

RESOLUTION NO. R14-28

**A RESOLUTION APPROVING THE ATTACHED TASK ORDER NO. 31
AUTHORIZING GREAT WEST ENGINEERING TO PREPARE PLANS AND
SPECIFICATIONS FOR THE CITY'S SEPTAGE RECEIVING STATION.**

WHEREAS, the City of Laurel previously executed an Agreement for Professional Services with Great West Engineering, Inc. on June 5, 2007, via Resolution No. R07-36; and

WHEREAS, the City of Laurel desires Great West Engineering, Inc. to prepare plans and specifications for the proposed septage receiving station, including a pull out and containment area, package metering station, receiving basin, and lift station; and

WHEREAS, the attached Task Order No. 31 contains all of the duties and responsibilities requested and required by the City and agreed upon by Great West Engineering, Inc. for the project; and

WHEREAS, Great West Engineering, Inc. estimates the cost for Task Order No. 31 to be \$24,000, as listed in the attached task order and estimated costs; and

WHEREAS, it is in the best interest of the City of Laurel for Great West Engineering, Inc. to assist the City in this project.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Laurel, Montana,

That the Mayor is authorized to issue Task Order No. 31, a copy of which is attached, directing Great West Engineering, Inc. to prepare plans and specifications for the proposed septage receiving station for the sum of \$24,000.00.

Introduced at a regular meeting of the City Council on May 20, 2014, by Council Member Mountsier.

PASSED and APPROVED by the City Council of the City of Laurel this 20th day of May, 2014.

APPROVED by the Mayor this 20th day of May, 2014.

CITY OF LAUREL

Mark A Mace
Mark A. Mace, Mayor

ATTEST:

Shirley Ewan
Shirley Ewan, Clerk/Treasurer

APPROVED AS TO FORM:

Sam S. Painter
Sam S. Painter, Civil City Attorney



115 N Broadway
Suite 500
Billings MT 59101

PHONE: 406.652-5000
FAX: 406.248-1363
www.greatwesteng.com

LETTER OF TRANSMITTAL

To: Mark Mace, Mayor
Of: City of Laurel
Address: P.O. Box 10
Laurel, MT 59044

Date: May 13, 2014
Project: Laurel On-Call
Project No.: 2-07128
Subject: Task No. 31

Phone:

Fax:

We transmit: As requested Attached Under separate cover
Via: Mail e-Mail Courier Overnight delivery Fax

# of Copies	Description
2	Task No. 31

Our action: Reviewed Not approved Approved See remarks
Action requested: Review and comment Approve / Accept
 Make corrections noted Revise and resubmit
 For your information and use

Remarks:

Please find enclosed two signed copies of Task Order No. 31 for the above referenced project. If acceptable, sign both copies, retain one for your records and return one to our office. Please contact me if you have any questions.

From: Greg Lukasik e-mail address: glukasik@greatwesteng.com
Phone: 406-281-8587 cc: Project file

If enclosures are not as noted, please notify the sender immediately.

HELENA

PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
406.449.8627 ▪ Fax 406.449.8631



May 13, 2014

City of Laurel
P.O. Box 10
Laurel, MT 59044

**Re: Task Order No. 31 – Septage Receiving Station
Laurel Engineering Services On-Call
Great West Engineering, Inc. Project No. 2-07128**

Dear Mayor Mace:

This letter constitutes *Task Order No. 31* to our *Agreement for Professional Services* dated June 5, 2007 for the above-referenced Project.

