

SEQUENCE OF OPERATION:

1. INSTALL PUMP DISCHARGE PIPE ACROSS ROUTE 30 AND SET UP BYPASS PUMP
2. INSTALL SHEET PILE COFFERDAM
3. PUMP WATER AROUND EXISTING CULVERT

NOTES:

THE INTENT OF THE STREAM DIVERSION IS TO UTILIZE THE EXISTING CULVERTS DURING A STORM EVENT IF THE FLOW GETS OVER 25 CFS AND THE PUMP CAN NOT KEEP UP. THE COFFER DAM WILL BUILD A WATER LEVEL ENOUGH FOR THE PUMP SUCTION TO ADAQUATLY DRAW FROM. THE SHEETS IN FRONT OF THE EXISTING CULVERTS ARE DRIVEN LOWER TO PROVIDE A RELIEF FOR THE STREAM. IF THE WATER SHOULD OVER TOP THE COFFER DAM IT WILL FLOW DOWN THE EXISTING CULVERT AS IT NORMALLY WOULD. WHEN WE HAVE SECTIONS OF THE NEW BOX INSTALLED THE EXISTING CULVERTS WILL BE MADE TO EXTEND INTO THE NEW CULVERT SO THE STREAM CAN CONTINUE ITS FLOW UNINTERRUPTED.

THE 6\"/>

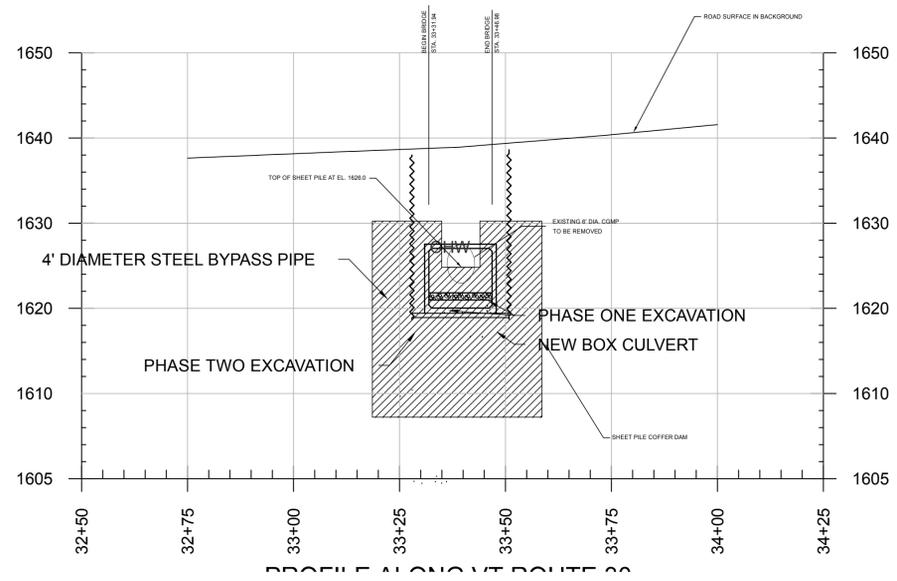
BRIDGE 77 STREAM DIVERSION PLAN
SCALE 1" = 20'-0"



REV. NO.	DATE:

RENAUD BROS. INC.
 285 FT. BRIDGEMAN RD. VERNON VT., 05554
 PH. (802) 251-1585 FAX (802) 251-1508

SHEET NAME: BRIDGE 77 STREAM DIVERSION PLAN		SHEET NO. 1
PROJECT NAME: WINHALL		
PROJECT NO: STP CULV (31)		OF 3
DRAWN BY: CE	CHK'D BY:	
DATE: 06/22/2015		



REV. NO.	DATE:

RENAUD BROS. INC.
 283 FT. BRIDGEMAN RD. VERNON VT., 05354
 PH. (802) 251-1585 FAX (802) 251-1508

SHEET NAME: BR 47 STREAM DIVERSION SECTION		
PROJECT NAME: WINHALL		SHEET NO. 2
PROJECT NO: STP CULV (31)		
DRAWN BY: CE	CHK'D BY:	DATE: 06/22/2015
		OF 3

AC DEU Diesel Engine Driven
Self Priming Centrifugal Pump
 w/Autostart
 Model T6A60S-F4L
 Size 6" x 6"

Total Head	Capacity of Pump in U.S. Gallons per Minute (GPM) at Continuous Performance
59.4	137
52.0	120
43.4	100
34.7	80
26.0	60
17.4	40



