV or UTV on a county trunk highway designated as an
204 ATV route if the County Trunk Highway is closed for any reason.

205

206 C. General limitations. The following limitations apply on all county trunk highways
207 designated as ATV routes:

208

209 1. Operators shall abide by all traffic laws unless further restricted by this
210 Ordinance.

211

212 2. No ATV or UTV shall be operated at a speed greater than 25 miles per hour
213 unless a reduced speed is otherwise required by State Statute.

214

215 3. All ATVs and UTVs must operate with fully functional headlights, tail-lights, and
216 brake lights.

217

218 4. ATVs and UTVs may only be operated on an approved ATV route between one
219 half hour before sunrise and one half hour after sunset from April 15th through
220 November 15th.

221

222 5. All ATV or UTV operators shall ride in single file on the extreme right hand side
223 of the paved portion of the highway. Operation on the gravel shoulders, grassy

2019 SAM - M. d. d. h. w. R. o. w. n. e. d. ??
2019

273 §257-14. Severability.

274

275 Should any portion of this Ordinance be declared by a court of competent jurisdiction to
276 be invalid, the same shall not affect the validity of the Ordinance as a whole or any part
277 thereof, other than the part declared invalid.

278

279

280 Section 3. This ordinance shall become effective upon passage and publication.

281

282 Section 4. The repeal of Ordinance Number 407-90, enacted on February 20, 1990 shall
283 not have any effect on existing litigation and shall not operate as an abatement of any
284 action or proceeding then pending under or by virtue of the repealed ordinance.

ORDINANCE NO. 20-2018

Amending Chapter 257, All-Terrain/Utility Vehicles to specify segments of Green Lake County Trunk Highways as All-Terrain Vehicle (ATV) and Utility Terrain Vehicle (UTV) Routes

The County Board of Supervisors of Green Lake County, Green Lake Wisconsin, duly assembled at its regular meeting begun on the 15th day of May 2018, does ordain as follows:

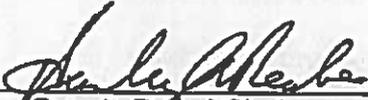
- 1 WHEREAS, the Green Lake County Board of Supervisors adopted, as Ordinance No.
- 2 18-2017, on August 15, 2017, a procedure for specifying designated segments of Green
- 3 Lake County Trunk Highways as All-terrain Vehicle (ATVs) and Utility Terrain Vehicle
- 4 (UTV) routes; and,
- 5 WHEREAS, the Highway Committee has received and reviewed applications from the
- 6 Marquette ATV Club, has considered the factors contained in the Ordinance and the
- 7 Policy and recommends that certain portions of certain County Trunk Highways be
- 8 designated as ATV/UTV routes.

Roll Call on Ordinance No. 20-2018

Submitted by Highway Committee:

Ayes 3, Nays 5, Absent 1, Abstain 0

Passed and Enacted/Rejected this 15th day of May 2018.

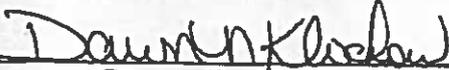


County Board Chairman



ATTEST: County Clerk

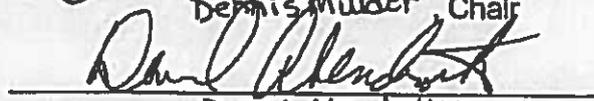
Approve as to Form:



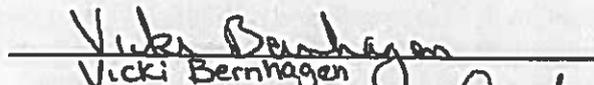
Corporation Counsel



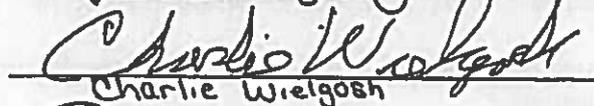
Dennis Mulder, Chair



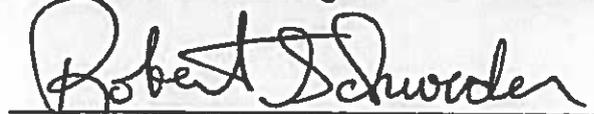
David Abendroth, Vice-chair



Vicki Bernhagen



Charlie Wriegosh



Robert Schweder

ORDINANCE NO. 21 -2018

Amending Chapter 257, Vehicles, All-Terrain/Utility Terrain to Increase Speed Limit for ATV/UTV operation.

The County Board of Supervisors of Green Lake County, Green Lake Wisconsin, duly assembled at its regular meeting begun on the 15th day of May 2018, does ordain as follows:

- 1 WHEREAS, the Highway Commissioner has studied the ordinances of surrounding
- 2 counties that allow ATV/UTV operation on County Trunk Highways, and determined that
- 3 those surrounding counties have a 35 mph speed limit for ATV/UTV operators; and,
- 4 WHEREAS, Green Lake County's ATV/UTV speed limit should be consistent with
- 5 surrounding counties.

Roll Call on Ordinance No. 21 -2018

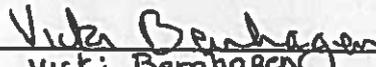
Submitted by Highway Committee:

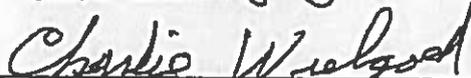
Ayes 14, Nays 4, Absent 1, Abstain 0

Passed and Enacted/Rejected this 15th day of May 2018.

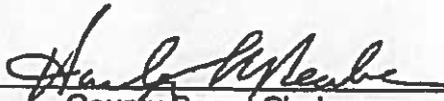

Dennis Mulger Chair

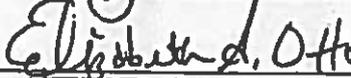

David Abendroth, Vice-chair

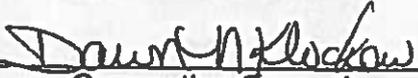

Vicki Bernhagen


Charlie Wielgosh

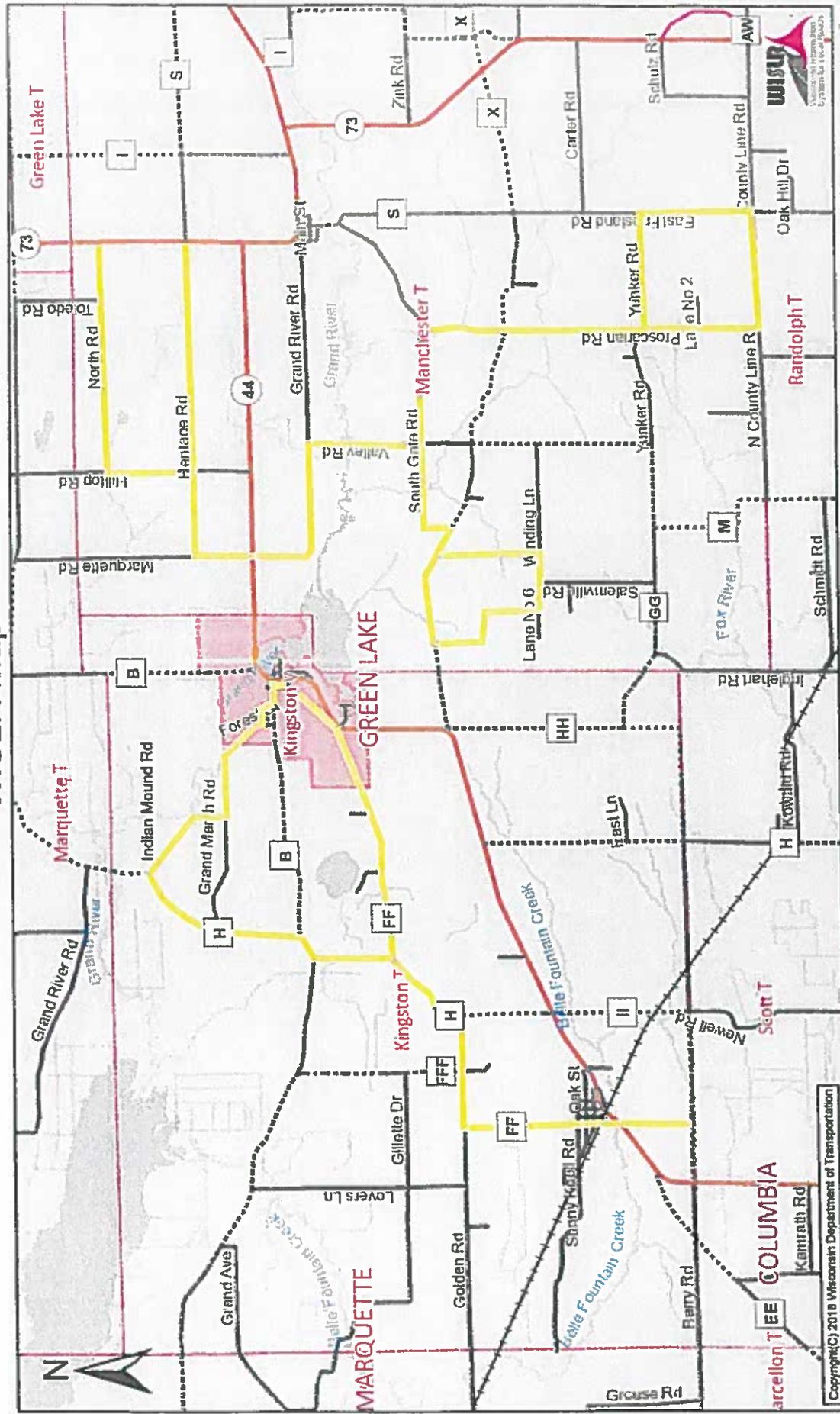

Robert Schweder


County Board Chairman


ATTEST: County Clerk
Approve as to Form:


Corporation Counsel

WISLR Map



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<ul style="list-style-type: none"> → Railroads State Trunk Network Interstate Highway US Highway USH Connecting Highway State Trunk Highways 	<ul style="list-style-type: none"> — On-Off Ramp — Connector — Frontage Road — Wayside — Rest Area 	<ul style="list-style-type: none"> — STH Connecting Highways County Roads County Trunk Hwy County Forest Roads Other County Roads 	<ul style="list-style-type: none"> — Weigh Station Municipal/Local Roads Ineligible Roads Rivers Lakes 	<ul style="list-style-type: none"> City Village Town Counties
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Proposed County Trunk Highways for ATV/UTV use

- Town of Kingston - CTH FF from CTH HH to Kingston village limits; CTH H from CTH FF to Indian Mound Rd
- Village of Kingston - CTH B from N. Forest Street to STH 44; CTH FF from Kingston village limits to STH 44
- Town of Manchester - CTH X from Winding Ln to S. Gate Rd



CTH "A" and CTH "F" Speed Studies

Green Lake County
Highway Commission

Due Date: October 1, 2020

Ingenuity, Integrity, and Intelligence.

www.AyresAssociates.com



September 30, 2020

Barry Mashuda, Highway Commissioner
Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941
Email: bmashuda@co.green-lake.wi.us

Re: Proposal – CTH “A” and CTH “F” Speed Studies

Dear Mr. Mashuda:

Green Lake County has identified the need for speed studies on CTH “A” and CTH “F.” Ayres has conducted speed studies for public clients throughout Wisconsin and is ready to help you improve safety and address the County’s speed-related issues. Please find our proposed project approach and scope of services on the pages that follow.

Team member resumes and similar project experience are highlighted in this submittal. Having completed speed studies at more than 60 sites in the past three years, we are prepared and well-qualified to complete yours efficiently.

Ayres has worked with the highway departments of all 72 counties in Wisconsin. We place a great value on fostering successful, long-term relationships with clients like you, and we look forward to working on this project.

Thank you for bringing your concerns about vehicle speeds on CTH “A” and CTH “F” to Ayres. Please contact us with questions or requests for more information.

Sincerely,

Ayres Associates Inc



Alexander B. Cowan, PE, PTOE
Project Manager
262.523.4488
CowanA@AyresAssociates.com



Troy B. Robillard, PE
Manager – Transportation Services-Green Bay
920.498.1200
RobillardT@AyresAssociates.com



“There were definitely differences of opinion. But thanks to calm, professional discussion and clear presentations of options by Ayres, we were able to make good decisions.”

Bill Porter

Former Director of Public Works,
City of Wauwatosa

Project Approach/Cost

Ayres will tailor our general approach used to complete speed studies to meet Green Lake County's specific needs.

CTH “A”

Background and Project Understanding

Green Lake County desires to have vehicular traffic speeds examined on CTH “A” near the City of Green Lake to identify the prevalence of speeding and determine appropriate solutions to address issues. Based on our many years of experience, Ayres proposes the following approach and Scope of Services to examine the current traffic speeds.

We propose to first collect and analyze the current vehicular speeds at the following three locations along the corridor:

- Between South Street/Sunnyside Road and Silver Creek Road
- South of Sunset Park
- Between Spring Grove Road and CTH “K”

These locations have been chosen to identify the travel speeds near Sunset Park, where concerns have been expressed about vehicular speeds, as well the speeds of traffic north and south of this location. The proposed speed study locations can be adjusted after coordination with Green Lake County.

Scope of Services

Task 1 - Data Collection and Analysis

Ayres will conduct a spot speed study on the segments identified above on a Tuesday, Wednesday, or Thursday. The speed study will consist of collecting at least 200 individual speed readings (100 in each direction) of vehicles at each site.

We will take photos of the study site and prepare a location map illustrating the point where the readings were taken.

For this work, we propose that the vehicle spot speeds be collected using a pneumatic road tube or a temporary in-road sensing device known as a Nu-Metrics Traffic Analyzer. The data will be analyzed to determine the 85th percentile speed, 50th percentile speed, speed distribution, and proportion of vehicles that are exceeding the posted speed limit.

Ayres will request crash data for the most recent five-year period from the

University of Wisconsin Traffic Operations and Safety Laboratory (UW-TOPS Lab). We will review the reported crash data and MV4000/DT4000 police reports obtained from the UW-TOPS Lab and summarize the number, severity, and pattern of crashes at each intersection and segment in a tabular format between and including the CTH “A” intersections with STH 23/STH 49 and CTH “K.”

Task 2 – Report and Documentation

A draft technical memorandum will be prepared documenting the results of the traffic speed study and crash analysis and any recommended actions for the County’s review. The technical memorandum will be submitted to the County approximately 20 business days after the traffic speed data collection effort is completed.

We would plan to finalize the technical memorandum and draft ordinances within 10 business days after receiving comments from the County and would provide a final electronic (PDF) copy.

Meetings

One meeting via video/telephone conference call with the County and relevant parties is included in this Scope of Services. Additional meetings or presentations can be included upon written authorization as an additional service.

Responsibilities of Owner and Others

The County will be responsible for providing information and data as requested related to the preceding Scope of Services, in addition to a timely review of the technical memorandum.

Additional Services

Additional Speed Study Segments

If the County is interested in speed data at other locations along the study corridor in addition to the sites identified above, the additional data can be included in this Scope of Services upon written authorization.

Intersection Traffic Count

No intersection turning movement counts are included

in the basic scope of services. An intersection turning movement count can be completed at each of the two driveways to Sunset Park upon written authorization. These counts would be collected during the typical peak periods from 6 to 9 a.m. and 3 to 6 p.m. on a Tuesday, Wednesday, or Thursday. Turning movement volumes can be collected during other time periods as well based on coordination with the County.

Additional Meetings

Additional meetings can be included in this Scope of Services upon written authorization.

Time Schedule

We expect the data collection effort would begin in late October. The exact schedule for this work will be developed with the County before the issuance of the notice to proceed.

Fees

Basic Scope of Services

We will perform the above-described Scope of Services and prepare a technical memorandum for a lump sum amount of \$9,900.

Intersection Traffic Count

The additional service of gathering intersection turning movement count data at the two driveways to the boat launch during the three-hour morning and evening weekday peak periods would require an additional lump sum amount of \$3,100.

CTH “F”

Background and Project Understanding

Green Lake County desires to have vehicular traffic speeds examined on CTH “F” in the Town of Berlin to identify the prevailing travel speed and determine appropriate solutions to address issues that exist. The study corridor includes a number of residential driveways near tight horizontal curves, making it difficult to enter and exit. Ayres proposes the following approach and Scope of Services to examine the current traffic speeds.

We propose to first collect the current vehicular speeds at the following three locations along the corridor:

- South of the CTH “F” intersection with Forest Ridge Road
- West of the major horizontal curve
- North of CTH “V”

These locations have been chosen to identify the travel speeds near the limits of the study corridor, as well as the speeds near the tight horizontal curve. The proposed speed study locations can be adjusted after coordination with Green Lake County.

Scope of Services

Task 1 – Data Collection and Analysis

Ayres will conduct a spot speed study on the segments identified above on a Tuesday, Wednesday, or Thursday. The speed study will consist of collecting at least 200 individual speed readings (100 in each direction) of vehicles at each site.

We will take photos of the study site and prepare a location map illustrating the point where the readings were taken.

We propose that the vehicle spot speeds be collected using a pneumatic road tube or a temporary in-road sensing device known as a Nu-Metrics Traffic Analyzer. The data will be analyzed to determine the 85th percentile speed, 50th percentile speed, speed distribution, and proportion of vehicles that are exceeding the posted speed limit.

Ayres will request crash data for the most recent five-year period from the UW-TOPS Lab. We will review the reported crash data and MV4000/DT4000 police reports obtained from the UW-TOPS Lab and summarize the number, severity, and pattern of crashes at each intersection and segment in a tabular format between and including the CTH “F” intersections with Forest Ridge Road and CTH “V.”

Task 2 – Report and Documentation

A draft technical memorandum will be prepared

documenting the results of the traffic speed study and crash analysis and any recommended actions for the County’s review. The technical memorandum will be submitted to the County approximately 20 business days after the traffic speed data collection effort is completed. We would plan to finalize the technical memorandum and draft ordinances within 10 business days after receiving comments from the County and would provide a final electronic (PDF) copy.

Meetings

One meeting via video/telephone conference call with the County and relevant parties is included in this Scope of Services.

Responsibilities of Owner and Others

The County will be responsible for providing information and data as requested related to the preceding Scope of Services, in addition to a timely review of the technical memorandum.

Additional Services

Additional Speed Study Segments

If the County is interested in speed data at other locations along the study corridor in addition to the sites identified above, the additional data can be included in this Scope of Services upon written authorization.

Additional Meetings

Additional meetings can be included in this Scope of Services upon written authorization.

Time Schedule

We expect the data collection to begin in late October. The exact schedule for this work will be developed with the County before the issuance of the notice to proceed.

Basic Scope of Services Fee

We will perform the above-described Scope of Services and prepare a technical memorandum for a lump sum amount of \$9,900.



“I’ve sat through numerous engineering-focused technical discussions, which can be very dry and hard to follow. But Ayres really took the time to explain the likely outcome for each potential street modification. And they also made some important recommendations.”

Ed Haydin

Local Resident and Former Member of East Tosa Alliance

Project Team

Alex Cowan, PE, PTOE, will be the project manager and point of contact for Green Lake County. The County will benefit from his 13-plus years of focus on all aspects of traffic engineering, including experience with many speed studies.

Noutheng Yang, EIT, will assist Alex as a traffic specialist.

Ryan Schaitel, PE, a transportation engineer in our Green Bay office, is also available to you as a client liaison.

Resumes for our project team are included on the following pages.

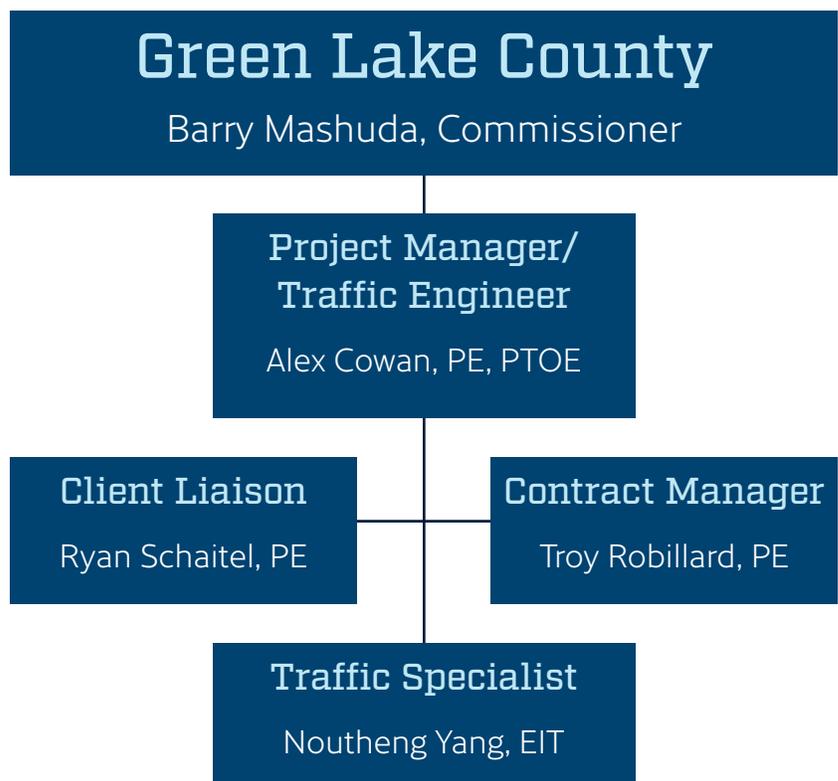
Contact Information

Alex Cowan, PE, PTOE

Address: N17 W24222 Riverwood Drive, Suite 310
Waukesha, WI 53188

Phone: 262.522.4944

Email: CowanA@AyresAssociates.com





Alexander Cowan, PE, PTOE

Project Manager

Alex joined Ayres in 2007 and performs studies for speed, crash, and safety analysis; traffic warrant studies; intersection, interchange, and freeway capacity analysis; traffic counting data and counts; traffic impact analysis; transportation management plans; traffic signal design; and traffic operations analysis and intersection geometric design for signalized and roundabout intersections. His background in traffic analysis software includes programs such as HCS 7, Synchro, Quickzone, and Quadro. He specializes in microsimulation modeling with experience using Paramics, Vissim, and SimTraffic software. He has been a member of the Institute of Transportation Engineers since 2008.

Total Experience

13 Years

Registrations

Registered Professional Engineer, WI

Certifications

Professional Traffic Operations Engineer

Wisconsin DOT Traffic Impact Analysis Certification, WisDOT

Education

BS, Civil Engineering, University of Wisconsin-Milwaukee

Memberships

Institute of Transportation Engineers, Traffic Engineering Council

Select Experience

- Waushara County Traffic Speed Study
- Manitowoc CTH "CL" Pavement Replacement and Speed Study
- WisDOT Southwest Region Traffic Speed and Safety Studies (2010-2011)
- STH 164 Speed/Safety Study
- St. Francis East Norwich Avenue Traffic/Speed Study
- Calumet CTH "N" Traffic Study
- STH 13 Bayfield County Traffic Safety and Operation Study
- Wauwatosa East North Avenue Bike Lane Plan
- De Pere Broadway Street Pedestrian Crossing Study
- Brown Deer Bradley Road Traffic Study
- Wauwatosa Neighborhood Traffic Calming Case Study
- Shorewood Lake Drive Lane Reduction Traffic Study Update
- Whitefish Bay Lake Drive Traffic Calming/Pedestrian Enhancement Study
- Outagamie CTH "CE" and Railroad Street Intersection Improvements
- Wauwatosa Tosa Village Intersection Study
- West Allis Jefferson Elementary School Traffic Study
- West Allis Market at Six Points Traffic Impact Study
- Waukesha East/West St. Paul Avenue-East/West North Street Traffic Study
- Waunakee Main Street Traffic Study
- Madison WPS Health Solutions Traffic Study
- Waukesha St. Paul Avenue Traffic Study
- Oak Creek Goodwill Industries Traffic Impact Study
- Elm Grove School Sisters of Notre Dame Traffic Study
- Wauwatosa School Traffic Safety Study
- Racine, Traffic Engineering Study: Dr. M.L. King Jr. Drive/Marquette Street
- Wauwatosa Mayfair Collection Traffic Impact Analysis Study
- Mandel Whitefish Bay Traffic Study



Noutheng Yang, EIT

Traffic Engineering Specialist

Noutheng has experience in urban and rural highway design. He was involved in the design and plan production of an emergency project for IH 39/90/94 near Madison where he led the project's construction staging. Noutheng also worked on rehabilitation and overlay projects on the USH 12/18 (Beltline) System Interchange as well as reconstruction design for the Foxconn local roads projects on Braun Road, International Drive, and CTH "H" in Mount Pleasant. Noutheng is proficient in AutoCAD, Civil 3D, and MicroStation.

Total Experience

1.5 Years

Education

BS, Civil Engineering, University of Wisconsin-Madison

Select Experience

- Oshkosh Jackson Street Corridor Plan and Safety Study
- Elm Grove School Sisters of Notre Dame Traffic Study
- Waukesha St. Paul Avenue Traffic Study
- Eau Claire Sonnentag Event/Recreation Complex Traffic Impact Analysis
- UW Health at American Center Traffic Impact Analysis Study
- Outagamie CTH "CE" and Railroad Street Intersection Improvements
- STH 54 Outagamie County (French Road to Seminary Road) Resurfacing
- Tempe, AZ, Bicycle/Pedestrian Streetscape



Ryan Schaitel, PE

Client Liaison/Transportation Engineer

Ryan joined Ayres' transportation engineering staff in 2011. His duties include working as a project manager for bridge and roadway projects; providing state and county rural and urban highway design; completing environmental, design study, and other technical documents; and assisting with public involvement programs. Ryan also provides construction observation services on transportation projects.

Total Experience

10 Years

Registrations

Registered Professional Engineer, WI

Education

BS, Civil Engineering, University of Wisconsin-Platteville

Select Experience

- Manitowoc CTH "CL" Pavement Replacement and Speed Study
- Waushara CTH "F" (STH 73 to CTH "Z") Pavement Resurfacing
- Outagamie CTH "CE" and Railroad Street Intersection Improvements
- Fond du Lac CTH "V" Reconstruction and Bridge Replacement
- Winnebago CTH "T" Reconstruction
- Brown CTH "KB" (St. Claude Street to Prospect Avenue) Reconstruction
- Manitowoc CTH "CL" Pavement Replacement
- Outagamie CTH "U" Reconstruction
- Sheboygan CTH "OK" (IH 43 to CTH "EE") Reconstruction
- Langlade CTH "B" (USH 45 to STH 52) Reconstruction



“The first thing that pops into my head is confidence in the firm’s ability to perform.”

Brian Miller

Director of Public Works,
City of Marinette

Project Experience

Manitowoc CTH “CL” Pavement Replacement and Speed Study

The Manitowoc County Highway Department hired Ayres to provide design services for the pavement replacement of approximately 0.67 mile of CTH “CL” from USH 151 to Viebahn Street on Manitowoc’s southwest side.

The project included a speed study for northbound and southbound traffic. The study, conducted over a period of 34 hours using HI-STAR units, found at least half of the vehicles were traveling in the 35 to 40 mph or lower range. The average speed for all classified vehicles was 39 mph, with about 4% exceeding the posted speed of 45 mph.

The project followed design class 3RC2 roadway standards, which include a minimum of a 22-foot travel way and a 4-foot shoulder. Bicycle accommodations (paved shoulder) were included as part of the project.

Construction is scheduled for 2020.

Waushara County Speed Study

Waushara County selected Ayres to examine vehicular traffic speeds on two road segment site locations:

- CTH “D” in the Town of Poy Sippi from the curve just west of the CTH “XX” intersection to the Winnebago County Line (a 1-mile-long segment)
- CTH “A” near Wild Rose from STH 22 to 20th Avenue (a 1-mile-long segment)

Ayres examined the current traffic speeds at these two sites. Spot speed data was collected by the County using a trailer-mounted radar unit operated by the Waushara County Sheriff’s Department. Ayres analyzed the data collected by the County to determine the 85th percentile speed, pace speed, 50th percentile speed, speed distribution, and proportion of vehicles exceeding the posted speed limit.

A report of the findings was developed in 2013 for each site and submitted to the County.

Manitowish Waters Traffic Speed Study

Vilas County and the Town of Manitowish Waters hired Ayres to examine vehicular traffic speeds on CTH “W,” north of USH 51 in the developed area of the Town.

The 2017 speed study consisted of collecting 200 individual speed readings

(100 in each direction) of vehicles at multiple sites. Data collection was performed for a 48-hour period. Photos of the study sites were taken, and a location map illustrating the points where the readings were taken was prepared. The location of existing pavement markings and signing was confirmed.

A technical memorandum was prepared documenting the results of the traffic speed study and presenting recommended actions for the County's review. Study findings determined that transitional speeds were appropriate approaching and leaving the Town, and that the speed limit through the Town should be reduced by 5 miles per hour (mph). The County approved the speed reduction and adjusted the posted speed limit as a result of the study.

Kewaunee CTH "AB" Speed Study

Kewaunee County hired Ayres to examine vehicular traffic speeds on CTH "AB," north of Church Road, to improve driver compliance with a school zone speed limit.

The 2018 speed study consisted of collecting 200 individual speed readings (100 in each direction) of vehicles at the site. Data collection was performed for a 48-hour period. Photos of the study site were taken, and a location map illustrating the point where the readings were taken was prepared. The location of existing pavement marking and signing was confirmed.

A technical memorandum was prepared documenting the results of the traffic speed study and presenting recommended actions for the County's review. Results included updating signage approaching and within the school zone and clarifying the school zone boundaries and relevant times of day.

Southwest Region Traffic Speed and Safety Studies

As part of a statewide traffic engineering master contract, Ayres conducted traffic speed and safety studies in 2010 and 2011 on various roadways in the Wisconsin Department of Transportation (WisDOT) Southwest Region. These roads were in Lafayette, Columbia, Dane, Green, Jefferson, Iowa, Dodge, and Rock Counties.

Overall, Ayres staff conducted 51 spot speed studies at the various highway segments, collecting at least 200 individual speed readings (100 in each direction) of vehicles at each site. Staff members then performed crash analyses for each site. This involved reviewing the reported crash data for each highway segment, summarizing the data, identifying spot crash problem locations and associated causes, and identifying crash trend lines.

A technical memorandum was prepared for each segment that included recommendations for the appropriate speed limit to be posted for the segment and any crash reduction recommendations, as appropriate.

WisDOT Northwest Region Speed Study

WisDOT's Northwest Region retained Ayres to conduct 20 speed studies at various locations throughout the Region. Each study included data collection of bidirectional traffic at three locations.

Ayres collected speed data using radar, computed the 50th and 85th percentile speeds, and provided the 10-mile pace speed for each study. Requested locations generally were areas where the Northwest Region was considering lowering speed limits or implementing other changes.

Lake Drive Traffic Calming/ Pedestrian Enhancement Study

The Village of Whitefish Bay was concerned about traffic on Lake Drive speeding and conflicting with pedestrians between Cumberland Avenue and School Road.

The Village retained Ayres to analyze traffic and pedestrian activity and develop three traffic calming and pedestrian safety enhancement alternatives and cost estimates.

Among the aspects considered were pavement surface treatments, pavement markings, crosswalk treatments, roadway narrowing, islands, bump-outs, roundabouts, gateway treatments, driver speed feedback displays, and advanced speed signing.

Lake Drive is a state trunk highway, so coordination with WisDOT was required to implement potential traffic calming and pedestrian safety enhancements.



1702 Pankratz Street
Madison, WI 53704

P (608) 242-7779
TF (800) 446-0679
F (608) 242-5664

www.msa-ps.com

September 29, 2020

Barry Mashuda, Highway Commissioner
Green Lake County Highway Department
570 South Street
Green Lake, Wisconsin 54941

Re: Speed Studies
CTH A, Town of Brooklyn
From STH 23/49 Intersection to CTH K East Intersection

CTH F, Town of Berlin
From the Berlin City Limits/Forest Ridge Road to the CTH V Intersection

Dear Mr. Mashuda:

MSA Professional Services, Inc. (MSA) is pleased to have the opportunity to propose on the Traffic Speed Studies along CTH A and CTH F in Green Lake County.

MSA has experience completing speed studies for communities throughout Wisconsin, including a recently completed study for Henry Vilas Park in the City of Madison as well as one along Peach Avenue in the City of Marshfield and County View Road in the City of Verona. MSA has also completed several 'spot' safety reviews for other County Highway departments ranging from sight distance assessments to signage and pavement marking recommendations and geometric improvements. This experience with both speed studies and roadway safety reviews sets MSA up well to assist the Highway Department with the review of speeds while taking into consideration the safety impacts for all modes of transportation.

The scope of work below is intended to provide the County the necessary information to establish a speed limit that is in compliance with state statutes and is enforceable to the traveling public.

SCOPE OF WORK

MSA proposes to complete the following tasks described below based off requirements discussed in the **Wisconsin Statewide Speed Management Guidelines, June 2009** developed by the Wisconsin Department of Transportation (WisDOT). These guidelines state two different criteria for county trunk highway roads:

- (1) For CTH roads, the Fixed Limits per State Statute 346.57(4) is 55 mph and
- (2) 35 mph for Semi-urban districts outside the corporate limits of a city of village.

The state statutes allow the local governing authority the ability to lower the speed limit by 10 mph prior to requiring WisDOT approval. The guidelines state, "*All speed limit changes shall be based on a traffic engineering study, including modifications allowed under State Statute. Local governments can implement speed limit changes on the local road system without WisDOT approval when proposals are within the constraints identified above.*"

Barry Mashuda, Highway Commissioner
Green Lake County Highway Department
September 29, 2020

Based on a desktop review, this area of CTH F appears to fall within the “Semi-Urban” criteria due to the number of driveways within the study area. This classification would allow the County more flexibility for establishing an updated speed limit without approval from WisDOT.

Task A – Traffic Data Collection

While state guidelines allow speed studies to be completed with as little as one hour of data, MSA will set automatic traffic recorders using road tubes for a 48-hour period during the week to collect a large sample of vehicle speeds by direction at no additional cost to the Highway Department. This data will be recorded in hourly intervals to determine the 85th percentile speed, mean speed (50th percentile), pace speed, and speed distribution for each location recorded.

CTH A: MSA proposes to set up to **three (3)** road tube traffic recorders along the corridor to gain an understanding of how speeds may change based on location and geometric conditions. The three general locations are described below and shown in **Exhibit A** attached at the end of this proposal

CTH A Road Segment
1. Between Spring Grove Rd. & Sunset Park
2. Between north Sunset Park entrance & Illinois Ave.
3. North of Klaver St.

CTH F: MSA proposes to set up to **two (2)** road tube traffic recorders along the CTH F corridor to gain an understanding of how speeds may change based on the horizontal curves within the project limits. The two general locations are described below and shown in **Exhibit B**.

CTH F Road Segment
1. Between the two horizontal curves
2. South of Oak Drive

MSA will work with the County to confirm locations prior to setting. If the County is interested in adding or reducing the number of count locations, MSA can provide an updated cost estimate to accurately reflect the number of counts as appropriate.

Task B – Collection of Location-Specific Data

During the set-up of the traffic recorders, the existing roadway conditions along the corridor will be documented using photos and roadway measurements (lane widths, shoulder widths, etc.). Pertinent traffic controls, topographic and geometric features, pavement surface characteristics and unique access locations will be photographed and noted.

In addition to the field observations, a desktop review of intersection sight distances at each of the Sunset Park access driveways along CTH A will be evaluated and discussed in the final report.

At the two horizontal curves along CTH F, field equipment will be used to evaluate the cross slope at the apex of the curve to assess the existing super elevation of the roadway.

Topographic survey is not included, but could be added as an additional service if horizontal and vertical curves are believed to be outside of current design standards.

Barry Mashuda, Highway Commissioner
Green Lake County Highway Department
September 29, 2020

Task C – Crash Records Review

Traffic crash records will be requested from the University of Wisconsin Traffic Operations and Safety Lab (TOPS) for the most recent five years within each study area. These reports will be reviewed to discern the pertinent details of any crashes. A brief summary of the findings noting crash type and severity, time and day of the incident, and any unusual roadway or weather conditions will be made.

Task D - Current Level of Enforcement

MSA will contact County officials to discuss current levels of enforcement within the project limits at both locations and include the discussion in the report.

Task E – Report Preparation

MSA will prepare a brief report summarizing the study and conclusions. The report will include copies of the speed distributions, traffic data, condition diagrams, and photos for each location. In addition, MSA will discuss possible traffic calming measures including, but not limited to, traffic signage, and pavement markings. Included in the assessment of CTH A is one conceptual geometric adjustment in the location of Sunset Park. Modification to the report beyond the scope of this contract based on review by entities outside the Green Lake Highway Department would be considered an additional service beyond this scope.

PROJECT COST

The estimated total cost for MSA to complete all services outlined in this scope are described below.

TASK	FEE
1. Traffic Data Collection & Collection of Location-Specific Data	\$3,500
2. Crash Records Review	\$820
3. Current Level of Enforcement	\$220
4. Report Preparation	\$3,455
Total Cost	\$7,995

Meetings

No meetings are included as part of this proposal. Attendance at any public or other project-related meetings to discuss the findings would be considered an additional service beyond this scope.

Schedule

MSA will collect data within approximately two weeks of receiving authorization to proceed per the RFP schedule if authorization comes earlier. The time to complete Task A is weather dependent as roads need to be dry during setting. MSA will submit a “Draft” report within approximately four weeks after completing Task A.

Barry Mashuda, Highway Commissioner
Green Lake County Highway Department
September 29, 2020

Additional Services - Data Collection

Due to the variety of users at the County Park, the County may want to consider a more detailed data collection method to gather information on park users along the corridor. Road tube classification beyond vehicles is limited. As part of an "If Authorized" additional service, MSA could set our Video Data Collection cameras at each access at the park and record the data for daylight hours (say 14 hours, but exact duration could be discussed). This data could then be processed to determine the number of bicycles, pedestrians, vehicles, and even boat trailers that utilize both the corridor and the park driveways. This information would help us assist the County with evaluating safety improvement recommendations in that area. The cost to complete this additional service (two locations at 14 hours of data each) would be **\$1,080**.

It is also noted that completion of a speed and engineering study does not guarantee a reduced speed limit. The recommended speed will be based on the collected data, results of the report, engineering judgment and adherence to the state statutes.

Sincerely,

MSA Professional Services, Inc.

A handwritten signature in blue ink that reads "Brian C. Huibregtse". The signature is written in a cursive, flowing style.

Brian Huibregtse, P.E., PTOE.
Traffic Team Leader



 Preliminary proposed count location



Exhibit B - CTH F Proposed Speed Study Count Locations

September 28, 2020

Mr. Barry Mashuda
Highway Commissioner
Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941

Re: Request for Proposal (RFP) – CTH A (Town of Brooklyn) and CTH F (Town of Berlin) Speed Studies

Dear Mr. Mashuda:

Strand Associates, Inc.® is pleased to provide our proposal for professional engineering services for two speed studies in Green Lake County. We understand that the primary goal of this project is to recommend speed and traffic signage along CTH A in the Town of Brooklyn from STH 23/49 to CTH K and CTH F in the Town of Berlin from the Berlin City Limits to CTH V intersection.

We have extensive experience performing speed study analyses. The following qualifications of our firm fit this project well:

- **Thorough understanding of the Wisconsin Department of Transportation (WisDOT) Statewide Speed Management Guidelines that will be the basis for this evaluation.**
- **Extensive data collection experience with dedicated traffic engineers providing the services that result in proper selection of data collection points and time periods.**
- **Advanced data collection technology that will yield accurate speed evaluations.**
- **Clear understanding of the County's desire to have a streamlined analysis so it can quickly and effectively communicate results to interested parties.**
- **Ample availability to complete the project in a timely manner.**

Proposed Project Manager

Kyle Henderson, P.E., will serve as the Project Manager and will be the primary point of contact with the County. Kyle will oversee the data collection, evaluation, and development of any of recommendations in accordance with standards in the Statewide Speed Management Guidelines.

Kyle has been a transportation and traffic engineer for more than 14 years, specializing in traffic analysis and intersection design. He has been the project manager on a wide variety of projects, including traffic analysis, speed zone analysis, alternative evaluation, traffic simulation modeling, and intersection design. Kyle has a history of delivering successful projects for clients throughout the state. Kyle's most recent speed study projects include an evaluation of speeds along several roads in Shorewood Hills, review of speed limits on WIS 113 north of Waunakee, and completion of a speed study along Business 51 in Wausau.



Kyle has more than 14 years of traffic and speed evaluation experience.

Mr. Barry Mashuda
 Green Lake County Highway Commission
 Page 2
 September 28, 2020

Experience and Knowledge of the Proposed Project Team

Our proposed project team specializes in traffic engineering and design services. This team will deliver high quality data and analysis, instilling the County with confidence that the speed limit findings and resulting speed limits are based on statewide guidance.

Jeffrey Held, P.E., PTOE, Senior Associate, will lead the quality control review on this project. During Jeff's 20 years of service with our firm, he has managed projects ranging from small traffic studies to complex urban corridor studies, including traffic analysis, project concept development, and functional design. Jeff is a lead traffic engineer at our firm and is nationally certified as a Professional Traffic Operations Engineer (PTOE) by the Institute of Transportation Engineers (ITE). He has a history of working with a variety of local municipalities and counties to evaluate traffic and transportation issues and provide successful solutions for implementation.



Jeff is nationally certified as a Professional Traffic Operations Engineer®.

Kurt Walker will complete the data collection, site documentation and the data evaluation services for this project. Kurt has been focused on traffic analysis and roadway design since starting with our firm.



Kurt will complete the data collection and evaluation for this project.

Project Approach

This project consists of three primary components: data collection, speed study analysis, and documentation of results and recommendations. We have developed our approach in accordance with the guidelines set forth in the WisDOT Statewide Speed Management Guidelines.

A. Data Collection

We will use our Houston Radar Armadillo traffic counters to complete the data collection for this project. These devices are set up on the shoulders of the roadway and collect accurate data without impacts to the roadway speeds. We anticipate that we will deploy two locations on each roadway corridor to determine how speeds vary along the corridors.

These traffic counters time stamp each individual vehicle and its direction of travel while they are operating. This rich data set will enable us to filter the data and select the maximum number of vehicles that are operating at the roadway free flow speed and not within a platoon of traffic. By avoiding traffic traveling in platoons, we are able to accurately define the speed that drivers select in the absence of traffic. We anticipate the data collection effort will be completed in 1 day.



Houston Radar Armadillo deployed on a roadway signpost.

B. Speed Study Analysis

For each site, we will compute the free flow speed statistics. We will develop a summary sheet of the speed analysis following WisDOT guidelines for each site. From these summaries, we will develop draft recommendations for speed limit or signing changes.

In addition to the roadway data and the free flow speed statistics, crash data is recommended to complete the speed study analysis. We are providing a separate, if authorized fee for corridor crash analysis in this proposal. We will collect the most recent 5 years of crash data for each study corridor from the University of Wisconsin-Madison Traffic Operations and Safety (TOPS) Lab. The lab compiles crash data and police crash report forms (DT4000/MV4000) statewide. This data will enable us to determine if there are any speed-related crash trends along the study corridors. Our initial review using the TOPS Lab's crash mapping tool indicates that the majority of crashes along CTH F in the speed study corridor are flagged for speed. This trend is not present in the CTH A speed study corridor. If requested, this crash data will be added to the summary sheet for each corridor.

Mr. Barry Mashuda
 Green Lake County Highway Commission
 Page 3
 September 28, 2020

C. Documentation of Results and Recommendations

We will complete a short report that summarizes the data collection and analysis for the two corridors and provides recommendations for speed limit revisions and additional signage, if necessary. We will consider all road users in the recommendations for speed and signage modifications. After review by the County, we will complete revisions and submit the final recommendations to the County.

Scope of Services

Based on our proposed approach, we have developed the following detailed scope of services that will enable us to provide the speed study and any needed speed limit and signing revisions to the County by the end of November 2020.

A. Data Collection

1. Collect roadway speed data at the following locations:
 - a) CTH A at Sunset Park
 - b) CTH A south of Sunnyside Road
 - c) CTH F south of Oak Drive
 - d) CTH F east of Forest Ridge Road
2. Download and process data for the four data collection sites

B. Speed Study Analysis

1. Calculate speed statistics for the four sites, including:
 - a) 85th percentile speed
 - b) 10 mph pace speed (10 mph block containing the most number of vehicles)
 - c) 50th percentile speed
 - d) Speed distribution
 - e) Proportion of vehicles exceeding the existing speed limit
2. Complete a speed study summary sheet for each site following WisDOT guidelines
3. Develop draft speed limit recommendations and signing updates

C. Recommendations and Report

1. Develop Green Lake County Speed Study Report
2. Attend a conference call with the County to discuss the results of the speed study

D. Crash Evaluation (If Authorized)

1. Obtain the most recent 5 years of crash data for each corridor
2. Calculate crash statistics for each corridor, including crash rates

Experience on Similar Type Projects

We have an excellent resume with traffic analysis projects, including speed studies, and are excited to apply this experience to the County’s project. The following projects included speeds studies and speed limit evaluations.

Before/After Speed Study – Shorewood Hills, WI	
Key Personnel	Jeff Held, P.E., PTOE – Project Manager Kyle Henderson, P.E. – Project Engineer
Project Owner	Village of Shorewood Hills, WI Karl Frantz, 608-266-4781
Contract Start/End Dates	2020 – Ongoing

The Village of Shorewood Hills is looking to install speed tables onto a roadway. As part of an evaluation of the effectiveness and impacts of the speed tables, Shorewood Hills asked for a before and after speed study. The study involved collecting 1 week of speed data at four locations at or near where the speed tables are being installed and comparing the average speed, 85th percentile speed, and other data.

Mr. Barry Mashuda
Green Lake County Highway Commission
Page 4
September 28, 2020

We deployed the same Houston Radar Armadillo counters being proposed for use in this Green Lake County speed study for the ‘before’ portion of the study and have completed the data analysis for the Village. The speed tables are currently being installed. Later this fall, we will collect the ‘after’ portion of the data to create the final comparison statistics to observe the impact of the speed tables.

Marshall Court Traffic Review – Shorewood Hills, WI	
Key Personnel	Jeff Held, P.E., PTOE – Project Manager Kyle Henderson, P.E. – Project Engineer
Project Owner	Village of Shorewood Hills, WI Karl Frantz, 608-266-4781
Contract Start/End Dates	2018

As part of a development review, the Village of Shorewood Hills requested that we collect speed data at two points along Marshall Court to review the existing speeds along the roadway to determine if the newly constructed roadway cross section was having the desired effect on speeds.

To complete this, we deployed our Houston Radar Armadillo counters for 1 week along the roadway. The deployment was used to evaluate both the daily traffic volumes on Marshall Court and the present speeds, including the 85th percentile speed and how it related to the speed limit on the roadway. Our data showed that overall, the speed limit was set appropriately along Marshall Court and provided the Village confidence that its newly reconstructed roadway cross section was helping control vehicle speeds along the roadway.

WIS 113 Speed Limit Evaluation – Waunakee, WI	
Key Personnel	Kyle Henderson, P.E. – Project Manager Jeff Held, P.E., PTOE – Quality Control Engineer
Project Owner	Village of Waunakee, WI Kevin Even, P.E., 608-849-6276
Contract Start/End Dates	2014

The Village of Waunakee was interested in removing a 45 mile-per-hour (mph) step down speed zone and converting the area from 45 to 35 mph. To complete the speed limit evaluation, the Village provided us with speed data. We evaluated both the recent crash history in the segment of roadway and the speed data provided to complete the WisDOT Speed Study Report and submitted it to the region safety engineer for review. The speed data showed that traffic was traveling slightly less than 40 mph along this stretch of WIS 113 and the removal of the 45 mph speed zone would be appropriate. WisDOT agreed with the removal of the 45 mph speed zone, extending the 35 mph speed zone upstream, and changed out the speed limit signs along WIS 113.

Business 51 Resurfacing – Wausau, WI	
Key Personnel	Kyle Henderson, P.E. – Project Engineer
Project Owner	WisDOT North Central Region Forrest Van Asten, P.E., 715-365-5781
Contract Start/End Dates	2011 – 2013

WisDOT was interested in confirming the speed limit along Business 51 in Wausau in conjunction with a resurfacing project that was going to be completed along the roadway. We collected roadway speed data for six locations along the Business 51 corridor, as well as crash data for the corridor. We completed a data evaluation and a WisDOT Speed Study Report for each location along Business 51, confirming that the existing speed limits along the corridor were appropriate.

Mr. Barry Mashuda
 Green Lake County Highway Commission
 Page 5
 September 28, 2020

Proposed Project Schedule

Our experienced and available staff are ready to begin data collection immediately after receipt of notice to proceed. If we receive notice to proceed by October 16, 2020, we propose the following schedule.

Deliverable	Date
Speed Data Collection	October 23, 2020
Speed Study Summary Sheets	October 31, 2020
Green Lake County Speed Study Report	November 6, 2020

Overall Project Cost

Our proposed fee for the above services is as follows.

Task	Fee
Data Collection	\$1,800
Speed Study Analysis	\$2,800
Recommendations and Report	\$2,300
Total	\$6,900
If Authorized Crash Analysis	\$1,700

We appreciate the opportunity to respond to the RFP and look forward to working with Green Lake County on this project and providing it the exceptional knowledge, care, and detail needed to make this project a success. Should the County need further information, please feel free to call us at 608-251-4843.

Sincerely,

STRAND ASSOCIATES, INC.®


 Kyle R. Henderson, P.E.
 Project Manager


 Jennifer S. Kobryn, P.E.
 Client Contact

P200.806/KRH.mah



REQUEST FOR PURCHASE APPROVAL

Item To Be Purchased:

- (1) Tri-Axle Cab & Chassis, and Truck Equipment with Delivery in 2021
- (1) Tri-Axle Cab & Chassis, and Truck Equipment with Delivery in 2022

Department: Highway

Account Number: 701-29-53281-810-000

Governing Committee: Highway

Governing Committee Approval Date:

P&I Approval Date: 10/06/2020

Reason for Purchase:

Cab & Cassis (3 out of 6 bids received):

\$130,101 (2021 & 2022 price) Packer City International	Total \$260,202
\$130,295 (2021 & 2022 price) Quality Truck Care Center	Total \$260,590 ** Recommended
\$128,500 (2021 & 2022 price) Truck Country	Total \$257,000

Tri-Axle Plow Equipment (3 out of 4 bids received):

\$114,500 (2021 & 2022 price) Casper's Truck Equipment	Total \$229,000
\$103,743 (2021 & 2022 price) Monroe Truck Equipment	Total \$207,486 **Recommended
\$109,050 (2021 & 2022 price) Truck Equipment Inc.	Total \$218,100



REQUEST FOR PURCHASE APPROVAL

Item To Be Purchased:

- (1) Tri-Axle Cab & Chassis, and Truck Equipment with Delivery in 2021
- (1) Tri-Axle Cab & Chassis, and Truck Equipment with Delivery in 2022

Department: Highway

Account Number: 701-29-53281-810-000

Governing Committee: on 10/14/20 Hwy Committee Agenda

Governing Committee Approval Date:

P&I Approval Date:

Reason for Purchase:

Because of the 8-9 months lead time for the truck equipment builders production schedule, and the cost increasing in January 2021, we are requesting P&I Committee approval prior to the Highway Committee approval on 10/14/20.

Due to timing constraints, the 1st Cab & Chassis and Truck Equipment is anticipated to be delivered sometime between September and mid October 2021, and the 2nd Cab & Chassis and Truck Equipment is anticipated to be delivered by mid January 2022.

The 2021 Highway Budget will reflect (1) Cab and Chassis with Truck Equipment, as will the 2022 Budget.

The County Administrator has also concurred with starting the bid processing to alleviate the timing constraints.

Cab and Chassis solicitation for price quotes (attached) were sent out to the following on 09/15/20:

Packer City International; Quality Truck Care Center; Truck Country; Kriete Group
Fond Du Lac Truck Sales; Wisconsin Kenworth

Truck Equipment solicitation for price quotes (attached) were sent out to the following on 09/15/20:

Burke Truck & Equipment, Inc.; Casper's Truck Equipment; Monroe Truck Equipment;
Truck Equipment, Inc.

Pence, Becky

From: Pence, Becky
Sent: Monday, September 28, 2020 10:57 AM
To: Pence, Becky
Cc: Mashuda, Barry
Subject: Addendum to Cab-Chassis Specification

Importance: High

Please use this email as an **Addendum to Green Lake County Tri-Axle Cab and Chassis** as follows:

Under "**Delivery**", on Page 4 of 5, the second tri-axle should read as follows: "**Second Tri-Axle Cab and Chassis on or before August 15, 2021**"

I apologize for any inconvenience this may have caused.

Sincerely,

Becky Pence
Administrative Assistant
Green Lake County
Highway Department

bpence@co.green-lake.wi.us
920-294-4060



CAB & CHASSIS

GREEN LAKE COUNTY HIGHWAY COMMISSIONER

PACKER CITY

Barry Mashuda
Highway Commissioner

Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us

SOLICITATION FOR PRICE QUOTES

The Green Lake County Highway Department located at 570 South Street, Green Lake, WI will on Thursday, October 01, 2020 at 9:00 am be receiving and opening quotes for the following:

TRI-AXLE CAB AND CHASSIS 2021 & 2022

- Quote openings begin at 9:00 am; quotes must be submitted by the specified opening time.
- Quotes must be submitted on the forms provided preferably with typed print.
- No facsimile or E-mail bids will be accepted
- Quotes must be marked "Tri-Axle Cab and Chassis Bid 2021 & 2022" on the lower left corner of envelope.
- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance for these units shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941
920-294-4060
bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Tri-Axle Cab and Chassis trucks meet specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda

Barry Mashuda
Highway Commissioner

Green Lake County is an Equal Employment Opportunity Employer
570 South Street, Green Lake, WI 54941
www.co.green-lake.wi.us

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

WHEELBASE:

- 156" cab to trunnion
- 24" from back of rear tire to end of frame

YES

NO

X _____
X _____

FRAME:

- Integral front frame extension, a minimum of 20" (no bolt on)
- Tensile strength must be 120,000 lbs. or greater, to be full c-reinforced or ½" single rail frame for front suspension reinforcement for plow attachments. Must meet specs of 3.2 million lbs.