The City intends to install a septage receiving station at the wastewater treatment plant for area septic haulers. Great West Engineering's scope of work for completion of this task order ("Services") is as follows:

- Services as outlined in the Preliminary and Final Design Phases described in Paragraphs A.1.02 and A.1.03 of Exhibit A of the *Agreement for Professional Services* to prepare plans and specifications for the proposed septage receiving station including a pull out and containment area, package metering station, receiving basin, and lift station.
- Services as outlined in the Bidding Phase described in Paragraphs A.1.04 Exhibit A of the *Agreement for Professional Services* are not included as part of the task order as it is the intent of the City to add the improvements to the *Wastewater Treatment Plant Improvements – BNR Upgrade* project as a change order.
- Services as outlined in the Construction Phase described in Paragraphs A.1.05 Exhibit A of the *Agreement for Professional Services*, which includes part time inspection corresponding to concrete pours and backfilling operations. A total of five (5) days of RPR time is included in the estimated cost.
- Services as outlined in the Post-Construction Phase described in Paragraphs A.1.06 Exhibit A of the *Agreement for Professional Services* is not included in the task order. Record drawings of the improvements will be incorporated into the record drawings for the *Wastewater Treatment Plant Improvements – BNR Upgrade* project under Task Order 16.

The total compensation for these services is estimated to be \$24,000, based upon the attached Opinions of Probable Cost and the following assumed distribution of compensation:

BILLINGS
115 N Broadway
Suite 500
Billings, MT 59101
406.652.5000
Fax 406.248.1363



a. Study and Report Phase	\$ <u>0</u>
b. Preliminary and Final Design Phases	\$ <u>16,000</u>
c. Bidding	\$ <u>0</u>
d. Construction Phases	\$ <u>8,000</u>
e. Post-Construction Phase	\$ <u>0</u>
f. Additional Tasks	\$ <u>0</u>

Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by Owner. The total estimated compensation for Engineer's services included in the breakdown by phases incorporates all labor, overhead, profit, Reimbursable Expenses and Engineer's Consultant's charges.

Please have an authorized representative sign both originals of this letter and return one executed original to Great West Engineering at the following address:

Great West Engineering, Inc.
115 N Broadway, Suite 500
Billings, MT 59101

Acknowledgement. This *Task Order No. 31* is agreed to by the parties and is effective as of the date of this letter.

City of Laurel

By: Mark A Mace

Title: Mark A. Mace, Mayor

Date: 05/20/2014

Great West Engineering, Inc.

By: Daniel M. McCauley

Title: Daniel M. McCauley, President

Date: MAY 13, 2014

**OPINION OF PROBABLE COST
MAY 06, 2014
LAUREL WASTEWATER
SEPTAGE RECEIVING**

#	BID ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	4" Pipe	140	LF	\$ 40.00	\$ 5,600
2	Excavation and Backfill	120	CY	\$ 10.00	\$ 1,200
3	Concrete (drive thru and tank)	85	CY	\$ 400.00	\$ 34,000
4	5 HP Pump	1	LS	\$ 6,000.00	\$ 6,000
5	Pump Installation	1	LS	\$ 1,000.00	\$ 1,000
6	Sewage General Station	1	LS	\$ 50,000.00	\$ 50,000
7	Electrical Installation	1	LS	\$ 15,000.00	\$ 15,000
8	I&C	1	LS	\$ 5,000.00	\$ 5,000
Direct Construction Subtotal					\$ 118,000
Engineering			20%		\$ 24,000
Contingency			7%		\$ 8,000
Construction Subtotal					\$ 150,000

Note: Assumes no mobilization as contractor is already onsite

Cindy Allen

From: Kurt Markegard
Sent: Thursday, May 08, 2014 9:17 AM
To: Heidi Jensen
Cc: City Mayor; City Clerk; Cindy Allen
Subject: FW: Laurel Septage Receiving
Attachments: KRT F80-200-14XG.PDF; Q00768.pdf; Laurel Septage Cost estimate.pdf; SKMBT_C36014050807010.pdf; 2-07128-TO16-CO-Site Plan-Plan.pdf

Heidi,

Here is the information for the septic haulers dump station. If the council wants to proceed with this we will need to get a task order or and amendment to a task order for Great West to proceed with final design. This design would then be given to the contractor for a change order price quote. If the quote is ok then we would authorize the change order and proceed with construction. If they give us a high price we would modify the current sight plans allowing for the dump station to be built in the future with minimum issues.

