

Gray-Daniels Ford Lincoln 201 Octavia Drive, Brandon, Mississippi, 390422437 Office: 601-825-2801 Fax: 601-591-2649

# **Customer Proposal**

### **Prepared for:**

Brett Jensen Midwest Fire Equipment & Repair 901 Commerce Road Luverne, MN 56156 Office: 507-283-9141 Email: brett@midwestfire.com

### Prepared by:

James Cantrell Office: 601-573-8538

Email: jcantrell@graydaniels.com

Date: 10/25/2016

Vehicle: 2017 F-550 Chassis XL 4x4 SD Regular Cab 145" WB DRW



## Selected Equipment & Specs

#### **Dimensions**

\* Exterior length: 230.7"\* Exterior height: 81.5"\* Front track: 74.8"

Min ground clearance: 8.2"
Front headroom: 40.8"
Front shoulder room: 66.7"
Cargo volume: 11.6cu.ft.

#### **Powertrain**

288hp 6.8L SOHC 30 valve V-10 engine with SMPI

\* federal

Part-time

\* Fuel Economy Cty: N/A

### Suspension/Handling

\* Front Mono-beam non-independent suspension with anti-roll bar, HD shocks

Firm ride Suspension

\* Front and rear 19.5 x 6 argent steel wheels

Dual rear wheels

### **Body Exterior**

2 doors

Black door mirrors

Trailer harness

Front and rear 19.5 x 6 wheels

#### Convenience

Manual air conditioning with air filter

Manual front windows

\* Manual tilt steering wheel

Day-night rearview mirror

Front cupholders

#### **Seats and Trim**

Seating capacity of 3

4-way driver seat adjustment

\* 4-way passenger seat adjustment

#### **Entertainment Features**

\* AM/FM stereo radio

\* Fixed antenna

### Lighting, Visibility and Instrumentation

Halogen aero-composite headlights

Fully automatic headlights

Light tinted windows

\* Tachometer

\* Exterior width: 105.9" \* Wheelbase: 145.0"

\* Rear track: 74.0"

\* Front legroom: 43.9"\* Front hiproom: 62.5"

\* Passenger volume: 64.6cu.ft.

\* Maximum cargo volume: 11.6cu.ft.

\* Recommended fuel: regular unleaded

\* TorqShift 6 speed automatic transmission with

overdrive Limited slip differential

\* Fuel Economy Highway: N/A

 Rear DANA 130 rigid axle leaf spring suspension with anti-roll bar, HD shocks

\* Hydraulic power-assist re-circulating ball Steering

\* LT225/70SR19.5 GBSW AS front and rear tires

\* Driver and passenger folding door mirrors

\* Black bumpers

\* Clearcoat paint

\* Cruise control with steering wheel controls

\* Manual door locks

\* Manual telescopic steering wheel

\* 1 1st row LCD monitor

\* Passenger visor mirror

\* Front 40-20-40 split-bench seat

Manual driver lumbar support

\* Centre front armrest with storage

\* 4 speakers

\* Delay-off headlights

\* Variable intermittent front windshield wipers

\* Front reading lights

\* Oil pressure gauge

- \* Outside temperature display
- \* Trip odometer

\* Trip computer

### **Safety and Security**

- \* 4-wheel ABS brakes
- \* Driveline traction control
- Dual seat mounted side impact airbag supplemental restraint system
- \* Manual door locks

- \* 4-wheel disc brakes
- Dual front impact airbag supplemental restraint system with passenger cancel
- Šafety Canopy System curtain 1st row overhead airbag supplemental restraint system
- \* Manually adjustable front head restraints

