

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST
FY27 SPRING ANNUAL TOWN MEETING**

Department: HIGHWAY	Priority #: 2
Project Title and Description: MACK 10 WHEELER DUMP TRUCK	Total Project Cost:

Department/Division Head: **HIGHWAY TONY LOPES**

Check if project is: New Resubmitted Cost estimate was developed: Internally Externally

For project re-submittals, list prior year(s): _____

List any funding sources and amounts already granted: _____

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	Operations & Maintenance
<i>Planning and Design</i>			<i>FY28</i>		
<i>Labor and Materials</i>			<i>FY29</i>		
<i>Administration</i>			<i>FY30</i>		
<i>Land Acquisition</i>			<i>FY31</i>		
<i>Equipment</i>	\$435,326.00		<i>FY32</i>		
<i>Other</i>					
<i>Contingency</i>	\$65,298.90				
Total Capital	\$500,264.90				

Project Justification and Objective: TRUCK IS USED TO HAUL MATERIAL TO AND FROM JOBS. IT PLOWS AND SANDS DURING SNOW STORMS. TRUCK IS IN POOR CONDITION AND NEEDING REPAIRS ON A CONSTANT BASIS.

For Capital Project Requests:

Will this project be phased over more than one fiscal year? If yes, enter it on the 5 Year Plan

Yes No

Can this project be phased over more than one fiscal year?

Yes No

For Capital Equipment Requests:

Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

2012 MACK GU713 1MZAX09C3MO13704 POOR CONDITION

What is the expected lifespan of this new/replacement equipment: 15/20 YEARS

Attach backup information, estimates, or justification to support this request.

BALLARD MACK
10 WHEEL TRUCK

Price	15% contingency	ADD-ONS	TOTAL
\$435,326.00	\$65,298.90	\$0.00	\$500,624.90

115,869 MILES

CONDITION: ROTTED, RUSTED, AND CORRODED

TECHNICAL SPECIFICATION

GRANITE 64FR



MODEL DEFINING		DESCRIPTION
S	PRICE BOOK LEVEL	2008-10-07
S	VOLTAGE	ELECTRICAL SYSTEM 12 VOLT
APPLICATION PACKAGES		DESCRIPTION
CHASSIS CONFIGURATION PACKAGE		ONEBOX EATS, RH BATTERY BOX, 6.6 GALLON (25L) SLEEVED DEF, 22" SLEEVED LH FUEL TANK
CUSTOMER/VEHICLE INFO		DESCRIPTION
S	CHASSIS (BASE MODEL)	GRANITE 64FR
	CUSTOMER FLEET SIZE	DEALER FLEET WITH LESS THAN 25 VEHICLES IN OWN FLEET OF ANY VEHICLE BRAND
	TYPE OF SERVICE	MUNICIPAL
S	WARRANTY REGISTRATION LOCATION	USA - WARRANTY REGISTRATION LOCATION
	EMISSION WARRANTY CERTIFICATION	EPA (only) for Mack MP7 / MP8 Diesel
	Order Subject to Meeting All Mack Policies, Terms and Conditions,	Including but not Limited to Applicable CARB and/or Section 177 States' Regulation requirements
	INTENDED REGISTRATION LOCATION	MASSACHUSETTS
S	INITIAL REGISTRATION LOCATION	USA REGISTRATION
	BRAND ORNAMENT	BULLDOG, CHROME
S	LANGUAGE-PUBS/DECAL/SIGNS	ENGLISH
S	ROAD CONDITION	WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE
	VEHICLE USE & BODY/TRAILER TYPE	SNOW PLOW FRONT MOUNTED
	TRAILER TYPE	FIXED DRAWBAR TRAILER AND CENTERED AXLES
	GROSS COMBINATION WEIGHT (CA in PC29 only)	80,000 LB (36 TONNES) GROSS COMBINATION WEIGHT
S	BRAKE REGULATION	BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)
	TOPOGRAPHY	GRADES <3% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 8%
S	AMBIENT TEMP UPPER LIMIT	AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR
S	OPERATING TERRAIN GRADE CONDITIONS	ON-OFF HIGHWAY, STARTING GRADES<18%
S	LOADING SURFACE FACTOR	CONCRETE LOADING AND / OR UNLOADING SURFACE
	VEHICLE VOCATION	PICKUP & DELIVERY / SHORT HAUL SERVICE
ENGINE/TRANSMISSIONS		DESCRIPTION
	ENGINE / MOTOR	MP8-445C MACK 445HP @ 1400-1700 RPM (PEAK) 2100 RPM (GOV) 1850 LB-FT, US'21
S	GHG APPLICATION, VEHICLE	GREEN HOUSE GAS VOCATIONAL APPLICATION
	TRANSMISSION	4500 RDS 6 SPEED ALLISON GEN 6 W/PROGNOSTICS, WITH PTO PROVISION
S	GEARBOX 12TH GEAR LOCK-OUT	WITHOUT 12TH GEARBOX GEAR LOCK-OUT
EXHAUST/EMISSIONS		DESCRIPTION
	NOX LIMITS	CARB LEGACY / EPA (200MG/HP/HR), 50 State Idle Compliance
S	IDLE EMISSION LABEL LOCATION (CA in PC29 only)	IDLE EMISSION LABEL LOCATION, LOWER LH CORNER OF DRIVER DOOR
S	DPF DIESEL PARTICULATE FILTER	CLEARTECH ONE BOX E.A.T.S. RH SIDE UNDER CAB US17 / US21
	CHASSIS MOUNTED EMISSIONS FINISH	W/O DEF COVER & STAINLESS STEEL DPF COVER
S	DIESEL EXHAUST FLUID TANK EXHAUST	6.6 GALLON (25 L) 22" LEFT SIDE FUEL TANK MTD SINGLE VERTICAL RIGHT SIDE CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END

TECHNICAL SPECIFICATION (cont.)



EXHAUST/EMISSIONS		DESCRIPTION
	EXHAUST STACK HEIGHT	9' 6" FROM GROUND
	EXHAUST - BRIGHT FINISH	SINGLE, BRIGHT FINISH HEAT SHIELD, STACK
	EMISSION ON BOARD DIAG CONTROL	EMISSION OBD, DISPLAY ONLY, USA2025