I would be glad to go over this with you just let me know what is a good time. I will also be working with Chad on the water fill station and hope to have something by June as far as cost estimates.

Kurt

From: Chad Hanson [mailto:chanson@greatwesteng.com]
Sent: Thursday, May 08, 2014 8:35 AM
To: Kurt Markegard
Subject: FW: Laurel Septage Receiving

Kurt,

Per your request, please find attached electronic copies of the cost estimate for the proposed septage receiving station. Let me know if you have any questions or trouble opening the files.

Thanks.

Chad E. Hanson, PE
Principal | Project Manager

Great West Engineering, Inc.

DIRECT: 406.281.8585
OFFICE: 406.652.5000
CELL: 406.860.5145

From: Don Pawluk
Sent: Thursday, May 08, 2014 8:23 AM
To: Chad Hanson
Subject: Laurel Septage Receiving

Chad,

Here are the pdfs that you requested.

Don Pawluk

From: Dale McBain [dmc bain@apsco-llc.com]
Sent: Friday, May 02, 2014 2:37 PM
To: Don Pawluk
Subject: RE: Laurel MT Septage Facility
Attachments: KRT F80-200-14XG.pdf

Don,

See attached. The total cost for this pump is \$6000.00 each. The price includes pump, motor, guide rail brackets, discharge mounting elbow, and freight to Montana. Price does not include the guide rails or start-up supervision. If you need start-up supervision, the added cost for our service tech would be \$2500 for one(1) trip, one(1) day, includes all travel and local living expenses.

Regards,
Dale McBain
APSCO LLC
Ph.: 425-822-3335
Cell: 206-617-9921

Project
 Customer pos.no
 Project ID
 Pos.no
 Created by



Page 1 / 5
 2014-05-02

Data sheet

Pump type KRT F 80-200/14XG

Operating data

Flow	76.7	US g.p.m.	Fluid		
Head	10.5	ft	Density	62.3	lb/ft ³
Operating speed	1750	rpm	Viscosity	1.08E-5	ft ² /s
Shaft power	0.846	hp	Temperature	68	°F
Efficiency	23.9	%			
Required pump NPSH		ft			
Head H(Q=0)	13.1	ft			
Application range	Head		Flow		
	From	13.1	ft	0	US g.p.m.
	To	2.59	ft	222	US g.p.m.

Design

Make	KSB	Impeller type	Vortex
Design	Submersible pump		Open
Series	KRT F	Impeller size	(130) 5 1/8 inch
Frame size	80-200		Max. (190) 7 1/2 inch
Stages	1		Min. (130) 5 1/8 inch
Curve number	K41651	Free passage	3 1/8 inch
		Weight	185.01 lb
Type of bearings	Antifriction		
Nos. of bearings	2		
Lubrication	Grease lubrication, lubricated for lifetime		
Suction port	Pressure rating	---	
	Nominal pipe size DN0	---	
	Nominal pipe size DN1	3"	
	Norm	---	
Discharge port	Pressure rating	CLASS 125	
	Nominal pipe size DN2	3 inch	
	Nominal pipe size DN3	3 inch	
	Norm	ASME/ANSI B16.1	
Suction port: pump,		discharge port: discharge elbow	

Materials

Pump casing	Grey cast iron EN-JL1040 (A 48 Class 35)
Discharge cover	---
Impeller	Grey cast iron EN-JL1040 (A 48 Class 35)
Shaft	Stainless steel EN-1.4021+QT800 (A 276 Type 420)
Bearing bracket	Grey cast iron EN-JL1040 (A 48 Class 35)
Motor casing	Grey cast iron EN-JL1040 (A 48 Class 35)
Bolts, nuts	Stainless steel A4 (EN-1.4571) (A 276 Type 316)
Shaft protection sleeve	---
Casing wear ring	
Impeller wear ring	
O-Rings	Nitrile rubber (NBR)