X _____

ENGINE:

- 450hp @ 1625 rpm with 1650 lb.-ft. of torque @ 1000 rpm, wet sleeved, and re-buildable
- Have adaptor for front mount pump
- Have emergency engine shut down capability
- Have engine block heater located under driver's door
- Have air restriction indicator gauge in cab
- Have 3 step engine brake (switch on dash) - *Column*
- Have recommended DAVCO fuel water separator with heater

X _____
X _____
X _____
X _____
X _____
_____ X _____
X _____

COOLING SYSTEM:

- Largest radiator designed with the PTO shaft going under, not through
- Cooling system should have extended life coolant
- Antifreeze level set at -34°
- Bug screen shall be installed between grill and radiator
- Must have shut off valves for heater hoses

X _____
X _____
X _____
X _____
X _____

TRANSMISSION:

- Shall be Allison 4500 series
- Cooling lines shall be fastened securely and not rubbing
- Transmission fluid should be synthetic
- Shift controls shall be mounted on dash
- Base warranty of 3 years on transmission

X _____
X _____
X _____
X _____
X _____

FRONT AXLE:

- Shall be set forward, rated at 20,000 lbs. or better
- No aluminum hubs
- Oil bathed bearing and seals, synthetic lube used in hubs with only Scott Seal Plus or STEMCO wheel seals

X _____
X _____
X _____

FRONT SPRING:

- Shall be 20,000 lbs. stacked leaf
- Non greasable spring pins only

X _____
X _____

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

FRONT RIM AND TIRES:

- Hub piloted steel or aluminum disc wheels rated for front axle capacity
- 425/65R22.5 20 ply steer tire with rating for front axle

YES

NO

X _____
X _____

FRONT BRAKES:

- S cam type with 16.5" by 6" shoes
- Meritor long stroke brake chambers - *Bendix*
- Meritor slack adjusters - *Gunnite*
- Dust shields

X _____
 _____ X _____
 _____ X _____
X _____

REAR AXLE AND SUSPENSION:

- 46,000 lbs. capacity, Meritor Model RT-46-160
- 4.56 gear ratio
- Differential lock and power divider operated from cab
- 46,000 lbs. Hendrickson or Tuff Trac rear suspension with 54" or 56" axle spacing
- Scott Seal Plus or STEMCO wheel seals

X _____
X _____
X _____
X _____
X _____

REAR WHEELS AND TIRES:

- Mud and snow tubeless radials 14 ply 11R22.5
- 8.25 x 22.5 hub piloted steel disc

X _____
X _____

REAR BRAKES:

- S cam type with 16.5" x 7" shoes
- Haldex life seal rear brake chambers
- Meritor slack adjusters - *Gunnite*
- Chambers must be indexed from factory to clear for paving and shouldering operations
- Dust shields on all wheels

X _____
X _____
 _____ X _____
X _____
X _____

FUEL TANK:

- 100 US gallon aluminum tank with two steps on the outside of tank mounted on left side with stainless steel straps
- 13 gallon DEF tank under cab *9.5 gal*

X _____
 _____ X _____

ELECTRICAL SYSTEM:

- 12-volt system with 4 flooded batteries, mounted in stainless steel battery box, or under passenger seat. Batteries must be easily accessible and not interfere with pusher axle or plow equipment (check with plow equipment installer for best place)
- Battery cables must be full length, no splicing
- Alternator (160 amp DELCO 24 SI) *Leccc - Newille*
- Circuit breaker system shall have circuit for County 2-way radio, CB radio hook-up
- Set up for trailer towing, lights, electric brake
- Battery shut off mounted in cab under dash

X _____
 _____ X _____
X _____
X _____
X _____

AIR SYSTEM:

- Meritor WABCO 1200 plus air dryer with heater
- Dryer must be mounted for easy replacement of filter
- Manual drain valve on tanks
- Air brake controller for trailer hook-ups
- Glad hands in rear to hook up trailers with air brakes

X _____
X _____
X _____
X _____
X _____

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

HOOD:

- Fiberglass with inspection doors

YES

X

NO

STEERING:

- Dual power steering gear. Must be rated for 20k lbs. or better

X

MISCELLANEOUS:

- Must provide parts and service books for this unit, either in print or digital
- Must furnish all programs, equipment, and training to keep County technicians current in diagnostics and repair. Provide latest software for cab, chassis, engine, transmission, and ABS
- Provide schedule of software download and training 30 days after bid is awarded

X

X

X

CAB:

- Air ride
- Highest output heater and air conditioning available
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride)
- All windows to be tinted. Doors to have power windows
- Dual sun visors, intermittent wipers, washers
- Exterior grab handles on cab
- Dome light, map pockets
- Inside and outside hood air intake
- West Coast style mirrors heated with heated convex mirrors
- Right hand down view mirror
- Hood mounted heated mirrors. 8" heated on right side
- Deluxe interior (darkest color available)
- Exterior color Omaha orange
- Factory radio AM/FM with weather band, with auxiliary jack
- Tilt steering wheel, air horn
- Full instrument and gauges, volt gauge, no amp meter
- Rust proofed on all metal parts of cab
- Safety equipment: fire extinguisher 5lb., triangle kit
- Six factory installed switches, lighted in dash, easy to reach and read, with ergonomic dash wing
- The power module that the body company will tie into shall be located in the cab preferably behind the driver's seat
- Auxiliary wire harness switch for plow head lights
- Plow window in right passenger door

X

✓

✓

✓

EXHAUST SYSTEM:

- Horizontal muffler with vertical stainless steel stack on right side

X

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

Steerable Pusher Axle:

13,200 lb. capacity; air ride and air lift; quick release and R12 relay valves; double poppet double solenoid operated electric air valve; single wheel hub pilot wheel set. Axle control must be located in control tower. Axle must lift when truck is placed in reverse and remain up until released by the operator. Additional air tank to be provided for extra air capacity. Axle must have coil over shock steering stabilizers. 11' 6" rear axle group spacing required. Pusher Axle control to be coordinated with the plow equipment supplier so that the control switch is located in the plow control tower.

WARRANTY:

- Responsible for pick-up and delivery back to Green Lake County, with three year base truck 100,000 mile warranty
- Seven year 250,000 mile engine warranty including water pump, injectors, and turbo
- Seven year 250,000 mile after treatment extended warranty
- All warranties to have a \$0.00 deductible

- Deduct \$ 1,100 to go to 7yr/100Kmiles

YES

NO

X

X

X

X

DELIVERY:

- First Tri-Axle Cab and Chassis on or before March 15, 2021
- Second Tri-Axle Cab and Chassis on or before August 15, 2022

X

X

PRICING

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2021

\$ 130,101.00

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2022

\$ 130,101.00

Total Tri-Axle Cab and Chassis package price including delivery for 2021 and 2022

\$ 260,202.00

TRI-AXLE CAB AND CHASSIS

BIDDER SIGNATURE PAGE

By signing below you are certifying that you meet or exceed all stated requirements for
Two Tri-Axle Cab and Chassis

Company Name: Packer City International Trucks
Address: 2940 N Victory Ln Appleton, WI 54913
Phone: 920-243-7781
Fax: 920-996-4646
Email: mchojnacki@pcitrucks.com
Signature: Matt Chojnacki
Printed Name: Matt Chojnacki
Title: Sales Representative
Date: 9-30-2020

**GREEN LAKE COUNTY
HIGHWAY COMMISSIONER****QUALITY TRUCK****Barry Mashuda
Highway Commissioner****Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us****SOLICITATION FOR PRICE QUOTES**

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570 South Street
Green Lake, WI 54941
920-294-4060
bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Tri-Axle Cab and Chassis trucks meet specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda
Highway Commissioner

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

WHEELBASE:

- 156" cab to trunnion *156" usable*
- 24" from back of rear tire to end of frame

YES

NO

✓	_____
✓	_____

FRAME:

- Integral front frame extension, a minimum of 20" *24"* (no bolt on)
- Tensile strength must be 120,000 lbs. or greater, to be full c-reinforced or *1/2"* single rail frame for front suspension reinforcement for plow attachments. Must meet specs of 3.2 million lbs.

✓	_____
---	-------

ENGINE:

- 450hp @ 1625 rpm with 1650 lb.-ft. of torque @ 1000 rpm, wet sleeved, and re-buildable
- Have adaptor for front mount pump
- Have emergency engine shut down capability
- Have engine block heater located under driver's door
- Have air restriction indicator gauge in cab
- Have 3 step engine brake (switch on dash) *on column*
- Have recommended DAVCO fuel water separator with heater

✓	_____
✓	_____
✓	_____
✓	_____
✓	_____
✓	_____

COOLING SYSTEM:

- Largest radiator designed with the PTO shaft going under, not through *notched*
- Cooling system should have extended life coolant
- Antifreeze level set at -34°
- Bug screen shall be installed between grill and radiator
- Must have shut off valves for heater hoses

✓	_____
✓	_____
✓	_____
✓	_____
✓	_____

TRANSMISSION:

- Shall be Allison 4500 series
- Cooling lines shall be fastened securely and not rubbing
- Transmission fluid should be synthetic
- Shift controls shall be mounted on dash
- Base warranty of 3 years on transmission *option 5 year add: \$936.00 each*

✓	_____
✓	_____
✓	_____
✓	_____
✓	_____

FRONT AXLE:

- Shall be set forward, rated at 20,000 lbs. or better
- No aluminum hubs
- Oil bathed bearing and seals, synthetic lube used in hubs with only Scott Seal Plus or STEMCO wheel seals

✓	_____
✓	_____
✓	_____

FRONT SPRING:

- Shall be 20,000 lbs. *stacked leaf*
- Non greasable spring pins only *Tapered Leaf to get non-greasable spring pins*

✓	✓
---	---

Front Axle option:

- 22,000 lb. Meritor*
- 23,000 lb. Stacked Spring*
- TRW THP60 with RCH60 Aux. Gear*
- graphite Bronze Bushings + Front Shocks*
- Add: \$550.00 ea. truck*

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

<u>FRONT RIM AND TIRES:</u>	<u>YES</u>	<u>NO</u>
<i>deduct: \$175.⁰⁰ ea. Truck for Steel</i>		
• Hub piloted steel or <u>aluminum disc</u> wheels rated for front axle capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• 425/65R22.5 20 ply steer tire with rating for front axle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>FRONT BRAKES:</u>		
• S cam type with 16.5" by 6" shoes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Meritor long stroke brake chambers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Meritor slack adjusters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Dust shields	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>REAR AXLE AND SUSPENSION:</u>		
• 46,000 lbs. capacity, Meritor Model RT-46-160	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• 4.56 gear ratio	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Differential lock and power divider operated from cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• 46,000 lbs. Hendrickson or <u>Tuff Trac</u> rear suspension with 54" or <u>56"</u> axle spacing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Scott Seal Plus or STEMCO wheel seals	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>REAR WHEELS AND TIRES:</u>		
• Mud and snow tubeless radials 14 ply 11R22.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• 8.25 x 22.5 hub piloted steel disc	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>REAR BRAKES:</u>		
• S cam type with 16.5" x 7" shoes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Haldex life seal rear brake chambers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Meritor slack adjusters <u>Haldex</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
• Chambers must be indexed from factory to clear for paving and shouldering operations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Dust shields on all wheels	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>FUEL TANK:</u>		
• 100 US gallon aluminum tank with two steps on the outside of tank mounted on left side with stainless steel straps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• 13 gallon DEF tank under cab	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>ELECTRICAL SYSTEM:</u>		
• 12-volt system with 4 flooded batteries, mounted in stainless steel battery box, <u>or 3 AGM</u> under passenger seat. Batteries must be easily accessible and not interfere with pusher axle or plow equipment (check with plow equipment installer for best place)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Battery cables must be full length, no splicing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Alternator (160 amp DELCO 24 SI) <u>28-SI Same as last year</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Circuit breaker system shall have circuit for County 2-way radio, CB radio hook-up	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Set up for trailer towing, lights, electric brake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Battery shut off mounted in cab under dash	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>AIR SYSTEM:</u>		
• Meritor WABCO 1200 plus air dryer with heater <u>System Saver</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Dryer must be mounted for easy replacement of filter <u>outboard left rail</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Manual drain valve on tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Air brake controller for trailer hook-ups	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Glad hands in rear to hook up trailers with air brakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

HOOD:

- Fiberglass with inspection doors

YES

NO

STEERING:

- Dual power steering gear. Must be rated for 20k lbs. or better

MISCELLANEOUS:

web based

- Must provide parts and service books for this unit, either in print or digital
- Must furnish all programs, equipment, and training to keep County technicians current in diagnostics and repair. Provide latest software for cab, chassis, engine, transmission, and ABS
- Provide schedule of software download and training 30 days after bid is awarded

CAB:

- Air ride
- Highest output heater and air conditioning available
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride)
- All windows to be tinted. Doors to have power windows
- Dual sun visors, intermittent wipers, washers
- Exterior grab handles on cab
- Dome light, map pockets
- Inside and outside hood air intake
- West Coast style mirrors heated with heated convex mirrors
- Right hand down view mirror
- Hood mounted heated mirrors. 8" heated on right side
- Deluxe interior (darkest color available)
- Exterior color Omaha orange
- Factory radio AM/FM with weather band, with auxiliary jack
- Tilt steering wheel, air horn *Telescopic also*
- Full instrument and gauges, volt gauge, no amp meter
- Rust proofed on all metal parts of cab
- Safety equipment: fire extinguisher 5lb., triangle kit
- Six factory installed switches, lighted in dash, easy to reach and read, with ergonomic dash wing
- The power module that the body company will tie into shall be located in the cab preferably behind the driver's seat
- Auxiliary wire harness switch for plow head lights
- Plow window in right passenger door

EXHAUST SYSTEM:

- Horizontal muffler with vertical stainless steel stack on right side

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

Steerable Pusher Axle:

13,200 lb. capacity; air ride and air lift; quick release and R12 relay valves; double poppet double solenoid operated electric air valve; single wheel hub pilot wheel set. Axle control must be located in control tower. Axle must lift when truck is placed in reverse and remain up until released by the operator. Additional air tank to be provided for extra air capacity. Axle must have coil over shock steering stabilizers. 11' 6" rear axle group spacing required. Pusher Axle control to be coordinated with the plow equipment supplier so that the control switch is located in the plow control tower.

WARRANTY:

- Responsible for pick-up and delivery back to Green Lake County, with three year base truck 100,000 mile warranty
- Seven year 250,000 mile engine warranty including water pump, injectors, and turbo
- Seven year 250,000 mile after treatment extended warranty *EW 4 included*
- All warranties to have a \$0.00 deductible
- *7 year 150,000 mile deduct: \$ 500.00 each*

<u>YES</u>	<u>NO</u>
/	_____
✓	_____
✓	_____
✓	_____

DELIVERY:

- First Tri-Axle Cab and Chassis on or before March 15, 2021
- Second Tri-Axle Cab and Chassis on or before August 15, ~~2022~~ *2021*

✓	_____
✓	_____

PRICING

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2021

\$ 130,295.⁰⁰

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2022

\$ 130,295.⁰⁰

Total Tri-Axle Cab and Chassis package price including delivery for 2021 and 2022

\$ 260,590.⁰⁰

TRI-AXLE CAB AND CHASSIS

BIDDER SIGNATURE PAGE

By signing below you are certifying that you meet or exceed all stated requirements for
Two Tri-Axle Cab and Chassis

Company Name: Quality Truck Care Center
Address: 2125 French Rd. DePere, WI 54115
Phone: 920-347-2213
Fax: 920-347-2212
Email: trupiper@qualitytruck.net
Signature: Timothy M. Rupiper
Printed Name: Timothy M. Rupiper
Title: Sales Professional
Date: 10-1-2020

**GREEN LAKE COUNTY
HIGHWAY COMMISSIONER**

Barry Mashuda
Highway Commissioner

Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us

SOLICITATION FOR PRICE QUOTES

The Green Lake County Highway Department located at 570 South Street, Green Lake, WI will on Thursday, October 01, 2020 at 9:00 am be receiving and opening quotes for the following:

TRI-AXLE CAB AND CHASSIS 2021 & 2022

- Quote openings begin at 9:00 am; quotes must be submitted by the specified opening time.
- Quotes must be submitted on the forms provided preferably with typed print.
- No facsimile or E-mail bids will be accepted
- Quotes must be marked "Tri-Axle Cab and Chassis Bid 2021 & 2022" on the lower left corner of envelope.
- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance for these units shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941
920-294-4060
bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Tri-Axle Cab and Chassis trucks meet specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda
Highway Commissioner

MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

WHEELBASE:

- 156" cab to trunnion
- 24" from back of rear tire to end of frame

YES

NO

✓✓ |

FRAME:

- Integral front frame extension, a minimum of 20" (no bolt on)
- Tensile strength must be 120,000 lbs. or greater, to be full c-reinforced or ½" single rail frame for front suspension reinforcement for plow attachments. Must meet specs of 3.2 million lbs.

✓ |

ENGINE:

- 450hp @ 1625 rpm with 1650 lb.-ft. of torque @ 1000 rpm, wet sleeved, and re-buildable
- Have adaptor for front mount pump
- Have emergency engine shut down capability
- Have engine block heater located under driver's door
- Have air restriction indicator gauge in cab
- Have 3 step engine brake (switch on dash)
- Have recommended DAVCO fuel water separator with heater

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COOLING SYSTEM:

- Largest radiator designed with the PTO shaft going under, not through
- Cooling system should have extended life coolant
- Antifreeze level set at -34°
- Bug screen shall be installed between grill and radiator
- Must have shut off valves for heater hoses

Goes Through

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TRANSMISSION:

- Shall be Allison 4500 series
- Cooling lines shall be fastened securely and not rubbing
- Transmission fluid should be synthetic
- Shift controls shall be mounted on dash
- Base warranty of 3 years on transmission

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FRONT AXLE:

- Shall be set forward, rated at 20,000 lbs. or better
- No aluminum hubs
- Oil bathed bearing and seals, synthetic lube used in hubs with only Scott Seal Plus or STEMCO wheel seals

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FRONT SPRING:

- Shall be 20,000 lbs. stacked leaf
- Non greasable spring pins only

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MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

HOOD:

- Fiberglass with inspection doors

YES

NO

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STEERING:

- Dual power steering gear. Must be rated for 20k lbs. or better

✓

MISCELLANEOUS:

- Must provide parts and service books for this unit, either in print or digital
- Must furnish all programs, equipment, and training to keep County technicians current in diagnostics and repair. Provide latest software for cab, chassis, engine, transmission, and ABS
- Provide schedule of software download and training 30 days after bid is awarded

✓

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CAB:

- Air ride
- Highest output heater and air conditioning available
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride)
- All windows to be tinted. Doors to have power windows
- Dual sun visors, intermittent wipers, washers
- Exterior grab handles on cab
- Dome light, map pockets
- Inside and outside hood air intake
- West Coast style mirrors heated with heated convex mirrors
- Right hand down view mirror
- Hood mounted heated mirrors. 8" heated on right side
- Deluxe interior (darkest color available)
- Exterior color Omaha orange
- Factory radio AM/FM with weather band, with auxiliary jack
- Tilt steering wheel, air horn
- Full instrument and gauges, volt gauge, no amp meter
- Rust proofed on all metal parts of cab
- Safety equipment: fire extinguisher 5lb., triangle kit
- Six factory installed switches, lighted in dash, easy to reach and read, with ergonomic dash wing
- The power module that the body company will tie into shall be located in the cab preferably behind the driver's seat
- Auxiliary wire harness switch for plow head lights
- Plow window in right passenger door

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EXHAUST SYSTEM:

- Horizontal muffler with vertical stainless steel stack on right side

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MINIMUM SPECIFICATIONS FOR TRI-AXLE CAB AND CHASSIS

Steerable Pusher Axle:

13,200 lb. capacity; air ride and air lift; quick release and R12 relay valves; double poppet double solenoid operated electric air valve; single wheel hub pilot wheel set. Axle control must be located in control tower. Axle must lift when truck is placed in reverse and remain up until released by the operator. Additional air tank to be provided for extra air capacity. Axle must have coil over shock steering stabilizers. 11' 6" rear axle group spacing required. Pusher Axle control to be coordinated with the plow equipment supplier so that the control switch is located in the plow control tower.

WARRANTY:

- Responsible for pick-up and delivery back to Green Lake County, with three year base truck 100,000 mile warranty
- Seven year 250,000 mile engine warranty including water pump, injectors, and turbo
- Seven year 250,000 mile after treatment extended warranty
- All warranties to have a \$0.00 deductible

<u>YES</u>	<u>NO</u>
<u>✓</u>	_____

DELIVERY:

- First Tri-Axle Cab and Chassis on or before March 15, 2021
- Second Tri-Axle Cab and Chassis on or before August 15, 2022

<u>✓</u>	_____
<u>✓</u>	_____

PRICING

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2021

\$ 128,500.⁰⁰

Base Tri-Axle Cab and Chassis price as per specifications including delivery in 2022

\$ 128,500.⁰⁰

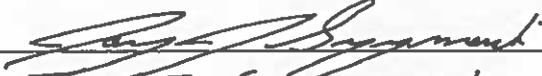
Total Tri-Axle Cab and Chassis package price including delivery for 2021 and 2022

\$ 257,000.⁰⁰

TRI-AXLE CAB AND CHASSIS

BIDDER SIGNATURE PAGE

By signing below you are certifying that you meet or exceed all stated requirements for
Two Tri-Axle Cab and Chassis

Company Name: Truck Country
Address: 2401 Progress Way, Kaukaun a WI 54131
Phone: 920-680-5219
Fax: 920-766-5299
Email: JaySzymanski@TruckCountry.Com
Signature: 
Printed Name: Jay J Szymanski
Title: Sales Executive
Date: October 1 2020

Pence, Becky

From: Pence, Becky
Sent: Wednesday, September 30, 2020 10:01 AM
To: Pence, Becky
Subject: Bid Opening

Importance: High

Please use this email as an **Addendum to Green Lake County Tri-Axle Plow Equipment** as follows:

The "Quote opening begins at 9:00 am" (not 1:00 pm).

Becky Pence
Administrative Assistant
Green Lake County
Highway Department

bpence@co.green-lake.wi.us
920-294-4060

**GREEN LAKE COUNTY
HIGHWAY COMMISSIONER**

Barry Mashuda
Highway Commissioner

Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us

SOLICITATION FOR PRICE QUOTES

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TRI-AXLE PLOW EQUIPMENT 2021 & 2022

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- Quotes must be marked "Tri-Axle Plow Equipment Bid 2021 & 2022" on the lower left corner of envelope.
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- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
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- Request for additional information can be directed to:

Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941
920-294-4060
bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Plow Equipment meets specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda

Barry Mashuda
Highway Commissioner

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

The purpose of the attached specifications is to describe a new equipment package to be installed on a new tri-axle chassis with a 156" CT being purchased by Green Lake County Highway Department. The truck equipment package shall include dump body and hoist; central hydraulic system; reversible front snow plow; front mount patrol wing; rear tailgate sander; and other related accessories as detailed within. Descriptive literature for equipment and warranty statements shall be included and shall be considered part of the bid. These specifications are meant to provide a minimum performance and quality standard acceptable to the Green Lake County Highway Commission. Green Lake County Highway Commission reserves the right to include a pre-build and pre-paint inspections/meetings at the installer's location. The Green Lake County Highway Commission reserves the right to accept or reject any or all bids.

ASPHALT DUMP BODY AND HOIST Bibeau EL 188

General:

Interior dimensions: 17' 6" x 84" western style cross member less understructure design. Body to be 100% welded.

Sides and Front: 60" to 48" tapered sides

Constructed of 3/16" AR450 steel with a 200,000 psi tensile strength, and 150,000 psi yield strength. 62" front to 52" rear integral sloped sides (no welds on sides). Top rail to be fully boxed with integral dirt shedding design (no add on angle iron). Full depth rear corner posts to be constructed of 7 gauge 304 stainless steel, and having sloped dirt-shedding design. Full length fender made of 8 gauge 100XF steel. The front shall be sloped for installation of reservoir and valve enclosure. Shall not have a dog house at floor level.

Tailgate: 54" Tailgate

52" sloped asphalt tailgate constructed of 3/16" AR450 steel with a 200,000 psi tensile strength and 150,000 psi yield strength. Full boxed perimeter; single panel horizontal pressed in brace to prevent cracking of welds and rust through of cavities. Integral peaked top (no add on angle iron). Top hinge plate 1.5" thick with 1.25" grease-able pins. 1" thick tailgate latch fingers. Air trip release with 3.5" cylinder, closed-closed system. 3/8" high strength spreader chains. Center top mounted lifting loop. Asphalt tail (below floor) to be constructed of 7 gauge 304 stainless steel.

Floor: Comply

Construction of 1/4" AR450 steel with a 200,000 psi tensile strength and a 150,000 psi yield strength. 18" side to floor radius for easy clean out. A Cougar DC3200 electric vibrator shall be installed under the body and include reinforced floor section.

Cab Shield: Comply

1/2" cab shield, made of 10 gauge minimum steel, 100% welded to front wall of dump body. Exhaust stack must clear cab protector.

Lights: Comply

FMVSS 108 lights and reflectors shall be installed in the dump body with all to be LED style lights. The LED lights shall be installed at the rear between the chassis frame rails. The lighting shall incorporate a heavy-duty weatherproof wiring harness and junction box to be installed on cross member at trunnion area and have anti-corrosion protection. All LED lights to have diffused lenses to allow for a minimum 35° viewing angle.

Body Accessories: Comply

Body shall include a full-length grip strut walk rail on each side of the body. There shall be two additional grip strut steps above the walk rail at each rear corner. Grab handle shall be installed alongside the body steps. There shall be one step bolted inside of the dump body at the driver side rear corner. There shall be one fork and ring style shovel holder installed at the front of the body. Two pair of heavy-duty rubber mud flaps shall be provided, one pair behind the rear tires removable with hinged and pin brackets, and one pair frame mounted ahead of the rear tires secured by anti-sail brackets, and one pair ahead of tag axle.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Preparation and Paint: Body wet painted in controlled environment and oven cured

After installation and add on of all welded accessories, the body shall be shot-blasted, washed and finished with baked on powder coat finish. The underside of dump body to be fully undercoated. Green Lake County Highway Commission reserves the right for a pre-paint inspection. Call prior to painting.

Hoist: Hoist cylinder is non-inverted double acting. Rear hinge is greasable without bushings. Trunnion mount inverted double acting front telescopic hoist. Minimum NTEA class 120 rating. Minimum of 6" hard chromed cylinder, 3 stage, and 153" stroke. Floating front cradle. Rear hinge assembly to incorporate greaseless composite Teflon bushings with removable stainless steel pins. Two body safety props, OSHA approved, mounted to provide 6' chassis frame to bottom of body clearance at front. Body up safety light in cab and OSHA approved electric back-up alarm. Hoist pull off valve to be incorporated into system to limit hoist dump angle.

Warranty: Comply

5 year parts and labor on body and hoist. First three years 100%, last two years 50/50 parts and labor.

CENTRAL HYDRAULIC SYSTEM

General: Comply

The central hydraulic system shall be a front mount load-sense system. Must have a qualified technician available 24 hours a day and seven days a week during the winter months that can be at our location within 4 hours for emergency repairs. Bidder shall have stock of all hydraulic controls bid that would be available for same day pickup.

Pump: Force America FASD45L

Pump shall be a pressure compensated piston pump with minimum 6.1 cubic inch displacement. Pump shall be rated for minimum 2700 rpm and 3600 psi pressure. The pump shall be mounted between the front frame rails of the chassis on a fabricated steel bracket that is bolted to the chassis frame. There shall be a 1" ball valve at the outlet of the pump. A Spicer 1310 or equivalent driveline shall drive the pump.

Oil Reservoir: Comply

The oil reservoir shall be a minimum 40 gallon capacity with internal baffles, and mounted above the frame and shall include a basket type filler breather cap, magnetic drain plug, 2" NPT suction port screen filter, and an external sight temperature gauge. This tank will be made from stainless steel. The reservoir shall be sloped to work in conjunction with front of the sloped front body. An in tank 10 microns return line filter with condition gauge shall be mounted in the reservoir. There shall be an in-line check valve in the return line to allow for filter servicing without oil leakage. There shall be a separate return line port for the pump control drain line.

Control Valve: Comply

The hydraulic control valve shall be US manufactured, electrically activated load-sensing manifold style valve. The valve shall be mounted in a weatherproof stainless steel enclosure and shall be sloped to work in conjunction with front of the sloped front body. Valves required for operating hoist (40 gpm), double acting with body-up limit switch for body cylinder, plow raise, double acting plow angle, independent double acting toe and heel wing operation, sander sections, and liquid section.

Hoist/Plow/Wing Control: Comply

The individual joysticks shall communicate through a Can Buss communications system both inside and outside the cab. Force America Ultra shall be the only accepted control.

Spreader Control: Comply

Spreader control shall be a Can Buss communication system both inside and outside the cab closed loop ground speed orientated control system. Force America Ultra shall be the only accepted control. Chassis dealer to provide 6 pack of switches with wired run to back of cab.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Front Hoses and Fittings: Comply

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. All quick couplers for plow and wing.

Rear Hoses and Fittings: Comply

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. Spacing for all hydraulic fittings at rear of truck for salter, spinner and pre-wet system must have 3" spacing between each fitting and include dust caps and plugs for protection. Location of bulkhead fitting must be below hinge point and mounted in hitch plate.

Piping: Comply

All hydraulic lines including the high pressure lines shall be stainless steel with stainless steel fittings on hard piping only.

List Exceptions:

Tailgate latch is 100,000 PSI steel

Rear hinge is Greaseable with o-ring seals

FRONT PLOW AND PLOW HITCH

General: Comply

All weld on moldboard and push frame to be 100% continuous welds.

Moldboard: Universal CST 12-52L

12' long x 55" high. Roll formed 10 gauge A569 steel. Integral shield. 4" x 4" x 3/4" structural angle bottom angle. 2" x 3" x 3/8" structural angle top angle. Minimum of six 1/2" thick one piece tapered flame cut ribs. Horizontal moldboard angle iron braces. Adjustable to minimum of three different pitch settings. 18" rubber snow deflector with metal mounting strap bolted to top angle. 42" orange cable markers shall be installed at moldboard ends.

Cutting Edge: Comply

3/4" x 6" x 12' carbide with cover blade, wrap around curb guards.

Trip Mechanism: Comply

Dual compression spring full moldboard trip with heavy duty 3/4" diameter trip springs.

Reverse Table: 4" x 4" x 3/8" front cross tube support with 4 attaching points to moldboard. 3 1/2" x 3 1/2" x 1/2" one piece structural angle semi-circle. 4" ship and car channel A-frame. Two 3" x 10" double acting reverse cylinders with nitrided rods. Screw adjustable parking jack.

Hitch Attachment: Loop style. Comply

Preparation and Paint: Moldboard powder coated and push frame wet painted

The entire plow assembly shall be shot-blasted, washed and finished with baked on powder coat finish. Moldboard orange, push-frame black.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

List Exceptions:

52" tall moldboard

FRONT PORTION PLOW HITCH

General: Comply

QCP pin style loop receiver hitch. Front plow must overlap wing moldboard to prevent wind row between plow and wing.

Construction: Comply

Hitch shall be custom built to the truck and designed to transmit plowing forces directly to the chassis frame rails. The hitch side plates shall be a minimum of ½" thick steel. There shall be a 4" x 4" x ½" structural steel tube perimeter and top cross bar. There shall be 1" x 3" steel thrust arms attached to both the side plates and chassis frame at an angle to provide extra push reinforcement. The lower hinge pivot bolt shall be a minimum of 1.5" diameter hardened grade 8 bolt. Hitch assembly must be removable and include custom brackets to allow the OEM truck bumper to be mounted back on the truck for summer use. All tubes will be capped with 100% welded steel. Cushion valve to be mounted to chassis portion of the hitch.

Lift and Tilt Cylinder: Comply

4" x 10" double acting lift cylinder with nitrided rod.

Paint: Black Comply

List Exceptions:

FRONT MOUNT PATROL WING Universal AHW/UTF 9' Uni-Tilt Wing

General: Comply

Double function full trip design. All welds to be 100% continuous welds.

Moldboard: 30" at toe tapering to 38" at heel

29" toe to 39" heel tapered moldboard of 3/16" thick. 4" x 4" x ¼" structural angle bottom angle reinforced with 3" x 3" x ½" gussets. 2 ½" x 1" formed top angle. Minimum 6 vertical ½" thick one piece tapered ribs. Angle iron horizontal reinforcement between ribs. Orange marker at wing heel.

Cutting Edge: Comply

¾" x 6" x 9' carbide with cover blade, wrap around curb guards.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Push Arms: See below

Two heavy-duty adjustable spring cushioned push arms. 3" outer tube with 2 1/2" solid inner shaft. Adjustable length to maintain 90° angle to moldboard. Push arms to allow for full trip moldboard. Grip strut steps welded to wing push arms to allow for safe entry to the passenger door of cab.

Front Head Assembly: See below

Shall be a trailing arm design head assembly. Arms perpendicular to truck frame not acceptable. 36" florescent orange marker on head assembly. Chain attached to front of wing moldboard to prevent wing toe from going below grade.

Rear Wing Support: Comply

Head of rear wing support to be removable for summer time use. There shall be a safety chain at the rear mount to secure the wing in the upright travel position. Heavy duty rear wing stop with rubber block shall be provided at the rear mount to make contact with the push arms.

Preparation and Paint: Moldboard powder coated and push frame wet painted

Complete wing to be shot-blasted, washed and finished with baked on powder coat paint. Moldboard orange, all mounting hardware black.

List Exceptions:

Inner push arm is not a solid shaft

The Uni-Tilt mechanism on the front wing head assembly is in use currently by the county

TAILGATE SPREADER Henderson TGS 6 stainless steel spreader

General: Spreader brackets to be bolted to body

Trough Assembly: Comply

Minimum 7 gauge 304 stainless steel with 1/4" endplates. Quick detach mounting brackets incorporated into endplates with mating portion welded to body corner posts. Full opening top and bottom clean out with hinged upper lid and hinged lower trough.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Auger: Comply

6" diameter with one-way flighting. Auger to be direct driven by low speed high torque orbital motor. There shall be an 18" long anti flow plate cover over the auger at the discharge opening.

Spinner Assembly: Comply

Mounted independent of the bottom trough of spreader. Easy one-man mount/dismount design. 18" diameter poly spinner disc directly driven by hydraulic motor. Spinner shield

Tailgate Shields: Comply

Stainless steel spill shields of removable design shall be installed full height of the dump body tailgate. They shall be removable without the use of tools. The spill shields shall also serve as a tailgate hold open kit.

Liquid Pre-Wet System: 150 gallons

140 gallon tailgate mounted poly tank with stainless steel brackets. Tank shall have integral anti-slosh baffles and two 5" top openings. Bronze gear pump, 7 gpm at 50 psi, 12 volt PWM proportional flow divider, all within sealed NEMA fiberglass enclosure. Two 2 gpm spray nozzles mounted at spreader spinner with half-moon plate. Strainer and hoses for applying liquid. Shall include bulk fill kit with cam lock couplers. Shall include flush kit with ball valve and suction hose.

List Exceptions:

OTHER SPECIFICATIONS

Steerable Pusher Axle: Pusher axle control to be coordinated with the cab and chassis supplier so that the control switch is located in the plow control tower. Comply

Toolbox: Comply

Buyers brand, part number 1705101, 18" aluminum toolbox on left hand frame rail.

Tarp System: Comply

Fully automatic electric tarp shall be installed on the body. Heavy-duty motor with three year warranty. Steel side arms. Asphalt treated tarp material. In cab switch.

Rear Hitch: Comply

1" thick steel pull plate welded into rear of chassis frame; Premier Saf-Tite 100 pintle hook mounted 26" from ground to inside pintle hook; 3/4" safety chain D-rings; painted black. Electric brake control shall be provided with 7 prong RV plug. Plate not to interfere with paver and shouldering machine. Contact county for dimensions.

ID Numbers: Comply

The body installer shall weld county designated identification numbers to the plow, wing, spreader and any other removable item that the county deems necessary.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Lighting: Comply

All lights as described previously plus:

- JW Speaker 9800 Heated LED plow lights with directional signals mounted to chassis hood with custom three point stainless brackets, with heated hood mirrors
- Work light for spreader; Buyers 1492116 amber
- Work light for wing; Buyers 1492116 white
- Wing light mounted on heel of moldboard, Whelen RSA03ZCR
- Whelen LED model R1LPPA, cab shield mounted on self-level bracket
- Two mirror mounted Ecco LED 7945A strobes
- Wiring for cab shield mounted lights to be run through sturdy conduit
- Stop/turn/tail lights, amber strobe lights, and clear reverse lights to be recessed in the rear posts of the dump body
All lights to be LED with diffused lenses
- One auxiliary work light wired into chassis reverse lights, Buyers 1492116 white
- All wiring to be soldered and heat shrunk and enclosed in sealed junction box at the trunnion cross member
- All wiring connections to have Weather Pack connectors, with anti-corrosion protection
- Locations of all lights and wiring subject to county approval

Electrical Enclosure: Comply

Sealed fiberglass enclosure incorporated into sloped valve enclosure assembly shall house all electrical solenoids, relays, circuit breakers along with lift axle valving.

Manuals: Comply

Parts and service manuals including electrical schematics for all items shall be provided in bound book upon delivery of the completed units.

Training: Comply

Equipment installer to provide operator and mechanic training on operation of all equipment upon delivery of completed units. Equipment installer to calibrate granular and liquid systems at time of delivery.

Warranty:

Minimum full two winter season parts and labor on all equipment. Body and hoist to carry five year warranty. Bidder must include warranty statements. Bidder will be responsible for pick-up and delivery back to Green Lake County Highway Department shop.

List Exceptions:

Manufacturer's warranty on all equipment is 1 year. Casper's Truck Equipment will warranty the second season on parts and labor of all equipment.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

DELIVERY:

- First Tri-Axle Plow Equipment package on or before October 15, 2021
- Second Tri-Axle Plow Equipment package on or before January 15, 2022

PRICING

Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2021	\$ <u>114,500.00</u>
Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2022	\$ <u>114,500.00</u>
Total Tri-Axle Plow Equipment package price including delivery for 2021 and 2022	\$ <u>229,000.00</u>

BIDDER SIGNATURE

By signing below you are certifying that you meet or exceed all stated requirements for Two Tri-Axle Plow Equipment:

Company Name: Casper's Truck Equipment

Address: 700 Randolph Drive

Phone: 920-687-1111

Fax: 920-687-1122

Email: ajorgensen@casperstruck.com

Signature:  _____

Printed Name: Andrew Jorgensen

Title: Municipal sales manager

Date: 9/25/2020



**GREEN LAKE COUNTY
HIGHWAY COMMISSIONER**

**Barry Mashuda
Highway Commissioner**

**Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us**

SOLICITATION FOR PRICE QUOTES

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- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission
570 South Street
Green Lake, WI 54941
920-294-4060
bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Plow Equipment meets specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda

**Barry Mashuda
Highway Commissioner**

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

The purpose of the attached specifications is to describe a new equipment package to be installed on a new tri-axle chassis with a 156" CT being purchased by Green Lake County Highway Department. The truck equipment package shall include dump body and hoist; central hydraulic system; reversible front snow plow; front mount patrol wing; rear tailgate sander; and other related accessories as detailed within. Descriptive literature for equipment and warranty statements shall be included and shall be considered part of the bid. These specifications are meant to provide a minimum performance and quality standard acceptable to the Green Lake County Highway Commission. Green Lake County Highway Commission reserves the right to include a pre-build and pre-paint inspections/meetings at the installer's location. The Green Lake County Highway Commission reserves the right to accept or reject any or all bids.

ASPHALT DUMP BODY AND HOIST

General: Comply

Interior dimensions: 17' 6" x 84" western style cross member less understructure design. Body to be 100% welded.

Sides and Front: Comply

Constructed of 3/16" AR450 steel with a 200,000 psi tensile strength, and 150,000 psi yield strength. 62" front to 52" rear integral sloped sides (no welds on sides). Top rail to be fully boxed with integral dirt shedding design (no add on angle iron). Full depth rear corner posts to be constructed of 7 gauge 304 stainless steel, and having sloped dirt-shedding design. Full length fender made of 8 gauge 100XF steel. The front shall be sloped for installation of reservoir and valve enclosure. Shall not have a dog house at floor level.

Tailgate: Comply

52" sloped asphalt tailgate constructed of 3/16" AR450 steel with a 200,000 psi tensile strength and 150,000 psi yield strength. Full boxed perimeter; single panel horizontal pressed in brace to prevent cracking of welds and rust through of cavities. Integral peaked top (no add on angle iron). Top hinge plate 1.5" thick with 1.25" grease-able pins. 1" thick tailgate latch fingers. Air trip release with 3.5" cylinder, closed-closed system. 3/8" high strength spreader chains. Center top mounted lifting loop. Asphalt tail (below floor) to be constructed of 7 gauge 304 stainless steel.

Floor: Comply

Construction of 1/4" AR450 steel with a 200,000 psi tensile strength and a 150,000 psi yield strength. 18" side to floor radius for easy clean out. A Cougar DC3200 electric vibrator shall be installed under the body and include reinforced floor section.

Cab Shield: Comply

1/2" cab shield, made of 10 gauge minimum steel, 100% welded to front wall of dump body. Exhaust stack must clear cab protector.

Lights: Comply

FMVSS 108 lights and reflectors shall be installed in the dump body with all to be LED style lights. The LED lights shall be installed at the rear between the chassis frame rails. The lighting shall incorporate a heavy-duty weatherproof wiring harness and junction box to be installed on cross member at trunnion area and have anti-corrosion protection. All LED lights to have diffused lenses to allow for a minimum 35° viewing angle.

Body Accessories: Comply

Body shall include a full-length grip strut walk rail on each side of the body. There shall be two additional grip strut steps above the walk rail at each rear corner. Grab handle shall be installed alongside the body steps. There shall be one step bolted inside of the dump body at the driver side rear corner. There shall be one fork and ring style shovel holder installed at the front of the body. Two pair of heavy-duty rubber mud flaps shall be provided, one pair behind the rear tires removable with hinged and pin brackets, and one pair frame mounted ahead of the rear tires secured by anti-sail brackets, and one pair ahead of tag axle.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Preparation and Paint: Comply, powder coat finish included

After installation and add on of all welded accessories, the body shall be shot-blasted, washed and finished with baked on powder coat finish. The underside of dump body to be fully undercoated. Green Lake County Highway Commission reserves the right for a pre-paint inspection. Call prior to painting.

Hoist: Comply

Trunnion mount inverted double acting front telescopic hoist. Minimum NTEA class 120 rating. Minimum of 6" hard chromed cylinder, 3 stage, and 153" stroke. Floating front cradle. Rear hinge assembly to incorporate greaseless composite Teflon bushings with removable stainless steel pins. Two body safety props, OSHA approved, mounted to provide 6' chassis frame to bottom of body clearance at front. Body up safety light in cab and OSHA approved electric back-up alarm. Hoist pull off valve to be incorporated into system to limit hoist dump angle.

Warranty: Comply

5 year parts and labor on body and hoist. First three years 100%, last two years 50/50 parts and labor.

CENTRAL HYDRAULIC SYSTEM

General: Comply

The central hydraulic system shall be a front mount load-sense system. Must have a qualified technician available 24 hours a day and seven days a week during the winter months that can be at our location within 4 hours for emergency repairs. Bidder shall have stock of all hydraulic controls bid that would be available for same day pickup.

Pump: Comply

Pump shall be a pressure compensated piston pump with minimum 6.1 cubic inch displacement. Pump shall be rated for minimum 2700 rpm and 3600 psi pressure. The pump shall be mounted between the front frame rails of the chassis on a fabricated steel bracket that is bolted to the chassis frame. There shall be a 1" ball valve at the outlet of the pump. A Spicer 1310 or equivalent driveline shall drive the pump.

Oil Reservoir: Comply

The oil reservoir shall be a minimum 40 gallon capacity with internal baffles, and mounted above the frame and shall include a basket type filler breather cap, magnetic drain plug, 2" NPT suction port screen filter, and an external sight temperature gauge. This tank will be made from stainless steel. The reservoir shall be sloped to work in conjunction with front of the sloped front body. An in tank 10 microns return line filter with condition gauge shall be mounted in the reservoir. There shall be an in-line check valve in the return line to allow for filter servicing without oil leakage. There shall be a separate return line port for the pump control drain line.

Control Valve: Comply

The hydraulic control valve shall be US manufactured, electrically activated load-sensing manifold style valve. The valve shall be mounted in a weatherproof stainless steel enclosure and shall be sloped to work in conjunction with front of the sloped front body. Valves required for operating hoist (40 gpm), double acting with body-up limit switch for body cylinder, plow raise, double acting plow angle, independent double acting toe and heel wing operation, sander sections, and liquid section.

Hoist/Plow/Wing Control: Comply

The individual joysticks shall communicate through a Can Buss communications system both inside and outside the cab. Force America Ultra shall be the only accepted control.

Spreader Control: Comply

Spreader control shall be a Can Buss communication system both inside and outside the cab closed loop ground speed orientated control system. Force America Ultra shall be the only accepted control. Chassis dealer to provide 6 pack of switches with wired run to back of cab.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Front Hoses and Fittings: Comply

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. All quick couplers for plow and wing.

Rear Hoses and Fittings: Comply

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. Spacing for all hydraulic fittings at rear of truck for salter, spinner and pre-wet system must have 3" spacing between each fitting and include dust caps and plugs for protection. Location of bulkhead fitting must be below hinge point and mounted in hitch plate.

Piping: Comply

All hydraulic lines including the high pressure lines shall be stainless steel with stainless steel fittings on hard piping only.

List Exceptions:

FRONT PLOW AND PLOW HITCH

General: Comply

All weld on moldboard and push frame to be 100% continuous welds.

Moldboard: Comply

12' long x 55" high. Roll formed 10 gauge A569 steel. Integral shield. 4" x 4" x ¼" structural angle bottom angle. 2" x 3" x 3/8" structural angle top angle. Minimum of six ½" thick one piece tapered flame cut ribs. Horizontal moldboard angle iron braces. Adjustable to minimum of three different pitch settings. 18" rubber snow deflector with metal mounting strap bolted to top angle. 42" orange cable markers shall be installed at moldboard ends.

Cutting Edge: Comply

¾" x 6" x 12' carbide with cover blade, wrap around curb guards.

Trip Mechanism: Comply

Dual compression spring full moldboard trip with heavy duty ¼" diameter trip springs.

Reverse Table: 4" x 4" x 3/8" front cross tube support with 4 attaching points to moldboard. 3 ½" x 3 ½" x ½" one piece structural angle semi-circle. 4" ship and car channel A-frame. Two 3" x 10" double acting reverse cylinders with nitrated rods. Screw adjustable parking jack. **Comply**

Hitch Attachment: Loop style. **Comply**

Preparation and Paint: Comply

The entire plow assembly shall be shot-blasted, washed and finished with baked on powder coat finish. Moldboard orange, push-frame black.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

List Exceptions:

FRONT PORTION PLOW HITCH

General: Comply

QCP pin style loop receiver hitch. Front plow must overlap wing moldboard to prevent wind row between plow and wing.

Construction: Exceed, the perimeter is 4" x 4" I-beam in lieu of tube for increased strength.

Hitch shall be custom built to the truck and designed to transmit plowing forces directly to the chassis frame rails. The hitch side plates shall be a minimum of 1/2" thick steel. There shall be a 4" x 4" x 1/2" structural steel tube perimeter and top cross bar. There shall be 1" x 3" steel thrust arms attached to both the side plates and chassis frame at an angle to provide extra push reinforcement. The lower hinge pivot bolt shall be a minimum of 1.5" diameter hardened grade 8 bolt. Hitch assembly must be removable and include custom brackets to allow the OEM truck bumper to be mounted back on the truck for summer use. All tubes will be capped with 100% welded steel. Cushion valve to be mounted to chassis portion of the hitch.

Lift and Tilt Cylinder: Comply

4" x 10" double acting lift cylinder with nitrated rod.

Paint: Black Exceed, powder coat finish

List Exceptions:

FRONT MOUNT PATROL WING

General: Comply

Double function full trip design. All welds to be 100% continuous welds.

Moldboard: Comply

29" toe to 39" heel tapered moldboard of 3/16" thick. 4" x 4" x 1/4" structural angle bottom angle reinforced with 3" x 3" x 1/2" gussets. 2 1/2" x 1" formed top angle. Minimum 6 vertical 1/2" thick one piece tapered ribs. Angle iron horizontal reinforcement between ribs. Orange marker at wing heel.

Cutting Edge: Comply

1/4" x 6" x 9' carbide with cover blade, wrap around curb guards.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Push Arms: **Comply**

Two heavy-duty adjustable spring cushioned push arms. 3" outer tube with 2 1/2" solid inner shaft. Adjustable length to maintain 90° angle to moldboard. Push arms to allow for full trip moldboard. Grip strut steps welded to wing push arms to allow for safe entry to the passenger door of cab.

Front Head Assembly: **Comply**

Shall be a trailing arm design head assembly. Arms perpendicular to truck frame not acceptable. 36" florescent orange marker on head assembly. Chain attached to front of wing moldboard to prevent wing toe from going below grade.

Rear Wing Support: **Comply**

Head of rear wing support to be removable for summer time use. There shall be a safety chain at the rear mount to secure the wing in the upright travel position. Heavy duty rear wing stop with rubber block shall be provided at the rear mount to make contact with the push arms.

Preparation and Paint: **Comply**

Complete wing to be shot-blasted, washed and finished with baked on powder coat paint. Moldboard orange, all mounting hardware black.

List Exceptions:

TAILGATE SPREADER

General: Spreader brackets to be bolted to body **Comply**

Trough Assembly: **Comply**

Minimum 7 gauge 304 stainless steel with 1/4" endplates. Quick detach mounting brackets incorporated into endplates with mating portion welded to body corner posts. Full opening top and bottom clean out with hinged upper lid and hinged lower trough.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Auger: Comply

6" diameter with one-way flighting. Auger to be direct driven by low speed high torque orbital motor. There shall be an 18" long anti flow plate cover over the auger at the discharge opening.

Spinner Assembly: Comply

Mounted independent of the bottom trough of spreader. Easy one-man mount/dismount design. 18" diameter poly spinner disc directly driven by hydraulic motor. Spinner shield **Seal saver block which is standard increases life of spinner motor.**

Tailgate Shields: Comply

Stainless steel spill shields of removable design shall be installed full height of the dump body tailgate. They shall be removable without the use of tools. The spill shields shall also serve as a tailgate hold open kit.

Liquid Pre-Wet System: Comply

140 gallon tailgate mounted poly tank with stainless steel brackets. Tank shall have integral anti-slosh baffles and two 5" top openings. Bronze gear pump, 7 gpm at 50 psi, 12 volt PWM proportional flow divider, all within sealed NEMA fiberglass enclosure. Two 2 gpm spray nozzles mounted at spreader spinner with half-moon plate. Strainer and hoses for applying liquid. Shall include bulk fill kit with cam lock couplers. Shall include flush kit with ball valve and suction hose.

List Exceptions:

OTHER SPECIFICATIONS

Steerable Pusher Axle: Pusher axle control to be coordinated with the cab and chassis supplier so that the control switch is located in the plow control tower. **Comply**

Toolbox: Comply

Buyers brand, part number 1705101, 18" aluminum toolbox on left hand frame rail.

Tarp System: Comply

Fully automatic electric tarp shall be installed on the body. Heavy-duty motor with three year warranty. Steel side arms. Asphalt treated tarp material. In cab switch.

Rear Hitch: Comply

1" thick steel pull plate welded into rear of chassis frame; Premier Saf-Tite 100 pintle hook mounted 26" from ground to inside pintle hook; 3/4" safety chain D-rings; painted black. Electric brake control shall be provided with 7 prong RV plug. Plate not to interfere with paver and shouldering machine. Contact county for dimensions. **Plumb factory air/electrical into pintle plate Add:\$256.00 per truck**

ID Numbers: Comply

The body installer shall weld county designated identification numbers to the plow, wing, spreader and any other removable item that the county deems necessary.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Lighting: Comply

All lights as described previously plus:

- JW Speaker 9800 Heated LED plow lights with directional signals mounted to chassis hood with custom three point stainless brackets, with heated hood mirrors
- Work light for spreader; Buyers 1492116 amber
- Work light for wing; Buyers 1492116 white
- Wing light mounted on heel of moldboard, Whelen RSA03ZCR
- Whelen LED model R1LPPA, cab shield mounted on self-level bracket
- Two mirror mounted Ecco LED 7945A strobes
- Wiring for cab shield mounted lights to be run through sturdy conduit
- Stop/turn/tail lights, amber strobe lights, and clear reverse lights to be recessed in the rear posts of the dump body
All lights to be LED with diffused lenses
- One auxiliary work light wired into chassis reverse lights, Buyers 1492116 white
- All wiring to be soldered and heat shrunk and enclosed in sealed junction box at the trunnion cross member
- All wiring connections to have Weather Pack connectors, with anti-corrosion protection
- Locations of all lights and wiring subject to county approval

Electrical Enclosure: Comply

Sealed fiberglass enclosure incorporated into sloped valve enclosure assembly shall house all electrical solenoids, relays, circuit breakers along with lift axle valving.

Manuals: Comply

Parts and service manuals including electrical schematics for all items shall be provided in bound book upon delivery of the completed units.

Training: Comply

Equipment installer to provide operator and mechanic training on operation of all equipment upon delivery of completed units. Equipment installer to calibrate granular and liquid systems at time of delivery.

Warranty: Comply

Minimum full two winter season parts and labor on all equipment. Body and hoist to carry five year warranty. Bidder must include warranty statements. Bidder will be responsible for pick-up and delivery back to Green Lake County Highway Department shop.

List Exceptions:

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

DELIVERY: Comply

- First Tri-Axle Plow Equipment package on or before October 15, 2021
- Second Tri-Axle Plow Equipment package on or before January 15, 2022

PRICING

Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2021	\$ <u>103,743.00</u>
Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2022	\$ <u>103,743.00</u>
Total Tri-Axle Plow Equipment package price including delivery for 2021 and 2022	\$ <u>207,486.00</u>

BIDDER SIGNATURE

By signing below you are certifying that you meet or exceed all stated requirements for Two Tri-Axle Plow Equipment:

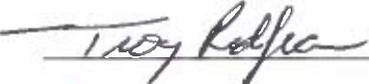
Company Name: Monroe Truck Equipment

Address: 1151 West Main Avenue De Pere WI. 54115

Phone: 920-360-4446

Fax: _____

Email: redfeam@monroetruck.com

Signature: 

Printed Name: Troy Redfeam

Title: District Sales Manager

Date: 9/30/2020

**GREEN LAKE COUNTY
HIGHWAY COMMISSIONER**



**Barry Mashuda
Highway Commissioner**

Office: 920-294-4060

Fax: 920-294-4066

Email: bmashuda@co.green-lake.wi.us

Truck Equipment Inc

SOLICITATION FOR PRICE QUOTES

The Green Lake County Highway Department located at 570 South Street, Green Lake, WI will on Thursday October 01, 2020 at 9:00 am be receiving and opening quotes for the following:

TRI-AXLE PLOW EQUIPMENT 2021 & 2022

- Quote openings begin at 1:00 pm; quotes must be submitted by the specified opening time.
- Quotes must be submitted on the forms provided preferably with typed print.
- No facsimile or E-mail bids will be accepted
- Quotes must be marked "Tri-Axle Plow Equipment Bid 2021 & 2022" on the lower left corner of envelope.
- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission

570 South Street
Green Lake, WI 54941
920-294-4060

bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Plow Equipment meets specifications and delivery requirements as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda

Barry Mashuda
Highway Commissioner

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

The purpose of the attached specifications is to describe a new equipment package to be installed on a new tri-axle chassis with a 156" CT being purchased by Green Lake County Highway Department. The truck equipment package shall include dump body and hoist; central hydraulic system; reversible front snow plow; front mount patrol wing; rear tailgate sander; and other related accessories as detailed within. Descriptive literature for equipment and warranty statements shall be included and shall be considered part of the bid. These specifications are meant to provide a minimum performance and quality standard acceptable to the Green Lake County Highway Commission. Green Lake County Highway Commission reserves the right to include a pre-build and pre-paint inspections/meetings at the installer's location. The Green Lake County Highway Commission reserves the right to accept or reject any or all bids.

ASPHALT DUMP BODY AND HOIST **BeauRoc RXL-17'6"x62"x52" Dump Body**
Mailhot CS160-6.5-4DA Hoist

General:

Interior dimensions: 17' 6" x 84" western style cross member less understructure design. Body to be 100% welded.

Sides and Front:

Constructed of 3/16" AR450 steel with a 200,000 psi tensile strength, and 150,000 psi yield strength. 62" front to 52" rear integral sloped sides (no welds on sides). Top rail to be fully boxed with integral dirt shedding design (no add on angle iron). Full depth rear corner posts to be constructed of 7 gauge 304 stainless steel, and having sloped dirt-shedding design. Full length fender made of 8 gauge 100XF steel. The front shall be sloped for installation of reservoir and valve enclosure. Shall not have a dog house at floor level.