ENGINE EQUIPMENT		DESCRIPTION
S	AIR CLEANER	UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR INTAKE FROM BOTH SIDES OF HOOD
S	BUG SCREEN	BLACK ALUMINUM BUG SCREEN MOUNTED BEHIND GRILLE, WITHOUT WINTER FRONT COVER
S	AIR COMPRESSOR/DRYER	WABCO HEATED SS-HP AIR DRYER W/ WABCO 636 (37.4 CFM) AIR COMPRESSOR
S	AIR DRYER POSITION (CA)	STANDARD AIR DRYER LOCATION
S	AIR DRYER POSITION (CA)	AIR DRYER POSITION STANDARD
S	ALTERNATOR	DELCO 12V 160A (28SI) BRUSH-TYPE
S	BATTERIES	(3) MACK 12V 760/2280 CCA THREADED STUD TYPE
	BATTERY BOX - MOUNTING (x)	RH RAIL BEHIND SCR
S	BATTERY BOX COVER	MOLDED PLASTIC
	BATTERY DISCONNECT SWITCH	FLAMING RIVER BIG SWITCH WIRED TO POSITIVE SIDE
	STARTER MOTOR	12 VOLT MELCO STARTER (MITSUBISHI ELECTRIC)
	ENGINE BRAKE	MACK MP8 POWERLEASH
S	VEHICLE/TRAILER STOP LAMP APPLICATION (CA)	VEHICLE AND TRAILER (IF APPLICABLE) STOP LAMPS ACTIVATE UPON SERVICE BRAKE APPLICATION ONLY(3899000)
S	ENGINE BRAKE ACTIVATION	ENGINE BRAKE ACTIVATION, BASIC
S	FAN DRIVE	BEHR FAN AND ELECTRONIC MODULATING VISCOS FAN DRIVE
S	COOLANT PROTECTION	ETHYLENE GLYCOL FULLY FORMULATED COOLANT (50/50 MIX DYED PINK) TO -34DEG, W/ FILTER
	RADIATOR TYPE	RADIATOR, CORE AREA W/O FEPTO 1345sq in (86sq dm), CORE AREA W/ FEPTO 1296sq in (83sq dm)
	HOSES - RADIATOR/HEATER	SILICONE HOSES, SPRING CLAMPS ON RADIATOR & HEATER, 1/4 TURN BALL VALVE HEATER HOSE
S	FUEL-WATER SEPARATOR	MACK W/MANUAL DRAIN VALVE V2 (INTEGRAL W/ PRIMARY FUEL FILTER)
S	RELOCATE FUEL FILTER (CA)	STANDARD FUEL FILTER POSITION
S	ENGINE HEATERS	120v 1500w BLOCK HEATER ONLY
	PLUG QUANTITY & TYPE	SINGLE (1) 120V-15A PLUG
	OIL SUMP	CORROSION RESISTANT OIL PAN
S	EMERGENCY ENGINE STOP (CA)	WITHOUT ENGINE STOP, EMERGENCY

CLUTCH/TRANS EQUIPMENT		DESCRIPTION
	GEAR SHIFTER	ALLISON DASH MOUNTED SHIFTER W/NEUTRAL TO RANGE INHIBIT (HD SERIES)
S	CLUTCH ACTUATION SYSTEM & PEDAL PAD	WITHOUT CLUTCH CABLE SYSTEM
S	DRIVELINE - MAIN	MERITOR RPL35, WITH CROSS SERRATED YOKE (PROPS-XL)
S	DRIVELINE - INTERAXLE	MERITOR RPL25
S	DRIVESHAFT MAIN U-JOINT	UNIVERSAL JOINT CROSS SERRATED YOKE (where applicable)
S	DRIVESHAFT INTERAXLE U-JOINT	HALF-ROUND UNIVERSAL JOINT
S	TRANSMISSION OUTPUT TORQUE	TRANSMISSION OUTPUT TORQUE BASIC
	LUBRICANTS, TRANSMISSION	TRANSYND SYNTHETIC LUBE FOR ALLISON TRANS
	TRANSMISSION OIL COOLER	ALLISON 4xxx SERIES TRANSMISSION W/DIRECT MOUNT COOLER & SS COOLANT TUBES

FRONT AXLE EQUIPMENT		DESCRIPTION
	FRONT AXLE	20000# (9100 KG) MACK FXL20 STRAIGHT SPINDLE/UNITIZED BEARINGS

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TECHNICAL SPECIFICATION *(cont.)*



FRONT AXLE EQUIPMENT		DESCRIPTION	
	SPRINGS - FRONT	MACK TAPERLEAF HD 20000# (9100 KG) GROUND LOAD RATING, EQUAL BIAS	
	BRAKES - FRONT	MERITOR "S" CAM TYPE 16.5" x 6" Q+	
	BRAKE DRUMS - FRONT	CENTRIFUSE - OUTBOARD MOUNTED	
S	DUST SHIELDS - FRONT	DUST SHIELDS FOR FRONT AXLE	
	SLACK ADJUSTERS - FRONT	HALDEX - AUTOMATIC	
	BRAKE CHAMBERS - FRONT	FRONT BRAKE CHAMBER MANUFACTURER, HALDEX	
	HUBS - FRONT	FERROUS	
S	FRONT AXLE LUBRICANT	FRONT AXLE LUBE, FAG NLGI2 GREASE	
S	SHOCK ABSORBERS - FRONT	DOUBLE ACTING TYPE	
	STEERING	SHEPPARD SD110 + HD94	
REAR AXLE EQUIPMENT		DESCRIPTION	
	REAR AXLE	52000# (23600kg) MACK S522R CAST DUCTILE IRON HOUSING	
S	WIDE TRACK AXLE OPTION	W/O WIDE TRACK AXLE	
S	DRIVE AXLE LUBRICANT	DRIVE AXLE LUBE, SHELL 75W90 SYNTHETIC OIL	
S	CARRIER - REAR AXLE	150/151 SERIES (Tandem Mack Rear Axles up to 150,000lb GCW)	
	TRACTION DIFFERENTIAL	INTERWHEEL DIFFERENTIAL LOCK, ALL REAR AXLES	
S	POWER DIVIDER LOCKOUT	INTERAXLE POWER DIVIDER LOCKOUT, W/BUZZER & LIGHT	
	REAR AXLE RATIO	4.50 RATIO	
	REAR SUSPENSION	SS52 MACK CAMELBACK MULTILEAF 52,000 lb, HEAVY DUTY	
	BOGIE SPREAD, REAR	55" AXLE SPACING (BOGIE WHEELBASE)	
S	AUX. SPRING BRAKE QTY	AUX SPRING BRAKE QTY, 4 CHAMBERS	
	BRAKES - REAR	MERITOR HEAVY DUTY "S" CAM 16.5"x7" Q+ (Total for QTY = 2)	
	BRAKE DRUMS - REAR	MERITOR "MACHINE-TO-BALANCE" FULL CAST	
S	SLACK ADJUSTERS - REAR	HALDEX - AUTOMATIC (Total for QTY = 2)	
	DUST SHIELDS - REAR BRAKE	DUST SHIELDS FOR REAR AXLE	
	REAR BRAKE CHAMBER SIZE	REAR SPRING BRAKE CHAMBERS 30/30 TYPE	
	BRAKE ORI REAR-MOST DRIVE AXLE	DRUM BRAKE CHAMBER ORIENTATION: High Mount - Rear of Axle - Chamber Down	
S	PARKING BRAKE CHAMBER	HALDEX "GOLD SEAL PLUS" (3" STROKE) BRAKE CHAMBERS (Total for QTY = 2)	
S	HUBS - REAR	IRON PRESET REAR HUB W/INTEGRATED SPINDLE NUT	
S	ANTILOCK BRAKE SYSTEM	MACK ROAD STABILITY ADV.BENDIX ABS/ATC/RSA W/YAW CNTRLW/MUD/SNOW SW; REQ-TRUCK APPL 6S6M	
S	AIR SYSTEM VALVE VENDOR	BENDIX SWITCHES AND VALVES WHERE POSSIBLE	
S	TRACTION CONTROL DISABLE (CA in PC29 only)	AUTOMATIC TRACTION CONTROL (ATC) FULL DISABLE SWITCH	
FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION	
	WHEELBASE	197"	
	AF (OVERHANG)	67"	
	FRAME RAILS & LINERS	9.5 x 90 x 300mm - (0.37" x 3.54" x 11.81")W/ Full Liner; RBM 3,580,000 LB-IN	
	FRONT FRAME LENGTH	BUMPER POSITION EXTENDED 20" (SNOW)	
	CROSSMEMBERS	BOC AND INTERMEDIATE CROSSMEMBERS, HD I-BEAM	
S	REAR CROSSMEMBER OPTIONS	STEEL CLOSING REAR CROSSMEMBER	
S	TAPERED FRAME RAIL ENDS	WITHOUT TAPERED FRAME RAIL ENDS	
S	FRONT BUMPER	EXTENDED-SWEPT BACK-STEEL	
S	TRUNNION BRACKET	BASIC SOLUTION TRUNNION BRACKET, STD HEIGHT	
S	TOWING DEVICE, FRONT	HOOKS	
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TECHNICAL SPECIFICATION (cont.)



FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION
S	FUEL LEVEL SENDER UNIT, LIQUID	BASIC FUEL LEVEL SENDER MOUNTED ON L.H TANK
	FUEL TANK - LH	88 GALLON (335 L) 22" ALUMINUM, SLEEVED D-SHAPED
S	FUEL TANK - RH	W/O RH FUEL TANK
S	FUEL LINE MATERIAL	BRAIDED HOSE
S	FUEL FILLER NECK OPTIONS	WITHOUT FILLER NECK SCREEN, WITH NON-LOCKABLE FUEL TANK CAP
	FUEL SYSTEM - DUAL	W/O FUEL LINE OPTION
S	CAB ACCESS STEPS	STANDARD 2 STEP CAB ACCESS
S	STEPS (BRIGHT) - FUEL TANK	STANDARD FINISH STEPS AND BRIGHT FINISH STRAPS

AIR/BRAKE		DESCRIPTION
	RELOCATE AIR RESERVOIRS	MANUAL SOLUTION FOR IN-FRAME AIR RESERVOIR LOCATION- UNDER BATT.BOX & BETWEEN FRAME RAILS
S	AIR TANK DRAIN VALVE	MANUAL (PETCOCK) DRAIN VALVES ON ALL TANKS
	AIR TANK MATERIAL & FINISH	ALUMINUM AIR TANK PAINTED CHASSIS COLOR
S	PARK BRAKE ALARM	ALARM TO SOUND WHEN DRIVER DOOR OPENED & PARKING BRAKE NOT ON
	PARKING BRAKE VALVE	TWO (2) VALVE DUAL BRAKE SYSTEM - TRAILER SUPPLY AND TRACTOR-TRAILER PARK

ELECTRICAL		DESCRIPTION
	BACK-UP ALARM	ECCO BACK-UP ALARM 575 CONSTANT SOUND LEVEL 107 dB
	DASH MOUNTED SWITCHES	(4) 15A, IGNITION POWERED, (2) 15A BATTERY POWERED, ALL LATCHING ON/OFF
S	ROOF & SIDE MARKER LIGHTS	(6) TRUCKLITE CHROME BULLET ROOF MARKER & STANDARD MARKER / DIRECTIONAL SIGNAL
	AUXILIARY LAMPS (CA in PC29 only)	DASH CONTROL & POWER SUPPLY FOR LOCAL INSTALL OF AUX SNOWPLOW LAMPS OVERRIDE DAYTIME RUNNING LIGHTS
S	HEADLAMP BULB TYPE	HEADLAMP BULB TYPE, LED, HEATED
S	DAYTIME RUNNING LIGHTS	W/OVERRIDE SWITCH, PARK BRAKE & ENGINE RUNNING ACTIVATED
S	DRL OVERRIDE SPEED THRESHOLD	DRL OVERRIDE SPEED THRESHOLD 8 KMPH (5 MPH)
S	TAIL LAMPS	INCANDESCENT TAIL LAMPS
	WORK LIGHTS - CHASSIS MOUNTED	RH/LH LED WORK LIGHT (STEPS & GROUND) ON BOTH SIDES TRUCK

TRAILER CONNECTIONS		DESCRIPTION
	HAND CONTROL VALVE	HAND CONTROL VALVE FOR TRAILER OR REAR SERVICE BRAKES - DUAL FUNCTION
	TRAILER CONNECTIONS	TRAILER AIR BRAKE CONNECTIONS, END OF FRAME
	TRAILER ELECTRICAL RECEPT	SINGLE 7 PINS STD SAE TYPE, END OF FRAME

PTO		DESCRIPTION
	PTO - CONTROL	TRANSMISSION PTO SWITCH AND LIGHT WITH WIRING AND PIPING FOR LOCAL INSTALLATION
	FRONT ENGINE PTO	1350 SERIES FLANGE (DOES NOT INCLUDE FRONT FRAME EXTENSION)
S	BODY BUILDER INTERFACE	BODY LINK III W/CAB PASS-THRU

SPECIALTY EQUIPMENT		DESCRIPTION
S	LANE SUPPORT SYSTEM (LSS)	WITHOUT LANE SUPPORT SYSTEM
S	DATA CAPTURE	WITHOUT DATA CAPTURE
S	SURVEILLANCE CAMERA OPTIONS (CA)	WITHOUT CAMERA

TECHNICAL SPECIFICATION (cont.)



CAB INTERIOR (A THRU G)		DESCRIPTION
S	SPEEDOMETER & GAUGES - UNIT(S) OF MEASURE	U.S. UNITS (PREDOMINANT)
	GAUGE - PACKAGE, SECONDARY	2ND GA PKG W/ENG OIL TEMP, TRANS OIL TEMP, PYRO, BOOST PRESS
	GAUGE OIL TEMP-REAR AXLE	REAR AXLE OIL TEMP GAUGE IN DID (DRIVER INFORMATION DISPLAY)
S	CLIMATE UNIT	ELECTRONIC CONTROLLED CLIMATE CONTROL AIR CONDITION
S	CUPHOLDER	CUPHOLDER
S	DOME LAMP, INTERIOR	(4) DOME LAMPS - DOOR AND SWITCH ACTIVATED
S	DASH INDICATOR - LAMP BODY OUT OF POS	DASH MTD, INDICATOR BODY/HOIST UP "BODYBUILDER LAMP"
	FIRE EXTINGUISHER	5LB (ABC RATED) MOUNTED BETWEEN DRIVER SEAT BASE AND DOOR VALVE AIMED REARWARD
S	FLOOR COVERING	POLYURETHANE FLOOR MAT WITHOUT REMOVABLE INSERTS

CAB INTERIOR (H THRU R)		DESCRIPTION
S	INSTRUMENT CLUSTER LANGUAGE	DEFAULT: ENGLISH, SPANISH, FRENCH
S	KEY TYPES FOR DOORS	ALL CHASSIS KEYED AT RANDOM
S	KEYLESS ENTRY	W/O ELECTRONIC KEYLESS ENTRY
S	OVERHEAD CONSOLE	(2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS
S	RADIO/RADIO ACCOMMODATION	PREMIUM STEREO, AM/FM, MP3, WEATHER BAND, BLUETOOTH
S	RADIO - ANTENNA	RADIO ANTENNA, CAB MOUNTED BEHIND LH DOOR
	RADIO ANTENNA - CB	48" ANTENNA LEFT SIDE MIRROR MOUNTED
S	AUDIO SHUTOFF	AUTO SHUTOFF FOR RADIO ENTERTAINMENT SYSTEM WHEN VEHICLE IS ENGAGED IN REVERSE
S	RADIO - BINDING POSTS FOR CB	POWER LEADS (5-WAY BINDING POSTS FOR CB RADIO) IN HEADER CONSOLE
S	AUDIO SPEAKER LOCATION	SPEAKER LOCATION, IN DOORS, MIDDLE HIGH SIDE PANEL
S	RADIO - CB RADIO MOUNTING	CB RADIO MOUNTING REINFORCEMENT IN HEADER CONSOLE
S	REAR WALL STORAGE COMPARTMENT	STORAGE POUCH REAR
	REFLECTOR KIT	EMERGENCY REFLECTOR KIT MOUNTED PARALLEL & CENTERED AGAINST BOC