KSB Inc., 4415 Sarellen Road, Richmond, Virginia 23231, Phone: 001-804-222-1818, Fax: 001-804-226-6961
 KSB Pumps Inc, 5885 Kennedy Road, Mississauga, Ontario L4Z 2G3 (Canada), Phone: (0905) 568-9200, Fax: (0905) 568-9120
 KSB Aktiengesellschaft, Turmstrasse 92, 06110 Halle (Germany), Phone +49 (345) 48260, Fax +49 (345) 4826 4699, www.ksb.com

Project
Customer pos.no
Project ID
Pos.no
Created by



Page 2 / 5
2014-05-02

Data sheet

Pump type

KRT F 80-200/14XG

Shaft seal

Type of seal	Double mechanical seal
Arrangement:	Tandem
Seal on medium side	with elastomer bellows
Mechanical seal, pump-side	Silicon carbide / Silicon carbide
Mechanical seal, bearing-side	Carbon / Silicon carbide

Monitoring

Thermal winding protection	By temperature sensitive switches
Explosion proof protection	---
Motor housing monitoring	By conductive moisture sensor electrode
Mechanical seal leakage detection	---
Bearing temperature monitoring	---

Coating

Preparatory treatment	Sa 2 1/2 to ISO 8501-1 / ISO 12 944-4 DIN 55928, Part 4
Blasting method	Steel grit blasting
Primer	Zinc phosphate or Zinc dust
Dry film thickness primer	> 35 microns
Top coat	2-component epoxy resin
Solids content	> 82 %
Dry film thickness top coat	> 150 microns
Colour	Ultramarine Blue (RAL 5002 to DIN 6174)