Tailgate:

52" sloped asphalt tailgate constructed of 3/16" AR450 steel with a 200,000 psi tensile strength and 150,000 psi yield strength. Full boxed perimeter; single panel horizontal pressed in brace to prevent cracking of welds and rust through of cavities. Integral peaked top (no add on angle iron). Top hinge plate 1.5" thick with 1.25" grease-able pins. 1" thick tailgate latch fingers. Air trip release with 3.5" cylinder, closed-closed system. 3/8" high strength spreader chains. Center top mounted lifting loop. Asphalt tail (below floor) to be constructed of 7 gauge 304 stainless steel.

Floor:

Construction of 1/4" AR450 steel with a 200,000 psi tensile strength and a 150,000 psi yield strength. 18" side to floor radius for easy clean out. A Cougar DC3200 electric vibrator shall be installed under the body and include reinforced floor section.

Cab Shield:

1/2" cab shield, made of 10 gauge minimum steel, 100% welded to front wall of dump body. Exhaust stack must clear cab protector.

Lights:

FMVSS 108 lights and reflectors shall be installed in the dump body with all to be LED style lights. The LED lights shall be installed at the rear between the chassis frame rails. The lighting shall incorporate a heavy-duty weatherproof wiring harness and junction box to be installed on **cross member at trunnion area and have anti-corrosion protection**. All LED lights to have diffused lenses to allow for a minimum 35° viewing angle.

Body Accessories:

Body shall include a full-length grip strut walk rail on each side of the body. There shall be two additional grip strut steps above the walk rail at each rear corner. Grab handle shall be installed alongside the body steps. There shall be one step bolted inside of the dump body at the driver side rear corner. There shall be one fork and ring style shovel holder installed at the front of the body. Two pair of heavy-duty rubber mud flaps shall be provided, one pair behind the rear tires removable with hinged and pin brackets, and one pair frame mounted ahead of the rear tires secured by anti-sail brackets, and one pair ahead of tag axle.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Preparation and Paint:

After installation and add on of all welded accessories, the body shall be shot-blasted, washed and finished with baked on powder coat finish. The underside of dump body to be fully undercoated. Green Lake County Highway Commission reserves the right for a pre-paint inspection. Call prior to painting.

Hoist:

Trunnion mount inverted double acting front telescopic hoist. Minimum NTEA class 120 rating. Minimum of 6" hard chromed cylinder, 3 stage, and 153" stroke. Floating front cradle. Rear hinge assembly to incorporate greaseless composite Teflon bushings with removable stainless steel pins. Two body safety props, OSHA approved, mounted to provide 6' chassis frame to bottom of body clearance at front. Body up safety light in cab and OSHA approved electric back-up alarm. Hoist pull off valve to be incorporated into system to limit hoist dump angle.

Warranty:

5 year parts and labor on body and hoist. First three years 100%, last two years 50/50 parts and labor.

CENTRAL HYDRAULIC SYSTEM **Force America Hydraulics Package**

General:

The central hydraulic system shall be a front mount load-sense system. Must have a qualified technician available 24 hours a day and seven days a week during the winter months that can be at our location within 4 hours for emergency repairs. Bidder shall have stock of all hydraulic controls bid that would be available for same day pickup.

Pump:

Pump shall be a pressure compensated piston pump with minimum 6.1 cubic inch displacement. Pump shall be rated for minimum 2700 rpm and 3600 psi pressure. The pump shall be mounted between the front frame rails of the chassis on a fabricated steel bracket that is bolted to the chassis frame. There shall be a 1" ball valve at the outlet of the pump. A Spicer 1310 or equivalent driveline shall drive the pump.

Oil Reservoir:

The oil reservoir shall be a minimum 40 gallon capacity with internal baffles, and mounted above the frame and shall include a basket type filler breather cap, magnetic drain plug, 2" NPT suction port screen filter, and an external sight temperature gauge. This tank will be made from stainless steel. The reservoir shall be sloped to work in conjunction with front of the sloped front body. An in tank 10 microns return line filter with condition gauge shall be mounted in the reservoir. There shall be an in-line check valve in the return line to allow for filter servicing without oil leakage. There shall be a separate return line port for the pump control drain line.

Control Valve:

The hydraulic control valve shall be US manufactured, electrically activated load-sensing manifold style valve. The valve shall be mounted in a weatherproof stainless steel enclosure and shall be sloped to work in conjunction with front of the sloped front body. Valves required for operating hoist (40 gpm), double acting with body-up limit switch for body cylinder, plow raise, double acting plow angle, independent double acting toe and heel wing operation, sander sections, and liquid section.

Hoist/Plow/Wing Control:

The individual joysticks shall communicate through a Can Buss communications system both inside and outside the cab. Force America Ultra shall be the only accepted control.

Spreader Control:

Spreader control shall be a Can Buss communication system both inside and outside the cab closed loop ground speed orientated control system. Force America Ultra shall be the only accepted control. Chassis dealer to provide 6 pack of switches with wired run to back of cab.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Front Hoses and Fittings:

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. All quick couplers for plow and wing.

Rear Hoses and Fittings:

Hoses must be sized accordingly to provide optimum performance of all equipment, JIC and ORB fittings required. Spacing for all hydraulic fittings at rear of truck for salter, spinner and pre-wet system must have 3" spacing between each fitting and include dust caps and plugs for protection. Location of bulkhead fitting must be below hinge point and mounted in hitch plate.

Piping:

All hydraulic lines including the high pressure lines shall be stainless steel with stainless steel fittings on hard piping only.

List Exceptions:

88" inside width; Hardox 450 construction. Rear hinge is greaseable with steel pins, no bushings.

2 year body warranty, 2 year hoist

FRONT PLOW AND PLOW HITCH

Universal Truck Equipment CST-12-52L Reversible Plow

General:

All weld on moldboard and push frame to be 100% continuous welds.

Moldboard:

12' long x 55" high. Roll formed 10 gauge A569 steel. Integral shield. 4" x 4" x ¼" structural angle bottom angle. 2" x 3" x 3/8" structural angle top angle. Minimum of six ½" thick one piece tapered flame cut ribs. Horizontal moldboard angle iron braces. Adjustable to minimum of three different pitch settings. 18" rubber snow deflector with metal mounting strap bolted to top angle. 42" orange cable markers shall be installed at moldboard ends.

Cutting Edge:

¾" x 6" x 12' carbide with cover blade, wrap around curb guards.

Trip Mechanism:

Dual compression spring full moldboard trip with heavy duty ¼" diameter trip springs.

Reverse Table: 4" x 4" x 3/8" front cross tube support with 4 attaching points to moldboard. 3 ½" x 3 ½" x ½" one piece structural angle semi-circle. 4" ship and car channel A-frame. Two 3" x 10" double acting reverse cylinders with nitrided rods. Screw adjustable parking jack.

Hitch Attachment: Loop style.

Preparation and Paint:

The entire plow assembly shall be shot-blasted, washed and finished with baked on powder coat finish. Moldboard orange, push-frame black.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

List Exceptions:

Moldboard is 52" (with 6" cutting edge); 2-1/2" x 2-1/2" x 3/8" structural angel top angle; 8 flame cut ribs; 36" Cable markers; standard curb guards; 6 attaching points to moldboard; 4" x 10" double acting reversing cylinders.

FRONT PORTION PLOW HITCH Universal Truck Equipment PNL-EXT-FDLA Plow Hitch

General:

QCP pin style loop receiver hitch. Front plow must overlap wing moldboard to prevent wind row between plow and wing.

Construction:

Hitch shall be custom built to the truck and designed to transmit plowing forces directly to the chassis frame rails. The hitch side plates shall be a minimum of 1/2" thick steel. There shall be a 4" x 4" x 1/2" structural steel tube perimeter and top cross bar. There shall be 1" x 3" steel thrust arms attached to both the side plates and chassis frame at an angle to provide extra push reinforcement. The lower hinge pivot bolt shall be a minimum of 1.5" diameter hardened grade 8 bolt. Hitch assembly must be removable and include custom brackets to allow the OEM truck bumper to be mounted back on the truck for summer use. All tubes will be capped with 100% welded steel. Cushion valve to be mounted to chassis portion of the hitch.

Lift and Tilt Cylinder:

4" x 10" double acting lift cylinder with nitrided rod.

Paint: Black

List Exceptions:

3-1/2" x 10 double acting lift cylinder

FRONT MOUNT PATROL WING Universal Truck Equipment AHW/UTF 9' Wing

General:

Double function full trip design. All welds to be 100% continuous welds.

Moldboard:

29" toe to 39" heel tapered moldboard of 3/16" thick. 4" x 4" x 1/4" structural angle bottom angle reinforced with 3" x 3" x 1/2" gussets. 2 1/2" x 1" formed top angle. Minimum 6 vertical 1/2" thick one piece tapered ribs. Angle iron horizontal reinforcement between ribs. Orange marker at wing heel.

Cutting Edge:

3/4" x 6" x 9' carbide with cover blade, wrap around curb guards.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Push Arms:

Two heavy-duty adjustable spring cushioned push arms. 3" outer tube with 2 1/2" solid inner shaft. Adjustable length to maintain 90° angle to moldboard. Push arms to allow for full trip moldboard. Grip strut steps welded to wing push arms to allow for safe entry to the passenger door of cab.

Front Head Assembly:

Shall be a trailing arm design head assembly. Arms perpendicular to truck frame not acceptable. 36" florescent orange marker on head assembly. Chain attached to front of wing moldboard to prevent wing toe from going below grade.

Rear Wing Support:

Head of rear wing support to be removable for summer time use. There shall be a safety chain at the rear mount to secure the wing in the upright travel position. Heavy duty rear wing stop with rubber block shall be provided at the rear mount to make contact with the push arms.

Preparation and Paint:

Complete wing to be shot-blasted, washed and finished with baked on powder coat paint. Moldboard orange, all mounting hardware black.

List Exceptions:

8 vertical ribs; Standard curb guard on heel end only; Uni-tilt front head assembly.

TAILGATE SPREADER Swenson SBD-6S

General: Spreader brackets to be bolted to body

Trough Assembly:

Minimum 7 gauge 304 stainless steel with 1/4" endplates. Quick detach mounting brackets incorporated into endplates with mating portion welded to body corner posts. Full opening top and bottom clean out with hinged upper lid and hinged lower trough.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Auger:

6" diameter with one-way flighting. Auger to be direct driven by low speed high torque orbital motor. There shall be an 18" long anti flow plate cover over the auger at the discharge opening.

Spinner Assembly:

Mounted independent of the bottom trough of spreader. Easy one-man mount/dismount design. 18" diameter poly spinner disc directly driven by hydraulic motor. Spinner shield

Tailgate Shields:

Stainless steel spill shields of removable design shall be installed full height of the dump body tailgate. They shall be removable without the use of tools. The spill shields shall also serve as a tailgate hold open kit.

Liquid Pre-Wet System:

140 gallon tailgate mounted poly tank with stainless steel brackets. Tank shall have integral anti-slosh baffles and two 5" top openings. Bronze gear pump, 7 gpm at 50 psi, 12 volt PWM proportional flow divider, all within sealed NEMA fiberglass enclosure. Two 2 gpm spray nozzles mounted at spreader spinner with half-moon plate. Strainer and hoses for applying liquid. Shall include bulk fill kit with cam lock couplers. Shall include flush kit with ball valve and suction hose.

List Exceptions:

14" long anti-flow plate cover; Prewet tank is 150 gallon with 5" top opening. Power unit in SS enclosure

OTHER SPECIFICATIONS

Steerable Pusher Axle: Pusher axle control to be coordinated with the cab and chassis supplier so that the control switch is located in the plow control tower.

Toolbox:

Buyers brand, part number 1705101, 18" aluminum toolbox on left hand frame rail.

Tarp System:

Fully automatic electric tarp shall be installed on the body. Heavy-duty motor with three year warranty. Steel side arms. Asphalt treated tarp material. In cab switch.

Rear Hitch:

1" thick steel pull plate welded into rear of chassis frame; Premier Saf-Tite 100 pintle hook mounted 26" from ground to inside pintle hook; 3/4" safety chain D-rings; painted black. Electric brake control shall be provided with 7 prong RV plug. Plate not to interfere with paver and shouldering machine. Contact county for dimensions.

ID Numbers:

The body installer shall weld county designated identification numbers to the plow, wing, spreader and any other removable item that the county deems necessary.

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

Lighting:

All lights as described previously plus:

- JW Speaker 9800 Heated LED plow lights with directional signals mounted to chassis hood with custom three point stainless brackets, with heated hood mirrors
- Work light for spreader; Buyers 1492116 amber
- Work light for wing; Buyers 1492116 white
- Wing light mounted on heel of moldboard, Whelen RSA03ZCR
- Whelen LED model R1LPPA, cab shield mounted on self-level bracket
- Two mirror mounted Ecco LED 7945A strobes
- Wiring for cab shield mounted lights to be run through sturdy conduit
- Stop/turn/tail lights, amber strobe lights, and clear reverse lights to be recessed in the rear posts of the dump body All lights to be LED with diffused lenses
- One auxiliary work light wired into chassis reverse lights, Buyers 1492116 white
- All wiring to be soldered and heat shrunk and enclosed in sealed junction box at the trunion cross member
- All wiring connections to have Weather Pack connectors, with anti-corrosion protection
- Locations of all lights and wiring subject to county approval

Electrical Enclosure:

Sealed fiberglass enclosure incorporated into sloped valve enclosure assembly shall house all electrical solenoids, relays, circuit breakers along with lift axle valving.

Manuals:

Parts and service manuals including electrical schematics for all items shall be provided in bound book upon delivery of the completed units.

Training:

Equipment installer to provide operator and mechanic training on operation of all equipment upon delivery of completed units. Equipment installer to calibrate granular and liquid systems at time of delivery.

Warranty:

Minimum full two winter season parts and labor on all equipment. Body and hoist to carry five year warranty. Bidder must include warranty statements. Bidder will be responsible for pick-up and delivery back to Green Lake County Highway Department shop.

List Exceptions:

See provided warranty statements

MINIMUM SPECIFICATIONS FOR TRI-AXLE PLOW EQUIPMENT

DELIVERY:

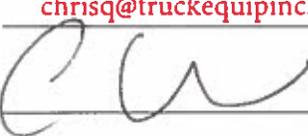
- First Tri-Axle Plow Equipment package on or before October 15, 2021
- Second Tri-Axle Plow Equipment package on or before January 15, 2022

PRICING

Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2021	\$ <u>109,050.00</u>
Base Tri-Axle Plow Equipment package price as per specifications including delivery in 2022	\$ <u>109,050.00</u>
Total Tri-Axle Plow Equipment package price including delivery for 2021 and 2022	\$ <u>218,100.00</u>

BIDDER SIGNATURE

By signing below you are certifying that you meet or exceed all stated requirements for Two Tri-Axle Plow Equipment:

Company Name: Truck Equipment Inc.
Address: 855 Glory Rd. Green Bay, WI 54304
Phone: (800) 242-7337
Fax: (920) 494-2130
Email: chrisq@truckequipinc.com
Signature: 
Printed Name: Christopher Quezada
Title: Equipment Inside Sales
Date: 9-30-2020

Matt Blank
Matt Blank
Equipment Sales outside
9-30-20



REQUEST FOR PURCHASE APPROVAL

Item To Be Purchased:

Digger Derrick Sign Truck with Attachments

Department: Highway

Account Number: 21-701-29-18500-000-000

Governing Committee: Highway

Governing Committee Approval Date:

P&I Approval Date:

Reason for Purchase:

Our current sign truck, 1996 GMC (unit 029) was purchased used in 2005, currently has 350,953 miles and has well reached the end of it's useful life, and parts are becoming obsolete.

On a 15 year average, this unit loses \$4,005 in revenue every year due to the repairs and maintenance in order to keep in operation.

Two out of three bids were received as follows:

\$268,757 Altec Industries ** Recommended

\$362,669 Terex Digger Dirricks



GREEN LAKE COUNTY HIGHWAY COMMISSION

Barry Mashuda
Highway Commissioner

Office: 920-294-4060

Fax: 920-294-4066

Email: bmashuda@co.green-lake.wi.us

SOLICITATION FOR PRICE QUOTES

The Green Lake County Highway Department located at 570 South Street, Green Lake, WI will on Monday October 12, 2020 at 9:00 am be receiving and opening quotes for the following:

One Digger Derrick Sign Truck with Attachments

- Quote openings begin at 9:00 am; quotes must be submitted by the specified opening time.
- Quotes must be submitted on the forms provided preferably with typed print.
- No facsimile or E-mail bids will be accepted
- Quotes must be marked "**Digger Derrick Sign Truck Bid 2020**" on the lower left corner of envelope.
- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance for this unit shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission

570 South Street
Green Lake, WI 54941
920-294-4060

bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Digger Derrick Sign Truck meets specifications and delivery as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda
Barry Mashuda

GREEN LAKE COUNTY HIGHWAY COMMISSION

The following are the minimum specifications for one (1) Digger Derrick Sign Truck, with bucket and attachments with rear body to be used in traffic sign repair and installations.

TRUCK CHASSIS

Wheel Base

- 170-185 Wheelbase (Per Body Builder Specs)

Frame Rail

- 1/2" Frame if available

Engine

- Cummins L9 350 HP @ 2000 RPM
- Block heater
- 3 step engine brake
- DAVCO fuel water separator with heater

Cooling System

- Heater hose shut-off valves
- Largest radiator available
- Extended life coolant set to -34°F
- Bug screen between grill and radiator

Transmission

- Allison 3000 HD with PTO provision
- Coolant lines fastened securely
- Transmission fluid should be synthetic

Front Springs

- 20,000 lbs. springs
- No aluminum hubs
- Oil bathed bearing and seals, synthetic lube used in hubs with Scott Seal Plus or STEMCO wheel seals

Front Axle

- 18,000 lbs. Axle

Front Brakes

- S cam type with 16.5" x 6" shoes
- Meritor slack adjusters
- Dust shields

GREEN LAKE COUNTY HIGHWAY COMMISSION

Rear Axle

- 40,000 lbs. Tandem Drive Axle with power divider and differential lock operated from cab
- Scott Seal Plus or STEMCO wheel seals

Rear Brakes

- S cam type with 16.5" x 7" shoes
- Haldex life seal rear brake chambers
- Meritor slack adjusters
- Dust shields on all wheels

Rear Suspension

- Min. 40,000 lbs. Rear Springs

Steering

- TRW THP-60 P/S Gear with auxiliary

Brake System

- Wabco ABS system
- Wabco 1200 Air dryer with heater (frame mounted)
- Air brake connections with glad-hands for trailer brakes at end of frame

Electrical System

- 12 volt 200 amp Alternator
- LED exterior lighting, with daytime running lights
- Battery tender low voltage disconnect
- Factory installed battery disconnect
- Battery jumper terminals

Cab

- 6-10 Gal DEF tank
- Trailer towing package with electric brake controller & RV socket in rear
- Air ride
- Cruise control (no idle shut down)
- HD HVAC system w/r134
- AM/FM Radio with Aux input
- Highest output heater and air conditioning available
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride)
- All windows to be tinted. Doors to have power windows
- Dual sun visors, intermittent wipers, washers
- Exterior grab handles on cab
- Dome light, map pockets
- West Coast style mirrors heated with heated convex mirrors
- GPS Distance Meter

GREEN LAKE COUNTY HIGHWAY COMMISSION

Cab Cont...

- Deluxe interior (darkest color available)
- Factory radio Am/FM with weather band, with auxiliary jack
- Tilt steering wheel, air horn
- Full instrument and gauges, volt gauge, no amp meter
- Rust proofed on all metal parts of cab
- Work station – laptop mount
- Safety equipment: fire extinguisher 5 lb., triangle kit

Tires

- Front 315/80R22.5
- Rear 11R22.5

Wheels

- Steel

Fuel Tank

- 50-80 gal Aluminum with Davco fuel/water Separator with heater

Parts and Repair Manuals

- To be received prior to delivery in print or digital

Warranty

- 3 years Basic Warranty
- Extended Warranty 5 years 100,000 mi. Cummins Eng.
- Extended Warranty 5 years 100,000 mi. after treatment
- Extended Warranty 2 years Allison Transmission
- Pick-up and delivery to be provided. Must be diagnosed 24 hours after being called

Boom Assembly

- Right rear corner mount
- 45' with auger
- Tip mounted winch

Controls

- Single control system at bottom of boom
- Wireless ground controls

Platform

- Fiberglass pin-on, 24 x 24 inches nominal, with interior/exterior platform access step, 300 pound capacity

GREEN LAKE COUNTY HIGHWAY COMMISSION

Hydraulic Tool Circuit

- Tool circuit with hose reel installed, below rotation (male pressure, female return couplers), installed on hose ends
- Hydraulic couplers on end of boom for pole saw operation

Sub Frame

- Frame built 4" high structural steel. 3" high x 3/16" thick rail installed on sides and rear of flatbed, notched for drainage

Digger Assembly

- Must have Digger hanger and auger stow bracket

Digger Drives

- 2 speed digger drive with min. 12,000ft-lb output

Auger

- 9" with carbide teeth

Auger Stow Line

- 7/8" diameter synthetic rope sling

Winch Line

- Over 75 ft. of 1", 12000# winch line to be installed

Swivel Hook

- 6 ton rated hook with safety latch to be installed

Boom Stow Rest

- Boom stow with ratchet type tie down

Hydraulic System

- Must have the capacity to operate all hydraulic components simultaneously
- Return line should have a filter mounted for easy accessibility for servicing
- Upper and lower cylinders should have holding valves

Hydraulic Pump

- Hydraulic pump should be married to Power take off unit on transmission
- Power take off is only to operated when vehicle is in neutral

Hydraulic Tank

- Unit shall have a 50 gallon Tank with shut-off valves installed at the output and return lines at the tank

GREEN LAKE COUNTY HIGHWAY COMMISSION

Bearings and Bushings

- Fully sealed and non-lube bearings to be used throughout the aerial unit

Rotation

- Boom shall rotate 360 degrees unrestricted in both directions
- Rotation bearing shall have easy access grease fittings
- A manual drive should be installed in case of hydraulic system break down
- Custom load capacity chart

Paint Color

- Green Lake County inspection required prior to painting
- White boom and chassis
- Yellow body and flatbed

Manuals, Repair and Service

- All manuals shall be provided
 1. Operators – 2 copies
 2. Service and repair – print or digital
 3. Parts – print or digital

Floor

- 1/8" thread plate. Painted with black non-skid Rubberized paint

Primer

- Epoxy type primer

Undercoating

- Underbody shall be completely sprayed with rubberized undercoating

Lighting

- All lighting shall be LED
- Two (2) Flashing warning lights shall be in front of truck grill and four (4) in the rear near tail lamps
- Four (4) flashing LED warning mini light bars, Two (2) mounted on top front corners and Two (2) mounted on top in rear
-

ALUMINUM SIGN BOXES

1ST Compartment

- 46"T x 18"W x 40"D
- Vertical single door
- Adjustable shelf with slotted storage for 36" tall signs

GREEN LAKE COUNTY HIGHWAY COMMISSION

2ND Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

3RD Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

4TH Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

5TH Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

Transverse Sign Box

- 50"H x 8"W x 96"L Aluminum sign box open at each end with flip latch
- Slotted storage for 48" tall signs to be mounted between cab and outriggers on frame

Sign Storage

- 46"H x 24"W x 28"D Aluminum sign box with vertical single door
- One (1) shelf with slotted storage for 24" x 24" signs on top and slotted storage for 15" x 20" signs on bottom
- Box to be mounted curbside behind rear outrigger

ACCESSORIES

Underbody Box

Box 1

- 15" H x 48" L x 24" D Aluminum underbody box mounted behind the street side rear outrigger under the flatbed

Box 2

- 15"H X 48"L x 24"D Aluminum underbody box mounted behind the Curbside rear outrigger under the flatbed with a 18 drawer parts cabinet mounted in box

GREEN LAKE COUNTY HIGHWAY COMMISSION

Box 3

- 15"H x 48"L x 24"D Aluminum underbody box mounted behind the Curbside front outrigger under the flatbed

Pullout Drawer Unit

- Storage unit with Three (3) pullout drawers with removable dividers, mounted above, on Box 3, with hose and cord reels

Rear Bumper

- ICC type bumper with no-slip on steps, also with accessible grab handles to provide 3 points of contact when getting up into rear of bed

Tow Package

- 20,000lbs combination 2" ball pintle hook mounted, D rings for safety chains, 7-RV trailer socket. Green Lake County will provide pintle hook height

Brake Control

- Electric trailer brake control shall be provided

Backup Alarm

LED Work Lights

- Four (4) LED pole type work lights mounted in each corner of bed

Wheel Chocks and Holders

- Holder mounted under flatbed

Ladder Rack

- Aluminum ladder rack installed on top of street side sign boxes

Mud Flaps

- In front and rear of drive tires

Hydraulic Hose Reel

50' Dual hose reel mounted curbside compartment behind front outrigger

CORD REEL

- 50 ft. cord reel mounted in curbside compartment behind front outrigger

Underbody

- Underbody storage mounted in rear outside frame rails

Pole Carry Tray

- Pole carry tray should be 24"W x 190"L (approximate), to hold at least Fourteen (14) 4" x 6" x 16' posts

GREEN LAKE COUNTY HIGHWAY COMMISSION

Mechanics Vice

- Green Lake County will advise mounting

Inverter

- 3000 Watt inverter installed on bottom of street side in first sign box

GFI Outlet

- Two (2) 110V GFI outlets to be installed in rear and One (1) 110V GFI outlet to be installed in cab

Warranty

- 3 year parts and labor
- 3 years annual inspection to be provided at no cost
- Pick-up and delivery or onsite repairs provided within 24 hours of breakdown

NOTE: Finished unit cannot be taller than 12 feet high to highest point

BIDDER PRICING AND SIGNATURE

By signing below you are certifying that you meet or exceed all stated requirements for One (1) Digger Sign Truck with attachments

Anticipated Delivery Date 3/25/2022 for

One (1) Digger Derrick Sign Truck with attachments for \$ 268,757.00
payable upon satisfaction of final inspection by Green Lake County

Company Name: Altec Industries

Address: 5201 West 84th Street, Indianapolis Indiana, 46268

Phone: (317)-802-3852

Fax: (317)-872-2531

Email: Andrew.Soder@altec.com

Signature: 

Printed Name: Andrew Soder

Title: Technical Sales Rep

Date: 10/8/2020



October 8, 2020
Our 91st Year

Ship To:
GREEN LAKE COUNTY (WI)
HIGHWAY DEPT
570 SOUTH ST
GREEN LAKE, WI 54941-0000
US

Bill To:
GREEN LAKE COUNTY (WI)
PO BOX 159
GREEN LAKE, WI 54941
United States

Attn:
Phone:
Email:

Altec Quotation Number: 724909 - 1
Account Manager: Adam D Cox
Technical Sales Rep: Andrew Wayne Soder

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
	<u>Unit</u>		
1.	ALTEC Model DL45B; 45 foot Digger Derrick with hydraulic extending full capacity intermediate and upper booms. Built in accordance with standard specifications and to include the following features:	1	
	<ul style="list-style-type: none"> A. Pole Setting Sheave Height: 44.3 feet B. Maximum Horizontal Reach from centerline of rotation: 34.6 feet C. Digging Radius from centerline of rotation: Minimum 15.7 feet, Maximum 24.5 feet D. Lift Capacity at 10 Ft. Radius: 9,850 lbs. (Without optional equipment installed). See complete load chart for capacities with installed options. E. Boom Articulation: -18 to 84 degrees F. Continuous Rotation with high capacity worm gear drive gearbox G. Insulated, 46 KV and below H. Hydraulic Overload Protection (HOP) System: activates when the unit is exposed to an overload condition. System prevents actuation of all functions that could increase the overload condition. System automatically resets when overload condition is relieved. Overload protected functions include: <ul style="list-style-type: none"> - Boom Lower - Intermediate Boom Extend - Third Stage Boom Extend - Winch Raise - Digger Dig I. Load Indicator Gauge: located at the main control panel, displays the percentage of total allowable lifting capacity being utilized. By use of this gauge, the operator is aware of the hydraulic and structural design rating of the derrick and proximity to the limits during operation. J. Electronic Controls: Intuitive electronic controls with superior metering. Includes a diagnostic port which by connecting a handheld service tool, provides troubleshooting code readouts and the ability to calibrate function speeds and control sensitivity. Electric controls eliminate the risk of high pressure hose leaks near the operator and leak points are minimized throughout the machine. K. Manual override of electronically controlled boom, winch, and digger functions at 		

We Wish To Thank You For Giving Us The Pleasure
And Opportunity of Serving You

UTILITY EQUIPMENT AND BODIES SINCE 1929

Item	Description	Qty	Price
	the main control valve		
L.	Standard/Low Speed Selector: Allows operator to select standard or low function speed operation. When in standard mode, each function operates at normal speeds. When in low speed, the maximum operational speed of each function is slower providing finer feathering capability. The function is separate from engine throttle control.		
M.	Remote Control Retrofitable: Control system includes single quick connect plug for quick and easy installation of radio remote control system in the field upon request (if not already equipped).		
N.	Proportional Hydraulic Control System: Closed Center Hydraulic control valve for boom, winch, and digger functions are operated and controlled by a proportional pilot system which provides full metering and feathering characteristics.		
O.	Hydraulic System: Closed Center hydraulic system with maximum flow of 43 gpm for simultaneous operation of multiple functions. Flow is provided by a variable displacement, pressure compensated, piston pump. This 'flow on demand' system optimizes the overall system efficiency. System is designed with compensators in each valve section for smooth transitions between functions. Maximum system pressure is 3000 psi. Because flow is provided by a single source (piston pump), maximum flow is available to any combination of functions including simultaneous operation of the boom and digger/winch functions and flow combining is not necessary.		
P.	Fiberglass hydraulic upper boom and boom tip with provision for platform attachment.		
Q.	Transferable Hydraulic Pole Guides and Steel Boom Flares at the boom tip with adjustable alignment guides. Pole guides are hydraulically powered for open, close, and tilt.		
R.	Pole Guide Tilt Interlock: Prevents the upper boom from extending when the transferable guides are attached to the intermediate boom until the proximity sensors detect that the guides are tilted all the way up and out of the way.		
S.	Bearings: All extending booms utilize self lubricating, low friction, slide bearings.		
T.	Boom Stow Protection System: A proximity switch on main boom detects the boom support as the boom is being stored and limits the boom down function to avoid excessive down force into the stow.		
U.	Auger Stow Protection: Limits the upward travel of the auger as it reaches the top of the auger stow latch to prevent an overstow condition.		
V.	Two-part load line attachment point on the intermediate boom		
W.	Unit is painted with a powder coat paint process which provides a finish-painted surface that is highly resistant to chipping, scratching, abrasion and corrosion.		
X.	Structural Warranty: all of the following applicable major components is to be warranted for so long as the initial purchaser owns the product: Booms, boom articulation links, hydraulic cylinder structures, outrigger weldments, pedestals, subbases and turntables.		
Y.	Manuals: Two (2) operator and Maintenance/Parts manuals		
2.	Corner Mount Pedestal, includes primary outriggers A-frame on the streetside and Walking Beam Outrigger on the curbside with fixed shoes:	1	
A.	Maximum Spread: 145.2 inches to outer edge or shoes		
B.	Penetration at maximum extension: 4.2 inches (assumes standard installation on a 40 inch frame height)		
C.	Standard Shoe Dimensions: 12 x 12 inches		
D.	Hydraulic Outrigger Control Valves		
E.	Outrigger/Unit Selector Control: Reduces the potential for inadvertent outrigger movement during machine operation if outrigger controls are bumped.		

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
	F. Outrigger motion alarms		
	G. Outrigger Interlocks: will not allow the unit to be operated until the outriggers have been at least partially deployed.		
3.	Toggle Throttle System - single, three position switch in control panel, high, medium, or low throttle. Not available with Altec Opti-View Control Seat	1	
4.	Four-Lever Upper Controls and Tool Circuit, transferable, including power package. Controls include:	1	
	A. four (4) individual levers, for lift, rotation, sequential extension and winch functions		
	B. one-knob for on/off (blocking valve), including automatic two-speed throttle		
	C. one knob for on/off of upper tool circuit and engine start/stop		
5.	39 - Radio Remote Controls, lower controls, with audible HOP indicator. Note: Radio Remote Controls can be a stand alone system or can be used in conjunction with other control systems. Remote Control can also be used as an upper control station with a docking station at the operator platform.	1	
6.	Radio Remote Control Layout: COUNTER-CLOCKWISE, push lever to Right rotates boom Counter-Clockwise	1	
7.	Boom Tip Mounted Winch	1	
8.	Winch: Normal Speed with 15,000 lbs. bare drum capacity.	1	
9.	Digger, Two-Speed Mechanical Shift, 12,000 ft-lbs. Includes a rapid reversing shake feature for quick and convenient cleaning of dirt from the auger and all of the components necessary to operate digger, installed.	1	
10.	2.50 in Hex Output Shaft With 2.50 in Hex Extension Shaft	1	
11.	Digger Storage: located on the Street Side (Normal) with Nylon auger wind up strap (NOTE: for behind the cab mount derricks, the digger will be located on the curbside)	1	
12.	Derrick is Rated for Platform Use: Unit is designed and tested for combined use as a digger derrick and personnel handler per ANSI standards.	1	
13.	Corner Mount or Rear Mount - Single Station "T" Stand, includes 12 feet of cable	1	
14.	No Derrick Tong Protectors	1	
15.	Standard Hydraulic Side Load Protection: relieves overload conditions by allowing rotation system to back drive.	1	
16.	Manual Hydraulic Outrigger Controls	1	
17.	41 - Outriggers, A-frame, fixed shoe, 149 maximum spread, for use as auxiliary outriggers only, includes:	1	
	A. Maximum Spread: 149 inches to outer edge or shoes		
	B. Penetration at maximum extension: 6.75 inches (for standard installation on a 40 inch frame height)		
	C. Standard Shoe Dimensions: 12 x 12 inches		

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
D.	Hydraulic Outrigger Control Valves		
E.	Outrigger/Unit Selector Control: Reduces the potential for inadvertent outrigger movement during machine operation if outrigger controls are bumped.		
F.	Outrigger Interlocks: Will not allow the unit to be operated until the outriggers have been at least partially deployed.		
18.	Powder coat unit Altec White.	1	
<u>Unit & Hydraulic Acc.</u>			
19.	Scuff Pad 24 x 24 With Step For Use With Platform Liner (U&H Acc)	1	
20.	Single, One-Man, Platform, Pin-On, Fiberglass 24x24x39.5 Inches	1	
21.	Platform Liner, Derricks, 24 x 24, 50 kV Rating	1	
22.	Platform Cover, 24 x 24, Soft Vinyl	1	
23.	Carbide Teeth Auger 9 Inch DIA With 2-1/2 In Hex X 104 Inch L (Painted Black)	1	
24.	Winch Rope For Boomtip Winch 80 Ft Long x 0.88 Inch Dia	1	
25.	Load Line Swivel Hook 8-1/2 In Ton (Crosby)	1	
26.	DL/DM DC Series Derrick Subbase (Rigid)	1	
27.	Insert Subbase Stop At 10 Ft	1	
28.	Insert Subbase Side Tube Storage Stop for Both Tubes At 10 Ft	1	
29.	Subbase Storage With Drop Down Door (Paddle Latch) At Rear 7 Inch High	1	
30.	Reservoir, 50 Gallon, 48L X 24H X 10W (Derricks), Sight/Temperature Gauge without Oil Heater	1	
31.	HVI-22 Hydraulic Oil (Standard)	1	
32.	Standard Pump For PTO	1	
33.	Hot Shift PTO (for Automatic Transmission)	1	
34.	Muncie PTO	1	
35.	Standard Altec PTO/Transmission Functionality For Automatic Transmissions	1	
36.	Standard Altec PTO/Machine Functionality	1	
37.	Altec recommends any connection made to the tool circuit be done with Non-Conductive hose. If ordering a Hose reel, Altec recommends ordering a hose reel with Non-Conductive hose. The lower tool circuit hoses may be, or become, conductive. Death or serious injury could occur if the unit becomes energized while lower tool circuit is in use.	1	
38.	Hydraulic Hose Reel, Spring Loaded, Hannay N616 Series, 50 Ft Hose Capacity (Standard) (Cannot Be Mounted Horizontally) In CS compartment	1	

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
39.	Install Tool Circuit For Hose Reel Below Rotation (Male Pressure, Female Return)	1	
40.	50 Ft Conductive Hose Kit, Black, Includes Quick Disconnects And Dust Caps (Male Pressure, Female Return)	1	
41.	Temperature Sight Gauge (FA Supplied)	1	
42.	Outrigger, A-Frame and Walking Beam, for Corner Mount, 145 Inch Spread	1	
<u>Body</u>			
43.	Altec Body	1	
44.	Aluminum Body	1	
45.	Body Is To Be Built In Accordance With The Following Altec Standard Specifications:	1	
	A. Basic Body Fabricated From 3003 Grade Mill finish Aluminum.		
	B. All Doors Are Full, Double Paneled, Self-Sealed With Built-In Drainage For Maximum Weather-Tightness. Aluminum Hinge Rods Extend Full Length Of Door.		
	C. Welded Aluminum Frame Construction With Structural Channel Crossmembers.		
	D. Integrated Door Header Drip Rail At Top For Maximum Weather Protection.		
	E. Fender Panels Are Either Roll Formed Or Have Neoprene Fenderettes Mechanically Fastened.		
	F. Aluminum Treated For Improved Primer Bond And Corrosion Resistance.		
	G. Automotive Type Non-Porous Door Seals Fastened To The Door Facing.		
46.	Treadplate Aluminum Floor	1	
47.	Platform Line Body	1	
48.	Finish Paint Body Custom Color (Provide Color And Code) Yellow	1	
49.	Undercoat Body	1	
50.	Approximate Body Length (Engineering to Determine Final Length) 130"	1	
51.	96" Body Width	1	
52.	46" Body Compartment Height	1	
53.	Custom Body Compartment Depth 34"	1	
54.	Stainless Steel Rotary Paddle Latches With Keyed Locks	5	
55.	All Locks Keyed Alike Including Accessories (Preferred Option)	1	
56.	No Master Body Locking System Required	1	
57.	Gas Prop Rigid Door Holders On All Vertical Doors	1	
58.	No Hotstick Shelf Required	1	
59.	No Hotstick Door Required	1	
60.	1st Vertical (SS) - Custom Shelf Option Adjustable shelf	1	

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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
	-To have plastic sign separating slots on top of adjustable shelf -corresponding slots to be in top of compartment		
61.	1st Vertical (SS) - Louvered Panel On Rear Wall To Ventilate Compartment	1	
62.	1st Vertical (SS) - Custom Miscellaneous Body Option Dimensions are 46"T x 18"W x 40"D	1	
63.	1st Vertical (SS) - Inverter Storage Inside Of Body Compartment With Guard And Provisions For Remote GFCI Receptacle (Mounted On Top Shelf Unless Otherwise Specified) Bottom of compartment	1	
64.	2nd Vertical (SS) - Custom Shelf Option Adjustable shelf -To have plastic sign separating slots on top of adjustable shelf -corresponding slots to be in top of compartment	1	
65.	2nd Vertical (SS) - Custom Miscellaneous Body Option Dimensions 46"T x 24"W x 34"D	1	
66.	3rd Vertical (SS) - Custom Shelf Option Adjustable shelf -To have plastic sign separating slots on top of adjustable shelf -corresponding slots to be in top of compartment	1	
67.	3rd Vertical (SS) - Custom Miscellaneous Body Option Dimensions 46"T x 24"W x 34"D	1	
68.	4th Vertical (SS) - Custom Shelf Option Adjustable shelf -To have plastic sign separating slots on top of adjustable shelf -corresponding slots to be in top of compartment	1	
69.	4th Vertical (SS) - Custom Miscellaneous Body Option Dimensions 46"T x 24"W x 34"D	1	
70.	Rear Vertical (SS) - Custom Shelf Option Adjustable shelf -To have plastic sign separating slots on top of adjustable shelf -corresponding slots to be in top of compartment	1	
71.	Rear Vertical (SS) - Custom Miscellaneous Body Option Dimensions 46"T x 24"W x 34"D	1	
72.	45" L Aluminum Tailshelf, Width To Match Flatbed	1	
73.	Custom Aluminum Material Retainer On Tailshelf 6" removable composite board -On SS and rear of tailshelf -rear matched up to CS rear sign box	1	
74.	Treadplate Aluminum Tailshelf Floor	1	
75.	92" Sloped Alum Ladder Rack, Roller At Rear, Retaining Brckts, Strap. 21" Clear Int Width. Typ Mounted Flush At Rear, Overhung Toward Cargo Area (For 16ft Extension Alum Ladder) On top of SS sidepacks	1	
76.	Aluminum Horizontal Storage Box Transverse Sign storage -Mounted between front of body and front outriggers -50"H x 8"W x 96"D -Open on both ends with bar for retention that rotates out of the way -To be even in height with the SS compartment tops, mounted on risers if necessary -Slotted storage for 48"T signs -Storage slots to be made of plastic material to reduce wear	1	

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UTILITY EQUIPMENT AND BODIES SINCE 1929

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
77.	Aluminum Horizontal Storage Box Sign storage #2 -46H x 24"W x 28"D -Installed on CS tailshelf -1 Door, hinged on side toward front of truck -1 adjustable slotted shelf to allow 24x24 signs on top, and 15"x20" signs on bottom	1	
78.	Aluminum Horizontal Storage Box Horizontal storage box, with barn doors -48"W x 36"D x 46"T -Aft portion of compartment will contain hydraulic hose reel and electric cord reel -forward part of compartment will contain 3 pullout drawers with egg crate dividers	1	
79.	Aluminum Underbody Storage Box, One (1) Drop-Down Door, Chain Door Holders, Keyed Latch 15"T x 48"L x 24"D -Behind SS rear outrigger	1	
80.	Aluminum Underbody Storage Box Aluminum Underbody Storage Box, One (1) Drop-Down Door, Chain Door Holders, Keyed Latch -15"T x 48"W x 24"D -Mounted behind CS rear outrigger -to have 18 drawer parts cabinet mounted in box, drawers in 6x3 configuration	1	
81.	Aluminum Underbody Storage Box Aluminum Underbody Storage Box, One (1) Drop-Down Door, Chain Door Holders, Keyed Latch -15"T x 48"L x 24"D -Mounted CS at front of platform body	1	
82.	Aluminum Designator	1	
<u>Body and Chassis Accessories</u>			
83.	ICC (Underride Protection) Bumper with Gripstrut Steps, Installed on Curbside and Streetside	1	
84.	Storage Compartment Between Chassis Frame Rails from Rear of Frame to Rear Most Chassis Crossmember, Punched Metal or Equivalent with Drop Down Door and Keyed Latch	1	
85.	Combination 2 Ball (10 000 LB MGTW) and Rigid Pintle Hitch (16 000 LB MGTW with 3 000 LB MVL), 4-Bolt, Altec Preferred	1	
86.	Set of Safety Chain D-Rings	1	
87.	Eyebolt for Trailer Breakaway Cable, 3/8 Inch	1	
88.	Install Interim (Toe) Step(s) at Rear As Needed	1	
89.	Boom Rest for Reservoir Mounted Over Front Outrigger	1	
90.	Lower Boom Rest	1	
91.	Mounting Brackets for Lights, Located on Lower Boom Rest	1	
92.	Ratchet Strap for Boom Tie-Down	1	
93.	Wood Outrigger Pad 24 x 24 x 2.5 with Rope Handle	4	

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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
94.	Outrigger Pad Holder, 25 L x 25 W x 5 H Fits 24.5 x 24.5 x 4 and Smaller Pads Bolt-On Bottom, Washout Holes with 3/4 Inch Lip Retainer, Steel Altecs recommended location	4	
95.	Pendulum Retainers for Outrigger Pad Holders	1	
96.	Mud Flaps with Altec Logo (Pair) With Chock holders	2	
97.	Anti-Sail Mud Flap Brackets (Pair)	1	
98.	Wheel Chocks Rubber with Metal Hairpin Handle 9.75 L x 7.75 W x 5 H (Pair) (Altec Preferred)	1	
99.	Small Grab Handle Installed at Rear	2	
100.	U-Shaped Grab Handle	2	
101.	Slope Indicator Assembly for Machine with Outrigger	1	
102.	Laptop Mount Option 1 Ram laptop mount	1	
103.	5 LB Fire Extinguisher with Light Duty Bracket Installed Per DEPS 042 (In Cab Or Inside Compartment Only) (Amerex #B402T) In cab	1	
104.	Triangular Reflector Kit (Contains 3 Reflectors) Installed Per DEPS 042	1	
105.	Outrigger Control Guards, Underhung Tailshelf Mount (Altec Preferred)	1	
106.	Vise, Utility, 6.5 Jaw with 5.5 Opening Pipe Jaws with Replaceable Jaws and Swivel Base (Wilton #11128) Altec recommended location	1	
107.	Manual Pouch Vinyl	1	
108.	Send Out for Spring Build Up	1	
109.	Additional Body/Chassis Accessory Sign post carry tray -Approx 24"W x 190"L x 30"t -To hold at minium 14 posts that measure 4"x6"x16' -Incargo area, next to SS compartments	1	
<u>Electrical Accessories</u>			
110.	Compartment Lights Wired To Dash Mounted Master Switch	1	
111.	Lights And Reflectors In Accordance With FMVSS 108 (Complete LED)	1	
112.	Corner Strobe Systems Option Ecco 3510A System -2 surface mounted in grille -2 SS light channel in rear, either side of reverse/brake lights -2 CS light channel in rear, either side of reverse/brake lights	1	
113.	Strobe Lights Wired Battery Hot	1	
114.	Strobe Lights Wiring Option Mini Light bar -2 mounted at front top corners of body, 1 each side -2 mounted rear, at highest points, 1 each side	1	

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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
115.	Spot Light, LED, With Chrome Housing, 6 Inch DIA, Permanent Mount (Unity #AG-R-8547) 1 each corner of bed	4	
116.	Auxiliary Lighting Wired Ignition Hot	1	
117.	Dual Tone Backup Alarm With Outrigger Motion Alarm	1	
118.	PTO Hour Meter, Digital, With 10 000 Hour Display	1	
119.	Trailer Receptacle, 7-Way (Pin Type) Installed At Rear	1	
120.	Trailer Brake Controller, Electric (Tekonsha Voyager #9030)	1	
121.	Altec Modular Panel System (AMPS) - Includes Mounting Panel And Accessory Switches	1	
122.	Inverter, 3000 Watt, Pure Sine Wave, 120 VAC (Sensata #12/3000N) Bottom of SS1V	1	
123.	Inverter Wired Ignition Hot (No Dash Mounted Switch)	1	
124.	Electrical Receptacle, 120 Volt, GFCI, Includes Weather-Resistant Enclosure Two mounted in cargo area. -1 mounted in cab	3	
125.	Electrical Cord Reel, Retractable, Includes 50 Ft Of 12-3 Cord, Ball Stop, And Receptacle Mounted in CS1V -next to hydraulic hose reel	1	
126.	Pre-Wire Power Distribution Module (Includes Operators Manual)	1	
127.	Install Outrigger Interlock System In Final Assembly	1	
128.	Additional Electrical Accessory Garmin GPS -installed on windshield -ref P/N 990199215	1	
129.	Additional Electrical Accessory Battery tender installed to charge chassis batteries	1	
<u>Finishing Details</u>			
130.	Front and Rear Frame Mounted Components and Under Body Mounted Components Will Be Painted Black DEPS 005 DEPS 095 (Includes Non OEM Front Bumpers and Cabguards)	1	
131.	Powder Coat Unit Altec White	1	
132.	Finish Paint Body Accessories Above Body Floor Altec White	1	
133.	Apply Non-Skid Coating (Black) to All Walking Surfaces DEPS 057	1	
134.	Safety and Instructional Decals English	1	
135.	Vehicle Height Placard Installed In Cab DEPS 002	1	
136.	HVI-22 Hydraulic Oil Placard	1	

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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
137.	Dielectric Test Unit According to ANSI Requirements	1	
138.	Stability Test Unit According to ANSI Requirements	1	
139.	As Built Electrical and Hydraulic Schematics to be Included In the Manual Pouch (Deps 024)	2	
140.	Manual Extra	1	
141.	Regional Build	1	
142.	Delivery Of Completed Unit	1	
143.	Inbound Freight	1	
144.	Customer Requested Maximum Travel Height (DOT Restrictions Still Apply) 12'	1	
145.	Additional Finishing Detail Rust proof chassis and understructure of body	1	
<u>Chassis</u>			
146.	Altec Supplied Chassis	1	
147.	Chassis	1	
148.	2022 Model Year	1	
149.	Freightliner M2-106	1	
150.	6x4 Tandem Axle	1	
151.	130 Clear CA (Round To Next Whole Number)	1	
152.	Regular Cab	1	
153.	Chassis Cab	1	
154.	Dual Rear Wheel	1	
155.	Chassis Color - White	1	
156.	Cummins L9	1	
157.	Diesel	1	
158.	350 HP Engine Rating	1	
159.	Allison 3000 RDS Automatic Transmission (Left and Right Side PTO Openings Only)	1	
160.	GVWR 58,000 LBS	1	
161.	18,000 LBS Front GAWR	1	
162.	Spring Suspension	1	

<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
163.	40,000 LBS Rear GAWR	1	
164.	315/80R22.5 Front Tire	1	
165.	11R22.5 Rear Tire	1	
166.	Air Brakes	1	
167.	Park Brake In Rear Wheels	1	
168.	016-101 - Freightliner Exhaust (Right-Horizontal-Back of Cab - Horizontal)	1	
169.	Freightliner - Clear Area Around Allison PTO Openings (362-824) and (363-011)	1	
170.	Freightliner - Electric Brake Controller Wiring With Combined Stop/Turn Signal Heavy Duty Tail Light Wiring At EOF (296-027)	1	
171.	Freightliner - Radiator (1100 Square Inch) for ISL/L9 or DD8.2 (DS) (266-013)	1	
172.	Freightliner - Rear Cab Crossmember Flush With Back Of Cab (561-010)	1	
173.	Freightliner PTO Throttle Wiring for Automatic Transmission with Pre-Wire (163-001), (148-074), (87L-003)	1	
174.	Freightliner Transmission Dipstick Tube Enters Curbside of Transmission (346-013)	1	
175.	Freightliner/Allison Body Builder Connection with Pre-Wire (34C-002)	1	
176.	Freightliner - Pre-Wire Chassis with Cab Backwall Pass-Thru (33U-001)	1	
177.	No Idle Engine Shut-Down Required	1	
178.	50-State Emissions	1	
179.	Clean Idle Certification	1	
180.	204-215 Freightliner 50 Gallon Fuel Tank (Left Hand Under Cab)	1	
181.	23U-001, 43X-002 Freightliner 6 Gallon DEF Tank (Under Cab Left Hand)	1	
182.	Chassis Without Front Frame Extensions	1	
183.	120,000 Yield Strength (PSI)	1	
184.	2 Chassis Batteries	1	
185.	1800 CCA Minimum (Preferred With Two Batteries)	1	
186.	Battery Under Cab Left Hand	1	
187.	Air Horn Under Cab	1	
188.	AM/FM Radio	1	
189.	Bluetooth	1	
190.	Weather Band	1	

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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
191.	12V DC Power Outlet	1	
192.	Cruise Control	1	
193.	Power Door Locks	1	
194.	Power Windows	1	
195.	Tachometer	1	
196.	Tilt Steering Wheel	1	
197.	Tinted Windshield	1	
198.	Dual Alternator (220 amp Minimum)	1	
199.	Block Heater	1	
200.	Driver Controlled Locking Differential	1	
201.	Interaxle Differential Lock (Power Divider Lock)	1	
202.	Towing Package	1	
203.	Trailer Air Brake Package	1	
204.	Air Ride Drivers Seat With arm rests	1	
205.	Air Ride Passenger Seat with arm rests	1	
206.	Additional Chassis Option Air ride cab	1	
207.	Additional Chassis Option Exterior grab handles on cab	1	
208.	Additional Chassis Option Bug screen for radiator	1	
209.	Additional Chassis Option LED headlamps with daytime running	1	
210.	Additional Chassis Option Jump studs	1	
211.	Additional Chassis Option .	1	
212.	Additional Chassis Option Battery disconnect in cab	1	
213.	Additional Chassis Option Heated west coast style mirrors	1	
214.	Additional Chassis Option Darkest interior possible	1	
215.	Additional Chassis Option Map pockets	1	

Additional Pricing

216.	Standard Altec Warranty: One (1) year parts warranty, one (1) year labor warranty, ninety (90) days warranty for travel charges, limited lifetime structural warranty	1	
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<u>Item</u>	<u>Description</u>	<u>Qty</u>	<u>Price</u>
217.	Federal Excise Tax Item: If provided, Quote subtotal is an Estimate only. Final determined at invoicing.	1	
<u>Miscellaneous</u>			
218.	Ext Warranty Labor, Mat., Expense (NO Travel) (Day 366-1095) Derrick DL, DM, DR, LS63	1	
219.	Ext Warr, Chassis, 3 Years/100k Miles, Freightliner (M2-106)	1	
220.	Ext Warr, Chassis Engine Service Contract with Aftertreatment, 60 Months/100k Miles, L9 Engine. International Navistar	1	
221.	Ext Warr, Transmission, 5 Years/Unlimited Miles, Allison, International Navistar	1	
222.	Pre-paid Maintenance; Annual Only PM; 3 Year Contract; Small and Backyard Derricks	1	

Unit / Body / Chassis Total	268,757.00
FET Total	0.00
Total	268,757.00

Altec Industries, Inc.

BY _____

Andrew Wayne Soder

Notes:

1 Altec takes pride in offering solutions that provide a safer work environment for our customers. In an effort to focus on safety, we would encourage you to consider the following items:

- Outrigger pads (When Applicable)
- Fall Protection System
- Fire extinguisher/DOT kit
- Platform Liner (When Applicable)
- Altec Sentry Training
- Wheel Chocks

The aforementioned equipment can be offered in our new equipment quotations. If you find that any of these items have not been listed as priced options with an item number in the body of your quotation and are required by your company, we would encourage you to contact your Altec Account Manager and have an updated quote version sent to you. These options must be listed with an item number in the quotation for them to be supplied by Altec.

2 The final fully loaded weight of the truck and structural ratings of the hitch assembly may reduce the towing capacity and the vertical load capacity of the finished truck. These capacities may not match the ratings of the chassis or hitch.

3 Altec Standard Warranty:

One (1) year parts warranty.

One (1) year labor warranty.

Ninety (90) days warranty for travel charges.

Warranty on structural integrity of the following major components is to be warranted for so long as the initial purchaser owns the product: Booms, boom articulation links, hydraulic cylinder structures, outrigger weldments, pedestals, subbases and turntables.

Altec is to supply a self-directed, computer based training (CBT) program. This program will provide basic instruction in the safe operation of this aerial device. This program will also include and explain ANSI and OSHA requirements related to the proper use and operation of this unit.

Altec offers its standard limited warranty with the Altec supplied components which make up the Altec Unit and its installation, but expressly disclaims any and all warranties, liabilities, and responsibilities, including any implied warranties of fitness for a particular purpose and merchantability, for any customer supplied parts

Altec designs and manufactures to applicable Federal Motor Vehicle Safety and DOT standards

4 F.O.B. - #FOB_TERMS#

5 Altec Extended Warranty Option:

An Altec Extended Warranty is an extension of Altec's Limited Warranty and protects you from the repair cost associated with defects of materials and workmanship after the standard Limited Warranty expires.

Altec offers many types of coverages and coverage packages. Ask your Altec account manager for details. Quotes are available upon request.

6 Unless otherwise noted, all measurements used in this quote are based on a 40 inch (1016mm) chassis frame height and standard cab height for standard configurations.

7 Changes made to this order may affect whether or not this vehicle is subject to F.E.T. A review will be made at the time of invoicing and any applicable F.E.T. will be added to the invoice amount.