#### **Dimensions**

| Dilliciisions   |  |  |   |
|---|--|--|---|
| General Weights   |  |  |   |
| Curb Front GAWR Payload Rear curb weight Rear axle capacity Rear spring rating Rear tire/wheel capacity | 6500 lbs.<br>11960 lbs.<br>3117 lbs.<br>14706 lbs.<br>15000 lbs. | GVWR Rear GAWR Front curb weight Front axle capacity Front spring rating Front tire/wheel capacity | 13660 lbs.<br>3931 lbs.<br>7000 lbs.<br>6500 lbs. |
| Trailering Type   |  |  |   |
| Harness   | Yes  | Trailer sway control   | Yes   |
| General Trailering  |  |  |   |
| 5th-wheel towing capacity GCWR  | 20400 lbs.<br>28000 lbs.   | Towing capacity  | 18500 lbs.  |
| Fuel Tank type  |  |  |   |
| Capacity  | 40 gal.  |  |   |
| Off Road  |  |  |   |
| Min ground clearance  | 8 "  |  |   |
| Interior cargo  |  |  |   |
| Cargo volume  | 11.6 cu.ft.  | Maximum cargo volume   | 11.6 cu.ft.                                       |
| Powertrain  |  |  |   |
| Engine Type   | _  |  |   |
| Block material Head material Injection S Orientation Valves per cylinder                                | Aluminum<br>equential MPI<br>Longitudinal                        | Cylinders Ignition Liters Recommended fuel Valvetrain  | Electronic<br>6.8L<br>Regular unleaded            |
| Engine Spec   |  |  |   |
| Bore Displacement   | 3.55"<br>415 cu.in.  | Compression ratio  | 9.2:1<br>4.16"                                    |
| Engine Power Output 288 HP (  | @ 4,000 RPM  | Torque 424   | 4 ftlb @ 3,000 RPM                                |
| Alternator  |  |  |   |
| Туре  | HD   | Amps   | 200   |

| Battery Amp hours 78  | Cold cranking amps 750  |
|---|---|
| Run down protection Yes   | Type HD   |
| Engine Extras Block heater Yes  |   |
| Transmission  |   |
| Electronic control Yes Overdrive Yes Type Automatic   | Lock-up Yes<br>Speed 6  |
| Transmission Gear Ratios  |   |
| 1st       3.974         3rd       1.516         5th       0.858         Reverse Gear ratios       3.128 | 2nd       2.318         4th       1.149         6th       0.674 |
| Transmission Torque Converter Stall ratio 1.90  |   |
| Transmission Extras   |   |
| Driver selectable mode Yes Oil cooler Regular duty  | Sequential shift control SelectShift                            |
| Drive Type  |   |
| 4wd type Part-time  | Type Four-wheel   |
| Drive Feature   | <b>-</b>  |
| Limited slip differential Mechanical Locking hub control Manual   | Traction control Driveline Transfer case shift Manual           |
| Drive Axle  |   |
| Ratio 4.88  |   |
| Exhaust   | O to the Cineda   |
| Material Stainless steel  | System type Single  |
| Emissions  CARB Federal   | EPA Tier 2 Bin 8  |
|   | EPA Hei 2 Bill o  |
| fuel Economy  Fuel type Gasoline  |   |
| •   |   |
| Priveability  |   |
| Brakes  |   |
| ABS 4-wheel Type 4-wheel disc   | ABS channels 3 Vented discs Front and rear                      |
| Suspension Control  |   |
| Ride Firm   |   |
| Front Suspension Independence Mono-beam non-independent   | Anti-roll bar Regular   |
| Front Spring  |   |

| Selected Equipment & Specs (cont'd)                    |   |
|--|---|
| Type   | Grade HD                                      |
| Front Shocks   |   |
| Type HD  |   |
| Rear Suspension  |   |
| Independence DANA 130 rigid axle Anti-roll bar Regular | Type Leaf                                     |
| Rear Spring  |   |
| Type Leaf  | Grade HD                                      |
| Rear Shocks  |   |
| Type HD  |   |
| Steering   |   |
| Activation Hydraulic power-assist                      | Type Re-circulating ball                      |
| Steering Specs   |   |
| # of wheels  |   |
| Exterior   |   |
| Front Wheels   |   |
| Diameter 19.5"   | Width 6.00"                                   |
| Rear Wheels  |   |
| Diameter 19.5"   | Width 6.00"                                   |
| Dual Yes   |   |
| Front and Rear Wheels                                  |   |
| Appearance Argent                                      | Material Steel                                |
| Front Tires  |   |
| Aspect 70<br>Sidewalls BSW                             | Diameter 19.5"<br>Speed S                     |
| Tread AS   | Type LT                                       |
| Width 225mm  | LT load rating G                              |
| RPM 647  |   |
| Rear Tires   |   |
| Aspect 70  | Diameter 19.5"                                |
| Sidewalls BSW Tread AS                                 | Speed S<br>Type LT                            |
| Width 225mm  | LT load rating G                              |
| RPM647   |   |
| Wheels   |   |
| Front track 74.8"                                      | Rear track 74.0"                              |
| Wheelbase 145.0"                                       |   |
| Body Features  | - Van   |
| Front license plate bracket Yes Body material Aluminum | Front splash guards Yes Side impact beams Yes |
| Body Doors   | Too   |
| Door count 2   |   |
| 2331 3341 2  |   |