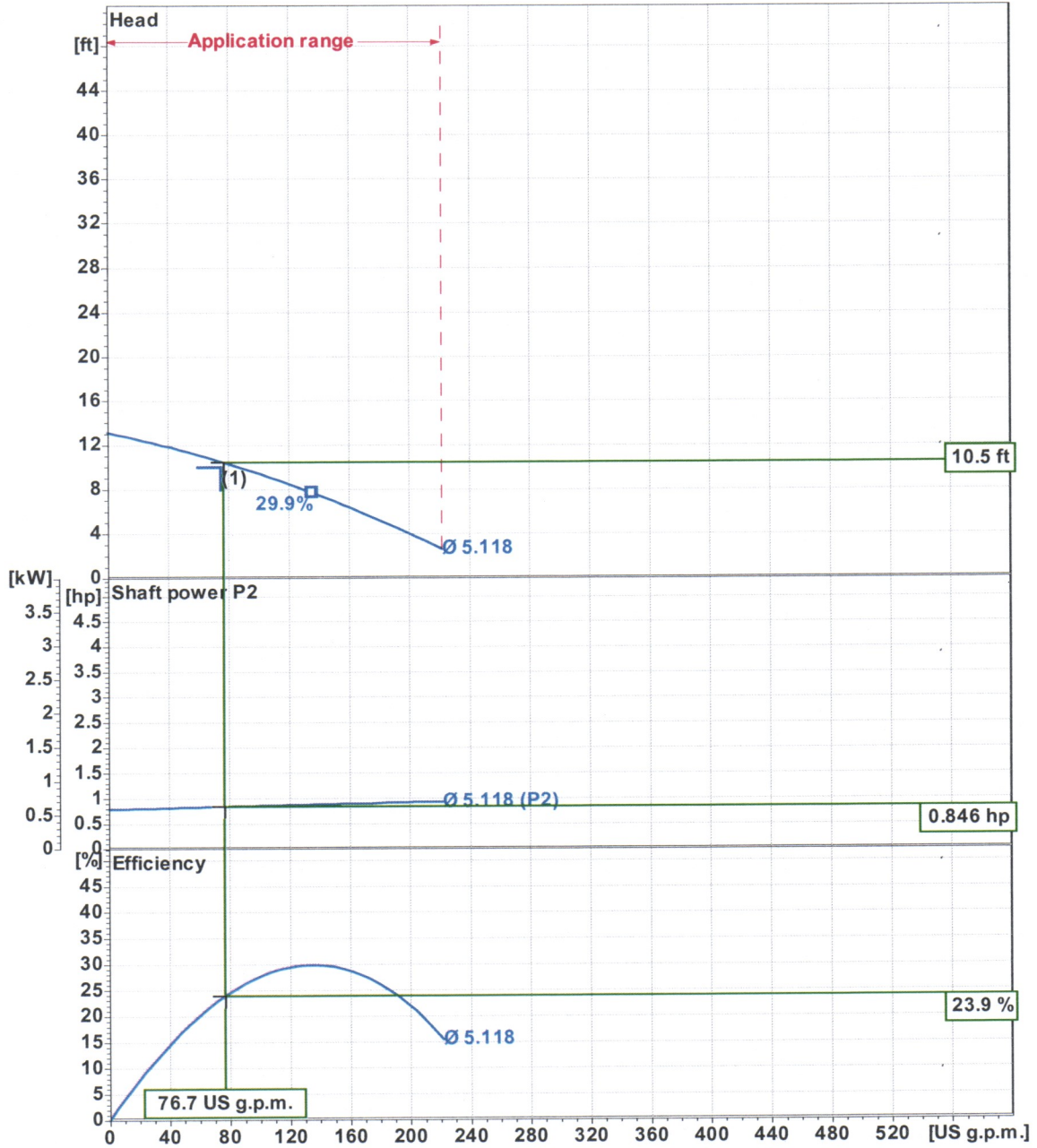
Installation

INSTALLATION

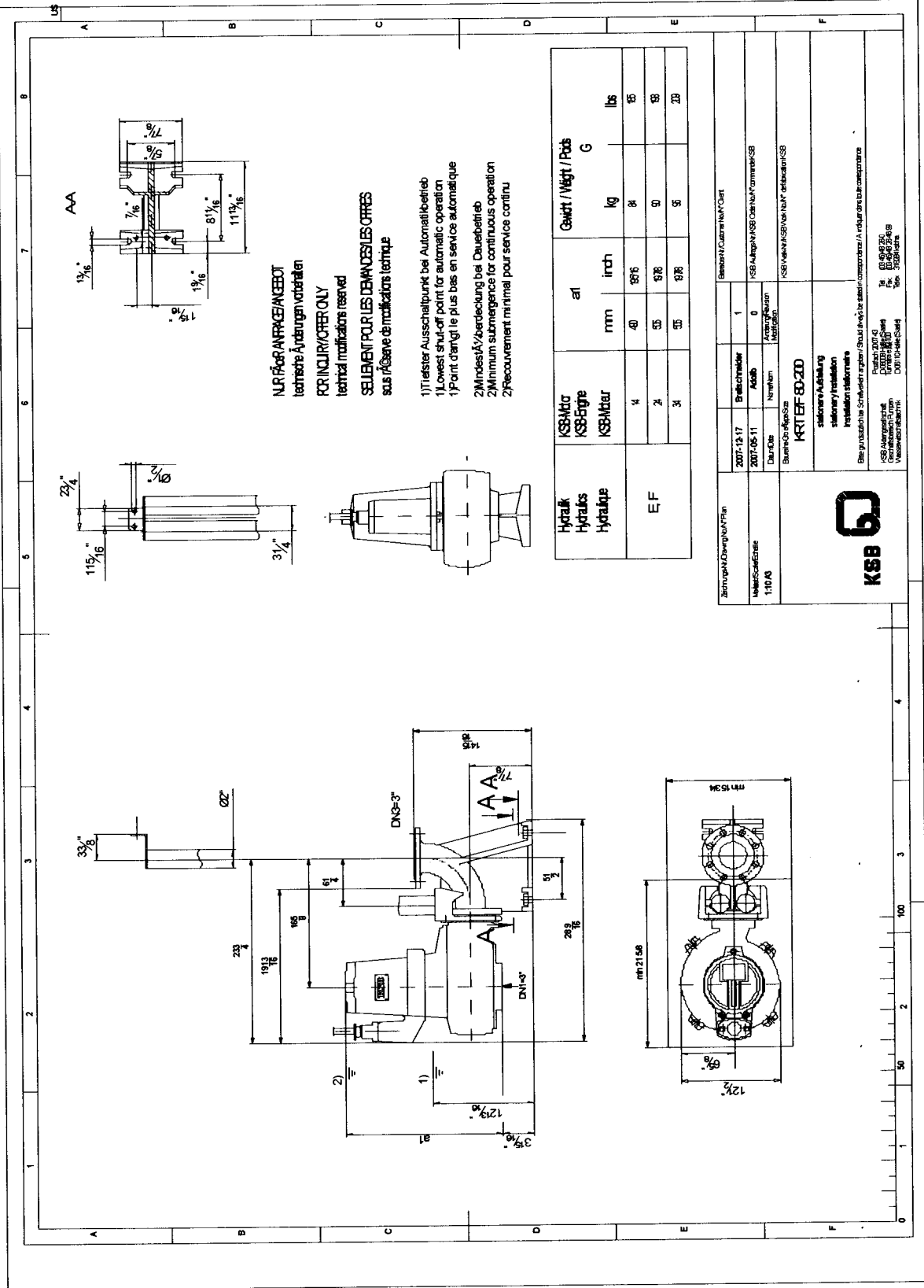
Type of installation:	Wet well installation designed for automatic connection to a permanently installed discharge elbow
Discharge elbow size (DN2/DN3):	3 inch / 3 inch
Flange dimensions to:	ASME/ANSI B16.1, CLASS 125
Claw:	Bolted to the pump
Guide system:	Double guide bars
Guide bar diameter:	2 x 2 in pipe, outside dia. 60,3 mm (2,4 in), inside dia. 50...54 mm (2,0...2,1 in)
Installation depth:	4,5 m (15 ft)
Lifting device:	
Length of lifting device:	10 m (33 ft)
Lifting loops:	Every 2,5 m (8 ft)
Installation accessories:	Discharge elbow, 3 inch / 3 inch fasteners, claw, bracket, lifting chain, but without guide bars
Materials:	
Discharge elbow:	Grey cast iron EN-JL1040 (A 48 Class 35)
Claw:	Grey cast iron EN-JL1040 (A 48 Class 35)
Bracket:	Stainless steel EN-1.4571 (A 276 Type 316 Ti)
Guide bars:	Not part of this specification
Lifting device:	

Performance curve

Pump type KRT F 80-200/14XG

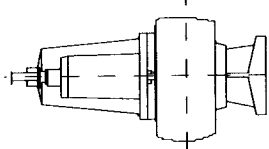


Impeller type	Vortex	, Open	Curve number	K41651	
Free passage	3 1/8"	Density	62.322 lb/ft ³	Frequency	60 Hz