CAB INTERIOR (S THRU Z)		DESCRIPTION
	INTERIOR TRIM LEVELS	COMFORT TRIM PACKAGE, SIERRA TAN (Package 11B)
S	SEAT - DRIVER'S	MACK-AIR, HIGH BACK, 1 CHAMBER AIR LUMBAR
	SEAT COVERING - DRIVER'S	DRIVER'S SEAT - BLENDED BLACK & TAN VINYL
	SEAT - PASSENGER'S	MACK-FIXED, HIGH BACK, W/ STORAGE BOX
	SEAT COVERING - PASSENGER'S	PASSENGER'S SEAT - BLENDED BLACK & TAN VINYL
	SEAT ARM REST(S)	INBOARD MOUNTED ARM REST, DRIVER'S & RIDER'S SEAT
S	SEAT BELT(S)	LAP & SHOULDER (BOTH SEATS) CAB MOUNTED SHOULDER BELT ADJUSTMENT
S	SEAT BELT WARNING INDICATOR	SEAT BELT REMINDER IN INSTRUMENT, WITH AUDIO
S	STARTER SWITCH	KEY TYPE
S	STEERING WHEEL	2 SPOKE URETHANE GRIP, SATIN ALUMINUM SPOKES, WITH SWITCHES
S	WINDSHIELD TYPE	TWO PIECE WINDSHIELD
	CAB GLASS	HEATED TINTED WINDSHIELD, GUARDIAN ENHANCED PROTECTIVE REAR GLASS W/SAFEFLEX; 50% TRANSMITTANCE
S	WINDSHIELD WASHER	W/O WINDSHIELD WASHER OPTION
S	WINDSHIELD WIPERS	2 SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE

CAB EXTERIOR		DESCRIPTION
S	HOOD LATCH TYPE & FINISH	STRAP TYPE HOOD LATCH WITH BLACK FINISH

TECHNICAL SPECIFICATION (cont.)



CAB EXTERIOR		DESCRIPTION
S	EXTERIOR TRIM FINISH AND PACKAGES	GRANITE BRIGHT AIR INTAKE
	GRILLE	BRIGHT FINISH BARS W/BRIGHT FINISH SURROUND GRILL MOUNTED
S	PASSENGER SIDE VISIBILITY OPTIONS	AUXILIARY WINDOW IN RH DOOR
	GRAB HANDLES	BF EXTERIOR CAB GRAB HANDLES, BLACK GRAB HANDLE RH INTERIOR WINDSHIELD POST
	HOOD HATCH	WITH INSPECTION HATCH FOR SNOWPLOW HOOD
	HORN - AIR	(2) MACK RECTANGULAR SINGLE TRUMPET, BRIGHT FINISH ALUMINUM W/SNOW SHIELDS
S	HORN - ELECTRICAL	DUAL TONE
	MIRRORS - EXTERIOR	FLAT MIRROR - POLISHED ALUMINUM FINSH, HEATED, W/O LAMPS
	MIRRORS - CONVEX TYPE CAB DOORS	BRIGHT FINISH, LH & RH, 8" DIAMETER HEATED CONVEX
	SUN VISOR - EXTERIOR	SUN VISOR, EXTERIOR, FIBERGLASS (PAINTED)

AERODYNAMIC DEVICES		DESCRIPTION
S	CAB AERODYNAMIC PACKAGES	WITHOUT CAB AERODYNAMIC DEVICES
S	FRONT CHASSIS AERODYNAMIC PACKAGE	WITHOUT FRONT AERODYNAMIC FAIRINGS

WHEELS & TIRES		DESCRIPTION
	TIRES BRAND/TYPE - FRONT	315/80R22.5 L BRIDGESTONE M870 (20000 lbs) (Total for QTY = 2)
	WHEELS - FRONT	22.5x9.00 ALCOA 89U64x HIGH POLISHED ALUMINUM, 6.94" OFFSET, 10 HOLE HOLE (Total for QTY = 2)
	TIRES BRAND/TYPE - REAR	12R24.5 H BRIDGESTONE M863 (28640 lbs) (Total for QTY = 8)
	WHEELS - REAR	24.5x8.25 ALCOA 98565x SEVERE SERVICE, HIGH POLISHED ALUMINUM, 6.60" OFFSET, 10 HOLE HOLE (Total for QTY = 8)
S	VALVE STEMS & CAPS	STANDARD VALVE STEMS AND CAPS
S	FRONT HUB/WHEEL TRIM	WITHOUT FRONT HUB/WHEEL TRIM
S	REAR HUB/WHEEL TRIM	WITHOUT REAR HUB/WHEEL TRIM (Total for QTY = 2)
S	WHEEL NUT & FINISH - FRONT (CA)	WHEEL NUT BASIC FINISH, FRONT
S	WHEEL NUT & FINISH - REAR (CA)	WHEEL NUT BASIC FINISH, REAR

COMMUNICATION SYSTEMS		DESCRIPTION
S	CO-PILOT - DISPLAY FEATURES	CO-PILOT DISPLAY, DRIVER ACCESS LEVEL 1
S	ACCESS LEVEL	
S	TELEMATIC GATEWAY	TELEMATICS GATEWAY, 4G/LTE AND WLAN SYSTEM WITH DIAGNOSTIC SERVICES

ENGINE ELECTRONICS		DESCRIPTION
S	SHUTDOWN-ENG.OIL PRESSURE	OIL PRESSURE, ENGINE SHUTDOWN
S	SHUTDOWN-ENG.COOLANT TEMP	COOLANT TEMP, ENGINE SHUTDOWN
S	ENG /OIL TEMP SHUTDOWN	ENGINE PROTECTION (SHUTDOWN)
	FAN ENGAGEMENT TIME-A/C	ENG FAN CONTROL, A/C ON, TIME SETTING, 60 SEC
S	LOW IDLE ENGINE RPM	IDLE CONTROL, 600 RPM
S	IDLE RPM UP W/LOW VOLTAGE	INCREASE 10 MINUTE MAXIMUM TIME
S	IDLE S/D ABS TAMPER CHECK	IDLE SHUTDOWN ABS TAMPER CHECK, ENABLED
S	IDLE S/D WARNING TIME	30 SEC IDLE S/D WARNING TIME
S	IDLE S/D IF WARM-UP TEMP	38C DEG (100F), WARM UP TEMP DELAY
S	IDLE S/D WARM-UP TIMER	5 MIN. WARM UP TIME DELAY
S	IDLE S/D IF PTO ACTIVE	ENGINE IDLE SHUTDOWN TIME OVERRIDDEN IF PTO ACTIVE
S	IDLE SHUTDOWN IF POWER > LIMIT	ENG IDLE SHUTDOWN TIME OVERRIDDEN IF TORQUE > THAN LIMIT

TECHNICAL SPECIFICATION (cont.)