8 Altec values your data privacy. The Altec Family of Companies (including Altec, Inc., and its subsidiaries) may collect telematics data from the equipment you own. Please review Altec's Equipment Data Privacy Notice on www.altec.com for more information. By purchasing equipment from Altec, you consent to Altec's right to collect and use such data.

9 Price does not reflect any local, state or Federal Excise Taxes (F.E.T). The quote also does not reflect any local title or licensing fees. All appropriate taxes will be added to the final price in accordance with regulations in effect at time of invoicing.

10 Interest charge of 1/2% per month to be added for late payment.

11 Any payment made by a credit card may be subject to a surcharge fee.

12 Delivery: 360-390 days after receipt of order PROVIDING:

A. Order is received within 14 days from the date of the quote. If initial timeframe expires, please contact your Altec representative for an updated delivery commitment.

B. Customer supplied chassis is received a minimum of sixty (60) days before scheduled delivery.

- C. Customer approval drawings are returned by requested date.
- D. Customer supplied accessories are received by date necessary for compliance with scheduled delivery.
- E. Customer expectations are accurately captured prior to major components being ordered (body, chassis) and line set date. Unexpected additions or changes made after this time or at a customer inspection will delay the delivery of the vehicle.

Altec reserves the right to change suppliers in order to meet customer delivery requirements, unless specifically identified, by the customer, during the quote and or ordering process.

- 13 Trade-in offer is conditional upon equipment being maintained to DOT (Department of Transportation) operating and safety standards and remaining in compliance of DOT until arrival at an Altec Facility. This will include, but is not limited to engine, tires, lights, brakes, glass, etc. All equipment, i.e., jibs, winches, pintle hooks, trailer connectors, etc., are to remain with unit unless otherwise agreed upon in writing by both parties. ALTEC Industries reserves the right to re-negotiate its trade-in offer if these conditions are not met.

All reasonable and necessary expenses required of ALTEC Industries to execute transportation of the trade-in will be invoiced to the customer for payment if these conditions are not met to maintain DOT standards.

Customer may exercise the option to rescind this agreement in writing within sixty (60) days after receipt of purchase order. After that time ALTEC Industries will expect receipt of trade-in vehicle upon delivery of new equipment as part of the terms of the purchase order unless other arrangements have been made.

- 14 This quotation is valid until NOV 02, 2020. After this date, please contact Altec Industries, Inc. for a possible extension.

- 15 After the initial warranty period, Altec Industries, Inc. offers mobile service units, in-shop service and same day parts shipments on most parts from service locations nationwide at an additional competitive labor and parts rate. Call 877-GO-ALTEC for all of your Parts and Service needs.

- 16 Please email Altec Capital at finance@altec.com or call 888-408-8148 for a lease quote today.

- 17 Please direct all questions to Adam D Cox at (317) 872-3460

Prepared for:
ANDREW SODER
ALTEC INDUSTRIES BB
5201 WEST 54TH STREET
INDIANAPOLIS, IN 46268
Phone: 317-802-3852

QUOTE ID
GREE58K21-23M PW DL45-B

Prepared by:
Shane Hall
Peach State Freightliner
1755 Dry Pond Road
Jefferson, GA 30549
Phone: 7063678998

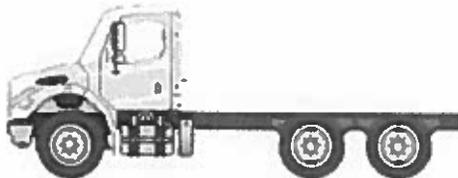
A proposal for
ALTEC INDUSTRIES
GREEN LAKE COUNTY

Prepared by
Peach State Freightliner
Shane Hall

Oct 07, 2020

2022 Freightliner M2 106
6X4 @ 58,000 GVWR

CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 134.25 in
CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 131.25 in



Components shown may not reflect all spec'd options and are not to scale

S P E C I F I C A T I O N P R O P O S A L

Data Code	Description	Weight Front	Weight Rear
Price Level			
PRL-23M	M2 PRL-23M (EFF.01/21/20)		
Data Version			
DRL-036	SPECPRO21 DATA RELEASE VER 036		
Vehicle Configuration			
001-172	M2 106 CONVENTIONAL CHASSIS	5,709	3,503
004-222	2022 MODEL YEAR SPECIFIED		
002-004	SET BACK AXLE - TRUCK		
019-001	TRAILER TOWING PROVISION AT END OF FRAME FOR TRUCK	10	10
003-001	LH PRIMARY STEERING LOCATION		
General Service			
AA1-003	TRUCK/TRAILER CONFIGURATION		
AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
A85-010	UTILITY/REPAIR/MAINTENANCE SERVICE		
A84-1UT	UTILITY BUSINESS SEGMENT		
AA4-011	FIXED LOAD COMMODITY		
AA5-002	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
AB1-008	MAXIMUM 8% EXPECTED GRADE		
AB5-001	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
995-091	MEDIUM TRUCK WARRANTY		
A66-99D	EXPECTED FRONT AXLE(S) LOAD : 18000.0 lbs		
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 40000.0 lbs		
A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY :58000.0 lbs		
A70-99D	EXPECTED GROSS COMBINATION WEIGHT : 65000.0 lbs		

Prepared for:
 ANDREW SODER
 ALTEC INDUSTRIES BB
 5201 WEST 54TH STREET
 INDIANAPOLIS, IN 46268
 Phone: 317-802-3852

QUOTE ID
GREE58K21-23M PW DL45-B

Prepared by:
 Shane Hall
 Peach State Freightliner
 1755 Dry Pond Road
 Jefferson, GA 30549
 Phone: 7063678998

Data Code	Description	Weight Front	Weight Rear
Truck Service			
AA3-006	UTILITY BODY		
A88-99D	EXPECTED TRUCK BODY LENGTH : 1.0 ft		
AE2-99D	EXPECTED TRUCK BODY WIDTH : 96.0 in		
A89-99D	BRAKING-EXPECTED CAB TO BODY CLEARANCE : 3.0 in		
AF3-1EN	ALTEC		
AF7-99D	EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine			
101-3BT	CUM L9 350 HP @ 2200 RPM, 2200 GOV RPM, 1050 LB/FT @ 1200 RPM	640	30
Electronic Parameters			
79A-070	70 MPH ROAD SPEED LIMIT		
79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
79K-007	PTO MODE ENGINE RPM LIMIT - 1100 RPM		
79M-001	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED		
79P-002	PTO RPM WITH CRUISE SET SWITCH - 700 RPM		
79Q-003	PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM		
79S-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH		
79U-007	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND		
80J-002	REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
Engine Equipment			
99C-021	2016 ONBOARD DIAGNOSTICS/2010 EPA/CARB/GHG21 CONFIGURATION		
99D-009	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LEFT SIDE OF HOOD)		
13E-001	STANDARD OIL PAN		
105-001	ENGINE MOUNTED OIL CHECK AND FILL		
014-099	SIDE OF HOOD AIR INTAKE WITH FIREWALL MOUNTED DONALDSON AIR CLEANER		
124-1E8	DR 12V 240 AMP 40-SI BRUSHLESS PAD ALTERNATOR WITH REMOTE BATTERY VOLTAGE SENSE	10	
292-235	(2) DTNA GENUINE, FLOODED STARTING, MIN 2000CCA, 370RC, THREADED STUD BATTERIES	10	
290-017	BATTERY BOX FRAME MOUNTED		

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 ALTEC INDUSTRIES BB
 5201 WEST 54TH STREET
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 Shane Hall
 Peach State Freightliner
 1755 Dry Pond Road
 Jefferson, GA 30549
 Phone: 7063678998

Data Code	Description	Weight Front	Weight Rear
281-005	STANDARD BATTERY JUMPERS WITH 2/0 CAB TO RAIL GROUND CABLE.		
282-001	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB		
291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
289-001	NON-POLISHED BATTERY BOX COVER		
87P-001	CAB AUXILIARY POWER CABLE	5	
293-058	POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	8	
295-029	POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	2	
107-032	CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
108-002	STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR		
131-013	AIR COMPRESSOR DISCHARGE LINE		
152-041	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
128-076	CUMMINS ENGINE INTEGRAL BRAKE WITH VARIABLE GEOMETRY TURBO ON/OFF	20	
016-1C3	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH HORIZONTAL TAILPIPE		
28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH		
239-001	STANDARD EXHAUST SYSTEM LENGTH		
237-052	RH STANDARD HORIZONTAL TAILPIPE		
23U-001	6 GALLON DIESEL EXHAUST FLUID TANK		
30N-003	100 PERCENT DIESEL EXHAUST FLUID FILL		
43X-002	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
23Y-001	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING		
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP		
273-018	HORTON DRIVEMASTER ADVANTAGE ON/OFF FAN DRIVE		
276-001	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		
110-003	CUMMINS SPIN ON FUEL FILTER		
118-008	COMBINATION FULL FLOW/BYPASS OIL FILTER		

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Data Code	Description	Weight Front	Weight Rear
266-013	1100 SQUARE INCH ALUMINUM RADIATOR	70	
103-039	ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		
171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
270-016	RADIATOR DRAIN VALVE		
168-002	LOWER RADIATOR GUARD		
138-011	PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	4	
140-053	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
134-001	ALUMINUM FLYWHEEL HOUSING		
132-004	ELECTRIC GRID AIR INTAKE WARMER		
155-058	DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH		

Transmission

342-582	ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	200	60
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Transmission Equipment

343-339	ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV		
84B-012	ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES		
84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84E-017	S5 PERFORMANCE LIMITING PRIMARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84F-016	S5 PERFORMANCE LIMITING SECONDARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84G-014	2200 RPM PRIMARY MODE SHIFT SPEED		
84H-014	2200 RPM SECONDARY MODE SHIFT SPEED		
84J-000	ENGINE BRAKE RANGE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		

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Data Code	Description	Weight Front	Weight Rear
84K-000	ENGINE BRAKE RANGE ALTERNATE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
84N-200	FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED		
84U-000	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES		
34C-002	ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR MOUNTED BACK OF CAB		
362-824	(2) CUSTOMER INSTALLED CHELSEA 280 SERIES PTO'S		
363-011	PTO MOUNTING, LH AND RH SIDES OF MAIN TRANSMISSION		
341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
345-003	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED		
97G-004	TRANSMISSION PROGNOSTICS - ENABLED 2013		
370-015	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK		
346-013	TRANSMISSION OIL CHECK AND FILL WITH CROSSOVER TO CLEAR LH PTO AND DIRECT MOUNT PUMP		
35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		

Front Axle and Equipment

400-1BA	DETROIT DA-F-18.0-5 18,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190	
402-030	MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10	
403-002	NON-ASBESTOS FRONT BRAKE LINING		
419-023	CONMET CAST IRON FRONT BRAKE DRUMS		
409-006	FRONT OIL SEALS		
408-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		
416-022	STANDARD SPINDLE NUTS FOR ALL AXLES		
405-002	MERITOR AUTOMATIC FRONT SLACK ADJUSTERS		
536-055	TRW THP-60 POWER STEERING WITH RCH45 AUXILIARY GEAR	130	
539-003	POWER STEERING PUMP		
534-003	4 QUART POWER STEERING RESERVOIR	5	

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Data Code	Description	Weight Front	Weight Rear
533-001	OIL/AIR POWER STEERING COOLER		
40T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension			
620-005	18,000# FLAT LEAF FRONT SUSPENSION	290	
619-004	GRAPHITE BRONZE BUSHINGS WITH SEALS - FRONT SUSPENSION		
410-001	FRONT SHOCK ABSORBERS		
Rear Axle and Equipment			
420-1K3	MT-40-14X 40,000# R-SERIES TANDEM REAR AXLE		2,500
421-586	5.86 REAR AXLE RATIO		
424-003	IRON REAR AXLE CARRIER WITH OPTIONAL HEAVY DUTY AXLE HOUSING		30
386-073	MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES		
388-073	MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES		
452-006	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		30
878-022	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AXLE VALVE AND (1) REAR-REAR AXLE VALVE		
87A-001	BLINKING LAMP WITH EACH INTERAXLE LOCK SWITCH, INTERAXLE UNLOCK DEFAULT WITH IGNITION OFF		
87B-004	BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH		
423-020	MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		
433-002	NON-ASBESTOS REAR BRAKE LINING		
434-003	STANDARD BRAKE CHAMBER LOCATION		
451-023	CONMET CAST IRON REAR BRAKE DRUMS		
440-006	REAR OIL SEALS		
426-101	WABCO TRISTOP D LONGSTROKE 2-DRIVE AXLE SPRING PARKING CHAMBERS		20
428-003	HALDEX AUTOMATIC REAR SLACK ADJUSTERS		
41T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		

Rear Suspension

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Data Code	Description	Weight Front	Weight Rear
622-1CH	HENDRICKSON RT403 @40,000# REAR SUSPENSION		750
621-016	HENDRICKSON RT/RTE - 7.19" SADDLE		
431-001	STANDARD AXLE SEATS IN AXLE CLAMP GROUP		
624-011	52 INCH AXLE SPACING		
628-005	STEEL BEAMS AND BRONZE CENTER BUSHINGS WITH BAR PIN ADJUSTABLE END CONNECTIONS		
623-005	FORE/AFT CONTROL RODS		

Brake System

018-002	AIR BRAKE PACKAGE		
490-100	WABCO 4S/4M ABS		
871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
904-001	FIBER BRAID PARKING BRAKE HOSE		
412-001	STANDARD BRAKE SYSTEM VALVES		
46D-002	STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
413-002	STD U.S. FRONT BRAKE VALVE		
432-003	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		
480-086	BW AD-9SI BRAKE LINE AIR DRYER WITH HEATER		
479-015	AIR DRYER FRAME MOUNTED		
460-090	STEEL AIR BRAKE RESERVOIRS, NO TRIPLE OR TORPEDO TANKS		
607-001	CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET BOTH RAILS OUTBOARD		
477-004	PULL CABLES ON ALL AIR RESERVOIR(S)		

Trailer Connections

914-001	AIR CONNECTIONS TO END OF FRAME WITH GLAD HANDS FOR TRUCK AND NO DUST COVERS		
296-027	PRIMARY CONNECTOR/RECEPTACLE WIRED FOR COMBINATION STOP/TURN, CENTER PIN POWERED THROUGH IGNITION WITH STOP SIGNAL PREWIRE PACKAGE		
297-001	SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE MOUNTED END OF FRAME		
335-004	UPGRADED CHASSIS MULTIPLEXING UNIT		
32A-002	UPGRADED BULKHEAD MULTIPLEXING UNIT		

Data Code	Description	Weight Front	Weight Rear
Wheelbase & Frame			
545-507	5075MM (200 INCH) WHEELBASE		
546-102	7/16X3-9/16X11-1/8 INCH STEEL FRAME (11.11MMX282.6MM/0.437X11.13 INCH) 120KSI	210	270
552-063	2550MM (100 INCH) REAR FRAME OVERHANG		
55W-009	FRAME OVERHANG RANGE: 91 INCH TO 100 INCH	-50	210
AC8-99D	CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 134.25 in		
AE8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 131.25 in		
AE4-99D	CALC'D FRAME LENGTH - OVERALL : 329.59		
FSS-0LH	CALCULATED FRAME SPACE LH SIDE : 78.04 in		
FSS-0RH	CALCULATED FRAME SPACE RH SIDE : 94.16 in		
AM6-99D	CALC'D SPACE AVAILABLE FOR DECKPLATE : 134.45 in		
553-001	SQUARE END OF FRAME		
550-001	FRONT CLOSING CROSSMEMBER		
559-003	LIGHTWEIGHT HEAVY DUTY ALUMINUM ENGINE CROSSMEMBER	-12	
561-001	STANDARD CROSSMEMBER BACK OF TRANSMISSION		
562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
572-063	STANDARD REARMOST CROSSMEMBER WITH DOUBLE STANDARD CROSSMEMBER SPACING		
565-001	STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment			
556-1AP	THREE-PIECE 14 INCH PAINTED STEEL BUMPER WITH COLLAPSIBLE ENDS	30	
558-001	FRONT TOW HOOKS - FRAME MOUNTED	15	
574-001	BUMPER MOUNTING FOR SINGLE LICENSE PLATE		
586-024	FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS		
551-017	GRADE 8 THREADED HEX HEADED FRAME FASTENERS INSTALLED WITH BOLT HEADS ON OUTSIDE OF FRAME		
605-103	CENTER PUNCH TO MARK CENTERLINE OF REAR SUSPENSION ON TOP FLANGE OF FRAME		
Fuel Tanks			

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Data Code	Description	Weight Front	Weight Rear
204-215	50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	20	
218-005	RECTANGULAR FUEL TANK(S)		
215-005	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		
212-007	FUEL TANK(S) FORWARD		
664-001	PLAIN STEP FINISH		
205-001	FUEL TANK CAP(S)		
122-1J1	DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR, HAND PRIMER AND 12 VOLT PREHEATER	-5	
216-020	EQUIFLO INBOARD FUEL SYSTEM		
202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
Tires			
093-1RJ	MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES	100	
094-1UX	MICHELIN X MULTI D 11R22.5 14 PLY RADIAL REAR TIRES		192
Hubs			
418-060	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS		
450-060	CONMET PRESET PLUS PREMIUM IRON REAR HUBS		
Wheels			
502-433	ACCURIDE 29039 22.5X9.00 10-HUB PILOT 5.25 INSET 5-HAND STEEL DISC FRONT WHEELS	66	
505-657	ACCURIDE 51408 ACCU-LITE 22.5X8.25 10-HUB PILOT 2-HAND STEEL DISC REAR WHEELS		
496-011	FRONT WHEEL MOUNTING NUTS		
497-011	REAR WHEEL MOUNTING NUTS		
Cab Exterior			
829-071	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB		
650-008	AIR CAB MOUNTING		
648-002	NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE		
678-001	LH AND RH GRAB HANDLES		
646-009	PAINTED PLASTIC GRILLE		
65X-001	ARGENT SILVER HOOD MOUNTED AIR INTAKE GRILLE		

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Data Code	Description	Weight Front	Weight Rear
644-004	FIBERGLASS HOOD		
727-1AF	SINGLE 14 INCH ROUND HADLEY AIR HORN UNDER LH DECK	4	
726-002	DUAL ELECTRIC HORNS		
728-001	SINGLE HORN SHIELD		
657-001	DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME		
78G-002	KEY QUANTITY OF 2		
575-001	REAR LICENSE PLATE MOUNT END OF FRAME		
312-089	LED HEADLIGHT ASSEMBLY AND INCANDESCENT MARKER/TURN LAMP		
302-001	(5) AMBER MARKER LIGHTS		
311-019	HEADLIGHTS ON WITH WIPERS, WITH DAYTIME RUNNING LIGHTS		
294-001	INTEGRAL STOP/TAIL/BACKUP LIGHTS		
300-015	STANDARD FRONT TURN SIGNAL LAMPS		
744-1BG	DUAL WEST COAST MOLDED-IN COLOR HEATED MIRRORS		
797-001	DOOR MOUNTED MIRRORS		
796-001	102 INCH EQUIPMENT WIDTH		
743-1AP	LH AND RH 8 INCH MOLDED-IN COLOR CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
729-001	STANDARD SIDE/REAR REFLECTORS		
768-043	63X14 INCH TINTED REAR WINDOW		
661-003	TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS		
654-027	RH AND LH ELECTRIC POWERED WINDOWS, PASSENGER SWITCHES ON DOOR(S)	4	
663-013	1-PIECE SOLAR GREEN GLASS WINDSHIELD		
659-020	2 GALLON WINDSHIELD WASHER RESERVOIR WITH FLUID LEVEL INDICATOR, FRAME MOUNTED		

Cab Interior

707-1AK	OPAL GRAY VINYL INTERIOR
706-013	MOLDED PLASTIC DOOR PANEL
708-013	MOLDED PLASTIC DOOR PANEL
772-006	BLACK MATS WITH SINGLE INSULATION
785-004	DASH MOUNTED ASH TRAY(S) WITHOUT LIGHTER

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Data Code	Description	Weight Front	Weight Rear
691-008	FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING		
694-010	IN DASH STORAGE BIN		
693-023	LH DOOR MAP POCKET		
742-007	(2) CUP HOLDERS LH AND RH DASH		
680-006	GRAY/CHARCOAL FLAT DASH		
860-004	SMART SWITCH EXPANSION MODULE		
700-002	HEATER, DEFROSTER AND AIR CONDITIONER		
701-001	STANDARD HVAC DUCTING		
703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
170-015	STANDARD HEATER PLUMBING		
130-041	VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR		
702-002	BINARY CONTROL, R-134A		
739-033	STANDARD INSULATION		
285-013	SOLID-STATE CIRCUIT PROTECTION AND FUSES		
280-007	12V NEGATIVE GROUND ELECTRICAL SYSTEM		
324-011	DOMED DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF		
655-005	LH AND RH ELECTRIC DOOR LOCKS		
284-045	(2) 12 VOLT POWER RECEPTACLES MOUNTED IN DASH		
756-1J3	BASIC HIGH BACK AIR SUSPENSION DRIVER SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	30	
760-1J3	BASIC HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	25	10
759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8	
711-004	LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
758-036	VINYL WITH VINYL INSERT DRIVER SEAT		
761-036	VINYL WITH VINYL INSERT PASSENGER SEAT		
763-101	BLACK SEAT BELTS		
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	10	
540-015	4-SPOKE 18 INCH (450MM) STEERING WHEEL		
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS		

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Data Code	Description	Weight Front	Weight Rear
Instruments & Controls			
732-004	GRAY DRIVER INSTRUMENT PANEL		
734-004	GRAY CENTER INSTRUMENT PANEL		
87L-003	ENGINE REMOTE INTERFACE WITH PARK BRAKE AND NEUTRAL INTERLOCKS		
870-001	BLACK GAUGE BEZELS		
486-001	LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
840-002	2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
198-025	INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS		
149-013	ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
811-042	ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
160-038	HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
844-001	2 INCH ELECTRIC FUEL GAUGE		
148-074	ENGINE REMOTE INTERFACE NOT CONFIGURED		
163-001	ENGINE REMOTE INTERFACE CONNECTOR AT BACK OF CAB		
33U-001	PREWIRE PACKAGE FOR ALTEC CONTROL MODULE AND CHASSIS INTERFACE W/ BW CUTOUT		
856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
864-001	2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
372-051	CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE		
679-001	OVERHEAD INSTRUMENT PANEL		
746-115	AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH AND USB AND AUXILIARY INPUTS, J1939	10	
747-001	DASH MOUNTED RADIO		

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Data Code	Description	Weight Front	Weight Rear
750-002	(2) RADIO SPEAKERS IN CAB		
753-001	AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF		
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
817-001	STANDARD VEHICLE SPEED SENSOR		
812-001	ELECTRONIC 3000 RPM TACHOMETER		
162-011	IDLE LIMITER, ELECTRONIC ENGINE		
482-001	BW TRACTOR PROTECTION VALVE		
883-001	TRAILER HAND CONTROL BRAKE VALVE		
836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
304-001	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH		
882-004	TWO VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR		
299-013	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE		
298-039	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS		

Design

065-000 PAINT: ONE SOLID COLOR

Color

980-5F6 CAB COLOR A: L0006EY WHITE ELITE EY
 986-020 BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT
 962-972 POWDER WHITE (N0006EA) FRONT WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
 966-972 POWDER WHITE (N0006EA) REAR WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
 964-6Z7 BUMPER PAINT: FP24812 ARGENT SILVER DUPONT FLEX
 969-099 17 DIGIT BARCODE MOUNTED INSIDE LH DRIVER DOOR
 963-003 STANDARD E COAT/UNDERCOATING

Certification / Compliance

996-001 U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS

Prepared for:
 ANDREW SODER
 ALTEC INDUSTRIES BB
 5201 WEST 54TH STREET
 INDIANAPOLIS, IN 46268
 Phone: 317-802-3852

QUOTE ID
GREE58K21-23M PW DL45-B

Prepared by:
 Shane Hall
 Peach State Freightliner
 1755 Dry Pond Road
 Jefferson, GA 30549
 Phone: 7063678998

Data Code	Description	Weight Front	Weight Rear
Raw Performance Data			
AE8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 131.25 in		
AM6-99D	CALC'D SPACE AVAILABLE FOR DECKPLATE : 134.45 in		

Sales Programs
 NO SALES PROGRAMS HAVE BEEN SELECTED

TOTAL VEHICLE SUMMARY

Weight Summary			
	Weight Front	Weight Rear	Total Weight
Factory Weight ⁺	7778 lbs	7615 lbs	15393 lbs
Dealer Installed Options	0 lbs	0 lbs	0 lbs
Total Weight⁺	7778 lbs	7615 lbs	15393 lbs

(+) Weights shown are estimates only.
 If weight is critical, contact Customer Application Engineering.

(**) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.

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G V W R

VEHICLE SPECIFICATIONS SUMMARY - GVWR

Model	M2106
Cab Size (829).....	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Expected Front Axle(s) Load (lbs).....	18000.0
Expected Pusher Axle(s) Load (lbs).....	0.0
Expected Rear Axle(s) Load (lbs).....	40000.0
Expected Tag Axle(s) Load (lbs).....	0.0
Expected GVW (lbs).....	58000
Expected GCW (lbs).....	65000.0
Front Axle (400).....	DETROIT DA-F-18.0-5 18,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE
Front Suspension (620).....	18,000# FLAT LEAF FRONT SUSPENSION
Front Hubs (418).....	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS
Front Disc Wheels (502).....	ACCURIDE 29039 22.5X9.00 10-HUB PILOT 5.25 INSET 5-HAND STEEL DISC FRONT WHEELS
Front Tires (093).....	MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES
Front Brakes (402).....	MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES
Steering Gear (536).....	TRW THP-60 POWER STEERING WITH RCH45 AUXILIARY GEAR
Rear Axle (420).....	MT-40-14X 40,000# R-SERIES TANDEM REAR AXLE
Rear Suspension (622).....	HENDRICKSON RT403 @40,000# REAR SUSPENSION
Rear Hubs (450).....	CONMET PRESET PLUS PREMIUM IRON REAR HUBS
Rear Disc Wheels (505).....	ACCURIDE 51408 ACCU-LITE 22.5X8.25 10-HUB PILOT 2-HAND STEEL DISC REAR WHEELS
Rear Tires (094).....	MICHELIN X MULTI D 11R22.5 14 PLY RADIAL REAR TIRES
Rear Brakes (423).....	MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES
Pusher / Tag Axle (443).....	NO PUSHER OR TAG AXLE
Pusher / Tag Suspension (626).....	NO PUSHER OR TAG SUSPENSION
Pusher / Tag Hubs (449).....	NO PUSHER OR TAG HUBS
Pusher/Tag Disc Wheels (509).....	NO PUSHER/TAG DISC WHEELS
Pusher / Tag Tires (095).....	NO PUSHER/TAG TIRES
Pusher / Tag Brakes (456).....	NO PUSHER/TAG BRAKES

Prepared for:
 ANDREW SODER
 ALTEC INDUSTRIES BB
 5201 WEST 54TH STREET
 INDIANAPOLIS, IN 46268
 Phone: 317-802-3852

QUOTE ID
GREE58K21-23M PW DL45-B

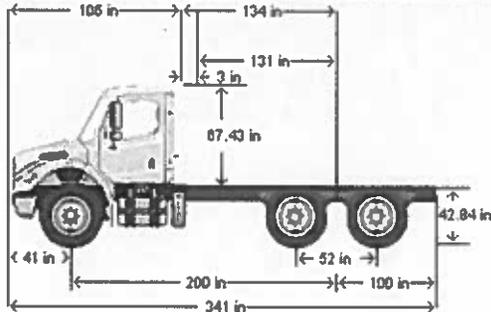
Prepared by:
 Shane Hall
 Peach State Freightliner
 1755 Dry Pond Road
 Jefferson, GA 30549
 Phone: 7063678998

TABLE SUMMARY - GVWR

	Front	Rear 1	Rear 2
Axle Component Weight Ratings			
Axles	18000	20000	20000
Suspension	18000	20000	20000
Hubs	23000	26000	26000
Brakes	20000	21000	21000
Wheels	20000	29600	29600
Tires	18180	23360	23360
Power Steering	22000	N/A	N/A
GAWR (per axle)	18000	20000	20000
GAWR (per axle system)	18000		40000
Expected Load (per axle system)	18000		40000
GVWR due to Frame	90000		
GVWR due to Transmission	80000		
Vehicle GVWR Summary			
Calculated GVWR	58000		
Expected GVWR	58000		
All weights displayed in pounds			

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

D I M E N S I O N S



VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model	M2106
Wheelbase (545)	5075MM (200 INCH) WHEELBASE
Rear Frame Overhang (552)	2550MM (100 INCH) REAR FRAME OVERHANG
Fifth Wheel (578)	NO FIFTH WHEEL
Mounting Location (577)	NO FIFTH WHEEL LOCATION
Maximum Forward Position (in)	0
Maximum Rearward Position (in)	0
Amount of Slide Travel (in)	0
Slide Increment (in)	0
Desired Slide Position (in)	0.0
Cab Size (829)	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Sleeper (682)	NO SLEEPER BOX/SLEEPER/CAB
Exhaust System (016)	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH HORIZONTAL TAILPIPE

Prepared for:
 ANDREW SODER
 ALTEC INDUSTRIES BB
 5201 WEST 54TH STREET
 INDIANAPOLIS, IN 46268
 Phone: 317-802-3852

QUOTE ID
GREE58K21-23M PW DL45-B

Prepared by:
 Shane Hall
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 1755 Dry Pond Road
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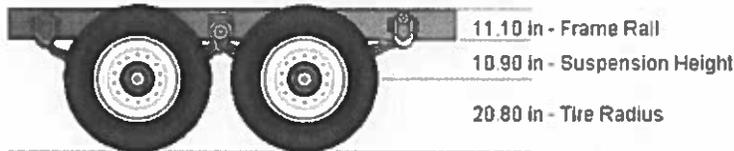
TABLE SUMMARY - DIMENSIONS

Dimensions	Inches
Bumper to Back of Cab (BBC)	106.3
Bumper to Centerline of Front Axle (BA)	40.7
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	134.3
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	131.3
Back of Cab Protrusions (Exhaust/Intake) (CP)	0.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	234.7
Cab Height (CH)	67.4
Wheelbase (WB)	199.8
Frame Overhang (OH)	100.4
Overall Length (OAL)	341.0
Rear Axle Spacing	52.0
Unladen Frame Height at Centerline of Rear Axle	42.8

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

UNLADEN FRAME HEIGHT

Unladen Height	Requested	Calculated
Frame (in)	N/A	42.80



VEHICLE SPECIFICATIONS SUMMARY - UNLADEN FRAME HEIGHT

Model	M2106
Cab Size (829).....	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Frame Rails (546).....	7/16X3-9/16X11-1/8 INCH STEEL FRAME (11.11MMX282.6MM/0.437X11.13 INCH) 120KSI(546)
Web Height (in).....	11.125
Flange Thickness (in).....	0.4375
Rear Suspension (622).....	HENDRICKSON RT403 @40,000# REAR SUSPENSION
Rear Suspension Ride Height (621).....	HENDRICKSON RT/RTE - 7.19" SADDLE
Axle C/L to Bottom of Frame (in).....	10.912
Rear Tires (094)	MICHELIN X MULTI D 11R22.5 14 PLY RADIAL REAR TIRES
Unladen Radius (in)	20.8
Fifth Wheel (578).....	NO FIFTH WHEEL
Requested Min Height (in)	0.0
Requested Max Height (in)	1
Fifth Wheel Leg Height (582)	NO FIFTH WHEEL LEG HEIGHT
Rear Tow Device (587).....	NO REAR TOWING DEVICE
Requested Min Height (in)	0.0
Requested Max Height (in)	0.0

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.



GREEN LAKE COUNTY HIGHWAY COMMISSION
570 SOUTH STREET
GREEN LAKE, WI 54941
Attention: BARRY MASHUDA

10-09-2020

Please accept this Terex Bid Package in response to "Digger Derrick Sign Truck Bid 2020". Terex Utilities is submitting our Terex Commander 4000 Series Digger Derrick Device and Sign Body/Flatbed and Accessories to be installed on Terex Supplied 6x4 Regular Cab Chassis.

I have included the following items in the Bid Package:

Completed GLCHC Solicitation for Price Quotes
Terex Deviations to GLCHC Specifications
Terex Utilities Quote #QU15225 Documents:
Customer Order Acknowledgement
Options Page
Terex Utilities' Standard Terms & Conditions
Terex Utilities Quote # QU15225 (C4045)
Body & Accessories Specifications
International Quoted Chassis Specifications
Freightliner Optional Chassis Specifications
Freightliner Optional Chassis Compliance
Commander 4000-Series Product Literature
Terex Limited Product Warranty
Terex Auger Tooling Flyer
Preventative Maintenance & Inspection Program Literature

Thank you for allowing us the opportunity to bid your new equipment needs.

Please contact Tyler Walford at (320) 241-0907 or Tyler.Walford@terex.com if you have any questions or concerns.

Regards,

Jordan Vanderbush
Project Leader

Steven Fedt
Order Support Coordinator

Terex Utilities
3140 – 15th Avenue SE
Watertown, SD 57201

Tel +1 605 882 4000
Fax +1 605 882 1842
www.terexutilities.com

WORKS FOR YOU.™



GREEN LAKE COUNTY HIGHWAY COMMISSION

Barry Mashuda
Highway Commissioner

Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us

SOLICITATION FOR PRICE QUOTES

The Green Lake County Highway Department located at 570 South Street, Green Lake, WI will on Monday October 12, 2020 at 9:00 am be receiving and opening quotes for the following:

One Digger Derrick Sign Truck with Attachments

- Quote openings begin at 9:00 am; quotes must be submitted by the specified opening time.
- Quotes must be submitted on the forms provided preferably with typed print.
- No facsimile or E-mail bids will be accepted
- Quotes must be marked "**Digger Derrick Sign Truck Bid 2020**" on the lower left corner of envelope.
- Any quotes not meeting minimum specifications given will be rejected.
- The specifications stipulate the minimum acceptable requirements for good engineering design and performance. The specifications also establish the bidder's responsibilities to furnish all necessary appurtenances in complete conformance with the requirements stated herein.
- Any item not mentioned in this specification which is required for satisfactory performance for this unit shall be provided by the successful bidder with no additional reimbursement, even though it was not directly referred to in this bid.
- Request for additional information can be directed to:

Green Lake County Highway Commission

570 South Street
Green Lake, WI 54941
920-294-4060

bmashuda@co.green-lake.wi.us

Any and all bids will be considered whether they meet or exceed bid specifications. The Highway Commission reserves the right to reject any and all quotes and accept such quotes as may be most advantageous to Green Lake County. The successful bidder is responsible for making sure the Digger Derrick Sign Truck meets specifications and delivery as specified.

By Order of the Green Lake County Highway Commission.

Barry Mashuda
Barry Mashuda

GREEN LAKE COUNTY HIGHWAY COMMISSION

The following are the minimum specifications for one (1) Digger Derrick Sign Truck, with bucket and attachments with rear body to be used in traffic sign repair and installations.

TRUCK CHASSIS

Wheel Base

- 170-185 Wheelbase (Per Body Builder Specs)

Frame Rail

- 1/2" Frame if available

Engine

- Cummins L9 350 HP @ 2000 RPM
- Block heater
- 3 step engine brake
- DAVCO fuel water separator with heater

Cooling System

- Heater hose shut-off valves
- Largest radiator available
- Extended life coolant set to -34°F
- Bug screen between grill and radiator

Transmission

- Allison 3000 HD with PTO provision
- Coolant lines fastened securely
- Transmission fluid should be synthetic

Front Springs

- 20,000 lbs. springs
- No aluminum hubs
- Oil bathed bearing and seals, synthetic lube used in hubs with Scott Seal Plus or STEMCO wheel seals

Front Axle

- 18,000 lbs. Axle

Front Brakes

- S cam type with 16.5" x 6" shoes
- Meritor slack adjusters
- Dust shields

GREEN LAKE COUNTY HIGHWAY COMMISSION

Rear Axle

- 40,000 lbs. Tandem Drive Axle with power divider and differential lock operated from cab
- Scott Seal Plus or STEMCO wheel seals

Rear Brakes

- S cam type with 16.5" x 7" shoes
- Haldex-life-seal rear brake chambers
- Meritor-slack-adjusters
- Dust shields on all wheels

Rear Suspension

- Min. 40,000 lbs. Rear Springs

Steering

- ~~TRW THP-60 P/S Gear with auxiliary~~

Brake System

- Wabco ABS system
- Wabco 1200 Air dryer with heater (frame mounted)
- Air brake connections with glad-hands for trailer brakes at end of frame

Electrical System

- 12 volt 200 amp Alternator
- LED exterior lighting, with daytime running lights
- Battery tender low voltage disconnect
- Factory installed battery disconnect
- Battery jumper terminals

Cab

- 6-10 Gal DEF tank
- Trailer towing package with electric brake controller & RV socket in rear
- Air ride
- Cruise control (no idle shut down)
- HD HVAC system w/r134
- AM/FM Radio with Aux input
- Highest output heater and air conditioning available
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride)
- All windows to be tinted. Doors to have power windows
- Dual sun visors, intermittent wipers, washers
- Exterior grab handles on cab
- Dome light, map pockets
- West Coast style mirrors heated with heated convex mirrors
- GPS Distance Meter

GREEN LAKE COUNTY HIGHWAY COMMISSION

Cab Cont...

- Deluxe interior (darkest color available)
- Factory radio Am/FM with weather band, with auxiliary jack
- Tilt steering wheel, air horn
- Full instrument and gauges, volt gauge, no amp meter
- Rust proofed on all metal parts of cab
- Work station – laptop mount
- Safety equipment: fire extinguisher 5 lb., triangle kit

Tires

- Front 315/80R22.5
- Rear 11R22.5

Wheels

- Steel

Fuel Tank

- 50-80 gal Aluminum with Davco fuel/water Separator with heater

Parts and Repair Manuals

- To be received prior to delivery in print or digital

Warranty

- 3 years Basic Warranty
- Extended Warranty 5 years 100,000 mi. Cummins Eng.
- Extended Warranty 5 years 100,000 mi. after treatment
- Extended Warranty 2 years Allison Transmission
- ~~Pick-up and delivery to be provided. Must be diagnosed 24 hours after being called~~

Boom Assembly

- Right rear corner mount
- 45' with auger
- Tip mounted winch

Controls

- Single control system at bottom of boom
- Wireless ground controls

Platform

- Fiberglass pin-on, 24 x 24 inches nominal, with interior/exterior platform access step, 300 pound capacity

GREEN LAKE COUNTY HIGHWAY COMMISSION

Hydraulic Tool Circuit

- Tool circuit with hose reel installed, below rotation (male pressure, female return couplers), installed on hose ends
- Hydraulic couplers on end of boom for pole saw operation

Sub Frame

- Frame built 4" high structural steel. 3" high x 3/16" thick rail installed on sides and rear of flatbed, notched for drainage

Digger Assembly

- Must have Digger hanger and auger stow bracket

Digger Drives

- 2 speed digger drive with min. 12,000ft-lb output

Auger

- 9" with carbide teeth

Auger Stow Line

- ~~7/8" diameter~~ synthetic rope sling

Winch Line

- Over 75-ft. of 1", 12000# winch line to be installed

Swivel Hook

- 6 ton rated hook with safety latch to be installed

Boom Stow Rest

- Boom stow with ratchet type tie down

Hydraulic System

- Must have the capacity to operate all hydraulic components simultaneously
- Return line should have a filter mounted for easy accessibility for servicing
- Upper and lower cylinders should have holding valves

Hydraulic Pump

- Hydraulic pump should be married to Power take off unit on transmission
- Power take off is only to operated when vehicle is in neutral

Hydraulic Tank

- Unit shall have a 50 gallon Tank with shut-off valves installed at the output and return lines at the tank

GREEN LAKE COUNTY HIGHWAY COMMISSION

Bearings and Bushings

- Fully sealed and non-lube bearings to be used throughout the aerial unit

Rotation

- Boom shall rotate 360 degrees unrestricted in both directions
- Rotation bearing shall have easy access grease fittings
- A manual drive should be installed in case of hydraulic system break down
- Custom load capacity chart

Paint Color

- Green Lake County inspection required prior to painting
- White boom and chassis
- Yellow body and flatbed

Manuals, Repair and Service

- All manuals shall be provided
 1. Operators – 2 copies
 2. Service and repair – print or digital
 3. Parts – print or digital

Floor

- 1/8" thread plate. Painted with black non-skid Rubberized paint

Primer

- Epoxy type primer

Undercoating

- Underbody shall be completely sprayed with rubberized undercoating

Lighting

- All lighting shall be LED
- Two (2) Flashing warning lights shall be in front of truck grill and four (4) in the rear near tail lamps
- Four (4) flashing LED warning mini light bars, Two (2) mounted on top front corners and Two (2) mounted on top in rear
-

ALUMINUM SIGN BOXES

1ST Compartment

- 46" T x 18" W x 40" D
- Vertical single door
- Adjustable shelf with slotted storage for 36" tall signs

GREEN LAKE COUNTY HIGHWAY COMMISSION

2ND Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

3RD Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

4TH Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

5TH Compartment

- 46"T x 24"W x 34"
- Vertical single door
- Adjustable shelf with slotted storage

Transverse Sign Box

- 50"H x 8"W x 96"L Aluminum sign box open at each end with flip latch
- Slotted storage for 48" tall signs to be mounted between cab and outriggers on frame

Sign Storage

- 46"H x 24"W x 28"D Aluminum sign box with vertical single door
- One (1) shelf with slotted storage for 24" x 24" signs on top and slotted storage for 15" x 20" signs on bottom
- Box to be mounted curbside behind rear outrigger

ACCESSORIES

Underbody Box

Box 1

- 15" H x 48" L x 24" D Aluminum underbody box mounted behind the street side rear outrigger under the flatbed

Box 2

- 15" H X 48" L x 24" D Aluminum underbody box mounted behind the Curbside rear outrigger under the flatbed with a 18 drawer parts cabinet mounted in box

GREEN LAKE COUNTY HIGHWAY COMMISSION

Box 3

- ~~15"H x 48"L x 24"D Aluminum underbody box mounted behind the Curbside front outrigger under the flatbed~~

Pullout Drawer Unit

- ~~Storage unit with Three (3) pullout drawers with removable dividers, mounted above, on Box 3, with hose and cord reels~~

Rear Bumper

- ICC type bumper with no-slip on steps, also with accessible grab handles to provide 3 points of contact when getting up into rear of bed

Tow Package

- 20,000lbs combination 2" ball pintle hook mounted, D rings for safety chains, 7-RV trailer socket. Green Lake County will provide pintle hook height

Brake Control

- Electric trailer brake control shall be provided

Backup Alarm

LED Work Lights

- Four (4) LED pole type work lights mounted in each corner of bed

Wheel Chocks and Holders

- Holder mounted under flatbed

Ladder Rack

- Aluminum ladder rack installed on top of street side sign boxes

Mud Flaps

- In front and rear of drive tires

Hydraulic Hose Reel

50' Dual hose reel mounted curbside compartment behind front outrigger

CORD REEL

- 50 ft. cord reel mounted in curbside compartment behind front outrigger

Underbody

- Underbody storage mounted in rear outside frame rails

Pole Carry Tray

- Pole carry tray should be 24"W x 190"L (approximate), to hold at least Fourteen (14) 4" x 6" x 16' posts

GREEN LAKE COUNTY HIGHWAY COMMISSION

Mechanics Vice

- Green Lake County will advise mounting

Inverter

- 3000 Watt inverter installed on bottom of street side in first sign box

GFI Outlet

- Two (2) 110V GFI outlets to be installed in rear and One (1) 110V GFI outlet to be installed in cab

Warranty

- 3 year parts and labor
- 3 years annual inspection to be provided at no cost
- Pick-up and delivery or onsite repairs provided within 24 hours of breakdown

NOTE: Finished unit cannot be taller than 12 feet high to highest point

BIDDER PRICING AND SIGNATURE

By signing below you are certifying that you meet or exceed all stated requirements for One (1) Digger Sign Truck with attachments

Anticipated Delivery Date 270 - 330 Days After Receipt of Order for

One (1) Digger Derrick Sign Truck with attachments for \$ 362,669.00
payable upon satisfaction of final inspection by Green Lake County

This does not include FET.
Exemption Form is required
upon Receipt of Order.

Company Name: Terex Utilities, Inc.

Address: 3140 - 15th Ave Se, Watertown, SD 57201

Phone: (605) 882-4000

Fax: (605) 882-5595

Email: Tyler.Walford@terex.com - Territory Sales Manager

Signature: 

Printed Name: Kyle Wiesner

Title: Engineering Manager

Date: 10/9/20



DEVIATIONS TO "DIGGER DERRICK SIGN TRUCK 2020" SPECIFICATIONS:

Truck Chassis – Front Brakes – Meritor Slack Adjusters:

This feature is not available with the International Chassis as specified, see International Chassis Proposal for additional information.

Truck Chassis – Rear Brakes – Haldex Life Seal Rear Brake Chambers:

Haldex is not available, International is providing MGM TR3030LP3TSHD, see International Chassis Proposal for additional information.

Truck Chassis – Rear Brakes – Meritor Slack Adjusters:

This feature is not available with the International Chassis as specified, see International Chassis Proposal for additional information.

Truck Chassis – Steering – TRW THP-60 P/S Gear with Aux.:

This feature is not available, International is providing Sheppard M100/M80 Steering Gear, see International Chassis Proposal for additional information.

Truck Chassis – Cab – West Coast Style Mirrors Heated with Heated Convex Mirrors:

Note: Main Mirrors are Heated, Convex Mirrors are NOT heated.

Truck Chassis – Warranty – Pick-up and Delivery to be provided.:

This is not available with Chassis Warranty.

Digger Derrick Specifications – Sub Frame:

The Commander 4000-Series Digger Derrick will have a 6-Inch Tall Subframe.

Digger Derrick Specifications – Auger Stow Line:

Terex is quoting our standard Nylon Auger Storage Strap ILO 7/8-Inch Diameter Rope Sling.

Digger Derrick Specifications – Winch Line:

Terex is quoting our 65-Feet of Amsteel II Plus Synthetic Winch Rope, the maximum length of Winch Rope that fits on the Boom Tip Winch Drum.

Aluminum Sign Boxes & Accessories – Underbody Box(es):

Terex Utilities is quoting a Custom Aluminum Sign Body / Steel Flatbed and Accessories that will be best configured with the Chassis and Digger Derrick Unit Specified. Please see the Body Specifications included in Terex Quote #QU15225 for additional information.

Terex Utilities
3140 – 15th Avenue SE
Watertown, SD 57201

Tel +1 605 882 4000
Fax +1 605 882 1842
www.terexutilities.com

WORKS FOR YOU.™



TEREX®

CUSTOMER ORDER ACKNOWLEDGEMENT

Terex Utilities, Inc. - 3140 15th Avenue SE - Watertown, SD 57201 - Phone: 605-882-4000 - Fax: 605-882-5595

"Digger Derrick Sign Truck Bid 2020"

Date: 10/9/2020

Quote Number: QU15225 Unit: C4045

GREEN LAKE COUNTY HIGHWAY COM.
570 SOUTH STREET
GREEN LAKE, WI 54941
(920) 294-4060
Attention: BARRY MASHUDA

Baseline Price: \$362,669

FET Tax If Applicable \$10,746

Grand Total Each: \$373,415

See Attached Options Page:

Prices are subject to change until shipment. Applicable taxes and surcharges will be added. Taxes, shipping & handling and lead times are estimates and subject to change. Quoted prices are based on total quoted package and subject to change if all items not purchased. All prices quoted are in U.S. dollars unless otherwise specified. Payment by cash or certified check only. Chassis payment is due upon chassis receipt at our facility. Quote withdrawn after 30 days.

Please ensure the accuracy of the specifications and drawings you provide. Changes made after receipt of order may incur additional charges. If you are trading equipment in, you warrant that: You have good title to the trade-in; it is free of all liens and encumbrances; all information you have provided related to the trade-in is true and correct.

Terex purchased chassis through Terex preferred International Dealer will include at no additional cost a special tow package for 12 months/unlimited mileage to nearest International Dealership for a warrantable failure. Coverage limited to \$550 per incident. Roadside assistance call 1-800-448-7825

Terex purchased chassis through Terex preferred Freightliner Dealer will include at no additional cost a special tow package for 12 months/unlimited mileage/KM extended towing coverage \$550 cap FEX applies. Roadside assistance call 1-800-FTL-HELP

Notes:

- 1) Delivery Terms are: FCA, Shipping Point
- 2) Terms: Net 30 days.
- 3) Delivery days from receipt of order shall be 270 - 330

Buyer hereby agrees to purchase the products in this quotation, subject to acceptance by Seller. Buyer has read and agrees to Seller's Terms and Conditions of Sale.

Terex Utilities Inc.

Steve Fedt
Sales Coordinator

Tyler Walford
Account Manager

⚠️WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Accepted By: _____

PO Number: _____

Quantity: _____

Grand Total: _____

Date: _____

Options

Date	10/9/20		
Quote(s) #	QU15225		
Customer Name	GREEN LAKE COUNTY HIGHWAY COM.		
Customer PO #			
No.	Description	Selling Price	Options:
1	2022 Freightliner M2-106 6x4 Regular Cab Chassis ILO International Chassis: * As per the attached Freightliner Chassis Specification.	-\$5,543	<input type="checkbox"/> Add Option
2	Federal Excise Tax for Freightliner Chassis: * If applicable.	-\$764	<input type="checkbox"/> Add Option
3		\$0	<input type="checkbox"/> Add Option
4		\$0	<input type="checkbox"/> Add Option
5		\$0	<input type="checkbox"/> Add Option
6		\$0	<input type="checkbox"/> Add Option
7		\$0	<input type="checkbox"/> Add Option
8		\$0	<input type="checkbox"/> Add Option
9		\$0	<input type="checkbox"/> Add Option
10		\$0	<input type="checkbox"/> Add Option
11		\$0	<input type="checkbox"/> Add Option
12		\$0	<input type="checkbox"/> Add Option
13		\$0	<input type="checkbox"/> Add Option
14		\$0	<input type="checkbox"/> Add Option
		Total:	

TERMS AND CONDITIONS OF SALE
TEREX SOUTH DAKOTA, INC./TEREX UTILITIES, INC.
U.S. and CANADA (except Quebec)

1. Terms and Conditions. The provision by Seller to Buyer of any Equipment or Parts (collectively referred to as "Products") shall be exclusively governed by these Terms and Conditions of Sale ("Terms and Conditions") and Seller's sales order acknowledgement (collectively referred to as "Agreement"). This Agreement cancels and supersedes any and all terms and conditions previously issued by Seller and shall remain in effect unless and until superseded in writing by Seller. Acceptance of an order for Products by Seller shall be deemed to constitute a binding agreement between the parties pursuant to these Terms and Conditions and Buyer agrees that the order may not thereafter be countermanded or otherwise changed without the explicit prior written consent of Seller. No other terms and conditions shall apply, including the terms of any purchase order submitted to Seller by Buyer, whether or not objected to by Seller or whether or not such terms are inconsistent or conflict with or are in addition to these Terms and Conditions. These Terms and Conditions shall be deemed accepted by Buyer if any of the following occurs: (i) if confirmed by Buyer, (ii) if undisputed by Buyer within ten (10) days after receipt, or (iii) if Seller delivers Products to Buyer. Any communication construed as an offer by Seller and acceptance thereof is expressly limited to these Terms and Conditions. The Products are intended for industrial/commercial use by professional contractors and their trained employees and are not intended for use by consumers.

2. Terms of Payments. Payment for Products purchased by Buyer shall be made in accordance with any of the following terms, provided they have been previously arranged with and expressly approved by Seller in writing: (1) cash in advance; (2) confirmed, irrevocable letter of credit established in such amount and form and at such time and at such bank as shall be approved by Seller in respect of each order; (3) credit account purchases for which payment will be due and payable on net thirty (30) day terms, plus service and other charges applicable to past due amounts in accordance with Seller's written notices; or (4) other payment arrangements expressly approved by Seller in writing prior to or at the time the order is placed. If any Buyer credit account purchase is not paid in accordance with Seller's credit payment terms, in addition to any other remedies allowed in equity or by law, Seller may refuse to make further shipments without advance payment by Buyer. Nothing contained herein shall be construed as requiring Seller to sell any Products to Buyer on credit terms at any time, or prohibiting Seller from making any and all credit decisions which it, in its sole discretion, deems appropriate for Seller. Seller shall have the right, at its option, to charge interest on all amounts not paid when due and Buyer agrees to pay such interest calculated on a daily basis, from the date that payment was due until the Seller receives payment in full, at the rate of 1.5% per month or the maximum rate permitted by applicable law. Unless otherwise agreed in writing between Seller and Buyer, Seller may, in its sole discretion, increase or decrease the price of any Product, as Seller deems reasonably necessary, at any time prior to shipment and invoice Buyer for the same. If Buyer orders the chassis through Seller, the chassis payment is due upon receipt of chassis by Seller and the balance owed for the completed unit is due in accordance with agreed upon payment terms. When supplied by Buyer, Seller will inspect the chassis upon receipt and will notify Buyer of any chassis mounted components (including but not limited to fuel tanks, air tanks, battery boxes and exhaust systems) that require relocation. Buyer will be invoiced for such work upon completion of the finished Equipment.

3. Taxes and Duties. Unless otherwise noted, prices quoted do not include taxes or duties of any kind or nature. Buyer agrees that it will be responsible for filing all tax returns and paying applicable tax, duty, export preparation charge and export documentation charge resulting from the purchase of the Products. In addition, in the event any other similar tax is determined to apply to Buyer's purchase of the Products from Seller, Buyer agrees to indemnify and hold Seller harmless from and against any and all such other similar taxes, duties and fees. All prices quoted are U.S. dollars unless otherwise specified. The amount of any present or future taxes applicable to the sale, transfer, lease or use of the Products shall be paid by Buyer; or in lieu thereof, Buyer shall provide Seller with a tax exemption certificate satisfactory to the applicable taxing authority proving that no such tax is due and payable upon such sale, transfer, lease or use.

4. Title, Property, Risk and Delivery. Unless otherwise stated in writing, for all intra-continental United States shipments, all prices and delivery are FCA, point of manufacture (Incoterms 2010); for all other shipments, all prices and delivery are FAS, named port of shipment (Incoterms 2010). Title and all risk of loss or damage to Products shall pass to Buyer upon delivery, as per Incoterms 2010. Any claims for loss, damage or delay in transit must be entered and prosecuted by the Buyer directly with the carrier, who is hereby declared to be the agent of the Buyer. Seller shall not be liable for any delay in performance of this agreement or delivery of the Products, or for any damages suffered by Buyer by reason of delay, when the delay is caused, directly or indirectly, by a force majeure event described in Section 20 herein or any other cause beyond Seller's control. Claims for shortages in shipments shall be deemed waived and released by Buyer unless made in writing within five (5) days after Buyer's receipt of shipment. Seller's responsibility for shipment shall cease upon delivery of the Products to the place of shipment, and all claims occurring thereafter shall be made to or against the carrier by Buyer. Delivery shall generally be 240 to 270 days after receipt by Seller of a signed Order, provided that, where applicable: (1) Seller receives the chassis a minimum of 90 days prior to scheduled delivery, (2) drawings are timely sent by Buyer and the approved drawings are returned to Seller by Buyer by the requested date, (3) all vendor-supplied components and Buyer-supplied accessories are received by Seller by the date necessary to comply with scheduled delivery. Seller shall not be liable for any delay in performance of this agreement or delivery of the Products, or for any damages suffered by Buyer by reason of delay, when the delay is caused, directly or indirectly, by a force majeure event described in Section 20 herein or any other cause beyond Seller's control. Claims for shortages in shipments shall be deemed waived and released by Buyer unless made in writing

within fifteen (15) days after Buyer's receipt of shipment. Seller's responsibility for shipment shall cease upon delivery of the Parts and or Equipment to the place of shipment, and all claims occurring thereafter shall be made to or against the carrier by Buyer.