Impeller size	5 1/8" (130)	Viscosity	1.082E-5 ft ² /s	Speed	1750 1/min




NUR FÜR ANFRAGEBEZUG
technische Änderungen vorbehalten
FOR INQUIRY/ORDER ONLY
technical modifications reserved
SEULEMENT POUR LES DEMANDES/LES ORDRES
sous réserve de modifications techniques

1)Tiefster Ausschaltpunkt bei Automatikbetrieb
1)Lowest shut-off point for automatic operation
1)Point d'arrêt le plus bas en service automatique
2)MindestAbzweckung bei Dauerbetrieb
2)Minimum submergence for continuous operation
2)Recouvrement minimal pour service continu



Hydralk Hydrals Hydralpe	KSB-typ KSB-type KSB-typ	at		Gewicht / Weight / Poids G	
		mm	inch	kg	lbs
E, F	4	40	1 5/8	8	18
	2	50	2	9	20
	3	55	2 1/8	9	20

Zertifizierung/Deregelung/Firmen	2007-12-17	Elektronik	1	Geben Sie Kunden-NUM-Code	
Measures/Scale/Grades	2007-05-11	AD-03	0	KSB Auftrags/KSB Order NUM/Commande/OSB	
110/43		Verfahren		KSB-Verfahren/KSB Order NUM/ méthode/OSB	
		Benennung/Reference			
		KRT EF 80-210			
		Elektronik/Automation Elektronik/Installation Installation/Installation			
Bitte prüfen Sie die Schweißnähte sorgfältig bei jeder Inspektion / In view of the high operating pressure, please check the welds carefully at every inspection.					
					