ENGINE ELECTRONICS		DESCRIPTION
S	IDLE S/D OVERRIDE %ENGINE LOAD	IDLE SHUTDOWN OVERRIDE UPTO 20% ENGINE LOAD THRESHOLD
S	AMBIENT TEMP MIN TRESHOLD	AMBIENT TEMP MIN TRESHOLD, 16 DEG C, (60 DEG F)
S	AMBIENT TEMP MAX TRESHOLD	AMBIENT TEMP MAX TRESHOLD, 27 DEG C, (80 DEG F)
S	EHT, MAX ROAD SPEED	ELECTRONIC HAND THROTTLE, MAX ROAD SPEED, 16 KMH (10 MPH)
S	EHT, MAX ENG SPEED	ELECTRONIC HAND THROTTLE, MAX ENGINE SPEED, 1000 RPM
S	EHT, MIN ENG SPEED	ELECTRONIC HAND THROTTLE, MIN ENGINE SPEED, 700 RPM
S	EHT, SPEED RAMP RATE	ELECTRONIC HAND THROTTLE, SPEED RAMP RATE, 100 RPM/SEC

TRANSMISSION ELECTRONICS		DESCRIPTION
	TRANSMISSION ELECTRONICS PACKAGE	DUMP/VOCATIONAL/PLOW(223) - REQUIRES SERVICE BRAKE TO ENGAGE GEAR (4TH GEAR LIMIT SECONDARY FOR PLOW
	TRANSM AUTO NEUTRAL ON P-BRAKE	ALLISON PARK BRAKE AUTO NEUTRAL-ALLOWS THE DRIVER TO ENGAGE GEAR PRIOR TO DISENGAGING THE PARK BRAKE
	TRANSMISSION ELECTRONIC SHIFTING PROPERTIES	FUELSENSE, FULL NEUTRAL AT STOP

VEHICLE ELECTRONICS		DESCRIPTION
S	ROAD SPEED LIMIT (RSL)	105 KM/H ROAD SPEED LIMITER (65MPH)
S	PEDAL SPEED LIMITER	101 KM/H PEDAL ROAD SPEED LIMITER (63MPH)
S	CRUISE CONTROL	CRUISE CONTROL
S	CRUISE CONTROL, MAX SPEED	MAX CRUISE, 105 KPH (65 MPH)
S	CRUISE CONTROL MIN SPEED	MIN CRUISE, 32 KPH (20 MPH)
S	ENG BRAKE ENGAGE IN CRUISE	ENG BRK ENGAGE IN CRUISE, 3 MPH, ABOVE SET SPEED
	PDLO ENGAGED VLS	POWER DIVIDER LOCK OUT (PDLO) ROAD SPEED LIMIT 24KMH (15MPH)
	DIFF LOCK SPEED LIMIT	DIFFERENTIAL LOCK ROAD SPEED LIMIT 24KMH (15MPH)
S	MAXIMUM ENG SPEED AT 0 MPH	1000 MAXIMUM ENGINE SPEED AT 0 MPH
S	SPEED SENSOR TAMPERING DETECTION	DETECTION OF SPEED SENSOR TAMPERING, ENABLE
S	PWR.LIMIT LVL.-MPH SENSOR	ENG TORQUE LIMITED TO 50%, IF SPEED SENSOR TAMPER DETECTED
S	DRIVER PERFORMANCE & BONUS PARAMETERS	WITHOUT DRIVER PERFORMANCE PARAMETERS
S	DATAMAX ENGINE OVERSPEED-COMPANY	ENGINE OVERSPEED, ALL CONDITIONS, TIME LOG IF ABOVE 2200 RPM
S	DATAMAX ENGINE OVERSPEED-FUEL	ENGINE OVERSPEED, FUELED, TIME LOG IF ABOVE 2100 RPM
S	DATAMAX VEHICLE OVERSPEED-ALL	VEHICLE OVERSPEED,ALL COND, TIME LOG IF ABOVE 75MPH (121KMH)
S	DATAMAX VEHICLE OVERSPEED-FUEL	VEHICLE OVERSPEED, FUELED, TIME LOG IF ABOVE 70MPH (113KMH)
S	DATAMAX IDLE LOG DELAY	ENGINE IDLE DELAY TO START LOG, 2 MIN
S	PERIODIC TRIP LOG DAY OF MONTH	PERIODIC TRIP LOG, DAY 1 OF THE MONTH

PTO ELECTRONICS		DESCRIPTION
S	PTO1 SINGLE SPEED CONTROL RPM.	PTO 1ST, SINGLE SPEED SETTING, 1000 RPM
S	PTO 1ST, MAX ROAD SPEED	1ST PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S	PTO 1ST, SPEED RAMP RATE	PTO 1ST, SPEED RAMP RATE 100 RPM/SEC
S	PTO 1ST, MAX ENGINE SPEED	PTO 1ST, MAX ENGINE SPEED, 2100 RPM
S	PTO 1ST, ROAD SPEED LIMIT	PTO 1ST, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S	PTO 1ST, MINIMUM ENGINE SPEED	PTO 1ST, MINIMUM ENGINE SPEED, 600 RPM
S	PTO 2ND, SINGLE SPEED SETTING	PTO 2ND, SINGLE SPEED SETTING, 1000 RPM
S	PTO 2ND, MAX ROAD SPEED	2ND PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S	PTO 2ND, SPEED RAMP RATE	PTO 2ND, SPEED RAMP RATE 100 RPM/SEC

TECHNICAL SPECIFICATION (cont.)



PTO ELECTRONICS		DESCRIPTION
S	PTO 2ND, MAX ENGINE SPEED	PTO 2ND, MAX ENGINE SPEED, 2100 RPM
S	PTO 2ND, ROAD SPEED LIMIT	PTO 2ND, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S	PTO 2ND, MINIMUM ENGINE SPEED	PTO 2ND, MINIMUM ENGINE SPEED, 600 RPM

PAINT		DESCRIPTION
S	PAINT DESIGN	SINGLE COLOR
S	PAINT TYPE	SOLID PAINT
	PAINT COLOR - FIRST COLOR	MACK GREEN; P9014
S	PAINT COLOR - SECOND COLOR	NO SECOND TRUCK COLOR PROVIDED; NO COLOR
S	PAINT COLOR - THIRD COLOR	NO THIRD TRUCK COLOR PROVIDED; NO COLOR
S	PAINT - CAB PAINT SYSTEM	PAINT - CAB, URETHANE CLEAR COAT
S	CAB COLOR	SAME AS FIRST COLOR - CAB
S	HOOD COLOR	SAME AS FIRST COLOR - HOOD
	SUN VISOR COLOR	SAME AS FIRST COLOR - SUN VISOR
S	SLEEPER ROOF COLOR	WITHOUT SLEEPER ROOF COLOR
S	ROOF FAIRING COLOR	WITHOUT ROOF FAIRING
S	CHASSIS RUNNING GEAR	MACK BLACK (60 GLOSS); 250-12370
S	BUMPER	PAINT BUMPER SAME COLOR AS CHASSIS RUNNING GEAR
	FUEL TANK - ***NO INVENTED VARIANTS ALLOWED in the FUEL TANK PAINT FAMILY***	W/O OPTIONAL FUEL TANK PAINT
S	HUBS & DRUMS-FRONT	SAME AS CHASSIS RUNNING GEAR
S	HUBS & DRUMS-REAR	SAME AS CHASSIS RUNNING GEAR