5. Delays Caused By Buyer. In the event of a delay in shipment or delivery due to delay by Buyer in furnishing delivery instructions, arranging a method of payment satisfactory to Seller, submitting valid import permits or licenses, or any other delay caused by Buyer or at Buyer's request, if the Products are not shipped or delivered within five (5) days from the first date they are ready to be shipped or delivered, then Seller shall be entitled to charge, as compensation, any additional costs incurred related to such delay. If the Products are not shipped or delivered by the date which is ten (10) days from the first date they are ready to be shipped or delivered, then Buyer's order shall be deemed cancelled and Seller may, in its sole discretion, sell such Products to another buyer without any liability or responsibility to Buyer whatsoever. Seller shall have the right to keep payments on account already received from Buyer, and the difference between the sales price (increased by any other and all further costs, including but not limited to attorney's fees and expenses, storage and other costs, and interest accrued thereon) and the price received from another buyer shall constitute a debt of Buyer and bear interest at the same rate set forth in Section 2 herein. Seller shall be entitled to claim for any further damages suffered as a consequence of Buyer's breach of its obligations hereunder.

6. Cancellation. Prior to delivery to place of shipment, a Product order may be cancelled only with Seller's prior consent and upon terms indemnifying Seller from all resulting losses and damages. Seller shall have the right to cancel and refuse to complete a Product order if any term and/or condition governing this agreement is not complied with by Buyer. In the event of cancellation by Seller, or in the event Seller consents to a request by Buyer to stop work or to cancel the whole or any part of any order, Buyer shall, in the event that Seller asks Buyer to do so, make reimbursement to Seller, as follows: (i) any and all work that can be completed within thirty (30) days from date of notification to stop work on account of cancellation shall be completed, shipped and paid in full; and (ii) for work in progress and any materials and supplies procured or for which definite commitments have been made by Seller in connection with the order, Buyer shall pay such sums as may be required to fully compensate Seller for actual costs incurred, plus fifteen percent (15%). Buyer may not cancel any order after Seller's delivery to place of shipment. Orders for "Special" Equipment may not be cancelled after acceptance, except by Seller. Items of "Special" Equipment are those that differ from standard Seller specifications, have a limited market, or incorporate specifications that have been determined for a specific application. Determination of whether an item of Equipment is "Special" shall be made by Seller in its sole discretion.

7. Inspection and Acceptance. Buyer agrees that it shall inspect the Products immediately after receipt and promptly (in no event later than fifteen (15) days after receipt) notify Seller in writing of any non-conformity or defect. Buyer further agrees that failure to give such prompt notice or the commercial use of the Products shall constitute acceptance. Acceptance shall be final and Buyer waives the right to revoke acceptance for any reason, whether or not known by Buyer at the time of such acceptance. The giving of any such notice by Buyer shall automatically cause the provisions of Seller's warranty to apply and govern the rights, obligations and liabilities of the parties with respect to such nonconformity or defect, provided under no circumstances shall rejection give rise to any liability of Seller for incidental or consequential damages or losses of any kind. Seller shall not be bound by any agent's, employee's or any other representation, promise or inducement not set forth herein. Seller's catalogues, technical circulars, price lists, illustrations, drawings and any other similar literature are for Buyer's general guidance only and the particulars contained in them shall not constitute representations by Seller and Seller shall not be bound by them.

8. Warranty for New Products. Seller warrants its new Equipment and Parts manufactured and sold worldwide, to be free, under normal use and service, of any defects in material or workmanship for a period of twelve (12) months from the date of delivery (as limited by Seller's Limited Product Warranty); provided that Buyer sends Seller written notice of the defect within thirty (30) days of its discovery and establishes that: (i) the Equipment has been operated and maintained in strict compliance with Seller's operating and maintenance manuals ; and (ii) the defect did not result in any manner from the intentional or negligent action or inaction of Buyer, its agents or employees and (2) a new machine registration certificate has been completed, signed and delivered to the Seller within thirty (30) days of the Equipment's "in-service" date. If requested by Seller, Buyer must return any defective Product to Seller's manufacturing facility, or other location designated by Seller, for inspection, and if Buyer cannot establish that conditions (i) and (ii) above have been met, then this warranty shall not cover the alleged defect. Failure to give written notice of defect within such period shall be a waiver of this warranty and any assistance rendered thereafter shall not extend or revive it. Accessories, assemblies and components included in the Products of Seller, which are not manufactured by Seller, are subject to the warranty of their respective manufacturers. This warranty shall not cover any item on which serial numbers have been altered, defaced or removed. Maintenance and wear parts are not covered by this warranty and are the sole maintenance responsibility of Buyer. This warranty is limited to the original purchaser or end-user if sold to a distributor, and is not assignable or otherwise transferable without written agreement of Seller. **THIS WARRANTY IS EXPRESSLY IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) AND ALL OTHER OBLIGATIONS OR LIABILITY ON SELLER'S PART. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY CONTAINED HEREIN.** Seller neither assumes nor authorizes any other person to assume for Seller any other liability in connection with the sale of Seller's Products. This warranty shall not apply to any of Seller's Products or any part thereof which has been subject to misuse, alteration, abuse, negligence, accident, acts of God or sabotage. No action by either party shall operate to extend or revive this limited warranty without prior written consent of Seller.

9. Warranty for Used Equipment. Used Equipment sold hereunder is sold on an "AS IS, WHERE IS, WITH ALL FAULTS" BASIS WITH NO WARRANTIES WHATSOEVER, EXCEPT AS TO TITLE, UNLESS OTHERWISE SPECIFICALLY AGREED IN WRITING BY BUYER AND SELLER. SELLER ASSUMES NO RESPONSIBILITY FOR THE CONDITION, SAFETY, LEGAL COMPLIANCE, OR USABILITY OF THE USED EQUIPMENT AND MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE USED EQUIPMENT INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SELLER MAKES NO REPRESENTATION OR WARRANTY REGARDING THE CONDITION OF THE USED EQUIPMENT, NOR THE SUFFICIENCY OF ANY WARNINGS, INSTRUCTIONS OR MANUALS PROVIDED WITH THE USED EQUIPMENT. Seller recommends and Buyer acknowledges that Buyer should contact the original manufacturer to obtain all available information for the used Equipment, including but not limited to product manuals, warnings, safety bulletins, recall notices, and instructional placards before using the used Equipment. Seller shall not be responsible for providing such information. Buyer agrees not to assert any claims against Seller with respect to the used Equipment or its use. Buyer agrees that it shall inspect the used Equipment prior to issuance of a purchase order for such Equipment and acknowledges that it is not relying upon any photographs, images, videos, representations, statements or other assertions made by Seller with respect to the used Equipment's condition, but is relying upon its own knowledge and/or inspection of the used Equipment.

10. Remedies for Breach. IN THE EVENT OF ANY BREACH OF THE WARRANTY BY SELLER, THE PARTIES AGREE THAT SELLER'S LIABILITY SHALL BE LIMITED EXCLUSIVELY TO THE REMEDIES OF REPAIR OR REPLACEMENT (AT SELLER'S SOLE DISCRETION) OF ANY DEFECTIVE EQUIPMENT COVERED BY THE WARRANTY. In no event shall any repair or replacement of any defective equipment covered by the Seller's warranty extend the length of the warranty beyond the period specified in Section 8 herein.

11. Limitation of Liability. NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, SELLER AND ITS AFFILIATES SHALL NOT BE LIABLE FOR, AND SPECIFICALLY DISCLAIM, ANY LIABILITY FOR ANY: (A) LOST PROFITS AND/OR BUSINESS INTERRUPTION (WHETHER DIRECT OR INDIRECT); AND (B) INDIRECT, INCIDENTAL, CONSEQUENTIAL (WHETHER DIRECT OR INDIRECT) OR OTHER DAMAGES OR LOSSES OF ANY KIND WHATSOEVER, including, without limitation, labor costs, lost profits, loss of use of other equipment, third party repairs, personal injury, emotional or mental distress, improper performance or work, penalties of any kind, loss of service of personnel, or failure of Products to comply with any federal, state, provincial or local laws, regardless of whether arising from a breach of contract, or warranty, legal claims or otherwise. Nothing in this Section shall operate to exclude Seller's liability for death or personal injury when directly related to Seller's negligent act or omission.

12. Limitation of Actions. Any action for breach of this agreement must be commenced within one (1) year after the cause of action has accrued.

13. Specification Changes. In the event Seller incurs additional expense because of changes in specifications or drawings previously approved by Buyer, or in the event Seller is required to modify the ordered Equipment, perform any additional work or supply any additional Products, the additional expense shall be added to the purchase price. Buyer must submit to Seller a revised purchase order specifying any and all requested changes. Upon receipt of Buyer's revised purchase order, Seller shall have the right, in its sole discretion, to accept or reject any changes in specifications requested by Buyer.

14. Trade-in Offers. Trade-in offers are subject to Seller's inspection and acceptance of the equipment, which must have been maintained to U.S. Department of Transportation operating and safety standards. All accessories on the equipment, including without limitation jibs, winches, pintle hooks and trailer connectors, must remain with the equipment unless otherwise agreed by Seller and Buyer in writing. Seller reserves the right to cancel any trade-in offers or agreements if these conditions are not met, or if Buyer has misrepresented any information about the trade-in unit.

15. Insurance. Until the purchase price of any Products is paid in full, the Buyer shall provide and maintain insurance equal to the total value of the Equipment delivered hereunder against customary casualties and risks; including, but not limited to fire and explosion, and shall also insure against liability for accidents and injuries to the public or to employees, in the names of Seller and Buyer as their interest may appear, and in an amount satisfactory to Seller. If the Buyer fails to provide such insurance, it then becomes the Buyer's responsibility to notify the Seller so that the Seller may provide same; and the cost thereof shall be added to the contract price. All loss resulting from the failure to affect such insurance shall be assumed by the Buyer.

16. Patents, Copyrights, Trademarks, Confidentiality. No license or other rights under any patents, copyrights or trademarks owned or controlled by Seller or under which Seller is licensed are granted to Buyer or implied by the sale of Products hereunder. Buyer shall not identify as genuine products of Seller products purchased hereunder which Buyer has treated, modified or altered in any way, nor shall Buyer use Seller's trademarks to identify such products; provided, however, that Buyer may identify such products as utilizing, containing or having been manufactured from genuine products of Seller as treated, modified or altered by Buyer or Buyer's representative, upon prior written approval of Seller. All plans, photographs, designs, drawings, blueprints, manuals, specifications and other documents relating to the business of Seller ("Information") shall be and remain the exclusive property of Seller and shall be treated by Buyer as confidential information and not disclosed, given, loaned, exhibited, sold or transferred to any third party without Seller's prior written approval;

provided, however, that these restrictions shall not apply to Information that Buyer can demonstrate: (a) at the time of disclosure, is generally known to the public other than as a result of a breach of this Agreement by Buyer; or (b) is already in Buyer's possession at the time of disclosure by from a third party having a right to impart such Information.

17. Default and Seller's Remedies. In the event of default by Buyer, all unpaid sums and installments owed to Seller, shall, at Seller's sole option, become immediately due and payable without notice of any kind to Buyer. In addition to its right of acceleration, Seller may pursue any and all remedies allowed by law or in equity, including but not limited to any and all remedies available to it under the Delaware Uniform Commercial Code. In addition to the foregoing, and not in limitation thereof, Seller shall have the right to set off any credits or amounts owed to Buyer against any amounts owed by Buyer to Seller.

18. Indemnification by Buyer. Buyer hereby agrees to indemnify, release, defend and hold harmless Seller, its directors, officers, employees, agents, representatives, successors, and assigns against any and all suits, actions or proceedings at law or in equity (including the costs, expenses and reasonable attorney's fees incurred in connection with the defense of any such matter) and from any and all claims demands, losses, judgments, damages, costs, expenses or liabilities, to any person whatsoever (including Buyer's and Seller's employees or any third party), or damage to any property (including Buyer's property) arising out of or in any way connected with the performance or the furnishing of Products under this agreement, regardless of whether any act, omission, negligence (including any act, omission or negligence, relating to the manufacture, design, repair, erection, service or installation of or warnings made or lack thereof with respect to any Products furnished hereunder) of Seller, its directors, officers, employees, agents, representatives, successors or assigns caused or contributed thereto. If Buyer fails to fulfill any of its obligations under this paragraph or this agreement, Buyer agrees to pay Seller all costs, expenses and attorney's fees incurred by Seller to establish or enforce Seller's rights. The provisions of this paragraph are in addition to any other rights or obligations set forth in this agreement.

19. Installation. Unless otherwise expressly agreed in writing, Buyer shall be solely responsible for the installation and erection of the Products purchased. Although Seller may in some cases provide a serviceman, data and drawings to aid Buyer with installation or start-up, Seller assumes no responsibility for proper installation or support of any Products when installed and disclaims any express or implied warranties with respect to such installation and support. Notwithstanding whether data and drawings are provided or a serviceman aids in the installation, Buyer shall indemnify and hold Seller harmless and at Seller's request, defend Seller from all claims, demands or legal proceedings (including the costs, expenses and reasonable attorney's fees incurred in connection with the defense of any such matter) which may be made or brought against Seller in connection with damage or personal injury arising out of said installation or start-up.

20. Force Majeure. Seller shall not be liable to Buyer or be deemed to be in breach of this agreement by reason of any delay in performing, or any failure to perform, any of Seller's obligations in relation to the Products if the delay or failure was due to any cause beyond the reasonable control of Seller including (without limitation) strike, lockout, riot, civil commotion, fire, accident, explosion, tempest, act of God, war, epidemic, stoppage of transport, terrorist activity, supply shortage or changes in government, governmental agency, laws, regulations or administrative practices.

21. Anti-Corruption; Export Controls; No Boycotts. Buyer agrees that it shall, and that any party retained or paid by the Buyer ("Retained Party") shall, comply with all applicable laws including, but not limited to, laws prohibiting public corruption and commercial bribery. Buyer further agrees that it shall, and that any Retained Party shall, comply with all applicable export controls, economic sanctions, embargoes and regulations regarding the export, re-export, shipment, distribution and/or sale of Products, technology, information or warranty related services. Buyer further agrees that it shall not, and any Retained Party shall not, export or re-export Products, technology, information or warranty related services directly or with its knowledge indirectly into Iran, Cuba, Syria, North Korea, the Crimea Region of the Ukraine or Russia without Buyer first obtaining written approval from Seller. Failure to comply strictly with this section and all applicable laws, regulations and licensing/approval requirements shall be grounds for immediate termination of this agreement by Seller. Notwithstanding anything to the contrary contained in any agreement between the Buyer and Seller or in any other document or agreement relating to the Products sold hereunder, Seller will not comply with requests related to the boycott of any country or other jurisdiction, except to the extent such boycott is required by or otherwise not inconsistent with United States law.

22. Telematics. If a telematics system is included with the Equipment, the telematics system is administered by a third party ("Teleservice Provider") and collects a range of operational data about the Equipment including, but not limited to, usage, performance and reliability. Buyer shall gain any prior explicit consent from its employees and/or any third party, as required by applicable laws, enabling Seller and/or third parties to provide teleservices and data to Buyer. Buyer shall comply with all applicable laws relating to the provision of teleservices, including without limitations any applicable data protection laws. In addition to the foregoing, Buyer consents to Seller's collection, management and reporting of non-personal data about the Equipment including, but not limited to, performance, usage, fuel consumption, up /down times, defects, parts replacement, movement and location. Such information and data may also be used by Seller for warranty, product improvement, marketing, customer support, and research and development purposes, and to monitor, maintain, diagnose, update or repair the Equipment.

23. Construction and Severability. These Terms and Conditions of Sale constitute the entire agreement between the parties regarding the subject matter hereof and shall be construed and enforced in accordance with the laws of Delaware. The United

Nations Convention on Contracts for the International Sale of Goods (1980) (CISG) shall not apply. The invalidity or unenforceability of any provisions of this agreement shall not affect any other provision and this agreement shall be construed in all respects as if such invalid or unenforceable provision were omitted.

24. Jurisdiction. The parties agree that the proper and exclusive forum and venue in all legal actions brought to enforce or construe any provisions herein shall be in United States District Court, District of Delaware or, if federal jurisdiction is lacking in such action, in New Castle County Superior Court in Delaware.

25. No Assignment. No rights arising under this agreement may be assigned by the Buyer unless expressly agreed to in writing by the Seller.

26. No Set-off. Buyer shall have no right to set-off any amounts it may owe Seller against amounts Seller may owe Buyer under this or any other agreement between Buyer and Seller.

27. Miscellaneous. Buyer represents that: (i) it is solvent and has the financial ability to pay for the Equipment and Parts purchased hereunder and (ii) it has all requisite right, power and authority to perform its obligations under this agreement.

Buyer's Initials: _____



Terex Utilities, Inc.
3140 15th Ave SE, Watertown, SD 57201
Phone: 605-882-4000 Fax: 605-882-1842

10/09/2020

Quote Number: QU15225-05

GREEN LAKE COUNTY HIGHWAY COM.

570 SOUTH STREET
GREEN LAKE, WI 54941
Attention: BARRY MASHUDA

Phone: (920)294-4060

Qty. Description

UNIT

- 1 One (1) new Terex Commander 4045 model hydraulic rotating digger derrick with a boom tip winch.

Design Criteria:

- * Design criteria is in accordance with current industry and engineering standards applicable and accepted for structural and hydraulic design.
- * Meets ANSI/ASSE A10.31-2019.

Elevation:

- * From +80 degrees above horizontal to -20 degrees below horizontal.

Dual Lift Cylinders:

- * Double-acting cylinders with chrome plated rods and integral holding valves. Trapezoid mounting design offers greater boom support and stability providing less wear and longer life. Either cylinder can hold the rated lifting capacity of the derrick.

Steel Lower Boom:

- * The boom is a fabricated box utilizing high-strength steel plates.

Steel Intermediate Boom:

- * Fabricated box constructed of high strength steel. Powered by a double acting hydraulic cylinder equipped with integral holding valves on both extend and retract ports.

Fiberglass Hydraulic Upper Boom:

- * Capable of lifting the hydraulic capacity of the derrick in all positions.
- * Tested and rated for line voltage up to and including 46 KV AC.
- * Tapered non-metallic rollers mounted at the end of the intermediate boom support the fiberglass boom under load minimizing scratches and abrasions. The sides of the fiberglass boom are supported and guided by non-metallic rollers to reduce tracking.

Continuous And Unrestricted Rotation:

- * A hydraulic rotary manifold provides a rotating oil distribution system for continuous and unrestricted rotation.

Miscellaneous:

- * Relief valves to protect the derrick circuits and digger-winch circuits.
- * Hydraulic hoses are equipped with permanent type hose fittings.
- * A custom load chart stating actual lifting capacity considering all final options, chassis, body,

Qty. Description

- outriggers, and other fixed equipment with capacity based on completed unit stability is included.
- * A boom-angle indicator and decal are mounted on each side of the lower boom.
 - * All metallic components of the complete digger derrick device are prime painted.
 - * Two complete manuals providing operational and maintenance procedures, and a replacement parts listing.
 - * Warning decals provided with unit.

Boom Tip Winch Including Transferable Pole Buddy Assembly:

- * 15,000 lb. bare drum capacity worm gear winch equipped with hydraulic counterbalance valve mounted at end of intermediate boom. Telescopic trombone tubes provide oil to the winch motor. Equipped with flanged pole buddy transferrable from intermediate boom to upper boom.
- *Note: For use of a synthetic rope or wire rope on boom tip worm gear winch.

Bare Boom Lift Capacities:

- * Boom Angle: All Booms Retracted
- * Maximum Elevation 22250 lbs.
- * 10 Ft. Radius 10900 lbs.

Work Zone Capacities:

- Median Digging Radius 18.1 ft.
- Digging Capacity at Median Radius 2826 lbs.
- Lift Capacity at Median Radius 4901 lbs.

Sheave Height:

- * With intermediate boom extended, 35.7 ft. at maximum elevation.
- * With upper boom extended, 44.8 ft. at maximum elevation.
- * Dimensions are based on a 40" chassis frame height.

Load Radius:

- * 25.6 ft. from C/L of rotation, at 0 degree, intermediate boom extended.
- * 34.8 ft. from C/L of rotation, at 0 degree, upper boom extended.

- 1 Ship Loose Console Radio Remote Control:
 - * Provides individual levers on a ship loose console, temporarily mounted on pedestal below rotation.
 - * Includes (1) waist harness, (2) rechargeable batteries, (1) battery charger, (1) receiver, (1) transmitter, and placards.
 - * Includes a control and horn.
 - * Stop/start at control station.

Note: This will require Combined System Hydraulics - Not available Single Speed Hydraulics.
- 1 Pole Guide For Transferable Pole Buddy with Interlock:
 - * Hydraulic cylinders equipped with holding valves operate the tilt and open/close on pole guide arms.
 - * Pole guide hoses are contained in a chain type carrier, installed on the side of the boom.
 - * Transfers from the end of the intermediate boom to the end of the upper boom and vice versa.
 - * The pole guide is installed on the transferable pole buddy flange assembly.
 - * Protects both the pole guide and the boom from accidental damage caused by extending the upper boom while the pole guide is on the intermediate boom and tilted downward. Includes actuating plunger and two poppet valves.

Qty. Description

Hydraulic Tool Power At Platform for units with radio control.

* Hydraulic tool power at the platform designed to operate open center hydraulic tools only at engine idle speed.

**** ADDITIONAL INFORMATION ****

* See Boom Tip Modification below.

**** ALTERED FROM STANDARD ****

- 1 Customer Declined Pole Claws:

- 1 Load Moment Limiter (Hydraulic Overload Protection) for Boom and Rotation systems: (For radio controls)
 - * An Operator aid to prevent damage to the derrick by stopping selected functions if an over load occurs. The functions necessary to eliminate the overload condition remain operational, to relieve the cause of overload.
 - * Disables boom down, boom extend, winch up, and digger dig when boom lift or rotation senses an overloaded condition.
 - * The system is fully automatic relative to the operation and re-set functions.

- 1 Worm Gear Rotation:
 - * Provided by worm gear drive through reversible hydraulic motor. Worm gear drive powers a special design long life hardened "shear ball" ball bearing rotation gear.

- 1 Docking Station at Platform for Remote Radio Controls:
 - * Required for radio control with fiberglass boom and platform.
 - * Provides a fiberglass docking station assembly for mounting on the lip of the platform to hold the radio transmitter.
 - * Includes an angle indicator for the winch.
 - * Sequential boom extension will be automatic when radio transmitter is put into the docking station.
 - * Note: Used on steel booms or manual fiberglass upper section.

- 1 Single Platform Shaft Application:
 - Adjustable band type brake with fiberglass locking handle, horizontal storage feature, necessary sleeve, pin and keeper for attaching to the sheave head.

- 1 Fiberglass Platform 24" x 24" x 42" Deep:
 - * Fiberglass platforms complete with inside/outside step with slip-resistant surface.
 - * Rated capacity of 300-lbs.

- 1 A safety harness with lanyard is provided for fall arrest.

- 1 Customer Declined, Anti-Two Block.
 - * Purchaser is aware of OSHA Crane and Derrick standard, subpart CC for construction (1926.1416).

- ** ALTERED FROM STANDARD ****
- 1 Delete Tilt Pole Plummer - Remove Tilt Hydraulics / Pole Claws Hold / Tilt Pole Plummer Interlock and Carrier:

Qty. Description

- 1 12,000 ft-lb Two Speed Digger With Hydraulic Shift (ESK 76BA):
 - * Planetary gear drive powered by reversible hydraulic motor.
 - * Telescopic trombone tube is provided to shift the two-speed digger hydraulically.
 - 1 LH Auger Storage and Digger Hanger:
 - * Digger hanger bracket is box section and is equipped with a transfer protection system, auger stowage bracket with self latching auger catch and hydraulic auger release.
 - * The auger stowage bracket stores up to a 24" diameter auger, in the standard position.
 - * Digger storage protection system to protect the auger storage cable from damage caused by over-winding. Oil from the digger system is returned to tank before the cable is over-stressed.
 - 1 Nylon 1" flat webbing strap for auger roll-up.
 - 1 Solid Hex Auger Shaft and Coupler:
 - * 60" long x 2-1/2" hex auger shaft with auger adjustment holes.
 - 1 Terex Texoma 9" TXC (carbide tooth auger) x 104" long - 60" of 5/16" flighting, 2 1/2" hex bushing. Rollup dish and cable pin welded in place and auger painted Terex Red.
 - 1 Shoulder Harness for Radio Control.
 - 1 Remote Radio Controls Storage for inside of cab or body compartment.
 - 1 Corner Mount Unit with Primary Outriggers And Cross Platform:
 - * The pedestal is welded to a heavy duty "cross the chassis" sub-base. The sub-base supports the street side diagonal outrigger and the curbside swing-slant outrigger. Both outrigger cylinders are equipped with integral holding valves. Outrigger spread from center line of chassis, curbside 7.9 ft. with 10 in. penetration and street side 4.8 ft. with 6 in. penetration based on a 40 in. chassis frame.
- ** ALTERED FROM STANDARD ****
- 1 Automatic Boom Latch:
 - * Terex PN: 9151840.
 - 1 Pump for use with approximate 130% PTO:
 - * Combined flow with winch line coordination.
 - * Provides 13 gallons per minute to boom functions and 32 gallons per minute to digger/winches functions and combines flow when boom is not in operation providing 45 gallons per minute to digger/winches at 1600 rpm engine speed, boom extension is 5% slower than winch.
 - * Provides 5 gallons per minute for tools at 700 rpm engine speed.
 - * Includes pump kit.
 - 1 Hydraulic Reservoir:
 - 50 gallon hydraulic oil reservoir includes 10 micron replaceable cartridge type return line filter mounted in reservoir with bypass valve incorporated in filter to prevent restricted flow.
 - * A 100 mesh in screen in filter cap. A 40 mesh screen included in tank outlet and a 2 1/2" full flow ball type shut off valve.
 - * Relief valves to protect the derrick circuits and digger-winches circuits.

Qty. Description

- 1 Ball type shut off valve for return line.
- 1 Terex Advanced Chassis Controller:
 - * Multiplexed system to include: Controller, LCD Screen, Manual and Schematics.
 - * Standard Options: Diagnostics, Status Screens, Event Log, Hours Meter, Selectable Button Labels, System Alerts and System Test.
 - * Programmable settings allow installer to customize/select options need for their application.
 - * Back-up Camera ready.
 - * Screw terminal-type connections and enclosure to cover connections.
 - * Recommended on Class 6 and above chassis with multiple outputs
 - * The PTO hour is standard. The engine hour meter is standard (When available). This is a message we get from the truck Data link. All trucks except Ford give us the Engine hours. So if it's a Ford, we just display PTO hours.
- 1 Extra Heavy Duty A-Frame Outriggers with swivel type stabilizer pads. (8348)
- 1 Controls For 2-Sets Of Outriggers And Auxiliary Tool Outlets Below Rotation (Diggers):
 - * Recessed at rear of truck each side for ease of view for outrigger placement.
 - * Includes switches and alarm for outrigger in motion alarm.
- 1 High Pressure code to obtain 3000 psi at outriggers.
Note - this is on A-frames and Radial outriggers for Digger Derricks.
- 1 Adjustable flow divider for auxiliary tool outlets below rotation.
- 1 Outrigger Interlock:
 - * To operate the boom the outriggers must be extended.
- 1 Subframe constructed for an non-possum belly application.
- 1 Tie Down Kit.
- 1 Extended derrick / aerial device warranty, three (3) year, in lieu of standard one year warranty for Terex South Dakota, Inc. installed unit.
- 1 Warranty Travel - Three Year.
 - ** ADDITIONAL INFORMATION **
 - This applies to the customers location and /or immediate service area only:
 - * Green Lake County Highway Commission
 - * 570 South Street
 - * Green Lake WI 54941
- 1 Clevis for two part line attachment.

BODY, INSTALLATION
 - ** BODY INFORMATION **
- 1 Aluminum Sign Body / Steel Flatbed & Accessories:
 - * As per the attached Body Specifications.

Qty. Description

- 1 Install Corner Mount Derrick And Install All Associated Components:
 - * Final test and inspect completed unit including stability and dielectric testing per manufacturers requirements and ANSI/ASSE A10.31-2013.
 - * NOTE: Overall Height not to exceed 12-Feet.
 - * Reference Customer Specifications for Accessory Mounting Locations.

- 1 Hose and fittings to connect the hydraulic system from the oil reservoir to the pump and unit.

- 1 Chassis Spring Additions:
 - * Build up right rear chassis springs to level vehicle.

- 1 Power take off with indicator light for automatic transmission.

- 1 DOT Inspection.

- 1 Set chassis parameters.

- 1 Back-up alarm to sound when the vehicle is shifted into reverse.

- 4 Laminated wood outrigger pad 24" x 24" x 2-1/4" with rope handle.
 - * Includes outrigger pad storage.

- 4 Rubber wheel chocks with eye bolt.

- 1 Wilton #675 - 5" vise.

- 1 Vise bracket that mounts horizontal in a socket, removable.

- 1 Grab handles as necessary for 3-point contact.

- 1 Two section gripstrut bumper steps (LH & RH) tapered for pintle hook, 10" wide.

- 1 Rigid stirrup step mounted on side access for ground to body access.

- 1 Installation of Ship Loose Lower Control Console:
 - * Location to be determined on Approval Drawings.

- 2 Mud flap with logo 30" tall.
Note: Trim As-Required.

- 1 A mounting kit for under 45" flatbed frame height for a pair of mud flaps.

- 2 Mud flap with no logo 36" tall.
Note: Trim As-Required.

- 1 A mounting kit for under 45" flatbed frame height for a pair of mud flaps.

Qty. Description

- 2 Buyers Products B50, D-ring tie down rated for 15,500# safe working.
- 1 Vertical platform storage in cargo area.
- 1 Chain Storage with three (3) light cluster
- 1 Boom rest for Digger Derrick, H-frame style weldment used on A-frame, Radials or Out/Down outriggers, 36" wide.
- 1 Digger Derrick single position boom rest saddle.
- 1 Peterson LED 7-lamp DOT Lighting Package:
 - * Complies with FMVSS 108.
 - * Includes required lights, junction box and wiring harness.
- 1 Lighted license plate bracket kit with LED light.
- 1 Peterson Clearance Light Kit with 2.50" Amber, LED.
- 4 110 volt outlet with GFI.
- 1 Power Cord Reel:
 - * Woodhead Aero-Motive Model #435D - NEMA Rated for Outdoor Use.
 - * 50-ft of 12-3 Wire.
 - * Wired to Inverter using Ground Fault Circuit Interrupter Circuit.
 - * Reference Customer Specifications & Photos for details.
 - * Terex PN: 65333532.
- .
(1) NEMA Rated GFI Protected Duplex Outlet / Housing & Cover:
 - * Terex PN: TBD.
- 1 Battery Isolator and Tender Low Voltage Disconnect:
 - * Terex PNs: TBD.
- 1 Dimensions 3000N inverter, 3000W continuous, 120VAC, Up to 25A.
- 2 Inverter Spacer Tube
- 1 Whelen 4 corner LED, Amber Strobe Light Kit with 4" grommets.
 - *Wired into On/Off switch in cab.
- 1 Whelen 2 corner LED, Amber Strobe Light Kit with 4" grommets.
 - *Wired into On/Off switch in cab.
- 4 Whelen Responder LP-Series Lightbar(s):
 - * Model #R1LPPA - Poly Carbonate Base - (6) CON3 Super-LED AMBER Modules.
 - * Locate (1) on each side of Boom Rest - must be same height.
 - * Terex PN: TBD.

Qty. Description

- 4 Strobe mounting bracket weldment.
- 4 Rigid 10-Inch Spot/Flood LED Light(s):
 - * Model #110313.
 - * Terex PN: 65376922.
- 4 Top Raising Telescopic Pole Kit(s):
 - * Model #SB-200-W2.
 - * Terex PN: 65327558.
- 1 Glad Hand Kit
 - *Requires tractor protection valve and air lines to the rear.
- 1 Tekonsha Voyager electric brake control.
- 1 Computer Stand Assembly:
 - * Customer to verify requirements after receipt of order.
 - * Similar to Terex PN: 65368990.
- 1 Remote engine stop/start And two speed control from rear of vehicle.
- 1 BH82000 Combination Pintle Hook And 2" Ball:
 - * Safety chain eyes.
 - "Pintle hook brackets and attachment methods are designed to meet the associated pintle hook ratings. They are not designed for recovery purposes. If recovery attachments are required, please order the appropriate tow eyes."
- 1 ICC rear bumper.
- 1 7-blade trailer socket. (RV style)
- 1 Heat shields, as required to protect hydraulic system from exhaust.
- 1 Oil tank mounting for external reservoirs.
- 60 Fill with Hydraulic oil for general purpose use.
 - * Refer to the product maintenance manual for specific type to be used.
- 1 65-Feet of 1-Inch Diameter Amsteel II Plus Winch Rope:
 - * Eyes on each end.
 - * Terex PN: TBD.
- 1 Miller swivel hook, 6 ton.
- 1 Removable Platform rest for Digger Derrick pinned on the Steel Intermediate Boom:

Qty. Description

Note: Not available on General.

- 1 Hannay spring loaded hydraulic hose reel with 4-way roller assembly.
 - * 50' of 1/2" Hose Set.
 - * Quick disconnect HTMA male and female flush faced couplers and dust covers.
 - * Installed on hose reel with ball stop.

- 1 Safety Kit consists of the following:
 - * 5-lb ABC fire extinguisher with bracket.
 - * James King triangle reflector kit.

- 1 Bosch Laser Distance Meter:
 - * Model #488Z80.
 - * Indoor/ Outdoor - Maximum Measuring Distance 400-Feet.
 - * Terex PN: TBD.

- 1 Paint line body one color up to 156".
 - *Note - Paint under carriage black.

 - * YELLOW.

- 1 Paint C4000 derrick one color.
 - * WHITE to match Chassis Cab.

- 1 Paint body floor with non-skid paint.

- 1 Paint compartment top with non-skid paint.

- 1 Paint inside compartment of line body one color up to 156".
 - * YELLOW.

- 1 Paint premium for yellow, orange or red color.

- 1 Undercoat body.

- 70 Spray-on Polyurethane Bed Liner:
 - *Superior impact and compression resistance.
 - *Excellent abrasion and chemical resistance.

- CHASSIS
- ** CHASSIS INFORMATION **
- 1 2022 International HV507 6x4 Regular Cab Chassis:
 - * As per the attached Chassis Proposal #13670-02.

Qty. Description

SPECIAL CHARGES
1 Delivery to Customer.

** ADDITIONAL INFORMATION **

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** ALTERED FROM STANDARD **

1 .

1 First Article Inspection, Digital

** ALTERED FROM STANDARD **

1 3-Year Silver Level Preventive Maintenance and Inspection Program:
* See the attached Preventive Maintenance & Inspection Program Literature.

OPTIONS:

ADD

1. Federal Excise Tax will be added if certificate is not supplied with order.
2. The following items must be considered by the purchaser if not already included:
Back-up Alarm \$150.00; Strobe Light \$525.00; Wheel Chocks \$110.00;
Outrigger Pads \$200.00 to \$650.00 (based on pad size & type); Truck Grounding Cable \$550.00;
Barricade Kit \$895.00; Hydraulic Over Load Protection (derrick only, price will vary
based on final option selection); Boom / Boom Stow Interlock \$700.00; Engine Stop / Start
\$200.00 to \$795.00 (based on unit model); Auxiliary Let Down \$1500.00; and Platform
Liner \$380.00 to \$625.00 (based on platform size).
3. Terex Utilities, Inc. strongly recommends all installation accessories be located up front in
front in the quote or secondarily on the approved engineering drawing. Any accessories located
or relocated during manufacturing may be subject to additional charges.
4. Terex Utilities, Inc. - Assembly in Watertown, South Dakota is ISO 9001:2000 Certified.

Sign Body/Flatbed Specifications:

Flatbed Dims:

Length: 197" Overall

Width: 100" Overall

Flatbed Materials:

Floor: 12 Ga. Hot rolled Treadplate floor.

Understructure: 6" Structural Steel Crossmembers on 12" Centers.

No Stake Pockets or Rub Rails.

Tailshelf Description:

Length: 48"

Width: 100"

Curbside Recessed Side Access Steps & Operator's Platform:

* Work Platform Size: 24" Wide.

* Steel Gripstrut Steps.

* (1) Folding Step to access Flatbed – Located Mid-Height.

* Folding Bottom Rung Step.

Retainer Rails around 3-Sides of Tailshelf:

3-Inch Tall x 3/16-Inch Thick with Corners Notched for Drainage.

Transverse Through Compartment, 24" Wide x 12.50" Tall (ID).

* (1) Drop Down Door on each end, with Stainless Steel Paddle Slam Latch.

7-Lamp Light Bar (installed at rear).

Sign Body Dims:

Length: 128" Overall

Width: 100" Overall

Height: 46"

Depth: 40", 34" and 26"

Sign Body Materials:

.090 Aluminum Body Materials.

.125 Aluminum Treadplate Compartment Tops.

Bolt-on Aluminum Treadplate to span across SS and CS body compartments

* Reinforced for use as Walking Surface.

Double Panel Body Doors.

Automotive Bulb Type Weatherstripping.

Stainless Steel Automotive Rotary Paddle Door Latches.

Aluminum Rod and Socket-type Door Hinges.

Chain stops on all doors.

LED Rope Light Compartment Lights in Streetside & Curbside Body Compartments with Weather Pack Connectors.

Curbside Body Compartments:

C-1 Vertical Compartment - 46"H x 26"D x 26"W:

* Top of Compartment:

Sign Storage for 28" Signs.

-- Front Half of 1/4" Wide Channels.

-- Rear Half of 1/2" Wide Channels.

* Bottom of Compartment:

Open.

(Continued)

C-2 Vertical Compartment - 46"H x 26"D x 26"W:

- * Top of Compartment:
 - Sign Storage for 28" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.
- * Bottom of Compartment:
 - Open.

C-3 Vertical Compartment - 46"H x 26"D x 26"W:

- * Top of Compartment:
 - Sign Storage for 18" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.
- * Bottom of Compartment:
 - Open.

C-4 Vertical Compartment - 46"H x 26"D x 26"W:

- * Shelving installed on Dual Uni-Strut for infinite adjustment.
- * (1) Adjustable Shelf with Dividers on 4" Centers.
- * (1) Pull Out Drawer with Dividers on 4" Centers.
 - 4" Deep x Full Width.
 - With Heavy Duty Drawer Slides and (2) Latches.
 - Mounted under Adjustable Shelf.
- * (1) Adjustable Shelf with Dividers on 4" Centers.
- * (4) Friction Slide Drawers
 - 4" Wide x 4" High x 12" Deep.
 - Mounted in Compartment Bottom.
- * Compartment Vented for Inverter

C-5 Vertical Compartment -- 46"H x 26"D x 18"W:

- *(1) Fixed shelf w/ 2" lip
 - 10" above compartment bottom
- *Bottom of Compartment
 - Open

Streetside Body Compartments:

S-1 Vertical Compartment - 46"H x 40"D x 26"W:

- * Top of Compartment:
 - Open.
- * Bottom of Compartment:
 - Sign Storage for 36" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.

S-2 Vertical Compartment - 46"H x 34"D x 26"W:

- * Top of Compartment:
 - Sign Storage for 30" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.
- * Bottom of Compartment:
 - Open.

S-3 Vertical Compartment - 46"H x 34"D x 26"W:

- * Top of Compartment:
 - Sign Storage for 30" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.
- * Bottom of Compartment:
 - Open.

(Continued)

S-4 Vertical Compartment - 46"H x 34"D x 26"W:

- * Top of Compartment:
 - Sign Storage for 21" Signs.
 - Front Half of 1/4" Wide Channels.
 - Rear Half of 1/2" Wide Channels.
- * Bottom of Compartment:
 - Open.

Transverse Sign Storage:

- * .090 Aluminum Body Materials.
- * 6" Wide (ID) x 50" High x 100" Deep.
- * 1/2" Wide Channels at Bottom.
- * Hinged Pad-Lockable Retainers on each end.
- * Locate in front of Body Compartments on subframe

Curbside Underbody Box – 24"H x 20"D x 28"W

- * Pullout Drawer full width x 6"H
 - Locate at top of box
 - (1) Fixed divider – 1/3 Right 2/3 Left
- * (18) Friction Slide Drawers
 - 4" Wide x 4" High x 12" Deep.
 - Mounted in Compartment Bottom.

Streetside Underbody Box - 24"H x 20"D x 28"W

- * Open

Post/Ladder Storage Rack – 46"H x 172"D x 30"W

- * Steel construction
- * For storage of 4x6 posts up to 16' long
- * Mount on flatbed against CS compartments.
- * Top 12" to be ladder storage with rollers
- * Bottom rack for wood post storage to be 8" above flatbed
- * Steel post storage loop – 24"H x 6"W
 - Mount off SS of rack
 - Bottom to be 8" above flatbed

Prepared For:
TEREX - # 13670-02 QU15225 GREEN LAKE C4045
Steve Fedt
600 Oakwood Road
Watertown, SD 57201-
(605)882 - 4000
Reference ID: 13461-02

Presented By:
NORTH CENTRAL INTL
Robin Kunz
4511 NORTH CLIFF
SIOUX FALLS SD 57104 -
(605)336-3820

Thank you for the opportunity to provide you with the following quotation on a new International truck. I am sure the following detailed specification will meet your operational requirements, and I look forward to serving your business needs.

Terex purchased chassis thru Terex preferred International Dealer would include special tow package for 12 months/unlimited mileage to nearest International Dealership for a warrantable failure. Coverage limited to \$550 per incident.

Model Profile
2022 HV507 SFA (HV507)

AXLE CONFIG:	6X4
APPLICATION:	Utility/Service (Other)
MISSION:	Requested GVWR: 58000. Calc. GVWR: 58000 Calc. Start / Grade Ability: 21.23% / 1.84% @ 55 MPH
DIMENSION:	Wheelbase: 183.00, CA: 108.00, Axle to Frame: 100.00
ENGINE, DIESEL:	{Cummins L9 350} EPA 2017, 350HP @ 2000 RPM, 1000 lb-ft Torque @ 1400 RPM, 2200 RPM Governed Speed, 350 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} Single Reduction, 40,000-lb Capacity, .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, 52" Axle Spacing, Multileaf Springs, with Rubber Center Bushings
PAINT:	Cab schematic 100WK Location 1: 9219, Winter White (Std) Chassis schematic N/A

<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
HV50700	Base Chassis, Model HV507 SFA with 183.00 Wheelbase, 108.00 CA, and 100.00 Axle to Frame.	5946/3741	9687
1570	TOW HOOK, FRONT (2) Frame Mounted	8/0	8
1AND	AXLE CONFIGURATION {Navistar} 6x4	0/0	0
	<u>Notes</u> : Pricing may change if axle configuration is changed.		
1CGE	FRAME RAILS Heat Treated Alloy Steel (125,000 PSI Yield); 11.25" x 4.00" x 0.500" (285.75mm x 101.6mm x 12.7mm); 480.8" (12212mm) Maximum OAL	169/836	1005
1LLA	BUMPER, FRONT Swept Back, Steel, Heavy Duty	0/0	0
1MEJ	FRAME, SPECIAL EFFECTS Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline	0/0	0
1WGB	WHEELBASE RANGE 177" (450cm) Through and Including 226" (575cm)	0/0	0
2ARZ	AXLE, FRONT NON-DRIVING {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity	186/0	186
3AHU	SUSPENSION, FRONT, SPRING Multi-Stage Parabolic Taper Leaf, Shackle Type, 20,000-lb Capacity, with Shock Absorbers	167/0	167
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications	0/0	0
	<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		
4619	TRAILER CONNECTIONS Four-Wheel, with Hand Control Valve and Tractor Protection Valve, for Straight Truck	2/0	2
	<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.		
4732	DRAIN VALVE {Berg} with Pull Chain, for Air Tank	0/0	0
4AZE	AIR BRAKE ABS {Wabco AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator)	5/0	5
4EBD	AIR DRYER {Wabco System Saver 1200} with Heater	7/4	11
4EVH	BRAKE CHAMBERS, REAR AXLE {MGM TR3030LP3TSHD} 30/30 SqiN Spring Brake	0/18	18
4EXV	BRAKE CHAMBERS, FRONT AXLE {Bendix} 24 SqiN	4/0	4
4LAG	SLACK ADJUSTERS, FRONT {Gunite} Automatic	14/0	14
4LGG	SLACK ADJUSTERS, REAR {Gunite} Automatic	0/28	28
4SPA	AIR COMPRESSOR {Cummins} 18.7 CFM	0/0	0

<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
4VKC	AIR DRYER LOCATION Mounted Inside Left Rail, Back of Cab	13/8	21
4VKH	AIR TANK LOCATION (2) Mounted Under Battery Box, Outside Right Rail, Under Cab	0/0	0
4WBX	DUST SHIELDS, FRONT BRAKE for Air Cam Brakes	10/0	10
4WDM	DUST SHIELDS, REAR BRAKE for Air Cam Brakes	0/20	20
4XDL	BRAKES, FRONT {Bendix Spicer ES-165-6X} Air S-Cam Type, Heavy Duty Fabricated Spider, Fabricated Shoe, Single Anchor Pin, Size 16.5" X 6", 23,000-lb Capacity	35/0	35
4XDM	BRAKES, REAR {Bendix Spicer ES-165-7X} Air S-Cam Type, Heavy Duty Fabricated Spider, Fabricated Shoe, Single Anchor Pin, Size 16.5" X 7", 23,000-lb Capacity per Axle	0/98	98
4XEE	PARK BRAKE CHAMBERS, ADDITIONAL (2) Spring Brake Type	0/30	30
5708	STEERING COLUMN Tilting	13/2	15
5CAW	STEERING WHEEL 4-Spoke; 18" Dia., Black	0/0	0
5PTB	STEERING GEAR (2) {Sheppard M100/M80} Dual Power	92/-5	87
6DGS	DRIVELINE SYSTEM {Dana Spicer} SPL140 Main Driveline with SPL170 Interaxle Shaft, for 6x4	4/20	24
7BKY	EXHAUST SYSTEM Single, Horizontal Aftertreatment Device, Frame Mounted Under Right Rail Back of Cab, Includes Single Short Horizontal Tail Pipe	0/0	0
7SDP	ENGINE COMPRESSION BRAKE {Jacobs} for Cummins ISL/L9 Engines; with Selector Switch and On/Off Switch	40/8	48
7WCW	TAIL PIPE (1) Horizontal, Short, Exits Right Side, 90 Degree Turnout	13/10	23
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment	0/0	0
	<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		
	: 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		
8518	CIGAR LIGHTER Includes Ash Cup	1/0	1
8GHU	ALTERNATOR {Delco Remy 28SI} Brush Type, 12 Volt, 200 Amp Capacity, Pad Mount, with Remote Sense	-1/0	-1
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	2/0	2

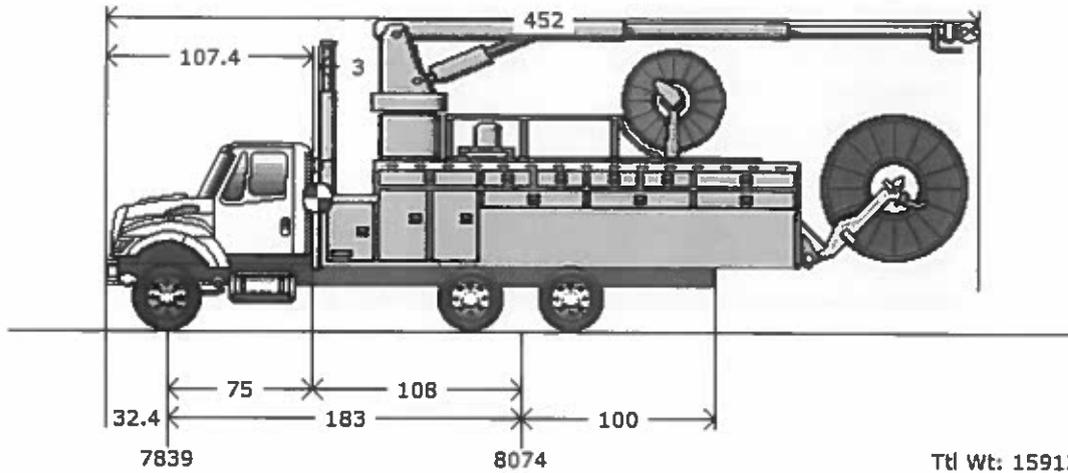
<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
8HAH	ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame; for Combined Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake Accommodation Package with Cab Connections for Mounting Customer Installed Electric Brake Unit, Less Trailer Socket	0/2	2
8MSG	BATTERY SYSTEM (Fleetrite) Maintenance-Free, (3) 12-Volt 1980CCA Total, Top Threaded Stud	25/28	53
8RMZ	SPEAKERS (2) 6.5" Dual Cone Mounted in Both Doors, (2) 5.25" Dual Cone Mounted in Both B-Pillars	5/3	8
8RPT	RADIO AM/FM/WB/Clock/USB Input/Auxiliary Input	3/0	3
8TKK	TRAILER AUXILIARY FEED CIRCUIT for Electric Trailer Brake Accommodation/Air Trailer ABS; with 30 Amp Fuse and Relay, Controlled by Ignition Switch	1/0	1
8TPR	STOP, TURN, TAIL & B/U LIGHTS (Weldon) Multi-Function LED Lamp, Mounted Outside Rails, Includes LED License Plate Light	-3/14	11
8TTR	BATTERY BOX Steel, with Plastic Cover, 30" Wide, 2-4 Battery Capacity, Mounted Right Side Under Cab	0/0	0
8VAY	HORN, ELECTRIC Disc Style	0/0	0
8WNH	RUNNING LIGHT (2) Daytime	0/0	0
8WPH	CLEARANCE/MARKER LIGHTS (5) (Truck Lite) Amber LED Lights, Flush Mounted on Cab or Sunshade	0/0	0
8WTK	STARTING MOTOR (Delco Remy 38MT Type 300) 12 Volt, Less Thermal Over-Crank Protection	8/1	9
8WWJ	INDICATOR, LOW COOLANT LEVEL with Audible Alarm	0/0	0
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses	0/0	0
8XGT	TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender	0/0	0
8XHD	BATTERY DISCONNECT SWITCH 300 Amp, Disconnects Charging Circuits, Locks with Padlock, Cab Mounted	2/0	2
8XHN	HORN, AIR Single Trumpet, Black, with Lanyard Pull Cord	3/0	3
9585	FENDER EXTENSIONS Rubber	6/0	6
9AAB	LOGOS EXTERIOR Model Badges	0/0	0
9AAE	LOGOS EXTERIOR, ENGINE Badges	0/0	0
9HBM	GRILLE Stationary, Chrome	0/0	0
9WAC	BUG SCREEN Mounted Behind Grille	5/0	5
9WBC	FRONT END Tilting, Fiberglass, with Three Piece Construction, for WorkStar/HV	0/0	0
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100	0/0	0
	<u>Includes</u> : PAINT SCHEMATIC ID LETTERS "WK"		
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone	0/0	0
10USP	PROMOTIONAL PACKAGE Utility Silver Package	0/0	0
11001	CLUTCH Omit Item (Clutch & Control)	0/0	0

<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection	0/0	0
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	3/0	3
12EHX	ENGINE, DIESEL (Cummins L9 350) EPA 2017, 350HP @ 2000 RPM, 1000 lb-ft Torque @ 1400 RPM, 2200 RPM Governed Speed, 350 Peak HP (Max)	560/4	564
12THT	FAN DRIVE (Horton Drivemaster) Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed <u>Includes</u> : FAN Nylon	0/0	0
12UWZ	RADIATOR Aluminum, Cross Flow, Front to Back System, 1228 SqIn, with 1167 SqIn 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	23/-5	18
12VBC	AIR CLEANER Single Element	0/0	0
12VHJ	FEDERAL EMISSIONS (Cummins L9) EPA, OBD and GHG Certified for Calendar Year 2020	0/0	0
12VXU	THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel	0/0	0
12WZJ	EMISSION COMPLIANCE Low NOx Idle Engine, Complies with California Clean Air Regulations; Includes "Certified Clean Idle" Decal located on Driver Door	0/0	0
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	0/0	0
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	208/75	283
13WEH	AUTOMATIC NEUTRAL Allison Transmission Shifts to Neutral When Parking Brake is Engaged and Remains in Neutral When Parking Brake is Disengaged, without On/Off Switch	0/0	0
13WET	TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 & 2000 Series Transmission	0/0	0
13WGH	TRANSMISSION DIPSTICK Relocated to Right Side of Transmission	0/0	0
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints	0/0	0
13WUS	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS) and Regional Haul Series (RHS), General Purpose Trucks, Package Number 223, Modified for Single Input Auto Neutral	0/0	0
13VWW	NEUTRAL AT STOP OMIT	0/0	0
13WYU	SHIFT CONTROL PARAMETERS (Allison) 3000 or 4000 Series Transmissions, Performance Programming	0/0	0

<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
13XAL	PTO LOCATION Customer Intends to Install PTO at Left Side of Transmission	0/0	0
14GVN	AXLE, REAR, TANDEM {Meritor MT-40-14X-4DCR} Single Reduction, 40,000-lb Capacity, .433"(11mm) Wall Housing Thickness, Driver Controlled Locking Differential in Forward-Rear and Rear-Rear Axle, R Wheel Ends . Gear Ratio: 5.86	0/2117	2117
14UHC	SUSPENSION, REAR, TANDEM {Hendrickson RT-403} Walking Beam, 40,000-lb Capacity, 52" Axle Spacing, Multileaf Springs, with Rubber Center Bushings	0/923	923
14WBS	TRANSVERSE TORQUE RODS with Hendrickson Suspensions	0/0	0
15LLZ	LOCATION FUEL/WATER SEPARATOR Mounted Outside Left Rail, 41" Back of Cab	-3/3	0
15LNG	FUEL/WATER SEPARATOR {Davco 245} 12 VDC Electric Heater, Includes Pre-Heater, Includes Water-in-Fuel Sensor	3/1	4
15SRE	FUEL TANK Top Draw, Non-Polished Aluminum, D-Style, 19" Tank Depth, 50 US Gal (189L), Mounted Left Side, Under Cab	25/4	29
15WDG	DEF TANK 7 US Gal (26L) Capacity, Frame Mounted Outside Left Rail, Under Cab	0/0	0
16030	CAB Conventional, Day Cab	0/0	0
16564	HEATER SHUT-OFF VALVES (1) Ball Valve Type, Supply Line	5/0	5
16BAM	AIR CONDITIONER with Integral Heater and Defroster	54/2	56
16GDC	GAUGE CLUSTER Base Level, English with English Speedometer and Tachometer, for Air Brake Chassis, Includes Engine Coolant Temperature, Primary and Secondary Air Pressure, Fuel and DEF Gauges, Oil Pressure Gauge, Includes 3 Inch Monochromatic Text Display	0/0	0
16HGH	GAUGE, OIL TEMP, AUTO TRANS for Allison Transmission	1/0	1
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster	0/0	0
16JNV	SEAT, DRIVER {National 2000} Air Suspension, High Back with Integral Headrest, Cloth, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Angle Adjust	-13/-5	-18
16SED	GRAB HANDLE, EXTERIOR (2) Black, Aluminum, for Cab Entry Mounted Left and Right Side at B-Pillar	3/0	3
16SMM	SEAT, PASSENGER {National} Non Suspension, High Back, Fixed Back, Integral Headrest, Cloth	15/8	23
16SNM	MIRRORS (2) C-Loop, Heated, Black Heads and Arms, 7.5" x 14" Flat Glass, Includes 7.5" x 7" Convex Mirrors, for 102" Load Width	0/0	0
	<u>Notes</u>		
	⌚ Mirror Dimensions are Rounded to the Nearest 0.5"		
16VKB	CAB INTERIOR TRIM Classic, for Day Cab	0/0	0
	<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		

<u>Code</u>	<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
16WBY	ARM REST, RIGHT, DRIVER SEAT	3/0	3
16WJU	WINDOW, POWER (2) and Power Door Locks, Left and Right Doors, Includes Express Down Feature	5/0	5
16WSK	CAB REAR SUSPENSION Air Bag Type	0/0	0
16XJN	INSTRUMENT PANEL Flat Panel	0/0	0
16ZBT	ACCESS, CAB Steel, Driver & Passenger Sides, Two Steps per Door, for use with Day Cab and Extended Cab	0/0	0
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	72/0	72
28DUW	WHEELS, REAR {Accuride 51408} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs	0/-40	-40
29597	WHEEL SEALS, REAR {Stemco Voyager} Oil Lubricated Wheel Bearings	0/0	0
29598	WHEEL SEALS, FRONT {Stemco Voyager} Oil Lubricated Wheel Bearings ILO Standard Oil Seals	0/0	0
29WLK	WHEEL BEARING, FRONT, LUBE {EmGard FE-75W-90} Synthetic Oil	0/0	0
7372135423	(8) TIRE, REAR 11R22.5 Load Range G HDR2 (CONTINENTAL), 491 rev/mile, 75 MPH, Drive	0/120	120
7792545438	(2) TIRE, FRONT 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position	90/0	90
Services Section:			
40128	WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A	0/0	0
40PUP	SRV CONTRACT, EXT VEH COVERAGE {Navistar} To 36-Month/100,000 Miles (160,000 km), Excludes Extended Warranty for Engine and Transmission	0/0	0
40RBE	SERVICES, TOWING {Navistar} Service Call to 12-Month/Unlimited Mileage to the Nearest Navistar Dealer for Navistar Warrantable Failure as Contract Defined; Includes Engine Failure if Supplier Declines Tow Coverage & ESC Supplied thru Navistar; \$550 (USA) Maximum Benefit per Incident	0/0	0
40SZD	SRV CONTRACT, EXT CMS ENG/AFTR {Cummins} To 60-Month/100,000 Miles (160,000 km), Extended Cummins L9 Engine Coverage, Protection Plan 1 and Aftertreatment	0/0	0
Total Component Weight:		7839/8073	15912
	Heated LED Headlights	0/0	0
	Rust proof underside of cab	0/0	0
	Parts and Repair Manuals	0/0	0
Total Goods Purchased:		0/0	0

The weight calculations included in this proposal are an estimate of future vehicle weight. The actual weight as manufactured may be different from the estimated weight. Navistar, Inc. shall not be liable for any consequences resulting from any differences between the estimated weight of a vehicle and the actual weight.