PUMP SPECIFICATIONS
 Size: 6" x 6" (152 mm x 152 mm) NPT - Female.
 Casing: Gray Iron 30. Maximum Operating Pressure 99 psi (683 kPa).
 Semi-Open Type, Two Vane Impeller: Ductile Iron 65-45-12.
 Handles 3" (76.2 mm) Diameter Spherical Solids.
 Impeller Shaft: Stainless Steel 17-4 PH.
 Replaceable Wear Plate: Carbon Steel 1015.
 Removable Adjustable Cover Plate: Gray Iron 30; 60.5 lbs. (27 kg).
 Flap Valve: Neoprene w/Steel Reinforcement.
 Drive Flange: Gray Iron 30.
 Seal Plate: Gray Iron 30.
 Shaft Sleeve: Alloy Steel 4130.
 Seal: Cartridge Type, Mechanical, Oil-Lubricated, Double Floating, Self-Aligning, Silicon Carbide Rotating and Stationary Faces, Stainless Steel 316 Stationary Seal, Fluorocarbon Elastomers (DuPont Viton® or Equivalent), Stainless Steel 18-8 Cage and Spring, Maximum Temperature of Liquid Pumped 180°F (71°C).
 Bearing Housing: Gray Iron 30.
 Radial Bearing: Open Single Row Ball.
 Thrust Bearing: Open Double Row Ball.
 Bearing and Seal Cavity Lubrication: SAE 30 Non-Detergent Oil.
 Flanges: Gray Iron 30.
 Gaskets: Buna-N, Compressed Synthetic Fibers, PTFE, Vegetable Fiber, Cork, and Rubber.
 O-Rings: Buna-N.
 Hardware: Standard Plated Steel.
 Brass Pressure Relief Valve.
 Bearing and Seal Cavity Oil Level Sight Gauges.
 Standard Equipment: Hoisting Bail, 90° Discharge Elbow, Strainer, Single Ball Type Float Switch.
 *50 Ft. (15 m) Standard Length; Dual Switches and Alternate Cable Lengths Available From the Factory.
 Optional Equipment: Battery, G-R Hard Iron Impeller and Seal Plate, Hardened Steel Wear Plate, High Speed (55 MPH/89 KM/H) Single Axle Pneumatic-Tired Wheel Kit w/90 DOT-Approved Lights and Electric Brakes, Tandem Axle Over-the-Road Trailer (Meets DOT Requirements), Available w/Either Electric or Hydraulic Surge Brakes, Running Lights, Jack Stands and Safety Cables/Chains, EPS w/Submersible Transducer Liquid Level Sensor (50 Ft./15 M) Cable Standard, Alternate Lengths Available.
 *Consult Factory for Applications Exceeding Maximum Pressure and/or Temperature Indicated.

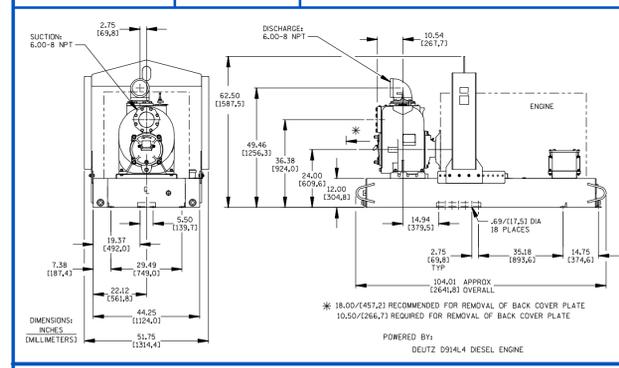
WARNING!
 Do not use in explosive atmosphere or for pumping volatile flammable liquids.

ENGINE SPECIFICATIONS
 Model: Deutz D914L4.
 Type: Four Cylinder, Four Cycle, Air Cooled Diesel Engine.
 Displacement: 263.2 Cu. In. (4.3 Liters).
 Governor: Mechanical.
 Lubrication: Forced Circulation.
 Air Cleaner: Oil Bath.
 Oil Reservoir: 13.7 U.S. Qts. (13 Liters) Dry; 12.7 U.S. Qts. (12 Liters) Refill.
 Fuel Tank: 88 U.S. Gallons (333 Liters).
 Starter: 24VDC Electric.
 Standard Features: High Oil Temperature, Low Oil Pressure, V-belt, Alternator and Start Failure Safety Shut Down Switches/Indicators, Fuel Level Gauge, Throttle Control, Autostart Instrument Panel Includes: Temperature Gauge, Oil Pressure Gauge, Ammeter, Hourmeter, Tachometer, Manual/Stop/Auto Key Switch, 15 Amp Fuse, Audible Startup Warning Delay, Muffler w/Guard and Weather Cap.