| Exterior Dimensions           Length         230.7"           Body height         81.5"           Axle to end of frame         47.2"           Frame rail width         34.2"           Front bumper to back of cab         123.7" | Body width 105.9" Cab to axle 60.0" Frame section modulus 17.2cu.in. Front bumper to Front axle 38.3" |
|--|---|
| Safety   |   |
| Airbags  Driver front-impact Overhead Safety Canopy System curtain 1st row Passenger side-impact Seat mounted  | Driver side-impact Seat mounted Passenger front-impact Cancellable                                    |
| Seatbelt   |   |
| Height adjustable Front  |   |
| Seating  |   |
| Passenger Capacity   |   |
| Capacity   |   |
| Front Seats  |   |
| Split 40-20-40   | Type Split-bench  |
| Driver Seat  |   |
| Fore/aft Manual Way direction control 4  | Reclining Manual Lumbar support Manual  |
| Passenger seat   |   |
| Fore/aft Manual Way direction control 4  | Reclining Manual  |
| Front Head Restraint   |   |
| Control Manual   | Type Adjustable   |
| Front Armrest  |   |
| Centre Yes   | Storage Yes   |
| Front Seat Trim  |   |
| Material Vinyl   | Back material Vinyl   |
| Convenience  |   |
| AC And Heat Type   |   |
| Air conditioning Manual  | Air filter Yes  |
| Audio System   |   |
| Radio AM/FM stereo<br>Seek-scan Yes  | Radio grade Regular   |
| Audio Speakers   |   |
| Speaker type Regular   | Speakers 4  |
| Audio Antenna  |   |

| selected Equipment & Specs (contra)  |  |
|--|--|
| Type Fixed   |  |
| LCD Monitors   |  |
| 1st row 1  | Primary monitor size (inches) 2.3                                      |
| Cruise Control  Cruise control  With steering wheel controls   |  |
| Convenience Features   |  |
| 12V DC power outlet 2  |  |
| Door Lock Activation   |  |
| Type Manual  |  |
| Instrumentation Type   |  |
| Display Analog   |  |
| Instrumentation Gauges   |  |
| Tachometer Yes Engine temperature Yes Engine hour meter Yes  | Oil pressure Yes Transmission fluid temp Yes                           |
| Instrumentation Warnings   |  |
| Oil pressure         Yes           Battery         Yes           Key         Yes           Door ajar         Yes           Brake fluid         Yes | Engine temperature Yes Lights on Yes Low fuel Yes Service interval Yes |
| Instrumentation Displays   |  |
| Clock In-radio display Systems monitor Yes   | Exterior temp Yes  |
| Instrumentation Feature Trip computer Yes  | Trip odometer Yes  |
| Steering Wheel Type  |  |
| Material Urethane Telescoping Manual   | Tilting Manual   |
| Front Side Windows Window 1st row activation Manual  |  |
| Window Features  |  |
| Tinted Light   |  |
| Front Windshield Wiper Variable intermittent   |  |
| Rear Windshield  |  |
| Window Fixed   |  |
| nterior  |  |
| Passenger Visor  |  |
| Mirror Yes   |  |
| Rear View Mirror   |  |
|  |  |

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information. | Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.

In

|                          | I \         | /                             |                |
|--------------------------|-------------|-------------------------------|----------------|
| Day-night                | Yes         |                               |                |
| Headliner                |             |                               |                |
| Coverage                 | Full        | Material                      | Cloth          |
| Floor Trim               |             |                               |                |
| Coverage                 | Full        | Covering                      | Vinyl/rubber   |
| Trim Feature             |             |                               |                |
| Gear shift knob          | Urethane    | Interior accents              | Chrome         |
| Lighting                 |             |                               |                |
| Dome light type          | Fade        | Front reading                 | Yes            |
| Variable IP lighting     | Yes         |                               |                |
| Storage                  |             |                               |                |
| Front Beverage holder(s) | Yes<br>Yes  | Glove box<br>Instrument panel | Locking<br>Bin |
| Dashboard                |             | mstrument paner               |                |
| Legroom                  |             |                               |                |
| Front                    | 43.9"       |                               |                |
| Headroom                 |             |                               |                |
| Front                    | 40.8"       |                               |                |
| Hip Room                 |             |                               |                |
| Front                    | 62.5"       |                               |                |
| Shoulder Room            |             |                               |                |
| Front                    | 66.7"       |                               |                |
| Interior Volume          |             |                               |                |
| Passenger volume         | 64.6 cu.ft. |                               |                |