Position 2007-05 KSB-Verfahren/KSB Order NUM/ méthode/OSB Version/Version/Version Datum/Date/Date 03.05.2007 03.05.2007 03.05.2007					

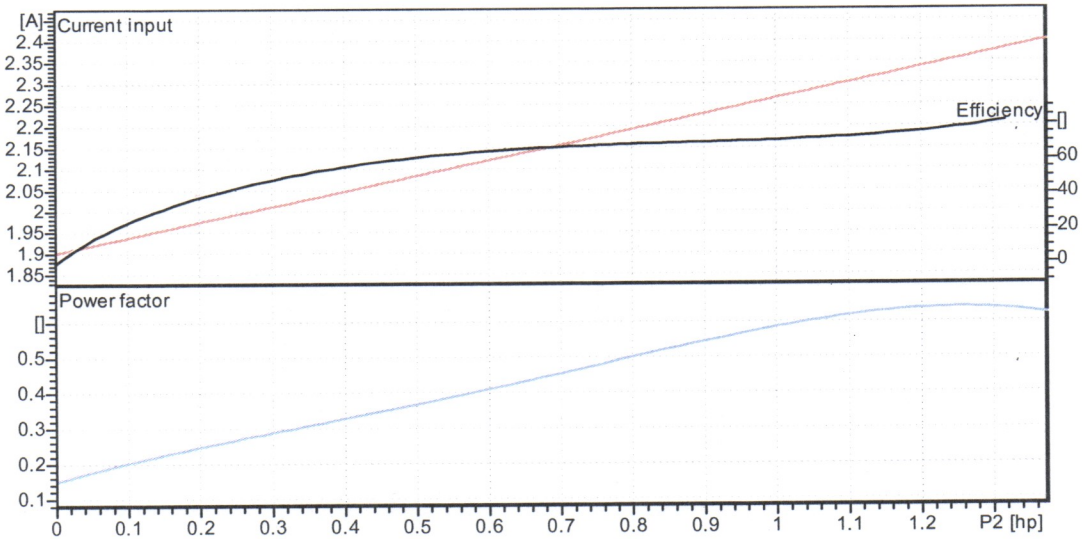
Data sheet: Motor data

Motor type 14X1 G

Motor manufacturer	KSB Aktiengesellschaft	Rated voltage	460	V
Design acc. standard	NEMA MG1 Design B	Rated frequency	60	Hz
Service factor	1.15	Rated power P2	1.1	hp
Degree of protection	IP 68	Rated current	2.3	A
Insulation class	F	Nominal speed	1750	rpm
Starting mode	Direct	NEMA code letter	K	
No. starts / h	30	Starting to rated current	5.2	
Coolant temperature	< / = 40 °C (104 °F)	Starting current	12	A
Motor casing	Grey cast iron EN-JL1040 (A 48 Class 35)			
Explosion protection	(FM, CSA) XP Class I, Div. 1, Groups C+D, T3			
Pump type	KRT F 80-200/14XG			

Load	P1 kW	P2 hp	eta %	cos phi	I A
4/4	1.13	1.1	72.5	0.62	2.3
3/4	0.89	0.8	69.4	0.51	2.2
2/4	0.66	0.6	62.6	0.39	2.1
1/4	0.44	0.3	46.6	0.28	2.0

Main cable	1 x AWG15-8	Diameter	0.65 inch
Control cable		Diameter	
Cable, outer sheath	Waterproof synthetic rubber compound		
Cable length	10 m		