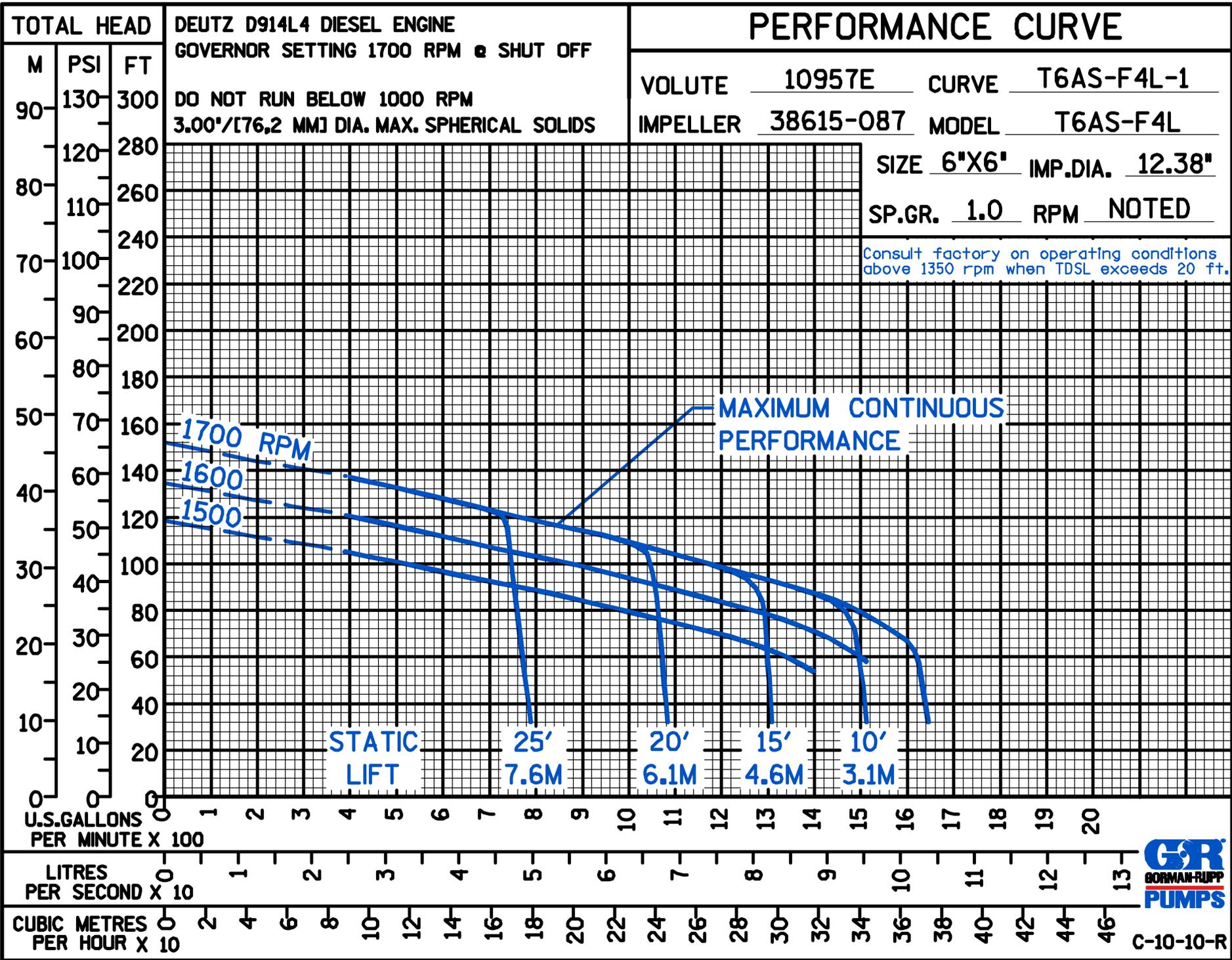
DEUTZ PUBLISHED PERFORMANCE:
 Maximum Gross Continuous B.H.P. 73.7 (55 kW) @ 2300 RPM

GORMAN-RUPP PUMPS THE GORMAN-RUPP COMPANY • MANSFIELD, OHIO
 GORMAN-RUPP OF CANADA LIMITED • ST. THOMAS, ONTARIO, CANADA
 www.grpumps.com
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Specification Data	APPROXIMATE DIMENSIONS and WEIGHTS	NET WEIGHT:	SKID BASE	2-WHEEL
SECTION 45, PAGE 1590		3055 LBS. (1386 KG.)	3055 LBS. (1386 KG.)	3565 LBS. (1617 KG.)
		SHIPPING WEIGHT:	3290 LBS. (1492 KG.)	3565 LBS. (1617 KG.)
		EXPORT CRATE SIZE:	273 CU. FT. (7.7 CU. M.)	



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REV. NO.	DATE:

RENAUD BROS. INC.
 283 FT. BRIDGEMAN RD., VERNON VT., 05354
 PH. (802) 251-7383 FAX. (802) 251-7308

SHEET NAME: BRIDGE 47 STREAM DIVERSION PLAN		SHEET NO. 3
PROJECT NAME: WINHALL		
PROJECT NO: STP CULV (31)		OF 3
DRAWN BY: CE	CHK'D BY: 	
DATE: 06/22/2015		