Ttl Wt: 15913

Graphics are provided as visual aids only and are not intended to represent the actual scale, shape, or color of the truck or its components. All weights are represented in lbs.

Truck			Body/Trailer			Chassis/Empty Weights	
Bumper to Axle	(BA)	32.4	Body Length	(BL)	342	Tractor Front Axle:	7,839
Wheelbase	(WB)	183.00				Tractor Rear Axle:	8,073
Axle to Frame	(AF)	100.00					
Axle to Back Cab	(ABC)	75					
Cab to Axle	(CA)	108					
Usable CA		108					
CA Reduction Adjustment		0.00					
Fuel-Diesel(Gals)		0					
DEF(Gals)		0					

Before the Cab			Cab			Payloads Chassis			Body			After the Body		
#	Weight	CG	#	Weight	CG	#	Weight	CG	#	Weight	CG	#	Weight	CG
						1	0	0						

Loads	
Payload Weight:	0
Driver:	0
Fuel-Diesel(Lbs):	0
DEF(Lbs):	0

Weight Distribution	
Total Front Axle:	7,839
Total Rear Axle:	8,074
Total Weight:	15,913

Weights and clearances in this proposal are estimates only. Navistar, Inc. is not liable for any consequences resulting from any differences between the estimated weights and clearances and the actual manufactured weights and clearances.

Weight Distribution

All weights are represented in lbs.

	<u>Truck</u>		
	Front	Rear	Total
<u>Chassis Weight</u>			
Chassis Weight:	7,839	8,073	15,912
Fuel:	0	0	0
DEF:	0	0	0
Empty Body:	0	1	1
(Curb Weight):	7,839	8,074	15,913

Loads

Payloads:	0	0	0
Driver:	0	0	0
Axle Totals (Gross Weight):	7,839	8,074	15,913

Weight Ratings

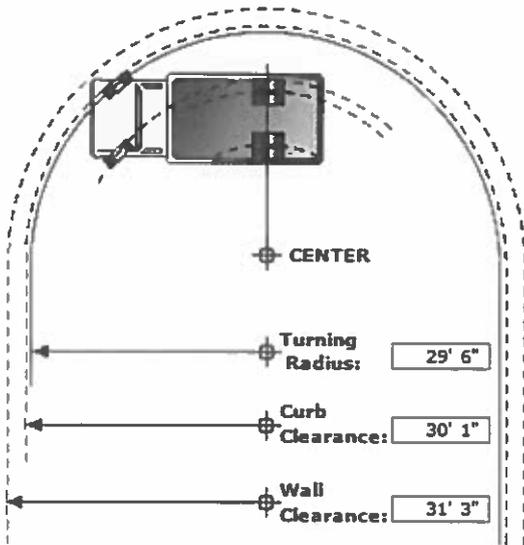
	<u>Truck</u>	
	Front	Rear
Axle(axle capacity)	18,000	40,000
Tire(tire capacity)	20,000	46,720
Suspension(suspension capacity)	20,000	40,000
Spring:	0	
Fed Bridge Law (axle spread):	20,000	34,000 (52")
Wheel Combination	Load	Limit
1 - 3	15,913	48,500

Federal Total Vehicle Weight Limit: 80,000

Maximum Gross Vehicle Weight Rating (GVWR) 58,000 - Gross Vehicle Weight(GVW) 15,913 = 42,087 Reserves

Weight Summary

* Distributed weights are within capacity limits



Series: HV
 Model: HV507
 Description: HV507 SFA
 Model Year: 2022

Calculation Factors

Wheelbase: 183
 Front Axle: 0002ARZ
 Description: AXLE, FRONT NON-DRIVING, {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity
 Front Wheel: 0027DUL
 Description: 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
 Front Tire: 07792545438
 Description: TIRES, 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position
 Steering Gear: 0005PTB
 Description: STEERING GEAR, (2) {Sheppard M100/M80} Dual Power

Turning Radius Statistics

General Information

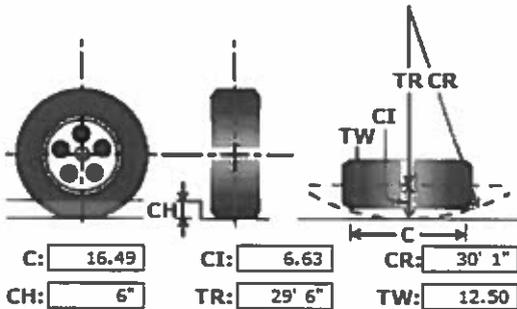
Inside Turn Angle: 40 Degrees
 Radial Overhang: 21

Axle Information

KingPin Inclination: 6.25 Degrees
 KingPin Center: 71

Turning Radius - Curb View

C	- Curb Contact Length:	16.49
CI	- Curb Clearance Increment:	6.63
CR	- Curb Clearance Radius:	30'1"
CH	- Curb Height:	6"
TR	- Turning Radius:	29'6"
TW	- Tire Width:	12.50



* All Measurements are in inches, unless otherwise specified.

This information is based on engineering information available at this time. Actual figures may vary. Navistar, Inc. cannot accept liability for consequences due to this variance.

(0012EHX)

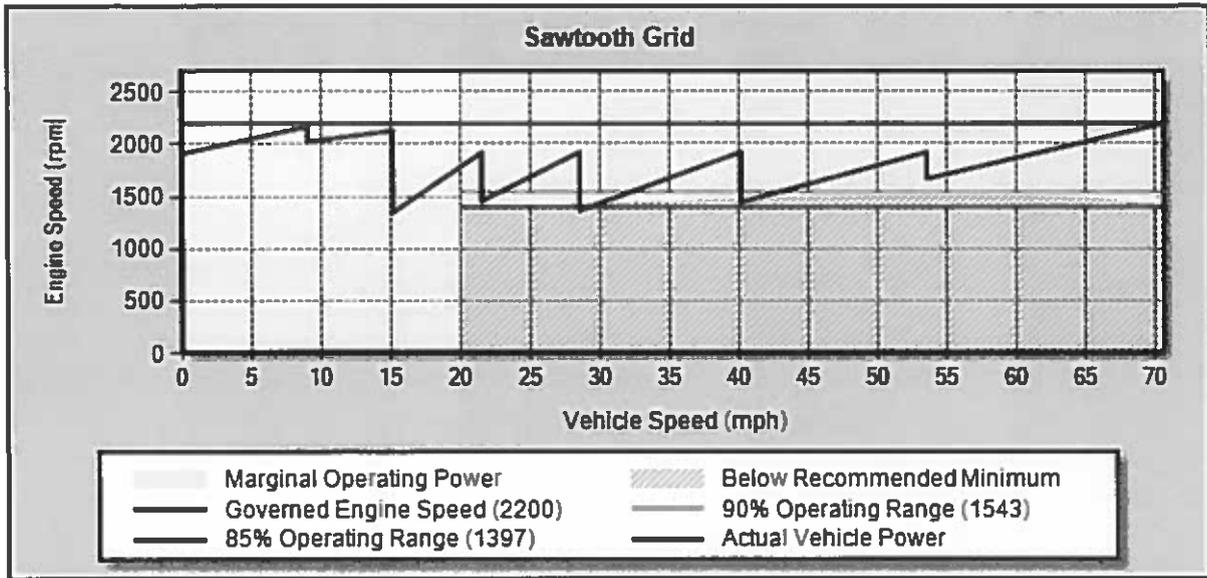
ATTACHMENTS: 0012VXU 0012THT 0007SDP

<u>Parameter</u>	<u>Value</u>	<u>UOM</u>
Max Accelerator Vehicle Speed	68	MPH
Road Speed Governor Upper Droop	0	MPH
Road Speed Governor Lower Droop	0	MPH
Vehicle Speed Limiter Override	N, DISABLE FEATURE OR FUNCTION	N/A
VSLO Maximum Road Speed Delta	0	MPH
VSLO Maximum Distance	47	MILES
Max Engine Speed No Veh Speed Sensr	2088	RPM
LBSC Enable	N, DISABLE FEATURE OR FUNCTION	N/A
LBSC - Engine Speed Breakpoint	1800	RPM
Gear Down Protection Enable	N, DISABLE FEATURE OR FUNCTION	N/A
GDP - Heavy Load Vehicle Speed	62	MPH
GDP - Light Load Vehicle Speed	57	MPH
Driver Reward Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Driver Reward Mode	0, ROAD SPEED GOVERNOR	N/A
Fuel Economy - Expected Level	5.88	MPG
Fuel Economy - Good Level	6.47	MPG
Fuel Economy - Best Level	6.92	MPG
% Idle Time - Expected Level	30	%
% Idle Time - Good Level	20	%
% Idle Time - Best Level	10	%
Speed Reward - Expected Level	0	MPH
Speed Reward - Good Level	0	MPH
Speed Reward - Best Level	0	MPH
Speed Reward - Penalty Level	0	MPH
Idle Speed Adjustment Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
Low Idle Speed	750	RPM
Idle Shutdown Enable	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Time Before Shutdown	15.0	MIN
ISD Percent Engine Loading	100	%
ISD With PTO	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Manual Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD With Parking Brake Set	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Ambient Temperature Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Cold Ambient Air Temperature	30	F
ISD Intermediate Ambient Air Temp	40	F
ISD Hot Ambient Air Temperature	81	F
ISD Manual Override Inhibit Zone En	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Hot Ambient Automatic Override	Y	N/A
ISD Engine Coolant Temp Threshold	30	F
Vehicle Acceleration Management	N, DISABLE FEATURE OR FUNCTION	N/A
Variable Acceleration Speed 1	20	MPH
Variable Acceleration Speed 2	50	MPH
Variable Acceleration Rate 1	3.60	MPH/SEC
Variable Acceleration Rate 2	3.60	MPH/SEC
Cruise Control Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
CC Maximum Vehicle Speed	68	MPH
CC Save Set Speed	N, DISABLE FEATURE OR FUNCTION	N/A
CC Upper Droop	0.0	MPH
CC Lower Droop	0.0	MPH
CC Auto Resume	N, DISABLE FEATURE OR FUNCTION	N/A
Engine Fan Min On Time For AC	30	SEC
Remote Accelerator Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Remote Accelerator Mode	1, REMOTE ACCELERATOR PEDAL OR LEVER WITH TRANS VERIFICATION	N/A
PTO Enable	Y, ENABLE FEATURE OR FUNCTION	N/A

PTO In Cab Mode	Y, ENABLE FEATURE OR FUNCTION	N/A
Remote PTO Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Remote Station PTO Enable	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Max Engine Speed	2200	RPM
PTO Min Engine Speed	750	RPM
PTO Maximum Engine Load	800	LB-FT
PTO Max Vehicle Speed	2	MPH
PTO Accelerator Override	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Accel Override Max Engine Speed	2400	RPM
PTO Clutch Override	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Service Brake Override	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO Parking Brake Interlock Mode	1, PTO PRK BRK INT TYPE SET TO CAB ONLY	N/A
PTO Transmission Neutral Interlock	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO Eng Spd Limit w/VSS Limit	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Ignore Vehicle Speed Sensor	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Resume Switch Speed	925	RPM
PTO Set Switch Speed	850	RPM
PTO Additional Switch Speed	1500	RPM
PTO Ramp Rate	250	RPM/SEC
Remote PTO Number of Speed Settings	1	N/A
Remote PTO Speed Setting 1	1000	RPM
Remote PTO Speed Setting 2	1200	RPM
Remote PTO Speed Setting 3	1400	RPM
Remote PTO Speed Setting 4	1400	RPM
Remote PTO Speed Setting 5	1500	RPM
Remote Station PTO Resume Sw Spd	1000	RPM
Remote Station PTO Set Switch Speed	1500	RPM
Remote Station PTO Addition Sw Spd	1500	RPM
Transmission Driven PTO	N, DISABLE FEATURE OR FUNCTION	N/A
Transmission Driven PTO Type	0, ENGINE DRIVEN STEADY LOAD	N/A
Powertrain Protection Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Max Torque Allow By Axle/Driveshaft	23602	LB-FT
Max Torque in Top Gear Range	2995	LB-FT
Max Torque in Int. Gear Range	2995	LB-FT
Max Torque in Low Gear Range	2995	LB-FT
Max Torque w/o Vehicle Speed	1475	LB-FT
Lowest Gear of Top Gear Range	2.00	N/A
Lowest Gear of Int. Gear Range	3.00	N/A
Lowest Gear of Low Gear Range	6.00	N/A
Engine Protection Shutdown	N, DISABLE FEATURE OR FUNCTION	N/A
Engine Protection Restart Inhibit	N, DISABLE FEATURE OR FUNCTION	N/A
Engine Prot Coolant Level Shutdown	N, DISABLE FEATURE OR FUNCTION	N/A
Sudden Veh Speed Decel Threshold	6.96	MPH
Trip Information Vehicle Ovrsped1	0	MPH
Trip Information Vehicle Ovrsped2	0	MPH
Veh Speed Sensor Anti Tamper Level	1, HIGH LEVEL	N/A
Maintenance Monitor Enable	N	N/A
Maintenance Monitor Operating Mode	0, MAINTENANCE MONITOR AUTOMATIC MODE OF OPERATION	N/A
Maintenance Monitor Alert Percent	90	%
Maintenance Monitor Distance	15000	MILES
Maintenance Monitor Fuel	2000	GALLONS
Maintenance Monitor Time	500	HOURS
Maintenance Monitor Interval Factor	1.00	N/A
Master Password	000000	N/A
Adjustment Password	000000	N/A
Reset Password	000000	N/A

These Electronic Parameters have been successfully finalized

ENGINE/TRANSMISSION MATCHING



Sawtooth Details

Gear	Trans Ratio	Upshift Power Avail		Govern Power Avail		Peak Power Comparison			Warn Msg
		Veh Spd (MPH)	Eng Spd (RPM)	Veh Spd (MPH)	Eng Spd (RPM)	Gear Step (%)	85% Range (%)	90% Range (%)	
1C	3.49	0.0	1913	9.0	2170	N/A	57	43	
2C	1.86	9.0	2024	15.1	2132	N/A	57	43	
2L	1.86	15.1	1347	21.5	1921	N/A	57	43	
3L	1.41	21.5	1457	28.5	1926	N/A	57	43	
4L	1.00	28.5	1366	40.1	1925	N/A	57	43	
5L	0.75	40.1	1444	53.5	1925	N/A	57	43	
6L	0.65	53.5	1669	70.6	2200	N/A	57	43	

STEADY STATE PERFORMANCE

Performance Results	Gear	Veh Spd (mph)	Eng Spd (rpm)	Fuel Econ (mpg)	Grade (%)	Notes
LEVEL ROAD MAXIMUM SPEED	6L	72.2	2251	5.86	0.00	
HI GEAR SPEED @ RATED RPM	6L	70.6	2200	5.91	0.72	
55.0 MPH STEADY-STATE	6L	55.0	1714	7.66	1.84	
TYPICAL OPERATING SPEED	6L	67.0	2088	6.32	1.17	- Calculated Grade Ability/Fuel Economy

VEHICLE ORDER CODING ERRORS MAY RESULT IF THE "LEVEL ROAD MAX SPEED" VALUE EXCEEDS THE "HI GEAR SPEED @ RATED RPM" AND IS USED AS THE ENGINE PROGRAMMABLE VEHICLE SPEED LIMIT.

IF THE RESULTS CONTAIN "----", VEHICLE CANNOT ATTAIN THAT SPEED.

IF THE RESULTS CONTAIN "*****", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

Recommendations / General Information

IDLE FUEL RATE : 0.82 GALS/HR @ 700.0 RPM
TORQUE CONVERTER : TC-419 STALL RATIO: 2.02

Fuel Economy Route: Normal Route - City, Suburban, and Highway

Key Fuel Economy Information	City	Suburban	Highway	Notes
MILES PER GALLON	5.21	7.41	7.33	
AVERAGE MPH	18.8	39.6	54.6	
MISSION MINUTES	30.03	52.22	173.41	

IF THE RESULTS CONTAIN "*****", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

GRADEABILITY PERFORMANCE

Enroute - Full Throttle Upshift Performance

Gear	Trans Ratio	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Warn Notes Msg
1C	3.49	0.0	1913	0.00	36.62	STALL
		5.6	2053	216.98	25.15	70% EFF
		7.3	2105	241.80	21.23	80% EFF
		9.0	2170	248.43	17.48	
2C	1.86	9.0	2024	199.79	13.84	
		15.1	2132	247.62	9.93	
2L	1.86	15.1	1347	220.76	8.76	
		15.7	1400	239.64	9.18	
		21.5	1921	303.99	8.38	
3L	1.41	21.5	1457	246.56	6.64	
		28.5	1926	303.18	6.05	
4L	1.00	28.5	1366	225.85	4.29	
		29.2	1400	237.94	4.43	
		40.1	1925	300.90	3.86	
5L	0.75	40.1	1444	238.07	2.84	
		53.5	1925	292.48	2.30	
6L	0.65	53.5	1669	259.57	1.90	
		68.4	2131	273.66	1.00	
		70.6	2200	258.56	0.72	RATED RPM
		71.1	2216	237.57	0.50	
		72.2	2252	188.09	0.00	LEVEL ROAD

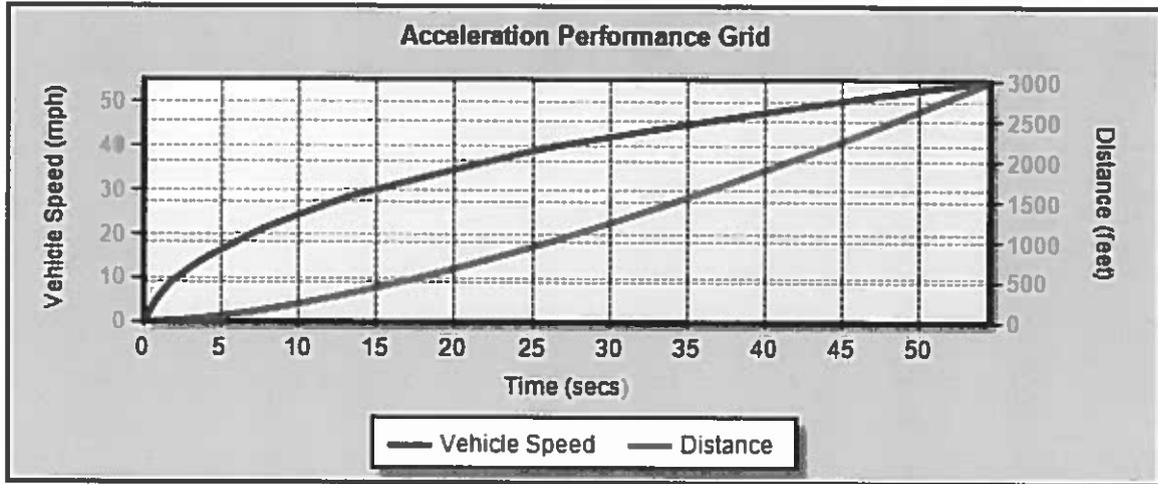
STARTING / TOP GEAR PERFORMANCE

Gear	Trans Ratio	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Warn Notes Msg
1C	3.49	0.0		0.00	36.62	STALL
		7.3		241.80	21.23	80% EFF - Calculated Start Ability

THE TRANSMISSION WAS SIMULATED IN PERFORMANCE OPERATING MODE.

ACCELERATION PERFORMANCE RESULTS

Acceleration Performance Grid



Acceleration Performance: TIME TO ACCELERATE ON A GRADE TO 55.0 (MPH) IS 54.62 (SECS)

Acceleration Performance Details

Gear	Time (secs)	Distance (feet)	Speed (mph)	Notes
1C	0.16	0.1	1.0	
	0.32	0.5	2.0	
	0.48	1.1	3.0	
	0.65	1.9	4.0	
	0.84	3.2	5.0	
	1.04	4.8	6.0	
2C	1.26	6.9	7.0	
	1.51	9.6	8.0	
	1.77	12.9	9.0	
	2.14	18.0	10.0	
	2.52	23.8	11.0	
	2.91	30.4	12.0	
2L	3.33	38.0	13.0	
	3.77	46.7	14.0	
	4.23	56.5	15.0	
	4.29	57.9	15.1	
	4.84	70.4	16.1	
	5.38	83.6	17.1	
3L	5.93	97.7	18.1	
	6.48	112.9	19.1	
	7.05	129.2	20.1	
	7.63	146.6	21.1	
	7.88	154.6	21.5	
	8.61	178.1	22.5	
4L	9.35	203.0	23.5	
	10.09	229.3	24.5	
	10.85	257.0	25.5	
	11.61	286.3	26.5	
	12.39	317.0	27.5	
	13.13	347.6	28.5	
	14.22	393.8	29.5	
	15.30	441.2	30.5	

Gear	Time (secs)	Distance (feet)	Speed (mph)	Notes
	16.39	490.7	31.5	
	17.49	542.5	32.5	
	18.61	596.5	33.5	
	19.74	652.9	34.5	
	20.88	711.6	35.5	
	22.04	772.8	36.5	
	23.22	836.5	37.5	
	24.41	902.8	38.5	
	25.61	971.8	39.5	
5L	26.42	1018.7	40.1	
	28.08	1117.9	41.1	
	29.77	1221.0	42.1	
	31.48	1328.1	43.1	
	33.22	1439.3	44.1	
	34.98	1554.7	45.1	
	36.77	1674.5	46.1	
	38.59	1798.9	47.1	
	40.43	1927.8	48.1	
	42.31	2061.7	49.1	
	44.22	2200.5	50.1	
	46.16	2344.7	51.1	
	48.13	2494.3	52.1	
	50.15	2649.7	53.1	
6L	50.94	2711.5	53.5	
	53.43	2909.2	54.5	
	54.62	3004.8	55.0	

REQUIRED TCAPE INFORMATION

TCAPE Factors For Vehicle

Selected Rear Axle Gear Ratio(s):	5.86
Engine Fan Type:	VISCOUS
Parked PTO:	NO
Enroute PTO:	NO
ID Wheel Slip Conditions:	Yes
Road Governor/Cruise Ctrl:	No
Road Surface Type:	TYPICAL
Fuel Economy Route:	Normal Route - City, Suburban, and Highway
Vehicle Vocation:	MODERATE ON/OFF HIGHWAY
Acceleration Grade (%):	0.0
Frontal Area (FT ²):	76
Speed Limit on Route (MPH):	61.0
Relative Drag Coefficient:	85
Alternator (A):	40
Steering Gear (HP):	2.60
Air Conditioner (HP):	3.20
Vehicle Width (IN):	96
Vehicle Height (IN):	110
Weight on Drive Axle (LBF):	40000
Acceleration Vehicle Spd (MPH):	55.0
Air Compressor (HP):	2.20
TIRE, FRONT	2 - RADIAL LOWPROFILE
TIRE, REAR	8 - RADIAL NORMAL

Components

0001AND	AXLE CONFIGURATION {Navistar} 6x4
0002ARZ	AXLE, FRONT NON-DRIVING {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity
0004SPA	AIR COMPRESSOR {Cummins} 18.7 CFM
0005PTB	STEERING GEAR (2) {Sheppard M100/M80} Dual Power
0008GHU	ALTERNATOR {Delco Remy 28SI} Brush Type, 12 Volt, 200 Amp Capacity, Pad Mount, with Remote Sense
0012EHX	ENGINE, DIESEL {Cummins L9 350} EPA 2017, 350HP @ 2000 RPM, 1000 lb-ft Torque @ 1400 RPM, 2200 RPM Governed Speed, 350 Peak HP (Max)
0012THT	FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed
0013AVR	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
0014GVN	AXLE, REAR, TANDEM {Meritor MT-40-14X-4DCR} Single Reduction, 40,000-lb Capacity, .433"(11mm) Wall Housing Thickness, Driver Controlled Locking Differential in Forward-Rear and Rear-Rear Axle, R Wheel Ends
0016030	CAB Conventional, Day Cab
0016BAM	AIR CONDITIONER with Integral Heater and Defroster
07372135423	TIRE, REAR 11R22.5 Load Range G HDR2 (CONTINENTAL), 491 rev/mile, 75 MPH, Drive 11R22.5 Load Range G HDR2 (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
07792545438	TIRE, FRONT 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position

TCAPE HAS BEEN DESIGNED TO GIVE ECONOMY AND PERFORMANCE PREDICTIONS WHICH HAVE BEEN SHOWN TO BE TYPICAL FOR MOST OPERATIONS. HOWEVER, DUE TO OPERATING CONDITIONS, DRIVER INFLUENCES, AND OTHER FACTORS, YOUR RESULTS MAY VARY FROM THOSE PREDICTED. ALSO, BECAUSE OF FUEL MAPPING PROCEDURES USED BY VARIOUS ENGINE MANUFACTURERS, COMPARISONS OF FUEL ECONOMY RESULTS FOR DIFFERENT BRANDS OF ENGINES MAY VARY FROM THOSE SHOWN.

NAVISTAR, INC. SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF USE, INTERRUPTION OF BUSINESS OR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND THAT ARE INCURRED BY DEALER OR BY DEALER'S CUSTOMERS AS A RESULT OF RELIANCE ON TCAPE, WHETHER THE CLAIM IS IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

GVWR Component Rating(s)

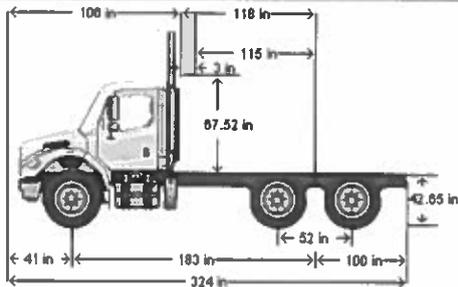
Ratings	Primary			Adjusted By			GAWR* (lbf)	GVWR** (lbf)
	ATA Class	Feature	Rating (lbf)	ATA Class	Feature	Rating (lbf)		
Front Component Ratings	AXLE, FRONT NON-DRIVING	0002ARZ	18000					
	BRAKES, FRONT	0004XDL	23000					
	SUSPENSION, FRONT, SPRING	0003AHU	20000					
	WHEELS, FRONT	0027DUL	20000	TIRE, FRONT	0779254	20000		
Front GAWR							18000	
Rear Component Ratings	BRAKES, REAR	0004XDM	46000					
	BRAKE SYSTEM, AIR	0004091	46000					
	SUSPENSION, REAR, TANDEM	0014UHC	40000					
	WHEELS, REAR	0028DU W	55560	TIRE, REAR	0737213	46720		
	AXLE, REAR, TANDEM	0014GVN	40000					
Rear GAWR							40000	
Overall Vehicle Limitations	TRANSMISSION, AUTOMATIC	0013AVR	80000					
GVWR Based on Axle Ratings***								58000
Calculated GVWR								58000

* GAWR (Gross Axle Weight Rating) is the rating capacity of an axle system which include wheels, tires, axles, brakes, springs, and suspensions.
 ** GVWR (Gross Vehicle Weight Rating) is the maximum amount that a loaded vehicle can weight.
 *** GVWR Based on Axle Ratings = Front GAWR + Rear GAWR. Overall vehicle weight limitations are not taken into account.
 **** GCWR (Gross Combined Weight Rating) is the maximum weight of a tractor and trailer.

Prepared for:
 Sheldon Seward
 TEREX UTILITIES BB
 500 OAKWOOD RD
 WATERTOWN, SD 57201
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Prepared by:
 DANNY AMARO
 FOUR STAR FREIGHTLINER OF
 MONTGOMERY
 3140 HAYNEVILLE ROAD
 MONTGOMERY, AL 36108
 Phone: 334-263-1085

D I M E N S I O N S



VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model	M2106
Wheelbase (545)	4650MM (183 INCH) WHEELBASE
Rear Frame Overhang (552)	2550MM (100 INCH) REAR FRAME OVERHANG
Fifth Wheel (578)	NO FIFTH WHEEL
Mounting Location (577)	NO FIFTH WHEEL LOCATION
Maximum Forward Position (in)	0
Maximum Rearward Position (in)	0
Amount of Slide Travel (in)	0
Slide Increment (in)	0
Desired Slide Position (in)	0.0
Cab Size (829)	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Sleeper (682)	NO SLEEPER BOX/SLEEPER CAB
Exhaust System (016)	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE

TABLE SUMMARY - DIMENSIONS

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Dimensions	Inches
Bumper to Back of Cab (BBC)	106.3
Bumper to Centerline of Front Axle (BA)	40.7
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	117.5
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	114.5
Back of Cab Protrusions (Exhaust/Intake) (CP)	0.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	217.9
Cab Height (CH)	67.5
Wheelbase (WB)	183.1
Frame Overhang (OH)	100.4
Overall Length (OAL)	324.2
Rear Axle Spacing	52.0
Unladen Frame Height at Centerline of Rear Axle	42.6

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

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S P E C I F I C A T I O N P R O P O S A L

Data Code	Description	Weight Front	Weight Rear
Price Level			
PRL-20M	M2 PRL-20M (EFF 04/30/19)		
Data Version			
DRL-036	SPECPRO21 DATA RELEASE VER 036		
Vehicle Configuration			
001-172	M2 106 CONVENTIONAL CHASSIS	5,709	3,503
004-222	2022 MODEL YEAR SPECIFIED		
002-004	SET BACK AXLE - TRUCK		
019-001	TRAILER TOWING PROVISION AT END OF FRAME FOR TRUCK	10	10
003-001	LH PRIMARY STEERING LOCATION		
General Service			
AA1-003	TRUCK/TRAILER CONFIGURATION		
AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
A85-010	UTILITY/REPAIR/MAINTENANCE SERVICE		
A84-1UT	UTILITY BUSINESS SEGMENT		
AA4-011	FIXED LOAD COMMODITY		
AA5-006	TERRAIN/DUTY: 10% (SOME) OF THE TIME, IN TRANSIT, IS SPENT ON NON-PAVED ROADS		
AB1-008	MAXIMUM 8% EXPECTED GRADE		
AB5-003	MAINTAINED GRAVEL OR CRUSHED ROCK - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
995-091	MEDIUM TRUCK WARRANTY		
A66-99D	EXPECTED FRONT AXLE(S) LOAD : 18000.0 lbs		
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 40000.0 lbs		
A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 58000.0 lbs		

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Data Code	Description	Weight Front	Weight Rear
A70-99D	EXPECTED GROSS COMBINATION WEIGHT : 80000.0 lbs		
Truck Service			
AA3-006	UTILITY BODY		
AF3-2A5	TEREX		
AF7-99D	EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine			
101-3BT	CUM L9 350 HP @ 2200 RPM, 2200 GOV RPM, 1050 LB/FT @ 1200 RPM	640	30
Electronic Parameters			
79A-075	75 MPH ROAD SPEED LIMIT		
79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
79K-005	PTO MODE ENGINE RPM LIMIT - 900 RPM		
79L-002	PTO MODE THROTTLE OVERRIDE - LIMIT TO 900 RPM		
79M-001	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED		
79P-004	PTO RPM WITH CRUISE SET SWITCH - 900 RPM		
79Q-004	PTO RPM WITH CRUISE RESUME SWITCH - 900 RPM		
79S-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH		
79U-007	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND		
80G-002	PTO MINIMUM RPM - 700		
80J-002	REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
Engine Equipment			
99C-021	2016 ONBOARD DIAGNOSTICS/2010 EPA/CARB/GHG21 CONFIGURATION		
99D-011	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD CORNER OF DRIVER DOOR)		
13E-001	STANDARD OIL PAN		
105-001	ENGINE MOUNTED OIL CHECK AND FILL		
014-099	SIDE OF HOOD AIR INTAKE WITH FIREWALL MOUNTED DONALDSON AIR CLEANER		
124-1E1	DR 12V 200 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE		

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Data Code	Description	Weight Front	Weight Rear
292-235	(2) DTNA GENUINE, FLOODED STARTING, MIN 2000CCA, 370RC, THREADED STUD BATTERIES	10	
290-017	BATTERY BOX FRAME MOUNTED		
281-008	STANDARD BATTERY JUMPERS WITH ADDITIONAL GROUND STUD MOUNTED 12 INCHES AFT OF THE SPRING SHACKLE		
282-001	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB		
291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
289-001	NON-POLISHED BATTERY BOX COVER		
87P-001	CAB AUXILIARY POWER CABLE	5	
293-058	POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	8	
295-029	POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	2	
107-032	CUMMINS TURBOCHARGED 18 7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
108-002	STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR		
131-013	AIR COMPRESSOR DISCHARGE LINE		
152-041	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
128-032	C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH	80	
016-1C2	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	30	25
28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH		
239-026	10 FOOT 06 INCH (126 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT		
237-1CR	RH CURVED VERTICAL TAILPIPE B-PILLAR MOUNTED ROUTED FROM STEP		
23U-001	6 GALLON DIESEL EXHAUST FLUID TANK		
30N-003	100 PERCENT DIESEL EXHAUST FLUID FILL		
43X-002	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
23Y-001	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING		

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Data Code	Description	Weight Front	Weight Rear
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP		
242-011	ALUMINUM AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD(S)		
273-018	HORTON DRIVEMASTER ADVANTAGE ON/OFF FAN DRIVE		
276-001	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		
110-003	CUMMINS SPIN ON FUEL FILTER		
118-008	COMBINATION FULL FLOW/BYPASS OIL FILTER		
266-013	1100 SQUARE INCH ALUMINUM RADIATOR	70	
103-039	ANTIFREEZE TO -34F. OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		
171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
270-016	RADIATOR DRAIN VALVE		
168-002	LOWER RADIATOR GUARD		
138-011	PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	4	
140-053	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
134-001	ALUMINUM FLYWHEEL HOUSING		
132-004	ELECTRIC GRID AIR INTAKE WARMER		
155-058	DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH		
Transmission			
342-582	ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	200	60
Transmission Equipment			
343-339	ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV		
84B-012	ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES		
84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		

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Data Code	Description	Weight Front	Weight Rear
84E-017	S5 PERFORMANCE LIMITING PRIMARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84F-018	S7 ECONOMY LIMITING SECONDARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
84G-014	2200 RPM PRIMARY MODE SHIFT SPEED		
84H-012	2000 RPM SECONDARY MODE SHIFT SPEED		
84J-000	ENGINE BRAKE RANGE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
84K-000	ENGINE BRAKE RANGE ALTERNATE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
84N-200	FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED		
84U-000	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES		
353-023	VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT END OF FRAME		
34C-001	ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED		
362-823	CUSTOMER INSTALLED CHELSEA 280 SERIES PTO		
363-001	PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION		
341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
345-003	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED		
97G-004	TRANSMISSION PROGNOSTICS - ENABLED 2013		
370-015	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK		
346-013	TRANSMISSION OIL CHECK AND FILL WITH CROSSOVER TO CLEAR LH PTO AND DIRECT MOUNT PUMP		
35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		

Front Axle and Equipment

400-1BA	DETROIT DA-F-18 0-5 18,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190
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Data Code	Description	Weight Front	Weight Rear
402-030	MERITOR 16 5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10	
403-002	NON-ASBESTOS FRONT BRAKE LINING		
419-001	CAST IRON OUTBOARD FRONT BRAKE DRUMS		
427-001	FRONT BRAKE DUST SHIELDS	5	
409-006	FRONT OIL SEALS		
408-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		
416-022	STANDARD SPINDLE NUTS FOR ALL AXLES		
405-002	MERITOR AUTOMATIC FRONT SLACK ADJUSTERS		
536-055	TRW THP-60 POWER STEERING WITH RCH45 AUXILIARY GEAR	130	
539-003	POWER STEERING PUMP		
534-003	4 QUART POWER STEERING RESERVOIR	5	
533-001	OIL/AIR POWER STEERING COOLER		
40T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension			
620-025	20,000# TAPERLEAF FRONT SUSPENSION	200	
619-005	MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION		
62H-012	FRONT SUSPENSION SPRING BRACKETS OFFSET		
410-001	FRONT SHOCK ABSORBERS		
Rear Axle and Equipment			
420-1K3	MT-40-14X 40,000# R-SERIES TANDEM REAR AXLE		2,500
421-586	5.86 REAR AXLE RATIO		
424-003	IRON REAR AXLE CARRIER WITH OPTIONAL HEAVY DUTY AXLE HOUSING		30
386-073	MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES		
388-073	MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES		
452-006	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		30
878-023	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AND REAR-REAR AXLE VALVE		

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 Sheldon Seward
 TEREX UTILITIES BB
 500 OAKWOOD RD
 WATERTOWN, SD 57201
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Prepared by:
 DANNY AMARO
 FOUR STAR FREIGHTLINER OF
 MONTGOMERY
 3140 HAYNEVILLE ROAD
 MONTGOMERY, AL 36108
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Data Code	Description	Weight Front	Weight Rear
87A-001	BLINKING LAMP WITH EACH INTERAXLE LOCK SWITCH, INTERAXLE UNLOCK DEFAULT WITH IGNITION OFF		
87B-004	BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH		
423-020	MERITOR 16 5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		
433-002	NON-ASBESTOS REAR BRAKE LINING		
434-003	STANDARD BRAKE CHAMBER LOCATION		
451-023	CONMET CAST IRON REAR BRAKE DRUMS		
425-002	REAR BRAKE DUST SHIELDS		10
440-006	REAR OIL SEALS		
426-075	HALDEX GOLDSEAL LONGSTROKE 2-DRIVE AXLES SPRING PARKING CHAMBERS		20
428-003	HALDEX AUTOMATIC REAR SLACK ADJUSTERS		
41T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		
Rear Suspension			
622-1CH	HENDRICKSON RT403 @40,000# REAR SUSPENSION		750
621-016	HENDRICKSON RT/RTE - 7.19" SADDLE		
431-001	STANDARD AXLE SEATS IN AXLE CLAMP GROUP		
624-011	52 INCH AXLE SPACING		
628-004	STEEL BEAMS AND RUBBER CENTER BUSHINGS WITH BAR PIN ADJUSTABLE END CONNECTIONS		
623-005	FORE/AFT CONTROL RODS		
Brake System			
018-002	AIR BRAKE PACKAGE		
490-100	WABCO 4S/4M ABS		
871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
904-001	FIBER BRAID PARKING BRAKE HOSE		
412-001	STANDARD BRAKE SYSTEM VALVES		
46D-002	STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
413-002	STD U.S. FRONT BRAKE VALVE		
432-003	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		

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Data Code	Description	Weight Front	Weight Rear
480-088	WABCO SYSTEM SAVER HP WITH INTEGRAL AIR GOVERNOR AND HEATER		
479-005	AIR DRYER MOUNTED INBOARD ON RH RAIL		
460-001	STEEL AIR BRAKE RESERVOIRS		
607-001	CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET BOTH RAILS OUTBOARD		
477-004	PULL CABLES ON ALL AIR RESERVOIR(S)		
Trailer Connections			
* 914-009	AIR CONNECTIONS TO END OF FRAME WITHOUT GLAD HANDS END AIRLINES AT THE SECOND TO LAST CROSS MEMBER ON RH SIDE		
296-026	PRIMARY CONNECTOR/RECEPTACLE WIRED FOR SEPARATE STOP/TURN, CENTER PIN POWERED THROUGH IGNITION WITH STOP SIGNAL PREWIRE PACKAGE		
297-001	SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE MOUNTED END OF FRAME		
335-004	UPGRADED CHASSIS MULTIPLEXING UNIT		
32A-002	UPGRADED BULKHEAD MULTIPLEXING UNIT		
Wheelbase & Frame			
545-465	4650MM (183 INCH) WHEELBASE		
546-101	11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI	70	130
547-001	1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT	130	350
552-063	2550MM (100 INCH) REAR FRAME OVERHANG		
55W-009	FRAME OVERHANG RANGE: 91 INCH TO 100 INCH	-60	260
AC8-99D	CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 117.52 in		
AE8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 114.52 in		
AE4-99D	CALC'D FRAME LENGTH - OVERALL : 312.86		
FSS-0LH	CALCULATED FRAME SPACE LH SIDE : 61.3 in		
FSS-0RH	CALCULATED FRAME SPACE RH SIDE : 77.52 in		
AM6-99D	CALC'D SPACE AVAILABLE FOR DECKPLATE : 117.45 in		
553-001	SQUARE END OF FRAME		
550-001	FRONT CLOSING CROSSMEMBER		
559-003	LIGHTWEIGHT HEAVY DUTY ALUMINUM ENGINE CROSSMEMBER	-12	

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Data Code	Description	Weight Front	Weight Rear
561-001	STANDARD CROSSMEMBER BACK OF TRANSMISSION		
562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
572-001	STANDARD REARMOST CROSSMEMBER		
565-001	STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment			
556-1AP	THREE-PIECE 14 INCH PAINTED STEEL BUMPER WITH COLLAPSIBLE ENDS	30	
558-001	FRONT TOW HOOKS - FRAME MOUNTED	15	
574-001	BUMPER MOUNTING FOR SINGLE LICENSE PLATE		
586-024	FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS		
551-007	GRADE 8 THREADED HEX HEADED FRAME FASTENERS		
605-103	D15-28195-000 CENTER PUNCH TO MARK CENTERLINE OF REAR SUSPENSION ON TOP FLANGE OF FRAME		
Fuel Tanks			
204-215	50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	20	
218-005	RECTANGULAR FUEL TANK(S)		
215-005	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		
212-007	FUEL TANK(S) FORWARD		
664-001	PLAIN STEP FINISH		
205-001	FUEL TANK CAP(S)		
122-1H8	DAVCO 245 FUEL/WATER SEPARATOR WITH 12 VOLT HEAT AND WATER IN FUEL SENSOR	5	
216-020	EQUIFLO INBOARD FUEL SYSTEM		
202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
Tires			
093-1VM	MICHELIN X LINE ENERGY Z 315/80R22.5 20 PLY RADIAL FRONT TIRES	50	
094-1UX	MICHELIN X MULTI D 11R22.5 14 PLY RADIAL REAR TIRES		192
Hubs			
418-060	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS		

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Data Code	Description	Weight Front	Weight Rear
450-060	CONMET PRESET PLUS PREMIUM IRON REAR HUBS		
Wheels			
502-445	ACCURIDE 29300 22 5X9 00 10-HUB PILOT 6 38 INSET 5-HAND STEEL DISC FRONT WHEELS	82	
505-657	ACCURIDE 51408 ACCU-LITE 22 5X8 25 10-HUB PILOT 2-HAND STEEL DISC REAR WHEELS		
496-011	FRONT WHEEL MOUNTING NUTS		
497-011	REAR WHEEL MOUNTING NUTS		
Cab Exterior			
829-071	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB		
650-008	AIR CAB MOUNTING		
648-002	NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE		
678-001	LH AND RH GRAB HANDLES		
646-023	HOOD MOUNTED CHROMED PLASTIC GRILLE		
65X-003	CHROME HOOD MOUNTED AIR INTAKE GRILLE		
644-004	FIBERGLASS HOOD		
727-1AF	SINGLE 14 INCH ROUND HADLEY AIR HORN UNDER LH DECK	4	
726-001	SINGLE ELECTRIC HORN		
728-001	SINGLE HORN SHIELD		
657-001	DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME		
78G-002	KEY QUANTITY OF 2		
575-001	REAR LICENSE PLATE MOUNT END OF FRAME		
312-088	LED HEADLIGHT ASSEMBLY AND INCANDESCENT MARKER/TURN LAMP WITH CHROME BEZEL		
302-047	LED AERODYNAMIC MARKER LIGHTS		
294-090	OMIT STOP/TAIL/BACKUP LIGHTS AND PROVIDE WIRING FOR COMBINED STOP/TURN LIGHTS TO FOUR FEET BEYOND END OF FRAME		-5
300-015	STANDARD FRONT TURN SIGNAL LAMPS		
744-1BG	DUAL WEST COAST MOLDED-IN COLOR HEATED MIRRORS		
797-001	DOOR MOUNTED MIRRORS		
796-001	102 INCH EQUIPMENT WIDTH		

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 Sheldon Seward
 TEREX UTILITIES 88
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 FOUR STAR FREIGHTLINER OF
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Data Code	Description	Weight Front	Weight Rear
743-1AP	LH AND RH 8 INCH MOLDED-IN COLOR CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
729-001	STANDARD SIDE/REAR REFLECTORS		
275-061	ELECTRIC HORN WARNING SYSTEM FOR PARK BRAKE NOT SET WITH DOOR OPEN AND ALL IGNITION KEY POSITIONS		
768-043	63X14 INCH TINTED REAR WINDOW		
661-003	TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS		
654-027	RH AND LH ELECTRIC POWERED WINDOWS, PASSENGER SWITCHES ON DOOR(S)	4	
663-013	1-PIECE SOLAR GREEN GLASS WINDSHIELD		
659-019	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED		
Cab Interior			
707-1AK	OPAL GRAY VINYL INTERIOR		
706-013	MOLDED PLASTIC DOOR PANEL		
708-013	MOLDED PLASTIC DOOR PANEL		
772-006	BLACK MATS WITH SINGLE INSULATION		
785-001	DASH MOUNTED ASH TRAYS AND LIGHTER		
691-008	FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING		
694-010	IN DASH STORAGE BIN		
693-023	LH DOOR MAP POCKET		
742-007	(2) CUP HOLDERS LH AND RH DASH		
680-006	GRAY/CHARCOAL FLAT DASH		
860-004	SMART SWITCH EXPANSION MODULE		
700-002	HEATER, DEFROSTER AND AIR CONDITIONER		
701-001	STANDARD HVAC DUCTING		
703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
170-016	STANDARD PLUMBING WITH SHUTOFF VALVES		
130-041	VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR		
702-002	BINARY CONTROL, R-134A		
739-033	STANDARD INSULATION		
285-013	SOLID-STATE CIRCUIT PROTECTION AND FUSES		

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Data Code	Description	Weight Front	Weight Rear
280-007	12V NEGATIVE GROUND ELECTRICAL SYSTEM		
324-011	DOMED DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF		
655-005	LH AND RH ELECTRIC DOOR LOCKS		
284-023	(1) 12 VOLT POWER SUPPLY IN DASH		
756-1J3	BASIC HIGH BACK AIR SUSPENSION DRIVER SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	30	
760-1DC	BASIC HIGH BACK NON SUSPENSION PASSENGER SEAT		
759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8	
711-004	LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
758-014	BLACK CORDURA PLUS CLOTH DRIVER SEAT COVER		
761-014	BLACK CORDURA PLUS CLOTH PASSENGER SEAT COVER		
763-101	BLACK SEAT BELTS		
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	10	
540-015	4-SPOKE 18 INCH (450MM) STEERING WHEEL		
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS		

Instruments & Controls

732-004	GRAY DRIVER INSTRUMENT PANEL		
734-004	GRAY CENTER INSTRUMENT PANEL		
870-001	BLACK GAUGE BEZELS		
486-006	LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM WITH (1) ADDITIONAL PARK SWITCH FOR CUSTOMER USE		
840-002	2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
198-025	INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS		
149-013	ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
811-042	ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		

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Data Code	Description	Weight Front	Weight Rear
160-038	HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
844-001	2 INCH ELECTRIC FUEL GAUGE		
148-003	PROGRAMMABLE RPM CONTROL - ELECTRONIC ENGINE		
856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
864-001	2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
372-051	CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE		
679-001	OVERHEAD INSTRUMENT PANEL		
746-115	AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH AND USB AND AUXILIARY INPUTS, J1939	10	
747-001	DASH MOUNTED RADIO		
750-002	(2) RADIO SPEAKERS IN CAB		
753-008	AM/FM ANTENNA MOUNTED ON LH SIDE MIRROR		
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
817-001	STANDARD VEHICLE SPEED SENSOR		
812-001	ELECTRONIC 3000 RPM TACHOMETER		
162-011	IDLE LIMITER, ELECTRONIC ENGINE		
482-001	BW TRACTOR PROTECTION VALVE		
883-001	TRAILER HAND CONTROL BRAKE VALVE		
836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
304-001	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH		
882-004	TWO VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR		
299-013	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE		

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Data Code	Description	Weight Front	Weight Rear
298-039	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS		

Design

065-000 PAINT: ONE SOLID COLOR

Color

980-5F6 CAB COLOR A: L0006EY WHITE ELITE EY
 986-020 BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
 PAINT
 962-972 POWDER WHITE (N0006EA) FRONT
 WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
 966-972 POWDER WHITE (N0006EA) REAR
 WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
 964-6Z7 BUMPER PAINT: FP24812 ARGENT SILVER
 DUPONT FLEX
 963-003 STANDARD E COAT/UNDERCOATING

Certification / Compliance

996-001 U.S. FMVSS CERTIFICATION, EXCEPT SALES
 CABS AND GLIDER KITS

Raw Performance Data

AE8-99D CALCULATED EFFECTIVE BACK OF CAB TO
 REAR SUSPENSION C/L (CA) : 114.52 in
 AM6-99D CALC'D SPACE AVAILABLE FOR DECKPLATE :
 117.45 in

Sales Programs

NO SALES PROGRAMS HAVE BEEN SELECTED

TOTAL VEHICLE SUMMARY

Weight Summary

	Weight Front	Weight Rear	Total Weight
Factory Weight*	7704 lbs	7895 lbs	15599 lbs
Dealer Installed Options	0 lbs	0 lbs	0 lbs
Total Weight*	7704 lbs	7895 lbs	15599 lbs

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Extended Warranty

WAI-5YK CUM 2017 L9: HD1 MD DTY 6 YEARS / 150,000 MILES / 241,500 KM
 EXTENDED WARRANTY FEX APPLIES

WAX-193 CUM 2017 L9: AT3 MD DTY 6 YEARS / 150,000 MILES / 241,500 KM
 AFTERTREATMENT. FEX APPLIES

WBB-301 TC1: MD MODERATE 3 YEARS/100,000 MILES / 161,000 KM
 EXTENDED TRUCK COVERAGE. FEX APPLIES

WAG-010 TOWING: 1 YEAR/UNLIMITED MILES/KM EXTENDED TOWING
 COVERAGE \$550 CAP FEX APPLIES (AT NO ADDITIONAL CHARGE)

Dealer Installed Options

		Weight Front	Weight Rear
MNALS	PARTS AND SERVICE MAINTENANCE MANUAL - CD	0	0
Total Dealer Installed Options		0 lbs	0 lbs

(+) Weights shown are estimates only.

If weight is critical, contact Customer Application Engineering.

(***) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.

GREEN LAKE COUNTY HIGHWAY COMMISSION

The following are the minimum specifications for one (1) Digger Derrick Sign Truck, with bucket and attachments with rear body to be used in traffic sign repair and installations.

TRUCK CHASSIS

Wheel Base

- 170-185 Wheelbase (Per Body Builder Specs) 183"

Frame Rail

- 1/2" Frame if available 11/32X3-1/2X10-15/16 INCH STEEL FRAME

Engine

- Cummins L9 350 HP @ 2000 RPM Yes
- Block heater Yes
- 3 step engine brake Yes
- DAVCO fuel water separator with heater Yes

Cooling System

- Heater hose shut-off valves Yes
- Largest radiator available 1100 square inch aluminum radiator
- Extended life coolant set to -34°F Yes
- Bug screen between grill and radiator Yes

Transmission

- Allison 3000 HD with PTO provision Yes
- Coolant lines fastened securely Yes
- Transmission fluid should be synthetic Yes

Front Springs

- 20,000 lbs. springs Yes
- No aluminum hubs Yes no aluminum
- Oil bathed bearing and seals, synthetic lube used in hubs with Scott Seal Plus or STEMCO wheel seals No Scott Seal or Stemco

Front Axle

- 18,000 lbs. Axle Yes

Front Brakes

- S cam type with 16.5" x 6" shoes Yes
- Meritor slack adjusters Yes
- Dust shields Yes

GREEN LAKE COUNTY HIGHWAY COMMISSION

Rear Axle

- 40,000 lbs. Tandem Drive Axle with power divider and differential lock operated from cab Yes
- Scott Seal Plus or STEMCO wheel seals No Scott Seal or Stemco

Rear Brakes

- S cam type with 16.5" x 7" shoes Yes
- Haldex life seal rear brake chambers Yes
- Meritor slack adjusters Yes
- Dust shields on all wheels Yes

Rear Suspension

- Min. 40,000 lbs. Rear Springs Yes

Steering

- TRW THP-60 P/S Gear with auxiliary Yes

Brake System

- Wabco ABS system Yes
- Wabco 1200 Air dryer with heater (frame mounted) WABCO SYSTEM SAVER HP WITH INTEGRAL AIR GOVERNOR AND HEAT
- Air brake connections with glad-hands for trailer brakes at end of frame Yes

Electrical System

- 12 volt 200 amp Alternator Yes
- LED exterior lighting, with daytime running lights Yes
- Battery tender low voltage disconnect Yes
- Factory installed battery disconnect Yes
- Battery jumper terminals Yes

Cab

- 6-10 Gal DEF tank 6 Gallon
- Trailer towing package with electric brake controller & RV socket in rear Terex to provide brake controller and RV Socket
- Air ride Yes
- Cruise control (no idle shut down) Yes
- HD HVAC system w/r134 Yes
- AM/FM Radio with Aux input Yes
- Highest output heater and air conditioning available Yes
- Driver's seat air ride cloth high back with arm rest and lumbar support, passenger seat to match (no air ride) Yes
- All windows to be tinted. Doors to have power windows Yes
- Dual sun visors, intermittent wipers, washers Yes
- Exterior grab handles on cab Yes
- Dome light, map pockets Yes to dome , One (1) LH Map pocket
- West Coast style mirrors heated with heated convex mirrors Yes
- GPS Distance Meter Terex provided

GREEN LAKE COUNTY HIGHWAY COMMISSION

Cab Cont...