CALCULATED CODES - KAX		DESCRIPTION
S	PROPCALC SELECTION	YES, THE ORDER MUST BE CALCULATED

BASE WARRANTY & PURCHASED COVERAGES		DESCRIPTION
S	VEHICLE WARRANTY TYPE	HEAVY DUTY WARRANTY CLASSIFICATION
	BASIC CHASSIS COVERAGE	CHASSIS PLAN 2 60/250K MI NORMAL/HEAVY DUTY, GRANITE/TERRAPRO/LR MODELS PROTECTION PLAN
	EMISSION - SURCHARGE	EPA (only) for Mack MP7 / MP8 Diesel
	ENGINE WARRANTY	ENG PLAN 2: 84 MO/250K MI-EXT ENGINE COVERAGE MP7/MP8 <460HP
S	EMISSION COMPONENT COVERAGE	US and CANADA EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/100,000 MILES (161,000 KM)
	ENGINE AFTERTREATMENT SYSTEM	EATS: 84MO/250K MI-ENGINE AFTERTREATMENT <460
	TRANSMISSION WARRANTY	ALLISON TRANSMISSIONS (Contact Allison Transmission for standard warranty and extended coverage data)
S	CARRIER & AXLE HOUSING WARRANTY	STANDARD MACK HEAVY DUTY COVERAGE 60 MONTHS / 500,000 (804,672 KM)
S	AIR CONDITIONING WARRANTY	AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE
	CHASSIS TOWING WARRANTY	CHASSIS TOWING 60 MO/250K MILES
	ENGINE TOWING WARRANTY	ENGINE TOWING 84 MO/250K MILES

CONNECTED SERVICES		DESCRIPTION
	MACK INTEGRATED UPTIME	MACK INTEGRATED UPTIME - 84 MONTHS
	MACK CONNECT LOCATION & REPORTING	MACK CONNECT LOCATION & REPORTING - 84 MONTHS
S	FLEET INTEGRATION	WITHOUT FLEET INTEGRATION

TECHNICAL SPECIFICATION *(cont.)*



CONNECTED SERVICES		DESCRIPTION
S	PARTNERED SERVICES	NO PARTNERED SERVICES PROVIDED

ADDITIONAL ENGINEERING (Non Approved)		DESCRIPTION
CA		

PRICING SUMMARY

GRANITE 64FR

Final Unit Sales Price \$435,326.00

Deal Size (Units) 1

EXTENDED DEAL SALES PRICE \$435,326.00

Pricing Comments

INCLUDED IN QUOTED BUDGET NUMBER:

VEH111

58,000 # MERITOR REAR AXLE AND HENDRICKSON SUSPESION LARGER BRAKES \$12,899

JC MADIGAN QUOTE OF \$196,250.00

EXTENDED WARRANTIES: ENGINE PLAN 2, EMISSIONS & ENGINE TOWING 84 MONTHS / 250,000 MILES, CHASSIS PLAN 2 & TOWING 60 MONTHS/250,000, ALLISON TRANSMISSION 60 MONTHS / UNLIMITED MILES \$15,163.00

TOWN OF PLYMOUTH

DATE

BALLARD MACK SALES & SERVICE, INC. DATE

MACK.®



Mack Trucks
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J.C. MADIGAN INC.
450 OLD UNION TURNPIKE
LANCASTER, MA.

SALES DEPT.
TEL. (978)847-2900
FAX (978)847-0068

QUOTE: TOWN OF PLYMOUTH HWY DEPT.

TO ROCKY L. @ BALLARD MACK

FROM JOHN DWYER

A)14 FT 10.9/16.0 CUYD REAR DISCHARGE 304 STAINLESS STEEL MATERIAL SPREADER / DUMP BODY HI-WAY MODEL XT-3 TYPE-III INSTALLED ON A TOWN SUPPLIED CHASSIS UNDERCOATED AND ALL NON-STAINLESS ITEMS PAINTED ONE COLOR WITH THE FOLLOWING EQUIPMENT.

- 1) 36" STAINLESS CABSHIELD W/ SIDE & FRONT RECESSED LED FLASHERS
- 2) STAINLESS REMOVEABLE CONVEYOR COVER
- 3) SIDE MOUNTED STAINLESS ACCESS LADDER W/ HANDLE
- 4) BACKUP AND LIFT ALARMS / TAILGATE D-RING / TANDEM POLY FENDERS
- 5) REAR MOUNTED SPINNER ASSEMBLY
- 6) 40 TON TELESCOPIC HOIST ASSEMBLY
- 7) UNDERBODY MOUNTED STAINLESS SPILLSHIELD
- 8) HEAVY DUTY MATERIAL SCREENS
- 9) CUSTOM STAINLESS SIDEBOARDS
- 10) AERO AUTO TARPING SYSTEM W/ ALUM. ARMS AND ASPHALT TARP
- 11) 1" PINTLE PLATE W/ 45T PINTLE, D-RINGS, AND 7-SPADE RV TRAILER PLUG
- 12) REAR RECESSED LED FLASHERS, STOP/TAILS/REVERSE LIGHTS
- 13) (2) SPINNER MOUNTED LED WORKLIGHTS
- 14) (2) FRONT GRILL RECESSED LED FLASHERS

B) 11 FT 36" HIGH INTAKE 54" HIGH DISCHARGE VORTEX STYLE STEEL MOLDBOARD TRIP EDGE SNOW PLOW EVEREST MODEL R132TEL3654SH-(V) WITH HYDRAULIC REVERSING MODE, JOMA WINTER CUTTING EDGE, CURB AND WEAR SHOES, AND GUIDEPOLES.

C) EVEREST CUSTOM LO-MOUNT PLOW FRAME MODEL (JCM)
INSTALLED WITH HOOD MOUNTED ABL LED PLOWLIGHTS AND
30.5" ON CENTER PLOW EARS

D) TRANSMISSION MOUNTED CENTRAL HYDRAULIC SYSTEM
WITH A HOTSHIFT PTO, IN-CAB CONTROLS AND VALVE BODY
TO CONTROL DUMP, 4-WAY PLOW, AND POWER BEYOND.

- 1) PEDISTAL MOUNTED MUNCIE OPEN LOOP SPREADER
CONTROLS
- 2) LOW FLUID LEVEL WARNING LIGHT
- 3) STAINLESS HYDRAULIC TANK