### **Selected Options**

### Description

Base Vehicle Price (F5H)

Order Code 660A

- Engine: 6.8L 3-Valve SOHC EFI NA V10

Includes CNG/Propane gaseous engine prep, hardened engine intake and valve seats. This package does not include CNG/Propane fuel tanks, lines, etc. Vehicle will be equipped with the standard factory gasoline fuel system. Additional equipment combined with Certified calibration reflash is required, from an external upfitter, to convert the vehicle to a CNG/Propane fueled vehicle. See Alternative Fuel Buyers Guide: www.ford.com/altfuelbuyersguide.
- Transmission: TorqShift 6-Speed Automatic (6R140)

Includes SelectShift.

- Tires: 225/70Rx19.5G BSW AS
- Wheels: 19.5" Argent Painted Steel
Includes manual locking hubs.
- HD Vinyl 40/20/40 Split Bench Seat

Includes center armrest, cupholder, storage and driver's side manual lumbar.

Radio: AM/FM Stereo Includes 4 speakers.

Engine: 6.8L 3-Valve SOHC EFI NA V10

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Transmission: TorqShift 6-Speed Automatic (6R140)

Includes SelectShift

Limited Slip w/4.88 Axle Ratio

GVWR: 19,000 lbs Payload Upgrade Package

Includes upgraded frame and upgraded rear-axle. NOTE: See Order Guide Supplemental Reference for further details on GVWR and payload ranges.

Tires: 225/70Rx19.5G BSW AS

Wheels: 19.5" Argent Painted Steel

Includes manual locking hubs.

HD Vinyl 40/20/40 Split Bench Seat

Includes center armrest, cupholder, storage and driver's side manual lumbar.

Monotone Paint Application

145" Wheelbase

Snow Plow Prep Package

Includes pre-selected springs (see Order Guide Supplemental Reference for springs/FGAWR of specific vehicle configurations). NOTE 1: Restrictions apply, see Supplemental Reference or Body Builder's Layout Book for details. NOTE 2: Also allows for the attachment of a winch

**Engine Block Heater** 

Center High-Mounted Stop Lamp (CHMSL)

Radio: AM/FM Stereo

Includes 4 speakers.

Steering Wheel-Mounted Cruise Control (LPO)

REQUIRES valid FIN code.

Fleet Advertising Credit

# Selected Options (cont'd)

### **Description**

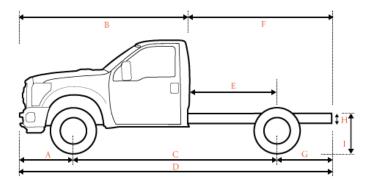
50-State Emissions System

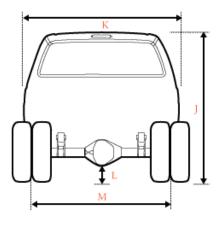
Medium Earth Gray

Race Red

# Performance

Performance predictions in this report represent an estimate of vehicle performance based on standard operating conditions. Variations in customer equipment, load configuration, ambient conditions, and/or operator driving techniques can cause significant variations in vehicle performance. These values are not representative of results that may be shown in actual dynamometer tests. This report should therefore be used as a guide for comparative vehicle performance.

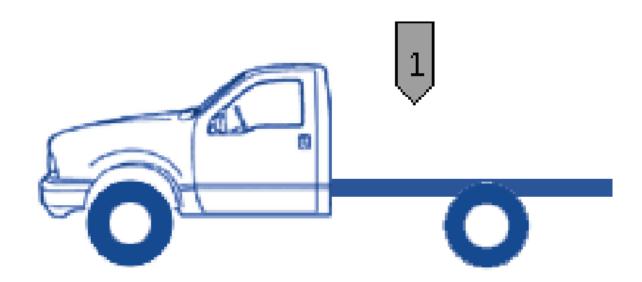




#### **Dimensions**

| A | Front of Bumper to Front Axle     |            |
|---|-----------------------------------|------------|
| В | Front Bumper to Back of Cab (BBC) |            |
| C | Wheelbase (WB)                    | 145.00 in. |
| D | Overall Length (OAL)              |            |
| E | Back of Cab to Rear Axle (CA)     | 60.00 in.  |
| F | Back of Cab to End of Frame       | 107.20 in. |
| G | Rear Axle to End of Frame (AF)    | 47.20 in.  |
| H | Frame Section Height              | N/A        |
| 1 | Rear Frame Height Unloaded        |            |
| 1 | Rear Frame Height Loaded          | N/A        |
| J | Cab Height                        | 81.50 in.  |
| Κ | Body Width                        |            |
| L | Maximum Ground Clearance          |            |
| L | Minimum Ground Clearance          | 8.20 in.   |
| M | Front Tread                       | 74.80 in.  |
| M | Rear Tread                        | 74.00 in.  |