- Deluxe interior (darkest color available) Yes
- Factory radio Am/FM with weather band, with auxiliary jack Yes
- Tilt steering wheel, air horn Yes
- Full instrument and gauges, volt gauge, no amp meter Yes
- Rust proofed on all metal parts of cab Yes
- Work station – laptop mount Terex provided
- ~~Safety equipment: fire extinguisher 5 lb triangle kit~~

Tires

- Front 315/80R22.5 Yes
- Rear 11R22.5 Yes

Wheels

- Steel Yes

Fuel Tank

- 50-80 gal Aluminum with Davco fuel/water Separator with heater 50 Gallon Fuel LH tank provided

Parts and Repair Manuals

- To be received prior to delivery in print or digital Yes Yes Davco fuel water separator

Warranty

- 3 years Basic Warranty Yes
- Extended Warranty 5 years 100,000 mi. Cummins Eng. Yes
- Extended Warranty 5 years 100,000 mi. after treatment Yes
- Extended Warranty 2 years Allison Transmission Yes
- Pick-up and delivery to be provided. Must be diagnosed 24 hours after being called Terex provided

Boom Assembly

- ~~Right rear corner mount~~
- 45' with auger
- Tip mounted winch

Controls

- Single control system at bottom of boom
- Wireless ground controls

Platform

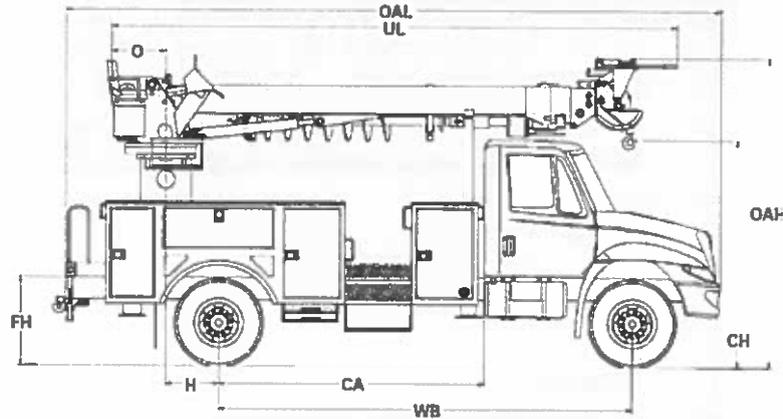
- ~~Fiberglass pin-on, 24 x 24 inches nominal, with interior exterior platform access step, 300 pound capacity~~



COMMANDER 4000 SERIES

DIGGER DERRICK

Terex® Telelect Digger Derricks are known throughout the industry. They come with a long history featuring quality and innovative design.



Measurements	Commander 4042	Commander 4045	Commander 4047	Commander 4050
<i>(Minimum Recommendations)</i>	ORA / BC / CMT			
Typical Frame Height (FH)	40 in. (101.6 cm)			
Typical Cab Height (CH)	103 in. (261.6 cm)			
Offset (O)	24.5 in. (62.2 cm)			
Overall Height (OAH)	11' 2" 11' 8" 11' 2" (3.4 m) (3.6 m) (3.4 m)	11' 2" 11' 8" 11' 2" (3.4 m) (3.6 m) (3.4 m)	11' 2" 11' 8" 11' 2" (3.4 m) (3.6 m) (3.4 m)	11' 2" 11' 8" 11' 2" (3.4 m) (3.6 m) (3.4 m)
Overall Length (OAL)	22' 6.5" 29' 1" 23' 1" (6.9 m) (8.9 m) (7.0 m)	23' 11" 30' 1" 23' 7" (7.3 m) (9.2 m) (7.2 m)	25' 6.5" 32' 1" 24' 7" (8.9 m) (9.8 m) (7.5 m)	25' 6.5" 32' 1" 24' 7" (8.9 m) (9.8 m) (7.5 m)
Unit Length (UL)	20' 4" (6.2 m)	21' 4" (6.5 m)	23' 4" (7.1 m)	23' 4" (7.1 m)
Center of Rotation (H)	24" 85.5" 44" (61 cm) (217.2 cm) (111.8 cm)	24" 97.5" 44" (61 cm) (247.2 cm) (111.8 cm)	24" 115.5" 44" (61 cm) (293.4 cm) (111.8 cm)	24" 115.5" 44" (61 cm) (293.4 cm) (111.8 cm)
Cab to Axle (CA)	102" 108" 102" (259.1 cm) (274.3 cm) (259.1 cm)	102" 108" 102" (259.1 cm) (274.3 cm) (259.1 cm)	120" 138" 102" (304.8 cm) (350 cm) (259.1 cm)	120" 138" 102" (304.8 cm) (350 cm) (259.1 cm)
Wheel Base (WB)	174" 180" 174" (442 cm) (533.4 cm) (442 cm)	180" 192" 180" (457.2 cm) (487.7 cm) (457.2 cm)	192" 210" 192" (487.7 cm) (533.4 cm) (487.7 cm)	192" 210" 192" (487.7 cm) (533.4 cm) (487.7 cm)
Front Axle (FA)	9,000 lb. (4,082 kg)	12,000 lb. (5,443 kg)	12,000 lb. (5,443 kg)	12,000 lb. (5,443 kg)
Rear Axle (RA)	19,000 lb. (8,618 kg)			
Gross Vehicle Weight Rating (GVWR)	28,000 lb. (12,701 kg)	31,000 lb. (14,061 kg)	31,000 lb. (14,061 kg)	31,000 lb. (14,061 kg)
Recommended Weight for Stability	25,000 lb. (11,340 kg)	25,000 lb. (11,340 kg)	25,500 lb. (11,567 kg)	25,500 lb. (11,567 kg)
Frame Section Modulus	18.0 in ³	18.0 in ³	18.0 in ³	18.0 in ³
Frame Yield Strength	50,000 psi	50,000 psi	50,000 psi	50,000 psi
Frame RBM	900,000 in-lbs	900,000 in-lbs	900,000 in-lbs	900,000 in-lbs



3140 15th Avenue SE
PO BOX 1150
Watertown, SD 57201
USA

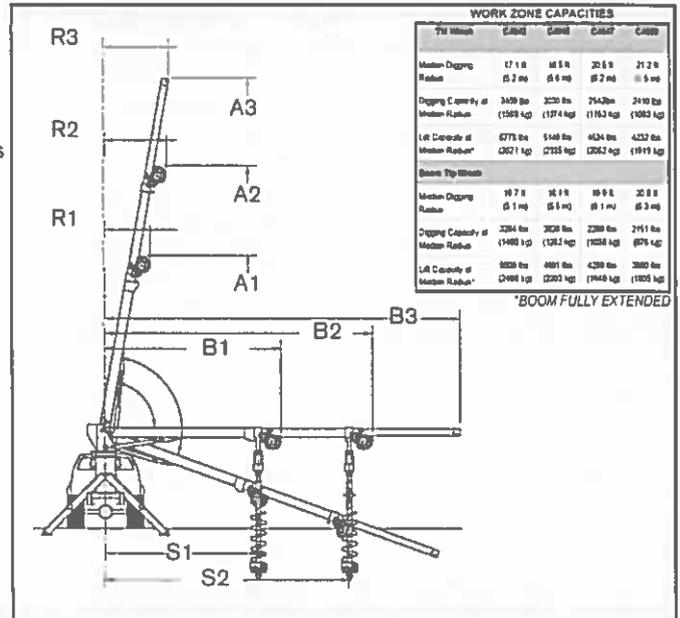
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COMMANDER 4000 SERIES

STANDARD EQUIPMENT

- 100 Degrees of Boom Travel (+80 to -20)
- Dual Lift Cylinders
- Self-Aligning Swivel Ball Bushings
- Rectangular, Bi-Axial Epoxy Resin, Filament Wound Fiberglass Booms
- Box Fabricated Steel Lower Boom and Intermediate
- Hydraulic Boom Extension Intermediate & Upper
- Full Pressure Hydraulic Controls
- Full Pressure, Open-Center Hydraulic System
- 50 Gallon Hydraulic Oil Reservoir
- Custom Made Zoned Load Chart
- Continuous Unrestricted Rotation
- 15,000 lb. Turntable Winch
- Meets or Exceeds ANSI A10.31
- Load-Sensing Worm Gear Rotation
- Right-Hand Command Post Controls
- Engine Stop/Start at Lower Controls
- Load Moment Limiter
- Boom Angle Indicator
- Outrigger Interlock
- Moving Outrigger Alarm
- Truck Level Indicator



CAPACITIES & DIMENSIONAL DATA (Based on a 40 inch Frame Height)

Model	Maximum Capacity	Capacity @ 10 ft. Radius	Sheave Height			Load Radius			Horizontal Reach			Digging Radius	
			A1	A2	A3	R1	R2	R3	B1	B2	B3	S1	S2
CMDR 4042 TM Winch	29,250 lb (13,881 kg)	11,800 lb (5,323 kg)	26.8 ft (8.2 m)	34.6 ft (10.5 m)	42.5 ft (13.0 m)	3.0 ft (1.0 m)	4.4 ft (1.3 m)	5.8 ft (1.8 m)	16.5 ft (5.0 m)	24.5 ft (7.5 m)	32.5 ft (9.9 m)	14.0 ft (4.3 m)	22.0 ft (6.7 m)
Boom Tip PG Winch	23,350 lb (10,592 kg)	11,250 lb (5,103 kg)	25.8 ft (7.9 m)	33.7 ft (10.3 m)	41.9 ft (12.8 m)	3.4 ft (1.0 m)	4.8 ft (1.5 m)	5.6 ft (1.7 m)	15.6 ft (4.8 m)	23.6 ft (7.2 m)	31.8 ft (9.7 m)	14.0 ft (4.3 m)	22.0 ft (6.7 m)
CMDR 4045 TM Winch	27,500 lb (12,474 kg)	11,500 lb (5,216 kg)	27.7 ft (8.4 m)	36.6 ft (11.2 m)	45.5 ft (13.9 m)	3.1 ft (0.9 m)	4.7 ft (1.4 m)	6.3 ft (1.9 m)	17.5 ft (5.3 m)	26.5 ft (8.1 m)	35.5 ft (10.8 m)	15.0 ft (4.6 m)	24.0 ft (7.3 m)
Boom Tip PG Winch	22,250 lb (10,093 kg)	10,900 lb (4,944 kg)	26.8 ft (8.2 m)	35.7 ft (10.9 m)	44.8 ft (13.7 m)	3.6 ft (1.1 m)	5.2 ft (1.6 m)	6.1 ft (1.9 m)	16.6 ft (5.1 m)	25.6 ft (7.8 m)	34.8 ft (10.6 m)	15.0 ft (4.6 m)	24.0 ft (7.3 m)
CMDR 4047 TM Winch	24,750 lb (11,227 kg)	11,000 lb (4,990 kg)	29.7 ft (9.1 m)	38.6 ft (11.8 m)	47.4 ft (14.4 m)	3.5 ft (1.1 m)	5.1 ft (1.6 m)	6.7 ft (2.0 m)	19.5 ft (5.9 m)	28.5 ft (8.7 m)	37.5 ft (11.4 m)	17.0 ft (5.2 m)	26.0 ft (7.9 m)
Boom Tip PG Winch	20,350 lb (9,231 kg)	10,400 lb (4,717 kg)	28.8 ft (8.8 m)	37.6 ft (11.5 m)	46.8 ft (14.3 m)	4.0 ft (1.2 m)	5.5 ft (1.7 m)	6.5 ft (2.0 m)	18.6 ft (5.7 m)	27.6 ft (8.4 m)	36.8 ft (11.2 m)	17.0 ft (5.2 m)	26.0 ft (7.9 m)
CMDR 4050 TM Winch	24,600 lb (11,159 kg)	11,000 lb (4,990 kg)	29.7 ft (9.1 m)	40.0 ft (12.2 m)	50.4 ft (15.4 m)	3.5 ft (2.2 m)	5.3 ft (1.6 m)	7.2 ft (2.2 m)	19.5 ft (5.9 m)	30.0 ft (9.1 m)	40.5 ft (12.3 m)	17.0 ft (5.2 m)	27.5 ft (8.4 m)
Boom Tip PG Winch	20,350 lb (9,231 kg)	10,410 lb (4,722 kg)	28.8 ft (8.8 m)	39.1 ft (11.9 m)	49.7 ft (15.1 m)	4.0 ft (1.2 m)	5.8 ft (1.8 m)	7.0 ft (2.1 m)	18.6 ft (5.7 m)	29.1 ft (8.9 m)	39.8 ft (12.1 m)	17.0 ft (5.2 m)	27.5 ft (8.4 m)

OPTIONAL EQUIPMENT

- Various Digger / Augers
 - Auger Storage Left Side (Typical)
 - Auger Storage Right Side (Subject to Configuration)
- Fiberglass Personnel Platform
 - Liners with or Without Steps
- Various Types of Controls
 - Radio Remote Controls
 - Full Pressure Upper Controls
 - Single Stick "T" Controls
- Engine Stop/Start and Throttle Advance at Top Controls
- Various Types of Throttle Advance at Lower Controls
- Boom Tip Winch
- Material Handling Jibs
- Transferable Pole Flanges
- Various Sizes of Pole Guides
- Pole Guide Interlock
- Planetary Slip Brake Rotation
- Manual Fiberglass 4th Section (Adds 4 ft)
- Hydraulic Tool Outlets
- Pole Puller
- Multi-Part Line Components
- Corner Mount Derricks
- Boom Storage Warning Light
- Outrigger Sag Light
- Various Types of Outriggers
- Truck Grounding Cable & Clamp

Effective Date: July 2020. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Terex makes no other warranty, express or implied. Products and services listed may be trademarks, service marks or trade-names of Terex Corporation and/or its subsidiaries in the USA and other countries. All rights are reserved. Terex® is a registered trademark of Terex Corporation in the USA and many other countries. Copyright 2020 Terex Corporation.



LIMITED PRODUCT WARRANTY

TEREX Utilities, Inc. and TEREX South Dakota, Inc. (each a "Seller"), as to the equipment manufactured by each respective company, warrants its new equipment and parts manufactured and sold worldwide to be free, under normal use and service, of any defects in manufacture or materials for a period of 12 months from date of delivery to the first end user, but in no event longer than 18 months from date of shipment from the factory; provided that (1) Seller receives written notice of the defect within thirty (30) days of its discovery and Buyer establishes that (i) the equipment has been maintained and operated within the limits of rated and normal usage; and (ii) the defect did not result in any manner from the intentional or negligent action or inaction by Buyer, its agents or employees, and (2) a new machine registration certificate has been completed and received by Seller within thirty (30) days of the equipment's "in-service" date. If requested by Seller, Buyer must return the defective equipment to Seller's manufacturing facility, or other location designated by Seller, for inspection, and if Buyer cannot establish that conditions (1) (i) and (1) (ii) above have been met, then this warranty shall not cover the alleged defect.

Seller's obligation and liability under this warranty is expressly limited to, at Seller's sole option, repairing or replacing, with new or remanufactured parts or components, any part which appears to Seller upon inspection to have been defective in material or workmanship. Such parts shall be provided at no cost to the owner, FOB Seller's parts facility (Incoterms 2010). If requested by Seller, components or parts for which a warranty claim is made shall be returned to Seller at a location designated by Seller. All components and parts replaced under this warranty become the property of Seller. This warranty shall be null and void if parts (including wear parts) or attachments other than genuine OEM Seller parts or approved attachments are used in or attached to the equipment.

Accessories, assemblies and components included in Seller's equipment, which are not manufactured by Seller, are subject to the warranty of their respective manufacturers. Normal maintenance, adjustments, or maintenance/wear parts, are not covered by this warranty and are the sole maintenance responsibility of Buyer.

The following structural members have a lifetime parts only warranty for the original Buyer after date of shipment from Seller: sub frame, pedestal, turntable, and boom. Replacement of fiberglass jibs, seals, gaskets, hoses, and exterior coating is not covered under the lifetime warranty. The lifetime warranty requires an annual service inspection of the equipment by an authorized distributor of Seller. The sub frame, pedestal, turntable, and boom shall have a 5 year parts only warranty if the annual service inspection is performed by an approved entity other than an authorized distributor of Seller. All replacement parts must be genuine OEM Seller parts.

SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AS TO THE EQUIPMENT AND PARTS IT SUPPLIES.

No employee or representative of Seller is authorized to modify this warranty unless such modification is made in writing and signed by an authorized officer of Seller. Seller's warranty is continuous for the stated period, and "stopping and restarting" such period is not permitted.

Seller's obligation under this warranty shall not include duty, taxes, environmental fees, including without limitation, disposal or handling of tires, batteries, petrochemical items, or any other charges whatsoever. Seller shall not be liable for indirect, incidental, or consequential damages, even if advised of the possibility of such damages.

Improper maintenance, improper use, abuse, improper storage, operation beyond rated capacity, operation after discovery of defective or worn parts, accident, sabotage or alteration or repair of the equipment by persons not authorized by Seller shall render this warranty null and void. Seller reserves the right to inspect the installation of the product and review maintenance procedures to determine if the failure is covered under this warranty.

Parts Warranty: Seller warrants the parts ordered from the Seller to be free of defects in materials or workmanship for either (1) a period of 12 months after date of shipment from the factory, or (2) the balance of the remaining new equipment warranty, whichever occurs first. With respect to parts ordered from Seller for equipment for which the warranty has expired, Seller warrants such parts to be free of defects in materials or workmanship for a period of 12 months after date of shipment from the factory.

NO TRANSFERABILITY OF WARRANTY: This warranty is limited to the original purchaser or original end-user if sold to a distributor, and is not assignable or otherwise transferable without the written agreement of Seller.

ITEMS NOT COVERED BY WARRANTY

The following listed items, which are not exhaustive, are NOT covered under this warranty:

1. Items sold by any individual, corporation, partnership or any other organization or legal entity that is not authorized by Seller to distribute its equipment.
2. Inbound freight, duty and taxes for replacement components or outbound freight, duty, and taxes for any part requested as a warranty return.
3. Components which are not manufactured by Seller or its affiliates. Such components may include, but are not limited to, chassis, engines, batteries, tires, customer-supplied products, transmissions, air compressors, and axles.
4. Replacement of a complete assembly that is field repairable by the replacement or repair of defective part(s) within the assembly. Seller has the option to repair or replace any defective part or assembly.
5. Wear parts and maintenance services including, but not limited to: lamps, lenses, seals, gaskets, hoses, filters, breathers, belts, nozzles, friction plates, glass, clutch and brake linings, wire rope, nuts and fittings, exterior coatings, proper tightening of bolts, adding or replacing of fluids, adjustments of any kind, services, inspections, diagnostic time, travel time and supplies such as hand cleaners, towels and lubricants.
6. Damage caused by carrier handling. Any such claim for damage should be filed immediately with the respective carrier.
7. Repairs, work required or parts exposed as the result of age, storage, weathering, lack of use, demonstration use, or use for transportation of corrosive chemicals.
8. Damage resulting to the equipment or parts should the owner or operator continue to operate the equipment after it has been noted that a failure has occurred.
9. Damage caused by, or labor or other costs related to, work performed by personnel not authorized by Seller to service the equipment.

IN NO EVENT SHALL SELLER, OR ANY AFFILIATE, SUBSIDIARY OR DIVISION THEREOF BE LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES RESULTING FROM ANY BREACH OF WARRANTY, REPRESENTATION OR CONDITION, EXPRESS OR IMPLIED, OR ANY TERMS OF THIS WARRANTY, OR ANY BREACH OF ANY DUTY OR OBLIGATION IMPOSED BY STATUTE, CONTRACT, TORT, COMMON LAW OR OTHERWISE (WHETHER OR NOT CAUSED BY THE NEGLIGENCE OF THE SELLER, ITS EMPLOYEES, AGENTS OR OTHERWISE), INCLUDING, WITHOUT LIMITATION, LOSS OF USE, LOST PROFITS OR REVENUES, LABOR OR EMPLOYMENT COSTS, LOSS OF USE OF OTHER EQUIPMENT, DOWNTIME OR HIRE CHARGES, THIRD PARTY REPAIRS, IMPROPER PERFORMANCE OR WORK, LOSS OF SERVICE OF PERSONNEL, LOSS OF CONTRACTOR OPPORTUNITY AND PENALTIES OF ANY KIND, PERSONAL INJURY, EMOTIONAL OR MENTAL DISTRESS, OR FAILURE OF EQUIPMENT TO COMPLY WITH ANY APPLICABLE LAWS. The Seller's liability to the Buyer shall not in any event exceed the purchase price of the equipment.

THIS WARRANTY IS EXPRESSLY IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, REPRESENTATIONS AND CONDITIONS, EXPRESS OR IMPLIED AND ALL OTHER STATUTORY, CONTRACTUAL, TORTIOUS AND COMMON LAW OBLIGATIONS OR LIABILITY ON SELLER'S PART ARE HEREBY EXPRESSLY EXCLUDED TO THE MAXIMUM EXTENT PERMITTED BY LAW. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY CONTAINED HEREIN. Seller neither assumes nor authorizes any other person to assume for Seller any other liability in connection with the sale of Seller's equipment. In the event that any provision of this warranty is held unenforceable for any reason, the remaining provisions shall remain in full force and effect.



LET TEREX HELP YOU WITH ALL YOUR AUGER TOOLING NEEDS!

Whether your soil is wet or dry, sandy or rocky, Terex has the right tool for the job!

Contact Terex to help you:

- Reduce your dig time
- Eliminate overheating issues
- Match the application with the correct tool
- Make your job easier and more productive

Terex offers:

- Dirt, carbide, rock and bullet augers
- Core barrels
- Foundation auger tools
- Replacement teeth
- Tooth removal & installation tools
- 1 year warranty on augers and core barrels



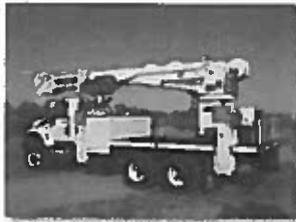
Contact your Sales Manager or call 844-TEREX-4U for more information or to place an order.

www.terex.com/utilities



WORKS FOR YOU.™

Preventive Maintenance and Inspection Program



C4045

Commander - Telescoping Material Handling Digger Derrick

3 = number of years of preventive maintenance service in the quote

1 = quantity of units to include in the quote

Include field service travel time (otherwise units will be serviced at a branch)

Please indicate customer location: East of Colorado Mountains

Basic	Silver	Gold	Platinum	Custom
<p>- Yearly visual inspection and operational test of all critical components.*</p> <p><i>* NOTE Basic package by itself does not qualify as the required annual inspection under the Terex Limited Product Warranty</i></p>	<p>- Yearly visual inspection and operational test of all critical components.</p> <p>- Annual preventive maintenance as defined in maintenance manual, including the following:</p> <ul style="list-style-type: none"> - Torque checking of rotation bolts, drift test, lubrication, hydraulic oil test, dielectric test - Replacement hydraulic oil filters and lubricant - Qualifies as the required annual inspection under the Terex Limited Product Warranty 	<p>- Yearly visual inspection and operational test of all critical components.</p> <p>- Annual preventive maintenance as defined in maintenance manual, including the following:</p> <ul style="list-style-type: none"> - Torque checking of rotation bolts, drift test, lubrication, hydraulic oil test, dielectric test - Replacement hydraulic oil filters and lubricant - Qualifies as the required annual inspection under the Terex Limited Product Warranty <p>- 90 day, 180 day, and 270 day inspection and preventive maintenance</p> <ul style="list-style-type: none"> - Replacement hydraulic oil filters and lubricant 	<p>Package not available for periods shorter than 5 years</p>	<p>Package includes:</p> <p>See custom package configurator</p>

Select your package: Basic (customer declines, among others, torque check of critical fasteners)

Silver Gold Platinum Custom

Customer confirms selection of the maintenance package indicated for the price and duration specified. Customer accepts and agrees to the attached Terex Terms and Conditions of Sale, which govern this transaction. In the event of early cancellation of this Agreement, Customer agrees that Terex shall be entitled to retain as liquidated damages, and not as a penalty, any fees paid in advance, which the parties agree reasonably approximate Terex's actual damages.

Customer signature: _____

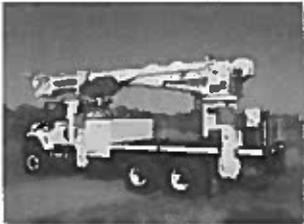
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Preventive Maintenance and Inspection Program

Custom Package Configurator

Product Code:

Commander - Telescoping Material Handling Digger Derrick



= number of years of service

= quantity of units to include in the quote

Include the following periodic Preventive Maintenance:

- 90 Days (360 Hours)
- 180 Days (720 Hours)
- 270 Days (1,080 Hours)
- 12 Months (1,050 Hours)
- Dielectric Test (Yearly)
- 5 Years (5,250 Hours)

Include field service travel time

Please indicate customer location:

Visit us at TEREX.com

PREVENTIVE MAINTENANCE AND INSPECTION PROGRAM

A SCOPE OF SERVICES

- 1 For each Terex Utilties equipment unit specified in section C below, Service Provider will provide, annually, for the Basic Package: Visual inspections and operational tests; for the Silver Package: Annual preventive maintenance, dielectric test, lubricant and hydraulic filter; for the Gold Package: 90-Day preventive maintenance, 180-Day preventive maintenance, 270-Day preventive maintenance, Annual preventive maintenance, dielectric test; for the Platinum Package: 90-Day preventive maintenance, 180-Day preventive maintenance, 270-Day preventive maintenance, Annual preventive maintenance, dielectric test, 5 years preventive maintenance; for the Custom Package: 90-Day preventive maintenance, 180-Day preventive maintenance, 270-Day preventive maintenance, Annual preventive maintenance, dielectric test, lubricant and hydraulic filter, and on the 5th year it will provide; services with be provided for 3 years, provided this Agreement has not expired or been terminated. Such Maintenance will be consistent with the applicable service manual for each Equipment unit. The commencement date for such Maintenance for the Equipment will be the on the equipment delivery date. Service Provider will have no obligation to perform Maintenance on any Equipment after termination or expiration of this Agreement.
- 2 The Maintenance will be conducted at the Designated Service Location specified in section C below. Maintenance outside such location will be performed at an additional fee to be agreed by the parties in advance. Customer shall provide a safe work area for the Maintenance, with electric power, water, waste disposal, and access provisions. Vehicle must be provided free and clear of debris to allow technician safe access to the equipment controls and pedestal area. Service Provider will provide periodic reports to Customer of the Maintenance that has been performed.
- 3 Maintenance and Inspection of the Equipment will be scheduled by Customer at least five (5) business days in advance. The parties will cooperate to ensure advance notice is provided to Service Provider of any additional service that may be requested.
- 4 In the event an Equipment unit does not meet the Inspection criteria because of needed repairs ("Repairs"), Service Provider will provide an estimated cost for such Repairs. Repairs will be performed upon Customer's approval and issuance of a purchase order. The Repairs must be performed prior to Service Provider acknowledging that the Inspection is completed.
- 5 Maintenance, Inspections, and Repairs will be performed by Service Provider on the Equipment within the hours of 7:00 a.m. to 5:00 p.m. on normal business days (excluding weekends and public holidays). In the event Customer schedules Maintenance, Inspections, and/or Repairs outside of such hours, or on weekends or public holidays, the following additional fees will be charged: \$120.00 an hour, or for prorated portions of an hour depending on the time of completion. Fees will be billed from the time the Service Provider reaches the jobsite.
- 6 In the event Customer proposes changes to the Scope of Services stated herein, Service Provider reserves the right to renegotiate the fee agreed between the parties.

B FEE SCHEDULE

For the Basic Package: \$2,614; for the Silver Package: \$4,205; for the Gold Package: \$10,251; for the Platinum Package: \$10,251; for the Custom Package: \$6,743; for 3 years of service, with payment by Customer to Service Provider due upon signing of this Agreement.

C LIST OF EQUIPMENT UNITS TO BE INSPECTED AND MAINTAINED

The following equipment, listed by Serial Number and Model, is included under this Agreement:

Equipment Model: C4045

Equipment Serial Number(s):

This document will be supplemented with serial numbers for the units once they are available

Designated Service Location:

CUSTOMER'S ADDRESS

**TEREX USA, LLC, d/b/a TEREX SERVICES
("Seller")**

TERMS AND CONDITIONS OF SALE

1. Terms and Conditions. The provision by Seller to Buyer of any Equipment or Parts (collectively referred to as "Products") and field labor, reconditioning, repair, maintenance and inspection services (collectively referred to herein as "Services") shall be exclusively governed by these Terms and Conditions of Sale ("Terms and Conditions") and Seller's sales order (collectively referred to as "Agreement"). This Agreement cancels and supersedes any and all terms and conditions previously issued by Seller and shall remain in effect unless and until superseded in writing by Seller. Acceptance of an order for Products or Services by Seller shall be deemed to constitute a binding agreement between the parties pursuant to these Terms and Conditions and Buyer agrees that the order may not thereafter be countermanded or otherwise changed without the explicit prior written consent of Seller. No other terms and conditions shall apply, including the terms of any purchase order submitted to Seller by Buyer, whether or not objected to by Seller or whether or not such terms are inconsistent or conflict with or are in addition to these Terms and Conditions. These Terms and Conditions shall be deemed accepted by Buyer if any of the following occurs: (i) if confirmed by Buyer, (ii) if undisputed by Buyer within ten (10) days after receipt, or (iii) if Seller delivers Products or Services to Buyer. Any communication construed as an offer by Seller and acceptance thereof is expressly limited to these Terms and Conditions. The Products are intended for industrial/commercial use by professional contractors and their trained employees and are not intended for use by consumers.

2. Terms of Payments. Payment for Products or Services purchased by Buyer shall be made in accordance with any of the following terms, provided they have been previously arranged with and expressly approved by Seller in writing: (1) cash in advance; (2) confirmed, irrevocable letter of credit established in such amount and form and at such time and at such bank as shall be approved by Seller in respect of each order; (3) credit account purchases for which payment will be due and payable on net thirty (30) day terms, plus service and other charges applicable to past due amounts in accordance with Seller's written notices; or (4) other payment arrangements expressly approved by Seller in writing prior to or at the time the order is placed. If any Buyer credit account purchase is not paid in accordance with Seller's credit payment terms, in addition to any other remedies allowed in equity or by law, Seller may refuse to make further shipments without advance payment by Buyer. Nothing contained herein shall be construed as requiring Seller to sell any Products or Services to Buyer on credit terms at any time, or prohibiting Seller from making any and all credit decisions which it, in its sole discretion, deems appropriate for Seller. Seller may charge interest on all amounts not paid when due and Buyer agrees to pay such interest calculated on a daily basis, from the date that payment was due until the Seller receives payment in full, at the rate of 1.5% per month or the maximum rate permitted by applicable law. Seller shall be entitled to an equitable adjustment in the price of Products or Services in order to account for increases in the cost to Seller of labor or materials, or in the event of unanticipated or unforeseen circumstances.

3. Taxes and Duties. Unless otherwise specified, prices quoted do not include taxes or duties of any kind or nature. Buyer agrees that it will be responsible for filing all tax returns and paying applicable tax, duty, export preparation charge and export documentation charge resulting from the purchase of any Products or Services. In addition, in the event any other similar tax is determined to apply to Buyer's purchase of any Products or Services from Seller, Buyer agrees to indemnify and hold Seller harmless from and against any and all such other similar taxes, duties and fees. All prices quoted are U.S. DOLLARS unless otherwise specified. The amount of any present or future taxes applicable to the sale, transfer, lease or use of any Products shall be paid by Buyer; or in lieu thereof, Buyer shall provide Seller with a tax exemption certificate satisfactory to the applicable taxing authority proving that no such tax is due and payable upon such sale, transfer, lease or use.

4. Title, Risk, Transportation and Delivery. Unless otherwise stated in writing, all prices and delivery are FCA, Seller's Premises (Incoterms 2010). Title and all risk of loss or damage to Products shall pass to Buyer upon delivery, as per Incoterms 2010. Any claims for loss, damage or delay in transit must be entered and prosecuted by the Buyer directly with the carrier, who is hereby declared to be the agent of the Buyer. In the event delay in shipment of Products is caused by Buyer's failure to furnish necessary information with respect to data and details for Buyer's specifications, Seller, may, in its sole discretion, extend the date of shipment for a reasonable time. In the event delay in shipment is caused by Buyer or at Buyer's request, and there are Products that are not shipped within ten (10) days from the first date they are ready to be shipped, Seller may, in its sole discretion, sell such Products to another buyer without any liability or responsibility to Buyer whatsoever. All payments shall be made in accordance with the terms of the applicable invoice. In addition, storage charges due to delay in furnishing delivery instructions, arranging and establishing a method of payment satisfactory to Seller, or submitting valid import permits or licenses, or any other delay caused by Buyer or at Buyer's request, will be for the account of Buyer. **SELLER SHALL NOT BE LIABLE FOR ANY LOSS OF USE OR FOR ANY OTHER INDIRECT, CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES OR LOSSES DUE TO DELAY IN SCHEDULED DELIVERY.** Claims for shortages in shipments shall be deemed waived and released by Buyer unless made in writing within five (5) days after Buyer's receipt of shipment. Seller's responsibility for shipment shall cease upon delivery of the Products to the place of shipment, and all claims occurring thereafter shall be made to or against the carrier by Buyer.

5. Cancellation. Prior to delivery to place of shipment, a Products order may be cancelled only with Seller's prior written consent and upon terms indemnifying Seller from all resulting losses and damages. Seller shall have the right to cancel and refuse to complete a Products or Services order if any term and/or condition governing this agreement is not complied with by Buyer. In the event of cancellation by Seller, or in the event Seller consents to a request by Buyer to stop work or to cancel the whole or any part of any order, Buyer shall make reimbursement to Seller, as follows: (i) any and all work that can be completed within (30) days from date of notification to stop work on account of cancellation shall be completed, shipped and paid in full; and (ii) for work in progress and any materials and supplies procured or for which definite commitments have been made by Seller in connection with the order, Buyer shall pay such sums as may be required to fully compensate Seller for actual costs incurred, plus fifteen percent (15%). Buyer may not cancel any order after Seller's delivery to place of shipment. Orders for "Special" Equipment may not be cancelled after acceptance, except by Seller. Items of "Special" Equipment are those that differ from standard Seller specifications, have a limited market, or incorporate specifications that have been determined for a specific application. Determination of whether an item of Equipment is "Special" shall be made by Seller in its sole discretion.

6. Inspection and Acceptance. Buyer agrees that it shall inspect the Products or Services immediately after receipt of Products or completion of Services and promptly notify Seller in writing of any non-conformity or defect within 10 days after the Products are put into service or the Services are completed, but not more than thirty (30) days after delivery or completion. Buyer further agrees that confirmation that the Products or Services comply with the order, its commercial use of the Products or its failure to give prompt notice of non-conformity or defect shall constitute acceptance. Acceptance shall be final and Buyer waives the right to revoke acceptance for any reason, whether or not known by Buyer at the time of such acceptance. Acceptance shall automatically cause the provisions of Seller's warranty to apply and govern the rights, obligations and liabilities of the parties with respect to such nonconformity or defect, provided under no circumstances shall rejection give rise to any liability of Seller for incidental or consequential damages or losses of any kind.

7. Warranty for Products and Services.

(a) For Equipment:

Seller warrants its new Equipment manufactured and sold worldwide to be free, under normal use and service, from defects in material or workmanship for the time period designated in the warranty applicable to the particular type, make and model of Equipment or, in the event no specific warranty exists for such Equipment, for a period of twelve (12) months from the date of delivery.

(b) For Parts:

(i) Seller warrants that Parts supplied by Seller will be free, under normal use and service, from defects in material or workmanship for a period of twelve (12) months from the date of delivery, where Seller is the OEM of such Parts;

(ii) Seller warrants that that Parts supplied in connection with a warranty repair on Equipment sold by Seller will be free, under normal use and service, from defects in material or workmanship for a period of time equal to the OEM warranty provided by the manufacturer of such Parts, but if there is no OEM warranty on such Parts, then such warranty period shall terminate upon the expiration of the warranty for the Equipment originally sold by Seller; and

(iii) Seller warrants that Parts supplied in connection with Services performed by Seller on equipment not originally sold by Seller will be free, under normal use and service, from defects in material or workmanship for a period of time equal to the OEM warranty provided by the manufacturer of such Parts.

(c) For Services:

(i) Seller warrants that its field and shop labor services will be free from defects in workmanship for a period of ninety (90) days from the date of completion of such services;

(ii) Seller warrants that its labor supplied in connection with its reconditioning services on mobile equipment will be free from defects in workmanship for a period of six (6) months from the date of completion of such services; and

(iii) Seller provides no warranty, express or implied, on its inspection services.

The foregoing warranties shall only be valid if Buyer sends Seller written notice of the defect within thirty (30) days of its discovery and establishes that: (i) the Equipment or Parts, or any equipment subject to any Service, has been maintained and operated within the limits of rated and normal usage; and (ii) the defect did not result in any manner from the intentional or negligent action or inaction by Buyer, its agents or employees. If requested by Seller, Buyer must return the defective Equipment or Parts to Seller's facility for inspection, and if Buyer cannot establish that conditions (i) and (ii) above have been met, then the foregoing warranties shall not cover the alleged defect. Failure to give written notice of defect within such period shall be a waiver of the foregoing warranties and any assistance rendered thereafter shall not extend or revive it. Equipment, accessories, assemblies, components and Parts which are not manufactured by Seller are subject to the warranty of their respective manufacturers. The foregoing warranties shall be void in the event Buyer has carried out modifications or reconditioning work on the Equipment or Parts without the prior written consent of Seller. The foregoing warranties shall not cover any item on which serial numbers have been altered, defaced or removed. Maintenance and wear parts are not covered by the foregoing warranties and are the sole maintenance responsibility of Buyer. The foregoing warranties are limited to the first retail purchaser and are not assignable or otherwise transferable without the written agreement of Seller. **THE FOREGOING WARRANTIES ARE EXPRESSLY IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) AND ALL OTHER OBLIGATIONS OR LIABILITY ON SELLER'S PART. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTIES CONTAINED HEREIN.** Seller neither assumes nor authorizes any other person to assume for Seller any other liability in connection with the sale of Seller's Equipment, Parts or Services. The foregoing warranties shall not apply to any Equipment or Parts or any part thereof purchased from Seller, or any equipment which was the subject of any Service performed by Seller, which has been subject to misuse, alteration, abuse, negligence, accident, acts of God or sabotage. No action by either party shall operate to extend or revive the foregoing limited warranties without the prior written consent of Seller.

8. Remedies for Breach. IN THE EVENT OF ANY BREACH OF WARRANTY BY SELLER, THE PARTIES AGREE THAT SELLER'S LIABILITY SHALL BE LIMITED EXCLUSIVELY TO THE REMEDIES OF REPAIR OR REPLACEMENT (AT SELLER'S SOLE DISCRETION) OF ANY DEFECTIVE PRODUCT OR THE RE-PERFORMANCE OF ANY DEFECTIVE SERVICES COVERED BY THE WARRANTY. In no event shall any repair or replacement of any defective Equipment or Parts, or the re-performance of any defective Services covered by the Seller's warranties in Section 7 extend the length of such warranties beyond the applicable periods specified in Section 7 above.

9. Limitation of Liability. NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, SELLER AND ITS AFFILIATES SHALL NOT BE LIABLE FOR, AND SPECIFICALLY DISCLAIM, ANY LIABILITY FOR ANY: (A) LOST PROFITS AND/OR BUSINESS INTERRUPTION (WHETHER DIRECT OR INDIRECT); AND (B) INCIDENTAL, INDIRECT, CONSEQUENTIAL (WHETHER DIRECT OR INDIRECT) OR OTHER DAMAGES OR LOSSES OF ANY KIND, including without limitation, labor costs, loss of use, equipment rental, third party repairs, investigation costs, personal injury, emotional or mental distress, penalties, loss of service of personnel, or failure of Products to comply with any applicable laws; whether or not arising from breach of contract, warranty, negligence, product liability or otherwise. Notwithstanding anything contained herein to the contrary, in no event shall Seller's liability exceed the total order value.

10. Limitation of Actions. Any action for breach of this agreement must be commenced within one (1) year after the cause of action has accrued.

11. Specification Changes. In the event Seller incurs additional expense because of changes in specifications or drawings previously approved by Buyer, or in the event Seller is required to modify the ordered Products, perform any additional Services, perform any additional work or supply any additional Products, the additional expense shall be added to the purchase price. Seller shall have the right, in its sole discretion, to accept or reject any changes in specifications requested by Buyer. In no event shall any changes in specifications be made or accepted thirty (30) days prior to launch date or thereafter.

12. Security Interest. Buyer grants Seller a security interest in the Products purchased and the proceeds thereof. The security interest shall continue until payment in full of the purchase price and payment and performance by Buyer of all of its other obligations hereunder. Seller is entitled to all remedies of a secured party after default under the Ohio Uniform Commercial Code or other applicable law, including but not limited to the applicable Personal Property Security Act in Canada, in addition to all other rights provided by contract and by operation of law. Buyer agrees to pay to Seller, in addition to the interest on overdue sums due, reasonable attorney fees, court costs and other expenses of Seller incurred in enforcing Seller's rights. The Products purchased shall remain personal property and shall not become or be deemed a fixture or a part of any real estate on which it may be located. Buyer agrees to execute any instrument or document considered necessary by Seller to perfect its security interest in the Products including, but not limited to, financing statements, chattel mortgages, deeds of trust, deeds to secure debt, mortgages or other security instruments.

13. Insurance. Until the purchase price of any Product is paid in full or the Service is completed, the Buyer shall provide and maintain insurance equal to the total value of any such Product delivered hereunder against customary casualties and risks; including, but not limited to fire and explosion, and shall also insure against liability for accidents and injuries to the public or to employees, by adding Seller as additional insured with waiver of subrogation, and in an amount satisfactory to Seller. If the Buyer fails to provide such insurance, it then becomes the Buyer's responsibility to notify the Seller so that the Seller may provide same; and the cost thereof shall be added to the contract price. All loss resulting from the failure to affect such insurance shall be assumed by the Buyer.

14. Return of Products. Products may be returned only with Seller's prior written consent and upon the following conditions: (i) such Products must be new, unused and undamaged (and not obsolete), in good working order and in first class marketable condition; (ii) such Products must have been originally purchased by Buyer from Seller within the previous twelve (12) month period; and (iii) such Products shall be returned in the same condition as that in which they were sold by Seller to Buyer, and in the original packaging. Notwithstanding the foregoing, wire rope, cut chain, electrical components, special orders of Products or any Products which are altered or manufactured pursuant to Buyer's requirements and specifications are not returnable. The price for the repurchase of such Products shall be the invoice price previously received by Seller from Buyer for the Products in question, net of freight and taxes, and less a restocking fee to be determined by Seller at the time of the return.

15. Patents, Copyrights, Trademarks, Confidentiality. No license or other rights under any patents, copyrights or trademarks owned or controlled by Seller or under which Seller is licensed are granted to Buyer or implied by the sale of Products or the provision of Services. Buyer shall not identify as genuine products of Seller Products purchased hereunder which Buyer has treated, modified or altered in any way, nor shall Buyer use Seller's trademarks to identify such products; provided, however, that Buyer may identify such products as utilizing, containing or having been manufactured from genuine products of Seller as treated, modified or altered by Buyer or Buyer's representative, upon written prior approval of Seller. All plans, photographs, designs, drawings, blueprints, manuals, specifications and other documents relating to the business of Seller ("Information") shall be and remain the exclusive property of Seller and shall be treated by Buyer as confidential information and not disclosed, given, loaned, exhibited, sold or transferred to any third party without Seller's prior written approval; provided, however, that these restrictions shall not apply to information that Buyer can demonstrate: (a) at the time of disclosure, is generally known to the public other than as a result of a breach of this agreement by Buyer; or (b) is already in Buyer's possession at the time of disclosure by from a third party having a right to impart such information.

16. Default and Seller's Remedies. In the event of default by Buyer, all unpaid sums and installments owed to Seller, shall, at the Seller's sole option, become immediately due and payable without notice of any kind to Buyer. In addition to its right of acceleration, Seller may pursue any and all remedies allowed by law or in equity, including but not limited to any and all remedies available to it under the Ohio Uniform Commercial Code. In addition to the foregoing, and not in limitation thereof, Seller shall have the right to set off any credits or amounts owed to Buyer against any amounts owed by Buyer to Seller.

17. Indemnification by Buyer. Buyer hereby agrees to indemnify, release, defend and hold harmless Seller, its directors, officers, employees, agents, representatives, successors, and assigns against any and all suits, actions or proceedings at law or in equity (including the costs, expenses and reasonable attorney's fees incurred in connection with the defense of any such matter) and from any and all claims demands, losses, judgments, damages, costs, expenses or liabilities, to any person whatsoever (including Buyer's and Seller's employees or any third party), or damage to any property (including Buyer's property) arising out of or in any way connected with any act, omission, negligence or willful misconduct of Buyer, its directors, officers, employees, agents, representatives, successors or assigns with respect to its purchase, use, operation, maintenance or installation of any Services or any Parts or Equipment furnished hereunder, or any breach by Buyer of these Terms and Conditions of Sale. If Buyer fails to fulfill any of its obligations under this paragraph or this agreement, Buyer agrees to pay Seller all costs, expenses and attorney's fees incurred by Seller to establish or enforce Seller's rights under this paragraph or this agreement. The provisions of this paragraph are in addition to any other rights or obligations set forth in this agreement.

18. Installation. Unless otherwise expressly agreed in writing, Buyer shall be solely responsible for the installation and erection of the Products purchased. Although Seller may in some cases provide a serviceman, data and drawings to aid Buyer with installation or start-up, Seller assumes no responsibility for proper installation or support of any Product when installed and disclaims any express or implied warranties with respect to such installation and support. Notwithstanding whether data and drawings are provided or a serviceman aids in the installation, Buyer shall indemnify and hold Seller harmless and at Seller's request, defend Seller from all claims, demands or legal proceedings (including the costs, expenses and reasonable attorney's fees incurred in connection with the defense of any such matter) which may be made or brought against Seller in connection with damage or personal injury arising out of said installation or start-up.

19. On-Site Services. In the event that Seller is providing Services at Buyer's worksite (or at a location designated by Buyer), Buyer shall provide Seller free and clear access and an adequate power supply in order to perform the Services. Buyer shall maintain safe working conditions at the worksite, including, without limitation, implementing appropriate procedures regarding hazardous materials and energization and de-energization of power systems. Buyer shall immediately remedy any unsafe working condition at the worksite. Seller shall be entitled to suspend or terminate the Services in the event it determines that the worksite is unsafe. Seller shall have no responsibility or liability for any pre-existing condition of the worksite including, without limitation, violations of safety rules, building codes, zoning ordinances or other laws or regulations ("Regulations"). In the event that any unsafe working condition or failure of the worksite to comply with a Regulation results in an increase in the Seller's cost of, or the time required for, performance of the Services, Seller may make an equitable adjustment in price and schedule. Buyer authorizes Seller to perform the disassembly and inspection of any equipment necessary to provide the Services, including provision of all necessary Parts and labor, and agrees that Seller is not responsible for any damage or loss due to causes beyond Seller's control. Unless expressly agreed in writing, Services do not include architectural/engineering services or structural changes to Buyer's premises.

20. Additional Terms of Equipment Services. In the event Seller performs Services on Equipment for Buyer, Buyer hereby authorizes Seller to inspect and disassemble the Equipment provided, and authorizes Seller to perform the Services indicated in the applicable estimate, quote or work order (including provision of all necessary parts and labor). Buyer agrees that Seller is not responsible for: (i) damage or loss to the Equipment, or loss of personal property, caused by fire, theft, or causes beyond Seller's control, or (ii) delays in completion of Services caused by unavailability of parts or other causes. Buyer authorizes Seller and its employees to operate the Equipment on streets, highways or elsewhere for the purpose of testing and/or inspection. Buyer will be subject to a storage fee of \$20 per day for any Equipment left on Seller's premises more than fifteen (15) days after completion of the Services. Buyer grants Seller a security interest and lien in the Equipment and any parts supplied until payment in full of any amounts owed by Buyer to Seller. Seller is entitled to all remedies of a secured party after default under the Uniform Commercial Code in addition to all other rights provided under law or equity. Buyer agrees to pay to Seller, in addition to interest at the rate of 18% annually on overdue sums (or the maximum rate permitted by law), reasonable attorney fees, court costs and other expenses incurred by Seller in enforcing Seller's rights. Buyer agrees to execute any instrument or document considered necessary by Seller to perfect its security interest in the Equipment. In the event Buyer fails to retrieve the Equipment within ninety (90) days after completion of the Services, Buyer grants Seller a power of attorney to sell, or otherwise dispose of, such Equipment and to convey title to a purchaser of such Equipment, and to apply any sale proceeds against any amount owed by Buyer to Seller. In the event of default by Buyer, all unpaid sums owed to Seller shall, at Seller's sole option, become immediately due and payable without notice of any kind to Buyer.

21. Force Majeure. The Seller shall not be liable to the Buyer or be deemed to be in breach of this agreement by reason of any delay in performing, or any failure to perform, any of the Seller's obligations in relation to the Products or Services if the delay or failure was due to any cause beyond the reasonable control of the Seller including (without limitation) strike, lockout, riot, civil commotion, fire, accident, explosion, tempest, act of God, war, epidemic, stoppage of transport, terrorist activity, supply shortage or changes in government, governmental agency, laws, regulations or administrative practices.

22. Anti-Corruption; Export Controls; No Boycotts. Buyer agrees that it shall, and that any party retained or paid by the Buyer ("Retained Party") shall, comply with all applicable laws including, but not limited to, laws prohibiting public corruption and commercial bribery. Buyer further agrees that it shall, and that any Retained Party shall, comply with all applicable export controls, economic sanctions, embargoes and regulations regarding the export, re-export, shipment, distribution and/or sale of Products, technology, information or warranty related services. Buyer further agrees that it shall not, and any Retained Party shall not, export or re-export Products, technology, information or warranty related services directly or with its knowledge indirectly into Iran, Cuba, Syria, North Korea, the Crimea Region of the Ukraine or Russia without Buyer first obtaining written approval from Seller. Failure to comply strictly with this section and all applicable laws, regulations and licensing/approval requirements shall be grounds for immediate termination of this agreement by Seller. Notwithstanding anything to the contrary contained in any agreement between the Buyer and Seller or in any other document or agreement relating to the Products sold hereunder, Seller will not comply with requests related to the boycott of any country or other jurisdiction, except to the extent such boycott is required by or otherwise not inconsistent with United States law.

23. Telematics. If a telematics system is included with the Equipment, the telematics system is administered by a third party ("Teleservice Provider") and collects a range of operational data about the Equipment including, but not limited to, usage, performance and reliability. Buyer consents to Seller's obtaining such data from the Teleservice Provider for warranty, product improvement, marketing and customer support purposes. In addition to the foregoing, Buyer consents to Seller's collection, management and reporting of data (personal and non-personal) about the Equipment including, but not limited to, fuel consumption, up/down times, operation, defects, parts replacement, movement and location. Buyer shall gain any prior explicit consent from its customers and/or any third party, as required by applicable laws, enabling Seller and/or third parties to provide teleservices and data to Buyer. Buyer shall comply with all applicable laws relating to the provision of teleservices, including without limitations any applicable data protection laws.

24. Construction and Severability. This agreement constitutes the entire agreement between the parties regarding the subject matter hereto and shall be construed and enforced in accordance with the laws of the State of Ohio. Seller shall not be bound by any agent's, employees or any other representation, promise or inducement not set forth herein. The invalidity or unenforceability of any provisions of this agreement shall not affect any other provision and this agreement shall be construed in all respects as if such invalid or unenforceable provision were omitted.

25. Jurisdiction. The parties agree that the proper and exclusive forum and venue in all legal actions brought to enforce or construe any of the provisions of this sales order agreement shall be in the United States District Court, Northern District of Ohio or, if federal jurisdiction is lacking in such legal action, in the state courts in Cleveland, Ohio.

26. No Assignment. No rights arising under this agreement may be assigned by the Buyer unless expressly agreed to in writing by the Seller.

27. Miscellaneous. Buyer represents that: (i) it is solvent and has the financial ability to pay for the Products or Services; and (ii) it has all requisite right, power and authority to perform its obligations under this agreement.