PRICE \$196,250.00

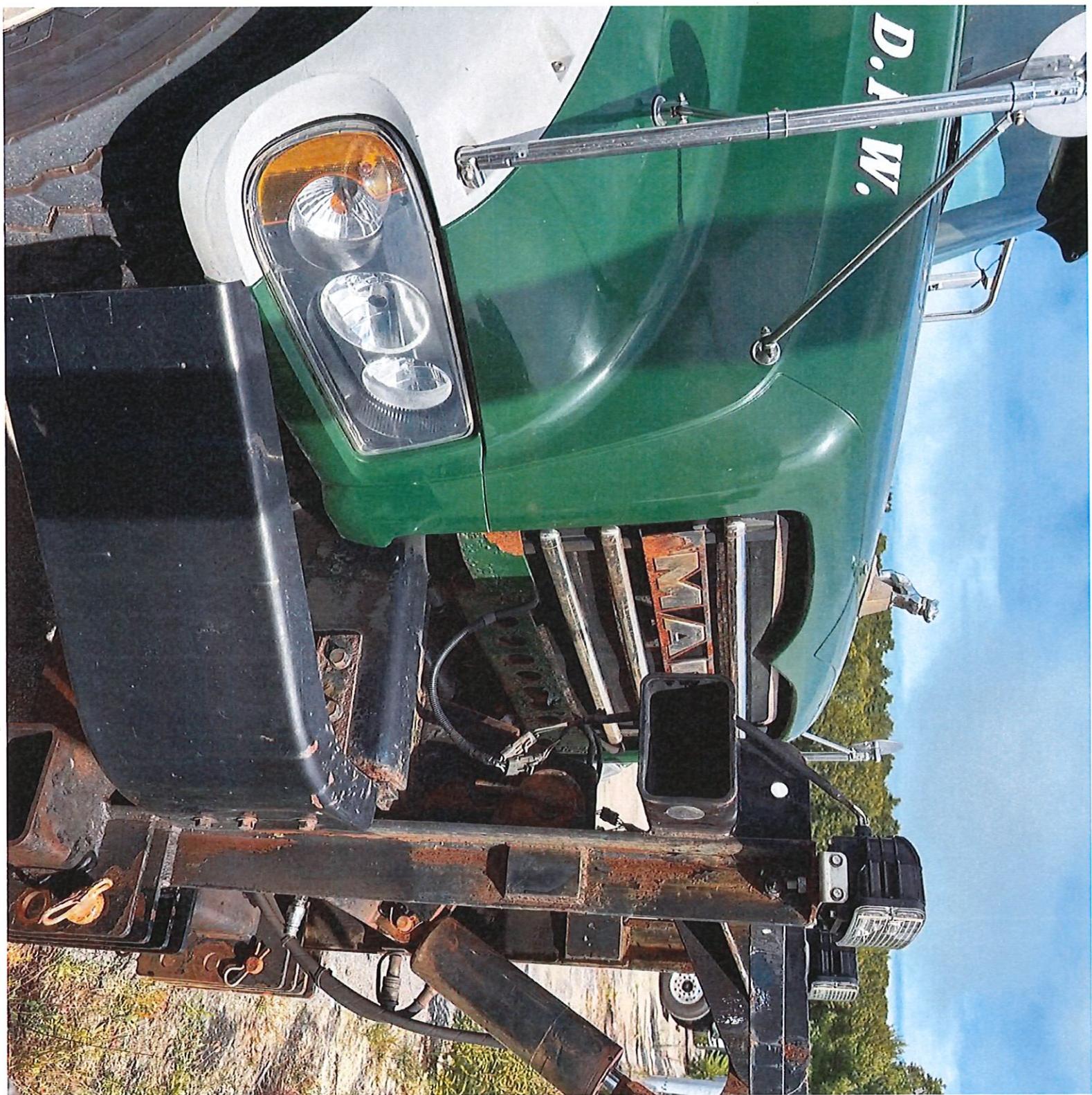
OPTION!! STEEL BODY ILIEU OF STAINLESS BODY UPGRADE
CREDIT PRICE ABOVE (\$40,000.00)

(120" CT / TRANS PTO OPENING / PLOW LIGHT PREP. / FRAME EXTENSION / AUX SWITCHES)

