

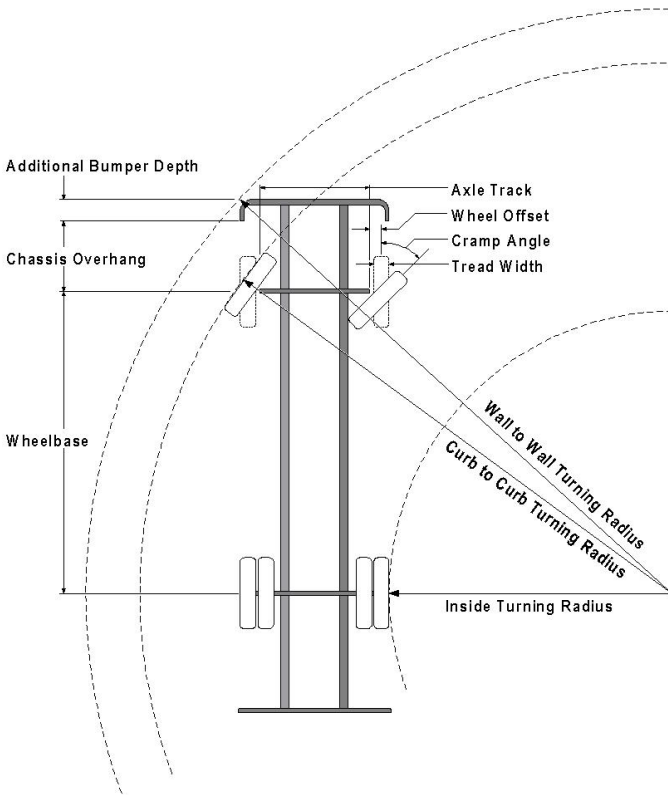


# Turning Performance Analysis

04/08/2022

**Bid Number:** 1077  
**Department:** Huntley Fire Protection District

**Chassis:** Velocity Chassis, PAP (Big Block), 2010  
**Body:** Aerial, Platform 100', Alum Body



**Parameters:**

*Inside Cramp Angle:	40°
Axle Track:	82.92 in.
Wheel Offset:	4.68 in.
Tread Width:	16.3 in.
Chassis Overhang:	78 in.
Additional Bumper Depth:	19 in.
Front Overhang:	146.1 in.
Wheelbase:	257.5 in.

**Calculated Turning Radii:**

Inside Turn:	24 ft. 6 in.
Curb to curb:	40 ft. 0 in.
Wall to wall:	47 ft. 6 in.

Category	Option	Description
Tires, Front	0677592	Tires, Front, Goodyear, G296 MSA, 425/65R22.50, 20 ply, Fire Service Load Rating
Bumpers	0123625	Bumper, 19" Extended, Imp/Vel
Axle, Front, Custom	0508846	Axle, Front, Oshkosh TAK-4, Non Drive, 24,000 lb, Velocity
Wheels, Front	0019611	Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot
Aerial Devices	0784643	Aerial, 100' Pierce Platform, 35 MPH Wind Rating, 400lb Tip Load Allowance

**Notes:**

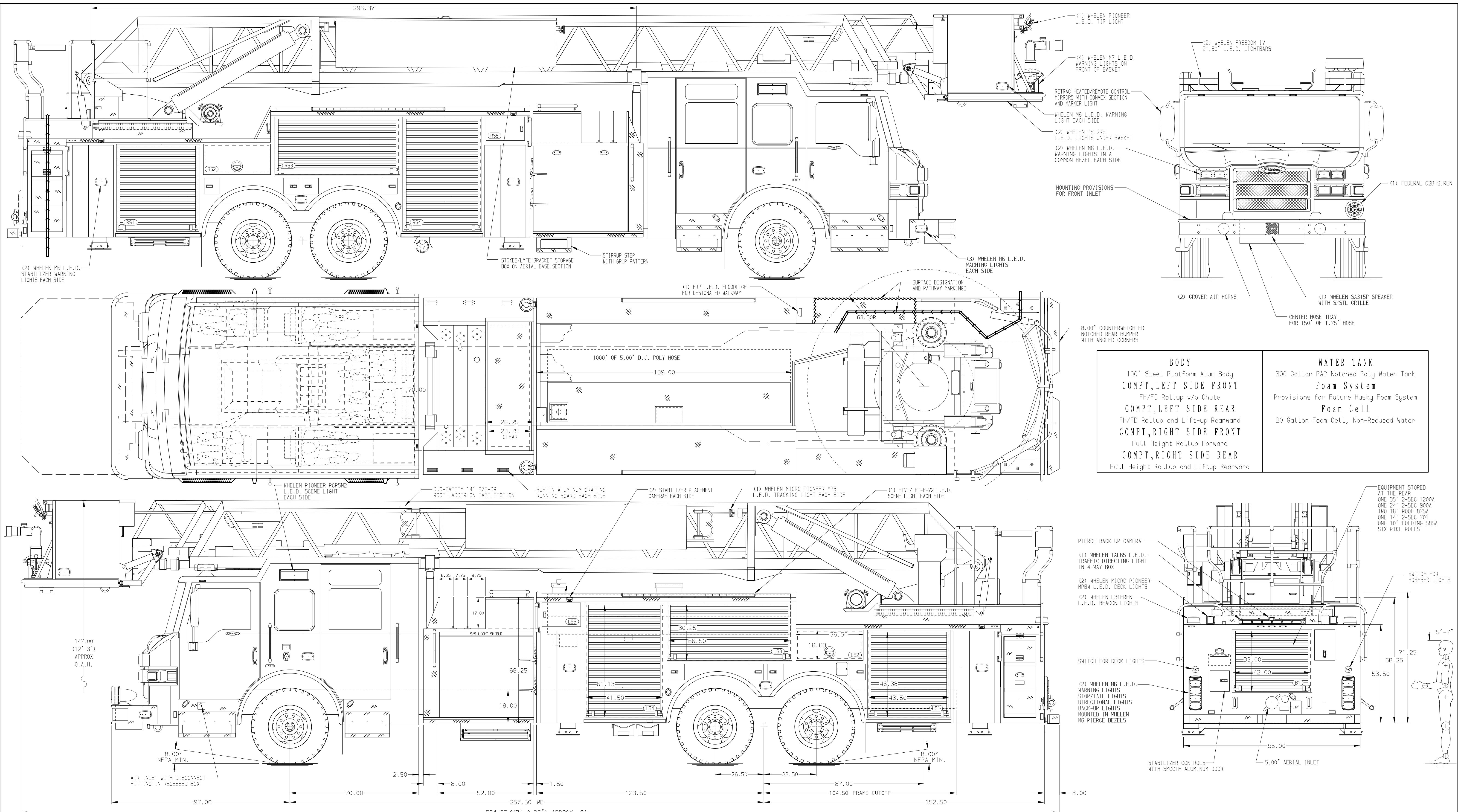
\*Actual Inside cramp angle may be less than shown.  
 Curb to Curb turning radius calculated for 9.00 inch curb.