1/1/2020 Thru 8/31/2020 (8 MONTHS EST DPRN) (ALL WO TYPES) (ALL WO KINDS)

Equipment	Revenue	Total-cost	Fuel	Lube	Labor	Fringe	Part	Overhead	Tire/batt	Sundry	Dprn-mnthly	Units
002	9496.04	6265.78	3615.03	45.31	232.99	119.83	22.69	475.65	1754.28	0.00	0.00	17648.00
003	10967.28	10720.94	3378.04	48.10	709.85	365.08	4770.73	1449.14	0.00	0.00	0.00	20382.00
004	0.00	2308.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2308.67	0.00
005	0.00	7028.33	1479.61	33.46	124.71	64.14	1487.84	254.57	0.00	0.00	3584.00	0.00
006	3822.14	8101.89	646.61	34.21	1547.95	796.11	1916.86	3160.15	0.00	0.00	0.00	267.00
007	9566.66	7592.98	2664.96	19.23	31.04	15.96	3.76	63.36	0.00	0.00	4794.67	522.75
008	3543.58	4517.51	798.56	69.44	773.89	398.01	652.19	1579.93	245.49	0.00	0.00	248.75
013	6411.21	3875.32	1126.09	51.27	544.82	280.20	506.44	1112.26	254.24	0.00	0.00	348.50
015	1925.48	1670.76	675.50	40.80	339.13	174.41	440.92	0.00	0.00	0.00	0.00	109.00
016	6731.04	3099.56	1755.36	0.00	340.20	174.96	134.51	694.53	0.00	0.00	0.00	467.50
017	6239.02	6531.57	1095.27	42.25	1084.08	557.54	1283.38	2213.15	255.90	0.00	0.00	242.75
018	6915.00	2834.05	1754.71	0.00	265.57	136.58	135.03	542.16	0.00	0.00	0.00	484.00
019	7248.08	4347.06	2139.07	62.75	258.31	132.85	1104.01	527.33	122.74	0.00	0.00	498.75
020	4790.60	18056.33	992.16	77.91	730.33	375.61	14389.33	1490.99	0.00	0.00	0.00	82.25
022	383.54	2446.44	25.68	0.00	388.28	199.69	1040.12	792.67	0.00	0.00	0.00	7.25
024	1356.84	2719.50	646.69	0.00	503.38	258.89	282.89	1027.65	0.00	0.00	0.00	93.50
025	6860.99	5566.08	1803.72	5.27	878.47	451.80	633.42	1793.40	0.00	0.00	0.00	471.00
026	6906.14	5242.38	1302.80	277.36	821.92	422.71	739.60	1677.99	0.00	0.00	0.00	131.50
027	24764.55	22260.00	4350.25	180.91	743.33	382.29	1265.12	1517.52	1993.25	0.00	11827.33	410.50
028	29059.97	30899.51	5430.37	277.72	2537.43	1309.33	4150.49	5180.20	1059.30	0.00	10954.67	485.50
029	13061.65	8341.15	2368.34	275.47	651.28	334.95	3143.00	1329.56	238.55	0.00	0.00	469.75
030	8482.24	13514.61	1368.48	20.75	1580.22	812.71	4856.43	3226.02	0.00	0.00	1650.00	113.50
031	21675.78	18442.05	5005.98	19.40	429.45	220.87	879.61	876.74	70.00	0.00	10940.00	360.75
032	14385.80	18037.87	4160.52	211.59	1750.94	900.51	2981.91	3574.59	4457.81	0.00	0.00	237.75
033	28924.40	10029.91	4662.95	36.32	377.72	194.26	3987.55	771.11	0.00	0.00	0.00	482.25
036	26770.59	22193.07	5020.41	277.87	792.19	407.42	877.33	1617.27	624.58	0.00	12576.00	447.00
040	4670.27	34524.79	671.60	104.90	5784.70	2975.07	10518.31	11809.54	0.00	0.00	2660.67	69.00
042	14062.93	6102.93	807.13	127.68	666.75	478.19	2182.30	1361.17	479.71	0.00	0.00	204.75
044	21062.94	20501.96	3782.08	171.41	2664.49	1370.35	5099.60	5439.59	1974.44	0.00	0.00	351.00
045	11399.46	9889.13	1882.60	210.72	1087.11	559.10	3930.24	2219.36	0.00	0.00	0.00	191.50
048	16072.81	5561.16	2245.64	30.64	493.85	253.99	1049.50	1008.17	479.37	0.00	0.00	267.00
050	22823.09	21280.21	4041.46	289.93	872.66	448.81	1597.15	1781.53	0.00	0.00	12248.67	380.25
051	10566.31	8075.49	2323.40	132.45	1213.35	624.03	1305.20	2477.06	0.00	0.00	0.00	175.75
052	12470.85	17546.29	2405.28	137.48	2504.30	1287.96	3683.72	5112.64	2414.91	0.00	0.00	206.50
053	23153.56	21066.67	3913.60	193.35	672.46	345.85	261.84	1372.78	1936.12	0.00	12370.67	385.00
054	4376.46	3141.01	552.28	112.35	571.99	294.17	442.49	1167.73	0.00	0.00	0.00	72.00
058	23093.19	7613.35	5380.61	123.88	586.69	301.73	22.72	1197.72	0.00	0.00	0.00	384.00
059	14397.00	4384.87	2852.82	50.18	413.05	212.43	13.14	843.25	0.00	0.00	0.00	240.50
102	368.72	1040.27	0.00	4.62	230.10	118.34	217.44	469.77	0.00	0.00	0.00	11.00
103	0.00	1114.67	0.00	6.93	29.23	15.03	55.81	59.67	0.00	0.00	948.00	87.25
110R	1352.58	1964.83	0.00	0.00	548.60	282.14	14.12	1119.97	0.00	0.00	0.00	93.00
110S	1403.05	724.68	0.00	0.00	203.80	104.81	0.00	416.07	0.00	0.00	0.00	96.50
111R	2191.84	279.06	0.00	0.00	78.48	40.36	0.00	160.22	0.00	0.00	0.00	152.00
111S	2191.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	152.00
112R	1754.90	279.06	0.00	0.00	78.48	40.36	0.00	160.22	0.00	0.00	0.00	121.00
112S	1754.90	1244.57	0.00	0.00	350.01	180.01	0.00	714.55	0.00	0.00	0.00	121.00
113R	2487.45	3629.58	0.00	0.00	540.19	277.82	1051.41	1102.83	0.00	0.00	657.33	172.50
113S	2487.45	2441.40	0.00	0.00	349.12	179.55	0.00	712.73	0.00	0.00	1200.00	172.50
115	28.56	132.34	11.36	0.00	34.02	17.50	0.00	69.46	0.00	0.00	0.00	2.00
130	2292.00	178.53	40.96	0.00	38.69	19.90	0.00	78.98	0.00	0.00	0.00	60.00
133	2836.92	492.41	198.70	12.48	71.54	36.79	26.85	146.05	0.00	0.00	0.00	94.00
136	2936.73	1674.26	150.62	69.31	363.03	186.71	66.51	741.13	96.95	0.00	0.00	98.50
138	509.60	6831.84	35.73	0.00	1464.56	753.22	1588.38	2989.95	0.00	0.00	0.00	20.00
139	1006.46	5003.36	0.00	0.00	1267.63	651.94	495.91	2587.88	0.00	0.00	0.00	39.50
142	1155.77	1206.87	0.00	5.37	157.63	81.07	48.99	321.81	0.00	0.00	592.00	39.50
143	765.40	3250.56	0.00	0.00	753.66	387.61	0.00	1538.62	0.00	0.00	570.67	157.50
193	1601.46	1051.90	143.07	0.00	40.92	21.05	0.00	83.53	0.00	0.00	763.33	80.00
194	59.52	836.67	17.62	0.00	145.66	74.91	192.02	297.38	109.08	0.00	0.00	3.00
195	38456.57	11665.47	4404.15	30.34	1101.47	566.49	438.31	2248.71	0.00	0.00	2876.00	657.50
200	191.22	112.66	0.00	0.00	11.69	6.01	71.10	23.86	0.00	0.00	0.00	3.00
206	2816.81	1406.57	426.07	21.74	105.22	54.11	584.63	214.80	0.00	0.00	0.00	171.00
207	764.98	1941.89	0.00	0.00	424.59	218.37	432.11	866.82	0.00	0.00	0.00	54.00
208	1481.98	41.56	0.00	0.00	11.69	6.01	0.00	23.86	0.00	0.00	0.00	66.50
209	566.66	4069.99	0.00	71.69	659.44	339.15	140.12	1346.26	0.00	0.00	1513.33	14.75
210	21.68	2943.19	0.00	0.00	572.82	294.60	906.35	1169.42	0.00	0.00	0.00	1.00
211	2406.48	449.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	449.33	111.00
221	19172.00	20342.72	309.49	34.91	1650.69	848.95	75.44	3369.91	0.00	0.00	14053.33	101.00
225	8512.85	7522.95	112.64	481.68	1655.88	851.62	927.86	3380.54	112.73	0.00	0.00	111.25
304	4877.59	4186.54	335.64	103.59	545.57	280.59	561.84	1113.79	1245.52	0.00	0.00	152.50
308	414.60	2704.40	0.00	21.82	764.46	393.16	-35.69	1560.65	0.00	0.00	0.00	14.00
310	3630.81	4396.38	731.56	84.28	854.52	439.48	312.03	1744.51	230.00	0.00	0.00	113.00
311	5429.79	3907.92	832.34	57.17	735.37	378.20	403.59	1501.25	0.00	0.00	0.00	171.50
312	4659.56	7075.79	635.91	142.26	1488.45	765.51	1004.99	3038.67	0.00	0.00	0.00	145.50
313	6834.54	18017.27	1237.47	268.54	2037.74	1048.01	2362.82	4160.06	2558.63	0.00	4344.00	178.00
323	2036.86	985.18	108.30	0.00	241.67	124.29	17.55	493.37	0.00	0.00	0.00	70.00
326	1350.99	1147.16	21.44	13.09	69.83	35.91	16.81	142.57	847.51	0.00	0.00	60.50
334	17316.46	9714.95	2007.71	91.37	1027.36	528.37	3962.80	2097.34	0.00	0.00	0.00	294.50
336	13246.21	9690.61	1769.42	104.94	1335.98	687.09	3065.78	2727.40	0.00	0.00	0.00	225.25
356	10898.42	8480.25	1638.69	26.39	81.83	42.09	192.20	167.05	0.00	0.00	6332.00	256.50
432	775.20	186.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	186.00	42.50

1/1/2020 Thru 8/31/2020 (8 MONTHS EST DPRN) (ALL WO TYPES) (ALL WO KINDS)

<u>Equipment</u>	<u>Revenue</u>	<u>Total-cost</u>	<u>Fuel</u>	<u>Lube</u>	<u>Labor</u>	<u>Fringe</u>	<u>Part</u>	<u>Overhead</u>	<u>Tire/batt</u>	<u>Sundry</u>	<u>Dprn-mnthly</u>	<u>Units</u>
436	615.60	1714.17	0.00	0.00	57.49	29.57	886.42	117.36	0.00	0.00	623.33	33.75
455	5333.55	5158.02	448.45	194.81	1162.55	597.90	310.77	2373.39	70.15	0.00	0.00	83.50
456	4328.42	7326.82	305.92	194.69	599.81	308.48	4693.42	1224.50	0.00	0.00	0.00	73.50
457	12382.01	5782.67	1252.71	179.69	1002.58	515.63	785.28	2046.78	0.00	0.00	0.00	197.00
458	1231.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.50
500	7635.42	5689.09	379.82	46.27	710.06	365.18	2738.20	1449.56	0.00	0.00	0.00	177.00
501	36.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
570	7346.44	3194.98	300.78	0.00	19.35	9.95	1338.78	39.50	133.95	0.00	1352.67	429.25
571	6800.78	4138.87	442.66	0.00	175.21	90.11	1466.73	357.70	253.79	0.00	1352.67	392.75
572	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
573	202.40	2427.04	138.54	8.41	319.97	164.56	1142.33	653.23	0.00	0.00	0.00	5.00
574	82.64	20.80	0.00	0.00	5.85	3.01	0.00	11.94	0.00	0.00	0.00	10.50
575	317.89	172.45	0.00	0.00	48.50	24.94	0.00	99.01	0.00	0.00	0.00	13.50
576	7398.64	10903.24	657.84	11.98	1030.11	529.79	6447.78	2103.00	122.74	0.00	0.00	171.50
577	3972.47	1324.63	220.22	4.62	138.09	71.02	608.75	281.93	0.00	0.00	0.00	98.50
578	5231.93	1363.99	29.48	0.00	140.14	72.07	92.86	286.11	0.00	0.00	743.33	123.50
581	2846.00	5906.48	91.55	117.95	880.87	453.03	1574.45	1798.26	119.70	0.00	870.67	68.50
586	3497.78	2965.57	60.51	19.63	655.85	337.30	553.39	1338.89	0.00	0.00	0.00	86.50
651	143.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50
655	223.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00
657	383.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00
720	1088.95	41.56	0.00	0.00	11.69	6.01	0.00	23.86	0.00	0.00	0.00	75.00
726	80.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.50
727	1468.55	687.18	0.00	0.00	17.02	8.75	0.00	34.74	0.00	0.00	626.67	110.75
728	1440.72	682.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	682.00	108.25
730	1270.65	335.78	0.00	0.00	48.50	24.94	0.00	99.01	0.00	0.00	163.33	88.00
731	1382.36	662.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	662.00	104.25
732	1445.34	1332.64	0.00	0.00	61.38	31.57	899.71	125.31	0.00	0.00	214.67	109.00
733	1415.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.75
736	1243.13	1053.71	0.00	0.00	105.10	54.05	0.00	214.56	0.00	0.00	680.00	93.75
744	1272.96	354.36	0.00	0.00	84.77	43.60	52.93	173.06	0.00	0.00	0.00	96.00
745	232.05	374.11	0.00	0.00	105.21	54.11	0.00	214.79	0.00	0.00	0.00	17.50
748	1367.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.75
750	1725.13	687.90	0.00	0.00	0.00	0.00	2.57	0.00	0.00	0.00	685.33	130.00
751	1030.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.75
752	1213.29	120.96	0.00	0.00	34.02	17.50	0.00	69.44	0.00	0.00	0.00	91.50
753	1412.19	1204.84	0.00	0.00	135.79	69.84	37.34	277.20	0.00	0.00	684.67	106.50
754	80.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.50
754R	0.00	392.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	392.67	0.00
758	1416.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.50
820	966.90	240.76	0.00	0.00	23.38	12.02	157.63	47.73	0.00	0.00	0.00	77.00
826	68.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.50
827	1323.59	616.18	0.00	0.00	17.54	9.02	5.81	35.81	0.00	0.00	548.00	109.75
828	1178.87	873.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	873.33	97.75
830	1023.77	126.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	126.67	81.50
831	1011.24	3212.52	0.00	0.00	533.15	274.20	504.73	1088.44	0.00	0.00	812.00	83.75
832	1332.63	791.99	0.00	0.00	103.44	53.20	249.15	211.16	0.00	0.00	175.04	110.50
833	1178.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.75
836	1130.63	1647.43	0.00	0.00	81.12	41.72	774.98	165.61	0.00	0.00	584.00	93.75
844	1085.40	79.84	0.00	0.00	22.45	11.55	0.00	45.84	0.00	0.00	0.00	90.00
845	168.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
848	1142.79	1804.22	0.00	0.00	199.04	102.37	1096.49	406.32	0.00	0.00	0.00	93.50
850	1568.24	582.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	582.67	130.00
851	798.98	573.00	0.00	0.00	97.14	49.96	227.60	198.30	0.00	0.00	0.00	66.25
852	1067.31	2265.72	0.00	0.00	183.63	94.44	1612.78	374.87	0.00	0.00	0.00	88.50
853	1266.30	824.60	0.00	0.00	68.04	34.99	0.00	138.90	0.00	0.00	582.67	105.00
854	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
856	190.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50
857	293.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
858	1302.55	465.32	0.00	0.00	64.51	33.18	235.93	131.70	0.00	0.00	0.00	107.75
886	307.86	1705.44	0.00	0.00	175.35	90.18	1081.93	357.98	0.00	0.00	0.00	10.50
920	540.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.25
922	27.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
926	27.32	892.51	0.00	0.00	237.80	122.30	46.94	485.47	0.00	0.00	0.00	2.00
927	1239.65	521.56	0.00	0.00	11.69	6.01	0.00	23.86	0.00	0.00	480.00	90.75
928	644.77	620.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	620.67	47.00
928C	1577.60	495.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	495.33	123.25
930	706.38	83.89	0.00	0.00	23.59	12.13	0.00	48.17	0.00	0.00	0.00	50.25
931	969.87	730.57	0.00	0.00	70.14	36.07	261.17	143.19	0.00	0.00	220.00	71.00
932	771.79	145.52	0.00	0.00	40.92	21.05	0.00	83.55	0.00	0.00	0.00	56.50
933	1103.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.75
933C	1433.60	2045.76	0.00	0.00	317.91	163.50	0.00	649.02	0.00	0.00	915.33	112.00
936	723.98	828.81	0.00	0.00	52.83	27.17	102.96	107.85	0.00	0.00	538.00	53.00
944	747.89	572.01	0.00	0.00	160.87	82.74	0.00	328.40	0.00	0.00	0.00	54.75
945	184.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50
948	638.35	512.77	0.00	0.00	140.28	72.15	13.95	286.39	0.00	0.00	0.00	45.75
950	471.64	695.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	695.33	34.50
951	710.33	41.56	0.00	0.00	11.69	6.01	0.00	23.86	0.00	0.00	0.00	52.00
952	628.36	1535.76	0.00	0.00	284.48	146.31	524.21	580.76	0.00	0.00	0.00	46.00
953	354.25	830.73	0.00	0.00	38.08	19.58	0.00	77.74	0.00	0.00	695.33	32.50

1/1/2020 Thru 8/31/2020 (8 MONTHS EST DPRN) (ALL WO TYPES) (ALL WO KINDS)

<u>Equipment</u>	<u>Revenue</u>	<u>Total-cost</u>	<u>Fuel</u>	<u>Lube</u>	<u>Labor</u>	<u>Fringe</u>	<u>Part</u>	<u>Overhead</u>	<u>Tire/batt</u>	<u>Sundry</u>	<u>Dprn-mnthly</u>	<u>Units</u>
954	30.06	104.37	0.00	0.00	17.54	9.02	42.00	35.81	0.00	0.00	0.00	2.00
958	614.69	472.74	0.00	0.00	129.34	66.52	12.80	264.08	0.00	0.00	0.00	45.00
B-009	0.00	2611.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2611.33	0.00
(24) GREE	736,671.89	656,266.26	108,623.03	6,222.93	68,746.36	35,495.82	131,572.22	139,654.08	24,261.44	0.00	141,690.38	58,848.75
(4) NORTI	736,671.89	656,266.26	108,623.03	6,222.93	68,746.36	35,495.82	131,572.22	139,654.08	24,261.44	0.00	141,690.38	58,848.75

Rows Processed 163

Show all data where the DOT_RGN_CD matches one of the values in this list 4
 and the DOT_CNTY_CD matches one of the values in this list 24
 and the USER_ID matches one of the values in this list 24BPENCE
 and the WKST_ADDR matches one of the values in this list MDC25238862
 and the MNTC_GL_ACCT matches one of the values in this list 185.01,185.02,185.03,185.04,185.05,185.06,185.08,185.09

For 01/01/20 - 08/31/20

Revenue Summary Report

FJRES01A

Periods 01 - 08

Finance Committee-Sum-Expenditure

100

<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
20 YEAR 3					
211 County Roads and Bridges					
41110 General Property Taxes					
20-211-29-41110-000-000 General Property Taxes	2,682,751.00	2,682,751.00	2,682,751.00	.00	100.00
41110 General Property Taxes	2,682,751.00	2,682,751.00	2,682,751.00	.00	100.00
43531 C.T.H.S. Revenue from State					
20-211-29-43531-000-000 CTH's Revenue from State	885,670.00	666,291.74	666,291.74	219,378.26	75.23
43531 C.T.H.S. Revenue from State	885,670.00	666,291.74	666,291.74	219,378.26	75.23
43600 Watershed Revenues					
20-211-29-43600-000-000 APPLIED FUNDS	126,714.00	.00	.00	126,714.00	.00
43600 Watershed Revenues	126,714.00	.00	.00	126,714.00	.00
49210 Transfer from General Fund					
20-211-29-49210-000-000 Transfer from Other Funds	754,596.00	.00	.00	754,596.00	.00
49210 Transfer from General Fund	754,596.00	.00	.00	754,596.00	.00
29 Highway	4,449,731.00	3,349,042.74	3,349,042.74	1,100,688.26	75.26
211 County Roads and Bridges	4,449,731.00	3,349,042.74	3,349,042.74	1,100,688.26	75.26

For 01/01/20 - 08/31/20

Revenue Summary Report

FJRES01A

Periods 01 - 08

Finance Committee-Sum-Expenditure

100

<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
20 YEAR 3					
701 Highway					
44201 Off Pavement Utility Fee					
20-701-29-44201-000-000 Off Pavement Utility Fee	2,200.00	1,100.00	1,100.00	1,100.00	50.00
44201 Off Pavement Utility Fee	2,200.00	1,100.00	1,100.00	1,100.00	50.00
44205 Driveway					
20-701-29-44205-000-000 Driveway/Variance	1,500.00	1,650.00	1,650.00	-150.00	110.00
44205 Driveway	1,500.00	1,650.00	1,650.00	-150.00	110.00
44260 Oversize					
20-701-29-44260-000-000 Oversize/Overweight Permits	1,000.00	600.00	600.00	400.00	60.00
44260 Oversize	1,000.00	600.00	600.00	400.00	60.00
44261 Overweight					
20-701-29-44261-000-000 Multi-Trip Permits	1,800.00	1,000.00	1,000.00	800.00	55.56
44261 Overweight	1,800.00	1,000.00	1,000.00	800.00	55.56
47230					
20-701-29-47230-000-000 State PBM	.00	243.00	243.00	-243.00	.00
47230	.00	243.00	243.00	-243.00	.00
47231 Routine Maintenance					
20-701-29-47231-000-000 Routine Maintenance	480,030.00	175,214.83	175,214.83	304,815.17	36.50
47231 Routine Maintenance	480,030.00	175,214.83	175,214.83	304,815.17	36.50
47239 Other - Sup. R & R-Radio-GPL etc.					
20-701-29-47239-000-000 Other - Sup. R&R-Radio-GPL etc	101,702.00	98,496.30	98,496.30	3,205.70	96.85
47239 Other - Sup. R & R-Radio-GPL etc.	101,702.00	98,496.30	98,496.30	3,205.70	96.85
47292 State - Admin					
20-701-29-47292-000-000 State - Admin	26,310.00	10,327.15	10,327.15	15,982.85	39.25
47292 State - Admin	26,310.00	10,327.15	10,327.15	15,982.85	39.25
47300 Other Local Governments					
20-701-29-47300-000-000 Cities, Villages, Towns, Cty.	442,833.00	193,594.51	193,594.51	249,238.49	43.72
47300 Other Local Governments	442,833.00	193,594.51	193,594.51	249,238.49	43.72
47392 Local - Admin Charges					
20-701-29-47392-000-000 Local - Admin Charges	20,193.00	9,209.61	9,209.61	10,983.39	45.61
47392 Local - Admin Charges	20,193.00	9,209.61	9,209.61	10,983.39	45.61
47410 Interdepartment Invoicing					
20-701-29-47410-000-000 Interdepartmental Invoicing	85,577.00	47,721.60	47,721.60	37,855.40	55.76
47410 Interdepartment Invoicing	85,577.00	47,721.60	47,721.60	37,855.40	55.76
47430 Charges for Services - CTHS					
20-701-29-47430-000-000 Charges for Services - CTH's	4,110,575.00	1,623,746.88	1,623,746.88	2,486,828.12	39.50
47430 Charges for Services - CTHS	4,110,575.00	1,623,746.88	1,623,746.88	2,486,828.12	39.50

For 01/01/20 - 08/31/20

Revenue Summary Report

FJRES01A

Periods 01 - 08

Finance Committee-Sum-Expenditure

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<u>Account No/Description</u>	<u>Budget Amount</u>	<u>Period Amount</u>	<u>Y-T-D Amount</u>	<u>Balance</u>	<u>Percent Received</u>
20 YEAR 3					
701 Highway					
47492 CTHS - Admin					
20-701-29-47492-000-000 CTH's - Admin	187,442.00	74,028.53	74,028.53	113,413.47	39.49
47492 CTHS - Admin	187,442.00	74,028.53	74,028.53	113,413.47	39.49
48000 Miscellaneous Revenues					
20-701-29-48000-000-000 Miscellaneous Revenues	96,536.00	30,851.56	30,851.56	65,684.44	31.96
48000 Miscellaneous Revenues	96,536.00	30,851.56	30,851.56	65,684.44	31.96
48330 Sale of Materials & Supplies					
20-701-29-48330-000-000 Sale of Materials & Supplies	1,000.00	22.50	22.50	977.50	2.25
48330 Sale of Materials & Supplies	1,000.00	22.50	22.50	977.50	2.25
48400 Insurance Claims & Refunds					
20-701-29-48400-000-000 Insurance Recoveries	2,000.00	1,920.19	1,920.19	79.81	96.01
48400 Insurance Claims & Refunds	2,000.00	1,920.19	1,920.19	79.81	96.01
48440 Revenue from Cost of Sales					
20-701-29-48440-000-000 Revenue from Cost of Sales	24,000.00	8,872.07	8,872.07	15,127.93	36.97
48440 Revenue from Cost of Sales	24,000.00	8,872.07	8,872.07	15,127.93	36.97
49320 Applied Funds					
20-701-29-49320-000-000 Applied Funds	237,241.00	.00	.00	237,241.00	.00
49320 Applied Funds	237,241.00	.00	.00	237,241.00	.00
29 Highway	5,821,939.00	2,278,598.73	2,278,598.73	3,543,340.27	39.14
701 Highway	5,821,939.00	2,278,598.73	2,278,598.73	3,543,340.27	39.14
20 YEAR 3	10,271,670.00	5,627,641.47	5,627,641.47	4,644,028.53	54.79

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

100

<u>Account No/Description</u>	<u>Adjusted Budget</u>	<u>Y-T-D Encumb</u>	<u>Period Expended</u>	<u>Y-T-D Expended</u>	<u>Available Balance</u>	<u>Percent Used</u>
20 YEAR 3						
211 County Roads and Bridges						
53309 County Supervision						
20-211-29-53309-219-000 County Supervision	99,941.00	.00	95,889.69	95,889.69	4,051.31	95.95
53309 County Supervision	99,941.00	.00	95,889.69	95,889.69	4,051.31	95.95
53310 General Mtn. C.T.H's						
20-211-29-53310-219-000 General Maintenance - CTH's	905,464.00	.00	782,994.22	782,994.22	122,469.78	86.47
53310 General Mtn. C.T.H's	905,464.00	.00	782,994.22	782,994.22	122,469.78	86.47
53311 C.T.H's Winter Mtn.						
20-211-29-53311-219-000 Winter Maintenance - CTH's	751,260.00	.00	312,214.40	312,214.40	439,045.60	41.56
53311 C.T.H's Winter Mtn.	751,260.00	.00	312,214.40	312,214.40	439,045.60	41.56
53312 C.T.H's Bridge Mtn & Insp CTH's						
20-211-29-53312-219-000 Bridge Maintenance & Inspection - CTH's	13,485.00	.00	712.35	712.35	12,772.65	5.28
53312 C.T.H's Bridge Mtn & Insp CTH's	13,485.00	.00	712.35	712.35	12,772.65	5.28
53313 Reconstruction						
20-211-29-53313-219-000 Reconstruction - CTH's	2,073,362.00	.00	450,412.90	450,412.90	1,622,949.10	21.72
53313 Reconstruction	2,073,362.00	.00	450,412.90	450,412.90	1,622,949.10	21.72
53315 Chip Seal Coat						
20-211-29-53315-219-000 Chip Seal Coat	240,598.00	.00	43,533.76	43,533.76	197,064.24	18.09
53315 Chip Seal Coat	240,598.00	.00	43,533.76	43,533.76	197,064.24	18.09
53317 Bridge Construction - CTH's						
20-211-29-53317-219-000 Bridge Construction CTH's	87,193.00	.00	12,018.11	12,018.11	75,174.89	13.78
53317 Bridge Construction - CTH's	87,193.00	.00	12,018.11	12,018.11	75,174.89	13.78
53591 Railroad						
20-211-29-53591-000-000 Railroad Consortium	25,000.00	.00	25,000.00	25,000.00	.00	100.00
53591 Railroad	25,000.00	.00	25,000.00	25,000.00	.00	100.00
29 Highway	4,196,303.00	.00	1,722,775.43	1,722,775.43	2,473,527.57	41.05
211 County Roads and Bridges	4,196,303.00	.00	1,722,775.43	1,722,775.43	2,473,527.57	41.05

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53110 Highway Administration						
20-701-29-53110-110-000	Salaries	156,937.00	.00	89,869.78	89,869.78	67,067.22 57.26
20-701-29-53110-120-000	Wages	722.00	.00	122.72	122.72	599.28 17.00
20-701-29-53110-130-000	Employee Benefits	74,099.00	.00	46,283.15	46,283.15	27,815.85 62.46
20-701-29-53110-213-000	Accounting & Auditing	4,000.00	.00	2,684.50	2,684.50	1,315.50 67.11
20-701-29-53110-225-000	Telephone	3,130.00	.00	1,879.27	1,879.27	1,250.73 60.04
20-701-29-53110-242-000	Print Management	50.00	.00	160.76	160.76	-110.76 **
20-701-29-53110-310-000	Office Supplies	1,012.00	.00	672.13	672.13	339.87 66.42
20-701-29-53110-311-000	Postage	200.00	.00	144.33	144.33	55.67 72.17
20-701-29-53110-320-000	Publications	1,200.00	.00	.00	.00	1,200.00 .00
20-701-29-53110-324-000	Member Dues	.00	.00	896.00	896.00	-896.00 .00
20-701-29-53110-325-000	Registrations & Conventions	440.00	.00	95.00	95.00	345.00 21.59
20-701-29-53110-336-000	Lodging	492.00	.00	.00	.00	492.00 .00
20-701-29-53110-350-000	Repair & Maintenance	3,314.00	.00	3,000.91	3,000.91	313.09 90.55
20-701-29-53110-532-000	Building & Grounds Allocation	6,993.00	.00	.00	.00	6,993.00 .00
20-701-29-53110-540-000	Depreciation & Amortization	5,376.00	.00	.00	.00	5,376.00 .00
53110 Highway Administration		257,965.00	.00	145,808.55	145,808.55	112,156.45 56.52
53191 Supervision						
20-701-29-53191-000-000	Supervision	50.00	.00	.00	.00	50.00 .00
20-701-29-53191-110-000	Salaries	70,163.00	.00	41,630.88	41,630.88	28,532.12 59.33
20-701-29-53191-120-000	Wages	312.00	.00	709.85	709.85	-397.85 **
20-701-29-53191-130-000	Employee Benefits	20,014.00	.00	21,775.82	21,775.82	-1,761.82 108.80
20-701-29-53191-225-000	Telephone	620.00	.00	498.25	498.25	121.75 80.36
20-701-29-53191-350-000	Repair & Maintenance	8,082.00	.00	8,158.82	8,158.82	-76.82 100.95
20-701-29-53191-534-000	Machinery Rental	21,958.00	.00	10,967.28	10,967.28	10,990.72 49.95
53191 Supervision		121,199.00	.00	83,740.90	83,740.90	37,458.10 69.09
53192 Radio Expenses						
20-701-29-53192-206-000	Maintenance Contracts	2,055.00	.00	856.25	856.25	1,198.75 41.67
20-701-29-53192-225-000	Telephone	1,044.00	.00	545.99	545.99	498.01 52.30
20-701-29-53192-314-000	Small Items of Equipment	500.00	.00	2,537.68	2,537.68	-2,037.68 **
20-701-29-53192-350-000	Repair & Maintenance	100.00	.00	.00	.00	100.00 .00
53192 Radio Expenses		3,699.00	.00	3,939.92	3,939.92	-240.92 106.51
53193 General Public Liability						
20-701-29-53193-509-000	Public Liability	21,880.00	.00	.00	.00	21,880.00 .00
53193 General Public Liability		21,880.00	.00	.00	.00	21,880.00 .00
53210 Employee Taxes and Benefits Cost Pool						
20-701-29-53210-110-000	Salaries	.00	.00	44,336.71	44,336.71	-44,336.71 .00
20-701-29-53210-120-000	Wages	.00	.00	96,643.02	96,643.02	-96,643.02 .00
20-701-29-53210-125-000	Overtime	.00	.00	6,520.92	6,520.92	-6,520.92 .00
20-701-29-53210-131-000	Sick Leave Pay	.00	.00	20,811.80	20,811.80	-20,811.80 .00

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53210 Employee Taxes and Benefits Cost Pool						
20-701-29-53210-132-000	Vacation Pay	.00	.00	38,696.95	38,696.95	-38,696.95 .00
20-701-29-53210-134-000	Holiday Pay	.00	.00	23,368.82	23,368.82	-23,368.82 .00
20-701-29-53210-135-000	Floating Holiday	.00	.00	5,304.06	5,304.06	-5,304.06 .00
20-701-29-53210-137-100	Comp-Accumulated	.00	.00	-15,907.45	-15,907.45	15,907.45 .00
20-701-29-53210-137-300	Comp - Use	.00	.00	8,636.30	8,636.30	-8,636.30 .00
20-701-29-53210-138-000	Other - leave with pay	.00	.00	7,275.38	7,275.38	-7,275.38 .00
20-701-29-53210-151-000	Social Security	.00	.00	74,121.58	74,121.58	-74,121.58 .00
20-701-29-53210-153-000	Ret. Employer Share	.00	.00	68,301.23	68,301.23	-68,301.23 .00
20-701-29-53210-154-000	Health Insurance	.00	.00	250,138.62	250,138.62	-250,138.62 .00
20-701-29-53210-155-000	Life Insurance	.00	.00	2,647.90	2,647.90	-2,647.90 .00
20-701-29-53210-910-000	Employee Taxes & Benefits	.00	.00	-404,285.82	-404,285.82	404,285.82 .00
53210 Employee Taxes and Benefits Cost Pool						
		.00	.00	226,610.02	226,610.02	-226,610.02 .00
53220 Field Small Tools Cost Pool						
20-701-29-53220-130-120	Employee Benefits	.00	.00	389.12	389.12	-389.12 .00
20-701-29-53220-130-121	Employee Benefit	.00	.00	5,912.29	5,912.29	-5,912.29 .00
20-701-29-53220-362-120	Consumable Small Tools-Field	.00	.00	6,419.08	6,419.08	-6,419.08 .00
20-701-29-53220-362-121	Consumable Small Tools-Safety	.00	.00	27,837.82	27,837.82	-27,837.82 .00
20-701-29-53220-920-000	Small Field Tools	.00	.00	-10,035.62	-10,035.62	10,035.62 .00
53220 Field Small Tools Cost Pool						
		.00	.00	30,522.69	30,522.69	-30,522.69 .00
53230 Shop Operations Cost Pool						
20-701-29-53230-120-000	Wages	.00	.00	25,545.47	25,545.47	-25,545.47 .00
20-701-29-53230-125-000	Overtime	.00	.00	201.67	201.67	-201.67 .00
20-701-29-53230-130-000	Employee Benefits	.00	.00	13,241.76	13,241.76	-13,241.76 .00
20-701-29-53230-225-000	Telephone	.00	.00	2,148.59	2,148.59	-2,148.59 .00
20-701-29-53230-310-000	Office Supplies	.00	.00	503.72	503.72	-503.72 .00
20-701-29-53230-311-000	Postage	.00	.00	17.23	17.23	-17.23 .00
20-701-29-53230-314-000	Small Items of Equipment	.00	.00	3,410.20	3,410.20	-3,410.20 .00
20-701-29-53230-340-000	Operating Supplies	.00	.00	7,130.20	7,130.20	-7,130.20 .00
20-701-29-53230-345-000	Shop Supplies	.00	.00	6,651.53	6,651.53	-6,651.53 .00
20-701-29-53230-350-000	Repair & Maintenance	.00	.00	3,707.94	3,707.94	-3,707.94 .00
20-701-29-53230-534-000	Machinery Rental	.00	.00	327.82	327.82	-327.82 .00
53230 Shop Operations Cost Pool						
		.00	.00	62,886.13	62,886.13	-62,886.13 .00
53232 Fuel Handling Cost Pool						
20-701-29-53232-120-000	Wages	.00	.00	105.21	105.21	-105.21 .00
20-701-29-53232-130-000	Employee Benefits	.00	.00	54.11	54.11	-54.11 .00
20-701-29-53232-225-000	Telephone	.00	.00	501.70	501.70	-501.70 .00
20-701-29-53232-350-000	Repair & Maintenance	.00	.00	8,608.40	8,608.40	-8,608.40 .00
20-701-29-53232-534-000	Machinery Rental	.00	.00	26.58	26.58	-26.58 .00
20-701-29-53232-931-000	Fuel Handling Revenue	.00	.00	-5,851.70	-5,851.70	5,851.70 .00

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53232 Fuel Handling Cost Pool						
53232 Fuel Handling Cost Pool	.00	.00	3,444.30	3,444.30	-3,444.30	.00
53240 Machinery Operating Cost Pool						
20-701-29-53240-120-000 Wages	.00	.00	64,126.54	64,126.54	-64,126.54	.00
20-701-29-53240-125-000 Overtime	.00	.00	386.83	386.83	-386.83	.00
20-701-29-53240-130-000 Employee Benefits	.00	.00	33,179.21	33,179.21	-33,179.21	.00
20-701-29-53240-350-000 Repair & Maintenance	.00	.00	253,222.35	253,222.35	-253,222.35	.00
20-701-29-53240-356-000 Work Order Lbr/ILC	.00	.00	-17.19	-17.19	17.19	.00
20-701-29-53240-381-000 Shop Overhead Recovered	.00	.00	-6.10	-6.10	6.10	.00
20-701-29-53240-534-000 Machinery Rental	.00	.00	4,867.31	4,867.31	-4,867.31	.00
20-701-29-53240-940-000 Mach. Operation Rev.	.00	.00	-746,545.13	-746,545.13	746,545.13	.00
53240 Machinery Operating Cost Pool	.00	.00	-390,786.18	-390,786.18	390,786.18	.00
53270 Buildings & Ground Operations Cost Pool						
20-701-29-53270-000-000 Bldgs. & Grounds Operations	.00	.00	44.99	44.99	-44.99	.00
20-701-29-53270-120-000 Wages	.00	.00	26,924.90	26,924.90	-26,924.90	.00
20-701-29-53270-125-000 Overtime	.00	.00	376.26	376.26	-376.26	.00
20-701-29-53270-130-000 Employee Benefits	.00	.00	14,041.02	14,041.02	-14,041.02	.00
20-701-29-53270-220-000 Utilities	.00	.00	15,259.47	15,259.47	-15,259.47	.00
20-701-29-53270-240-000 Contracted Maintenance	.00	.00	6,368.05	6,368.05	-6,368.05	.00
20-701-29-53270-245-000 Building & Ground Improvements	.00	.00	23,394.52	23,394.52	-23,394.52	.00
20-701-29-53270-344-000 Janitorial Supplies	.00	.00	291.91	291.91	-291.91	.00
20-701-29-53270-350-000 Repair & Maintenance	.00	.00	18,992.69	18,992.69	-18,992.69	.00
20-701-29-53270-534-000 Machinery Rental	.00	.00	15,151.44	15,151.44	-15,151.44	.00
53270 Buildings & Ground Operations Cost Pool	.00	.00	120,845.25	120,845.25	-120,845.25	.00
53271 Salt Sheds Cost Pool						
20-701-29-53271-120-000 Wages	.00	.00	70.77	70.77	-70.77	.00
20-701-29-53271-130-000 Employee Benefits	.00	.00	36.40	36.40	-36.40	.00
20-701-29-53271-534-000 Machinery Rental	.00	.00	59.20	59.20	-59.20	.00
53271 Salt Sheds Cost Pool	.00	.00	166.37	166.37	-166.37	.00
53281 Capital Equipment						
20-701-29-53281-810-000 Capital Equipment	298,181.00	.00	318,351.31	318,351.31	-20,170.31	106.76
53281 Capital Equipment	298,181.00	.00	318,351.31	318,351.31	-20,170.31	106.76
53309 County Supervision						
20-701-29-53309-110-000 Salaries	70,993.00	.00	48,482.92	48,482.92	22,510.08	68.29
20-701-29-53309-120-000 Wages	250.00	.00	232.99	232.99	17.01	93.20
20-701-29-53309-130-000 Employee Benefits	37,332.00	.00	25,054.58	25,054.58	12,277.42	67.11
20-701-29-53309-225-000 Telephone	500.00	.00	727.12	727.12	-227.12	145.42
20-701-29-53309-310-000 Office Supplies	75.00	.00	270.99	270.99	-195.99	**
20-701-29-53309-350-000 Repair & Maintenance	1,500.00	.00	5,475.36	5,475.36	-3,975.36	**
20-701-29-53309-534-000 Machinery Rentals	14,502.00	.00	9,496.04	9,496.04	5,005.96	65.48

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53309 County Supervision						
53309 County Supervision	125,152.00	.00	89,740.00	89,740.00	35,412.00	71.70
53310 General Mtn. C.T.H's						
20-701-29-53310-101-120 Wages	202,533.00	.00	128,703.81	128,703.81	73,829.19	63.55
20-701-29-53310-101-125 Overtime	1,059.00	.00	297.85	297.85	761.15	28.13
20-701-29-53310-101-130 Benefits	107,423.00	.00	66,398.28	66,398.28	41,024.72	61.81
20-701-29-53310-101-350 Repair & Maintenance	5,000.00	.00	4,973.76	4,973.76	26.24	99.48
20-701-29-53310-101-362 Consumable Small Tool	5,000.00	.00	2,737.02	2,737.02	2,262.98	54.74
20-701-29-53310-101-370 Road Supplies	77,578.00	.00	103,955.50	103,955.50	-26,377.50	134.00
20-701-29-53310-101-534 Equipment/Machinery	133,000.00	.00	149,490.94	149,490.94	-16,490.94	112.40
20-701-29-53310-102-120 Wages	32,958.00	.00	13,654.60	13,654.60	19,303.40	41.43
20-701-29-53310-102-125 Overtime	129.00	.00	19.97	19.97	109.03	15.48
20-701-29-53310-102-130 Benefits	17,481.00	.00	7,032.81	7,032.81	10,448.19	40.23
20-701-29-53310-102-362 Consumable Small Tool	660.00	.00	289.92	289.92	370.08	43.93
20-701-29-53310-102-370 Road Supplies	83,000.00	.00	87,554.97	87,554.97	-4,554.97	105.49
20-701-29-53310-102-534 Equipment/Machinery	15,064.00	.00	11,069.82	11,069.82	3,994.18	73.49
20-701-29-53310-103-120 Wages	55,697.00	.00	4,002.15	4,002.15	51,694.85	7.19
20-701-29-53310-103-125 Overtime	3,346.00	.00	.00	.00	3,346.00	.00
20-701-29-53310-103-130 Benefits	29,541.00	.00	2,058.31	2,058.31	27,482.69	6.97
20-701-29-53310-103-362 Consumable Small Tool	1,408.00	.00	84.84	84.84	1,323.16	6.03
20-701-29-53310-103-370 Road Supplies	13,000.00	.00	20,140.80	20,140.80	-7,140.80	154.93
20-701-29-53310-103-534 Equipment/Machinery	15,000.00	.00	7,869.12	7,869.12	7,130.88	52.46
20-701-29-53310-104-120 Wages	50,633.00	.00	51,653.14	51,653.14	-1,020.14	102.01
20-701-29-53310-104-125 OT	.00	.00	175.60	175.60	-175.60	.00
20-701-29-53310-104-130 Benefits	26,856.00	.00	26,602.83	26,602.83	253.17	99.06
20-701-29-53310-104-362 Consumable Small Tool	1,228.00	.00	1,096.59	1,096.59	131.41	89.30
20-701-29-53310-104-370 Road Supplies	50,000.00	.00	24,087.64	24,087.64	25,912.36	48.18
20-701-29-53310-104-534 Equipment/Machinery	30,000.00	.00	55,872.85	55,872.85	-25,872.85	186.24
53310 General Mtn. C.T.H's	957,594.00	.00	769,823.12	769,823.12	187,770.88	80.39
53311 C.T.H's Winter Mtn.						
20-701-29-53311-120-000 Wages	162,027.00	.00	47,548.55	47,548.55	114,478.45	29.35
20-701-29-53311-125-000 Overtime	12,390.00	.00	16,895.96	16,895.96	-4,505.96	136.37
20-701-29-53311-130-000 Employee Benefits	85,938.00	.00	33,143.95	33,143.95	52,794.05	38.57
20-701-29-53311-350-000 Repair & Maintenance	.00	.00	-2,005.82	-2,005.82	2,005.82	.00
20-701-29-53311-362-000 Consumable Small Tools	4,142.00	.00	1,366.27	1,366.27	2,775.73	32.99
20-701-29-53311-370-000 Road supplies	187,000.00	.00	74,095.48	74,095.48	112,904.52	39.62
20-701-29-53311-534-000 Machinery Rental	267,000.00	.00	125,156.59	125,156.59	141,843.41	46.88
53311 C.T.H's Winter Mtn.	718,497.00	.00	296,200.98	296,200.98	422,296.02	41.23
53312 C.T.H's Bridge Mtn & Insp CTH's						
20-701-29-53312-000-000 Bridge Maintenance and Inspection -CTH's	6,500.00	.00	390.00	390.00	6,110.00	6.00

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

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Account No/Description	Adjusted Budget	Y-T-D Encumb	Period Expended	Y-T-D Expended	Available Balance	Percent Used
20 YEAR 3						
701 Highway						
53312 C.T.H's Bridge Mtn & Insp CTH's						
20-701-29-53312-120-000 Wages	4,051.00	.00	114.32	114.32	3,936.68	2.82
20-701-29-53312-130-000 Employee Benefits	2,148.00	.00	58.79	58.79	2,089.21	2.74
20-701-29-53312-362-000 Consumable Small Tools	98.00	.00	2.42	2.42	95.58	2.47
20-701-29-53312-534-000 Machinery Rental	100.00	.00	115.76	115.76	-15.76	115.76
53312 C.T.H's Bridge Mtn & Insp CTH's	12,897.00	.00	681.29	681.29	12,215.71	5.28
53313 Reconstruction						
20-701-29-53313-000-000 Reconstruction-CTH's	1,982,940.00	.00	1,046,418.91	1,046,418.91	936,521.09	52.77
53313 Reconstruction	1,982,940.00	.00	1,046,418.91	1,046,418.91	936,521.09	52.77
53315 Chip Seal Coat						
20-701-29-53315-000-000 Chip Seal Coat	230,105.00	.00	143,688.92	143,688.92	86,416.08	62.44
53315 Chip Seal Coat	230,105.00	.00	143,688.92	143,688.92	86,416.08	62.44
53317 Bridge Construction - CTH's						
20-701-29-53317-000-000 Bridge Construction - CTH's	83,390.00	.00	11,493.98	11,493.98	71,896.02	13.78
53317 Bridge Construction - CTH's	83,390.00	.00	11,493.98	11,493.98	71,896.02	13.78
53321 Routine Maintenance						
20-701-29-53321-000-000 Routine Maintenance - State	14,402.00	.00	11,207.59	11,207.59	3,194.41	77.82
20-701-29-53321-120-000 Wages	189,875.00	.00	52,607.49	52,607.49	137,267.51	27.71
20-701-29-53321-125-000 Overtime	6,331.00	.00	7,471.26	7,471.26	-1,140.26	118.01
20-701-29-53321-130-000 Employee Benefits	100,709.00	.00	30,898.27	30,898.27	69,810.73	30.68
20-701-29-53321-350-000 Repair & Maintenance	.00	.00	2,778.00	2,778.00	-2,778.00	.00
20-701-29-53321-362-000 Consumable Small Tools	4,713.00	.00	1,273.69	1,273.69	3,439.31	27.03
20-701-29-53321-370-000 Road Supplies	10,000.00	.00	1,626.62	1,626.62	8,373.38	16.27
20-701-29-53321-534-000 Machinery Repair	154,000.00	.00	84,004.39	84,004.39	69,995.61	54.55
53321 Routine Maintenance	480,030.00	.00	191,867.31	191,867.31	288,162.69	39.97
53322 State Maintenance - PBM						
20-701-29-53322-000-000 State Maintenance - PBM	.00	.00	56,101.59	56,101.59	-56,101.59	.00
53322 State Maintenance - PBM	.00	.00	56,101.59	56,101.59	-56,101.59	.00
53333 Cities, Towns, Villages						
20-701-29-53333-120-000 Wages	68,017.00	.00	37,188.03	37,188.03	30,828.97	54.67
20-701-29-53333-125-000 Overtime	2,829.00	.00	5,088.94	5,088.94	-2,259.94	179.88
20-701-29-53333-130-000 Employee Benefits	36,076.00	.00	21,743.07	21,743.07	14,332.93	60.27
20-701-29-53333-350-000 Repair & Maintenance	47,057.00	.00	21,874.89	21,874.89	25,182.11	46.49
20-701-29-53333-362-000 Consumable Small Tools	1,698.00	.00	896.28	896.28	801.72	52.78
20-701-29-53333-370-000 Road Supplies	205,676.00	.00	143,107.86	143,107.86	62,568.14	69.58
20-701-29-53333-534-000 Machinery Rental	81,480.00	.00	85,433.37	85,433.37	-3,953.37	104.85
53333 Cities, Towns, Villages	442,833.00	.00	315,332.44	315,332.44	127,500.56	71.21
53334 Interdepartment Charges						
20-701-29-53334-000-000 Interdepartmental Charges	85,577.00	.00	55,864.77	55,864.77	29,712.23	65.28
53334 Interdepartment Charges	85,577.00	.00	55,864.77	55,864.77	29,712.23	65.28

GREEN LAKE COUNTY

For 01/01/20 - 12/31/20

Expenditure Summary Report

FJEXS01A

Periods 01 - 13

Finance Committee-Sum-Expenditure

100

<u>Account No/Description</u>	<u>Adjusted Budget</u>	<u>Y-T-D Encumb</u>	<u>Period Expended</u>	<u>Y-T-D Expended</u>	<u>Available Balance</u>	<u>Percent Used</u>
20 YEAR 3						
701 Highway						
29 Highway	5,821,939.00	.00	3,582,742.57	3,582,742.57	2,239,196.43	61.54
701 Highway	5,821,939.00	.00	3,582,742.57	3,582,742.57	2,239,196.43	61.54
20 YEAR 3	10,018,242.00	.00	5,305,518.00	5,305,518.00	4,712,724.00	52.96

GREEN LAKE COUNTY 2021 BUDGET

	----- 12/31/2018 -----	----- 12/31/2019 -----	----- ACTUAL 6/30/2020 -----	----- 2020 REVISED -----	----- 2021 PROPOSED -----
COUNTY ROADS & BRIDGES					
21-211-29-53309-000-000 COUNTY SUPERVISION	118,778	-	-	130,859	139,860
21-211-29-53310-000-000 GENERAL MAINTENANCE - CTH'S	1,046,237	-	-	1,001,260	852,682
21-211-29-53311-000-000 WINTER MAINTENANCE - CTH'S	700,526	-	-	751,260	796,712
21-211-29-53312-000-000 BRIDGE MAINTENANCE & INSPECTIONS - CTH'S	10,497	-	-	13,485	21,941
21-211-29-53313-000-000 RECONSTRUCTION - CTH'S	1,255,372	-	-	2,073,362	2,138,947
21-211-29-53314-000-000 OVERLAY - CTH'S	-	-	-	-	14,769
21-211-29-53315-219-000 CHIP SEAL COAT	247,734	199,139	238	240,598	267,911
21-211-29-53317-000-000 BRIDGE CONSTRUCTION - CTH'S	83,804	-	-	87,193	86,901
21-211-29-53591-000-000 RAILROAD	25,000	25,000	25,000	25,000	25,000
TOTAL EXPENDITURES	3,487,948	224,139	25,238	4,323,017	4,344,722

FINANCING PROPOSAL

21-211-29-41110-000-000 GENERAL PROPERTY TAXES	2,682,751	2,682,751	2,682,751	2,682,751	2,521,296
21-211-29-43531-000-000 CTH'S REVENUE FROM STATE	805,197	854,802	221,399	802,510	885,670
21-211-29-49210-000-000 TRANSFER FROM DEBT				500,000	600,000
21-211-29-49210-000-000 ROAD/BRIDGE FUND UNRESTRICTED				337,756	337,756
TOTAL REVENUES	3,487,948	3,537,553	2,904,150	4,323,017	4,344,722

COUNTY APPROPRIATION

2,521,296

GREEN LAKE COUNTY 2021 BUDGET

HIGHWAY SUMMARY	----- 12/31/2018 -----	----- 12/31/2019 -----	----- ACTUAL 6/30/2020 -----	----- 2020 REVISED -----	----- 2021 PROPOSED -----
53110					
HIGHWAY ADMINISTRATION	240,295	227,317	92,777	257,965	265,115
53309					
COUNTY SUPERVISION	28,455	135,346	55,652	125,152	134,210
53191					
SUPERVISION	130,335	126,034	52,020	121,199	120,546
53192					
RADIO EXPENSES	5,223	3,880	585	3,699	2,855
53193					
INSURANCE	20,484	-	-	21,880	23,072
53240					
MACHINERY OPERATIONS	(22,468)	(629,874)	(230,557)	-	(250,676)
53281					
CAPITAL EQUIPMENT	-	342,280	273,863	298,181	298,000
53310					
GENERAL MAINTENANCE CTH'S	945,171	636,870	536,949	957,594	818,234
53311					
WINTER MAINTENANCE CTH'S	604,094	767,015	295,920	718,497	764,525
53312					
BRIDGE MAINTENANCE & INSPECTION	15,212	5,401	-	12,897	21,055
53313					
RECONSTRUCTION - CTH'S	903,874	1,816,948	100,147	1,982,940	2,052,535
53314					
OVERLAY	294,067	-	-	-	14,172
53315					
CHIP SEAL COAT	215,115	53,712	227	230,105	257,088
53316					
RUBBER CRACK FILLING	237	-	-	-	-
53317					
BRIDGE CONSTRUCTION - CTH'S	383	93,240	8,528	83,390	83,390
53321					
ROUTINE MAINTENANCE STATE	566,417	638,578	139,534	480,030	428,455
53333					
CITIES, TOWNS, VILLAGES	445,788	374,592	99,748	442,833	436,492
53334					
INTERDEPARTMENT CHARGES	99,709	76,647	33,454	85,577	80,000
TOTAL EXPENDITURES	4,492,392	4,667,987	1,458,847	5,821,939	5,549,068

	----- 12/31/2018 -----	----- 12/31/2019 -----	----- ACTUAL 6/30/2020 -----	----- 2020 REVISED -----	----- 2021 PROPOSED -----
FINANCING PROPOSAL					
21-701-29-44201-000-000 OFF PAVEMENT UTILITY FEE	3,775	2,475	850	2,200	1,700
21-701-29-44205-000-000 DRIVEWAY/ ROW PERMITS	1,600	2,450	1,300	1,500	2,600
21-701-29-44206-000-000 DRIVEWAY ALTERATION	-	50	-	-	-
21-701-29-44260-000-000 OVERSIZE/OVERWEIGHT PERMITS	1,125	425	425	1,000	850
21-701-29-44261-000-000 MULTI-TRIP PERMITS	1,900	1,500	1,000	1,800	2,000
21-701-29-47230-000-000 STATE PBM	160,300	142,100	243	-	-
21-701-29-47231-000-000 ROUTINE MAINTENANCE	415,563	369,841	136,429	480,030	411,146
21-701-29-47239-000-000 OTHER-SUP R&R-RADIO-GPL ETC	101,835	118,756	84,504	101,702	139,321
21-701-29-47292-000-000 STATE - ADMIN	23,776	19,312	7,930	26,310	21,205
21-701-29-47300-000-000 CITIES, VILLAGES, TOWNS, CTY	422,506	385,394	70,468	442,833	437,737
21-701-29-47392-000-000 LOCAL - ADMIN CHARGES	19,035	16,272	3,430	20,193	18,429
21-701-29-47410-000-000 INTERDEPARTMENTAL INVOICING	110,942	83,072	33,454	85,577	80,000
21-701-29-47430-000-000 CHARGES FOR SERVICES - CTH'S	3,283,176	3,687,303	1,148,112	4,110,575	4,145,209

	----- 12/31/2018 -----	----- 12/31/2019 -----	----- ACTUAL 6/30/2020 -----	----- 2020 REVISED -----	----- 2021 PROPOSED -----
21-701-29-47492-000-000 CTH'S ADMIN	146,335	168,562	52,346	187,442	174,513
21-701-29-48000-000-000 MISCELLANEOUS REVENUES	1,946	78,931	30,000	96,536	90,858
21-701-29-48330-000-000 SALE OF MATERIALS & SUPPLIES	-	1,942	23	1,000	1,000
21-701-29-48340-000-000 SALE OF USED EQUIPMENT	-	15,000	-	-	-
21-701-29-48400-000-000 INSURANCE RECOVERIES	1,216	1,667	1,690	2,000	2,500
21-701-29-48440-000-000 REVENUE FROM COST OF SALES	12,831	20,376	7,572	24,000	20,000
21-701-29-49320-000-000 APPLIED FUNDS			-	237,241	-
FUND BALANCE APPLIED - UNRESERVED					
TOTAL REVENUES	4,707,862	5,115,428	1,579,776	5,821,939	5,549,068



GREEN LAKE COUNTY HIGHWAY COMMISSION

Barry Mashuda
Highway Commissioner

Office: 920-294-4060
Fax: 920-294-4066
Email: bmashuda@co.green-lake.wi.us

Commissioner's Report Highway Committee Meeting October 14, 2020

Ongoing and Future Work

- Replace floor drain in the old shop in Manchester
- Rubber sealing on county roads
- Start rigging trucks for winter use
- Brush and tree removal
- Shoulder touch up where needed

Completed Work

- Gas and Diesel fuel prices are locked in for next year
- Paving, shouldering, and lines are painted on CTH I and CTH U
- Mowing approximately 75% completed
- Center lining and fog lining finished for the year
- Gravel roads are graded for the Town of Seneca
- Working on a brushing project for Town of Seneca
- Rubber sealing on the State
- Paved the bridge approaches on CTH E