APPROVAL _____ DATE _____

PO# _____ 09/15/2025

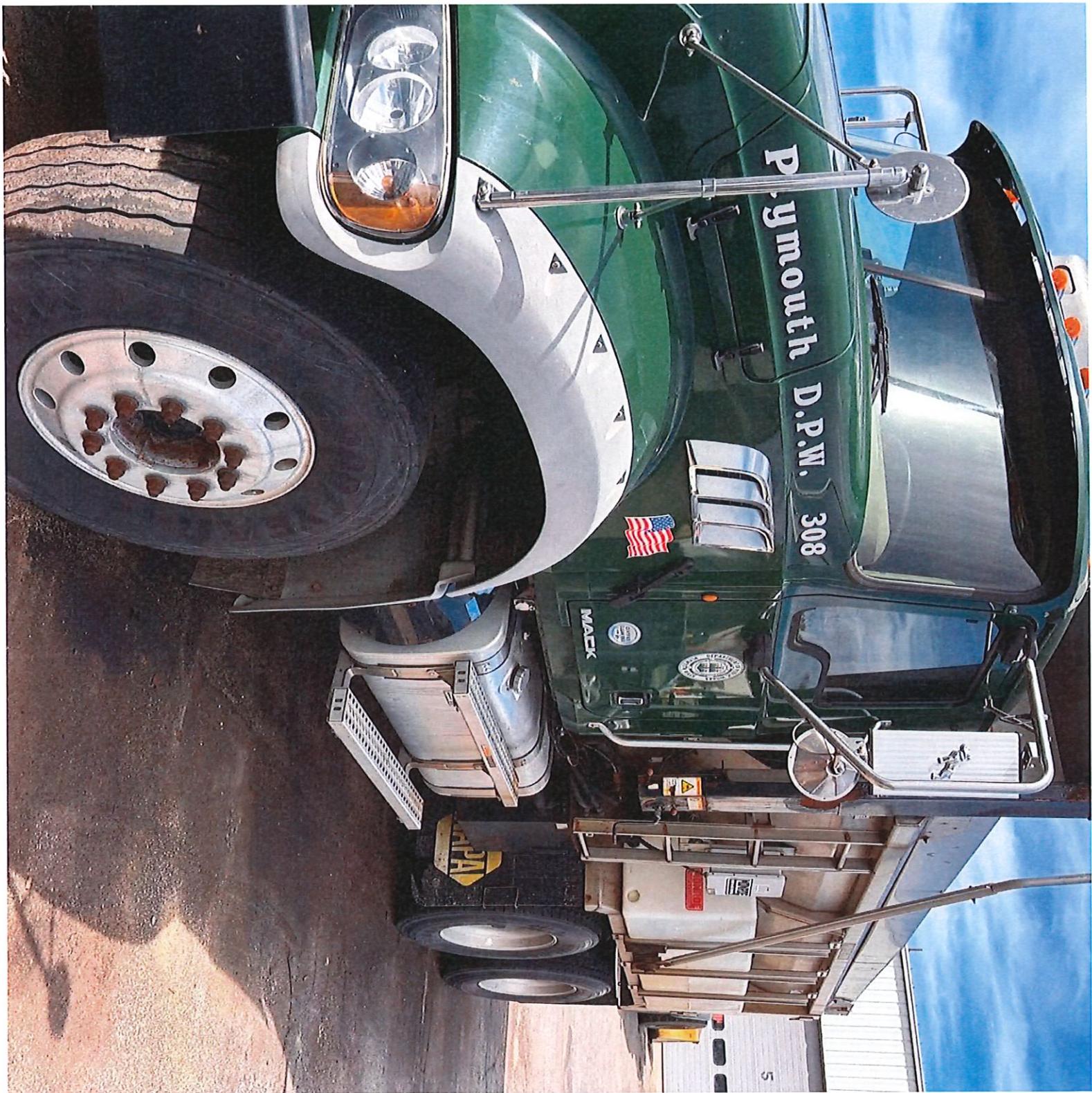




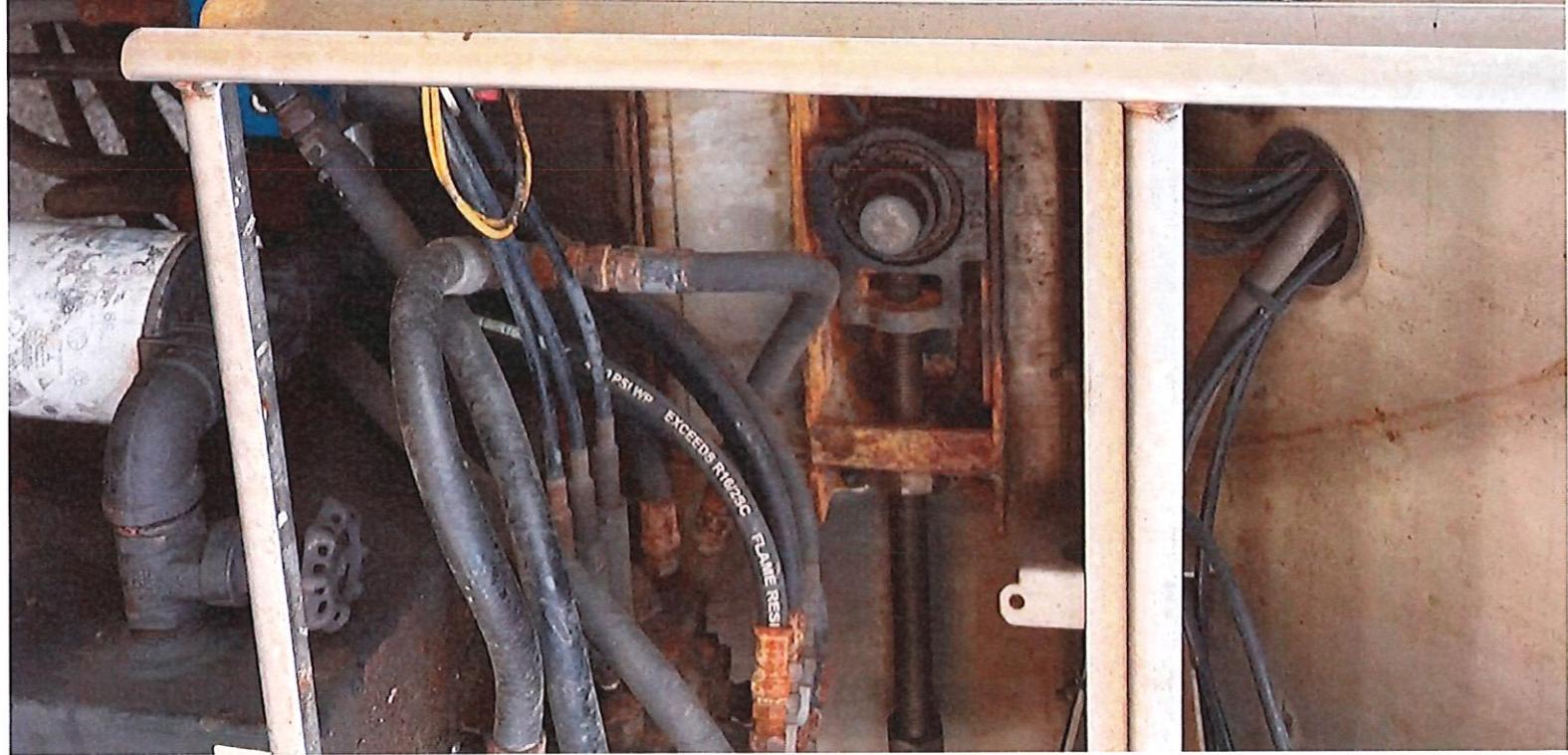
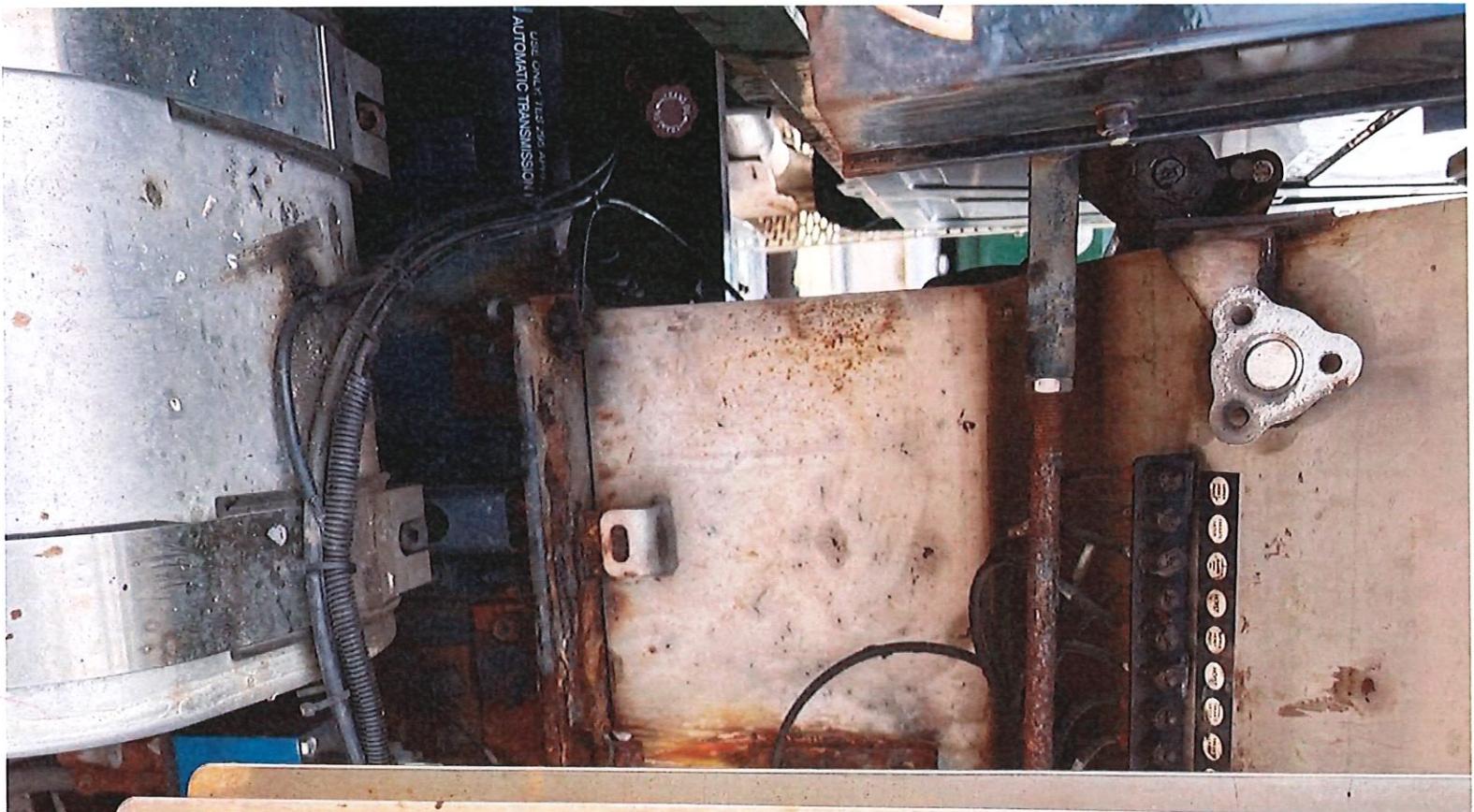














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