---

**Definitions:**

---

Inside CrampAngle	Maximum turning angle of the front inside fire.
Axle Track	King-pin to King-pin distance of front axle.
Wheel Offset	Offset from the center line of the wheel to the King-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance of the center line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Wheel	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicles front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures takes into account any front overhang due to chassis , bumper extensions and or aerial devices.



<b>BODY</b> 100' Steel Platform Alum Body <b>COMPT, LEFT SIDE FRONT</b> FH/FD RollUp w/o Chute <b>COMPT, LEFT SIDE REAR</b> FH/FD RollUp and Lift-up Rearward <b>COMPT, RIGHT SIDE FRONT</b> Full Height RollUp Forward <b>COMPT, RIGHT SIDE REAR</b> Full Height RollUp and Liftup Rearward	<b>WATER TANK</b> 300 Gallon PAP Notched Poly Water Tank <b>Foam System</b> Provisions for Future Husky Foam System <b>Foam Cell</b> 20 Gallon Foam Cell, Non-Reduced Water
---	--

<b>CHASSIS</b> Velocity Chassis <b>ENGINE</b> 510 HP Paccor MX13 Engine	<b>CAB</b> 7010 Notched Velocity FR Cab <b>BUMPER</b> 19" Extended Stainless Steel	<b>AXLE, FRONT, CUSTOM</b> 24,000 Lb TAK-4 Axle <b>AXLE, REAR</b> 60,000 Lb Meritor Axle	<b>TRANSMISSION</b> Allison 5th Gen, 4500 EV5 P	<b>PUMPHOUSE</b> 52" Control Zone Side Mount <b>PUMP</b> 2000 GPM Waterous CSU	<b>CROSSLAYS, 1.50"</b> (2) 1.50" Standard Capacity <b>CROSSLAYS, 2.50"</b> (1) 2.50" Standard Capacity	<b>SPEEDLAYS</b> Speedlays Not Required <b>GENERATOR</b> Generator Not Required	<b>SAFETY</b> Side Roll and Frontal Impact Protection	<b>CUSTOMER APPROVAL</b> APPROVED BY: _____ DATE: _____		JOB NO. 35746 SCALE 1:24 DATE DRAWN BY TKA 03FEB21 CHECKED BY ZCH 03FEB21 SHEET SIZE D SHEET NO. 1 OF 1	
<b>NOTE</b> DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MINOR DEVIATIONS AS MAY OCCUR OR BE NECESSARY IN CONSTRUCTION. MINOR DETAILS NOT SHOWN.											
1. ONE 1.50" OUTLET WITH 2.00" PIPING AND SWIVEL LOCATED IN CENTER BUMPER TRAY 2. SHORELINE RECEPTACLE WITH KUSSMAUL SUPER AUTO-EJECT LOCATED ON DRIVER SIDE OF THE CAB 3. DEF TANK MOUNTED UNDER CAB ON THE DRIVER'S SIDE 4. BATTERY CHARGER LOCATED IN CREW CAB SEAT RISER 5. BATTERY CHARGE INDICATOR LOCATED ON THE DRIVER SIDE OF THE CAB 6. FOUR ADJUSTABLE SHELVES IN COMPARTMENTS PER SHOP ORDER 7. ONE ADJUSTABLE TILTING SLIDE-OUT TRAY IN COMPARTMENT PER SHOP ORDER 8. FOUR FLOOR MOUNTED SLIDE-OUT TRAYS IN COMPARTMENTS PER SHOP ORDER 9. ONE ALUMINUM PEGBOARD ON BACK WALL OF COMPARTMENT PER SHOP ORDER			10. TWO WHELEN 700CELZR L.E.D. LIGHTS LOCATED AT THE FRONT OF THE HOSE BED 11. HOSE STORAGE BOX AT PLATFORM BASKET FOR 100' OF 1.75" HOSE 12. BREATHING AIR TO AERIAL BASKET 13. 3.00" RAISED AERIAL PEDESTAL 14. 3-in-1 LYFECOMBO BRACKETS AT AERIAL BASKET 15. DC POWER TO AERIAL BASKET 16. NO LIMITED RETRACTION							CHASSIS DATA MAKE PIERCE MODEL VELOCITY	TITLE 100 AERIAL PLATFORM & BODY ASSEMBLY (PAP100A) FOR PIERCE FIELD UNIT APPLETON, WISCONSIN DWG NO. 35746AD