# Performance (cont'd)



### Weight

| GVW                            | Front Axle                          | Rear Axle                              | Totals             |
|--------------------------------|-------------------------------------|--|--------------------|
| Chassis                        | 3,931 lbs                           | 3,117 lbs                              | 7,048 lbs          |
| Body                           | 0 lbs                               | 0 lbs                                  | 0 lbs              |
| Occupant                       | 300 lbs                             | 150 lbs                                | 450 lbs            |
| 1 Max Payload - (Max. Payload) | 2,269 lbs                           | 9,233 lbs                              | 11,502 lbs         |
| TOTAL                          | 6,500 lbs                           | 12,500 lbs                             | 19,000 lbs         |
|                                |                                     |  |                    |
| Ratings                        | Front Axle                          | Rear Axle                              | GVWR               |
| Ratings GAWR                   | Front Axle<br>6,500 lbs             | Rear Axle                              | GVWR<br>19,000 lbs |
|                                |                                     |  |                    |
| GAWR                           | 6,500 lbs<br>7,500 lbs              | 13,660 lbs                             |                    |
| GAWR<br>Wheels/Tires           | 6,500 lbs<br>7,500 lbs<br>6,500 lbs | 13,660 lbs<br>15,000 lbs<br>15,000 lbs |                    |

# Performance (cont'd)

### Start, Grade and Speed

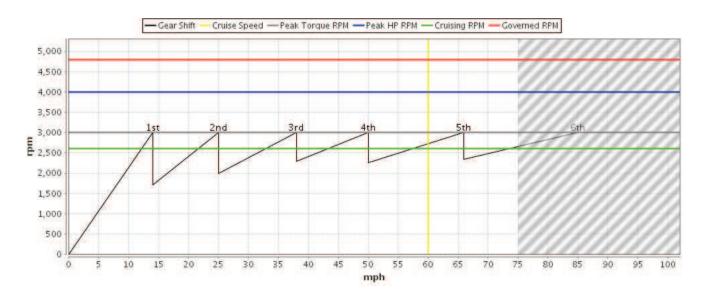
| Start  | Ratio           | Desired           | Calculated           |
|--|-----------------|-------------------|----------------------|
| Start grade capability in 1st gear   | 3.97            | 15.00 %           | 24.86 %              |
| Start grade capability in reverse  | 3.13            | 15.00 %           | 19.57 %              |
| Grade  | Ratio           | Desired           | Calculated           |
| Maximum grade in 4th gear  | 1.15            | 3.00 %            | 7.57 %               |
| Maximum grade in 5th gear  | 0.86            | 3.00 %            | 5.65 %               |
| Maximum grade in 6th gear  | 0.67            | 3.00 %            | 4.44 %               |
|  |                 |                   |                      |
| Speed  |                 | Desired           | Calculated           |
| Speed Top Speed (level grade)  |                 | Desired<br>75 mph | Calculated<br>85 mph |
|  |                 |                   | •                    |
| Top Speed (level grade)  | o of 8.81       |                   | •                    |
| Top Speed (level grade)  To meet your requirement you need a maximum axle ration                         | o of 8.81       | 75 mph            | •                    |
| Top Speed (level grade)  To meet your requirement you need a maximum axle ration Top Speed on 3.0% grade | o of 8.81<br>hp | 75 mph            | 85 mph               |

### Variables in Use

| Rear axle ratio: Tire size:  | 4.88/4.88<br>225/70R19.5 (647<br>rev/mile) | Peak Torque RPM: Frontal Area:                                      | 53.32 Sq.Ft. |
|--|--|---|--------------|
| Gross Vehicle Weight (GVW): Clutch engagement torque: Torque conversion ratio: | 19,000 lbs<br>212 ft.lbs.                  | Cruising RPM Worst road surface Final Drive Ratio: Drag Coefficient | 0.67         |
| Peak engine torque: Engine Power:  | 424 ft.lbs.<br>288 hp @ 4,000 rpm          | · ·   |              |

# Performance (cont'd)

### Shift Chart



### Turning Radius

Turning Radius N/A