QUOTE

Flowpoint Environmental Systems

191 University Blvd #467
 Denver, CO 80206
 Phone: 877-655-5585
 Fax: 888-655-5588
 sales@flowpointsystems.com

QUOTE # QO0768
 DATE: 4/28/2014
 EXPIRATION DATE 6/30/2014

TO DON PAWLUK
 GREAT WEST ENGINEERS

LAUREL MONTANA
 406-201-8590

SALESPERSON	LOCATION	SHIPPING METHOD	SHIPPING TERMS	DELIVERY DATE	PAYMENT TERMS
WARREN NEWELL		NOT INCLUDED	FOB FACTORY		

LINE ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
1	1.0000	DISPOSAL SYSTEM DISPOSAL SYSTEM		
	1.00	DISPOSAL GENERAL-4"-STD STANDARD 4" DISPOSAL GENERAL INCLUDES: STANDARD 4" VALMATIC PLUG VALVE WITH BRAY ACTUATOR, STANDARD 4" KROHNE METER, OPTIONAL WINTERIZATION PACKAGE, STANDARD ETHERNET COMMUNICATION, ONE ACCESS POINT. NOTE: BUILDING SIZE IS 45"x83"x80" TALL 1 ELECTRONIC SHOP DRAWING 1 ELECTRONIC O&M MANUAL 12 MONTHS FREE ONLINE BILLING SOFTWARE TECHNICAL SUPPORT.		
	1.00	STARTUP-REMOTE 4 HOUR REMOTE STARTUP		
			TOTAL	49,358.69

Quotation prepared by:WARREN NEWELL

This is a quotation on the goods named, and is subject to the following conditions:

Taxes are not included. All prices are in US dollars unless otherwise noted. Installation is by others. Owner is responsible for all utility service connections including water service to and from station. Owner is responsible for offloading and / or storing the station until it is installed. Payment Terms: 20% on approval of shop drawings, 80% on delivery. are completed. FOB Factory means the Owner is responsible for the station during freight (including, but not limited to any damage to unit during freight). Start Up services require: 1. Minimum 3 weeks notice to book 2. Completion of Start-up readiness checklist.

To accept this quotation, sign here and return: SIGN: _____ PRINT NAME: _____

POSITION: _____ DATE: _____

Flowpoint One Year Manufacturer's Warranty (Included):

Flowpoint Environmental Systems (Manufacturer) warranty is as follows, and extends ONLY to the original purchaser of the equipment and is limited to the purchase price of each part. Manufacturer warrant products against defects in materials or workmanship as follows:

LABOR: For a period of 1 (one) year from the date of commission (start up), if Manufacturer determines that the equipment is defective subject to the limitations of this warranty, Manufacturer will replace or repair it at no charge for labor. Manufacturer warrants any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

PARTS: For a period of 1 (one) year from the date of commission (start up), Manufacturer will supply, at no charge, new or rebuilt replacement parts in exchange for parts that the Manufacturer determines are defective subject to the limitations of this warranty. Manufacturer warrants any such replacement parts against defects in materials or workmanship for the remaining portion of the original warranty period.

This warranty "does not cover" installation of the system or damages incurred during shipping.

This warranty "does not cover" consumer instruction, physical set up or adjustment of any electronic equipment, communication / signal reception problems, loss of use of the equipment, or unused programming charges due to equipment malfunction.

This warranty "does not cover" cosmetic damage, damage due to lightning, electrical surges, fire, flood, or other acts of God, accident, misuse, abuse, vandalism, repair or alteration by other than factory service, negligence, or improper or neglected maintenance.

This warranty "does not cover" equipment sold AS IS, REFURBISHED, or WITH ALL FAULTS, auction sales, equipment removal or reinstallation, nor equipment purchased, serviced, or operated by other dealers.

OPINION OF PROBABLE COST
MAY 06, 2014
LAUREL WASTEWATER
SEPTAGE RECEIVING

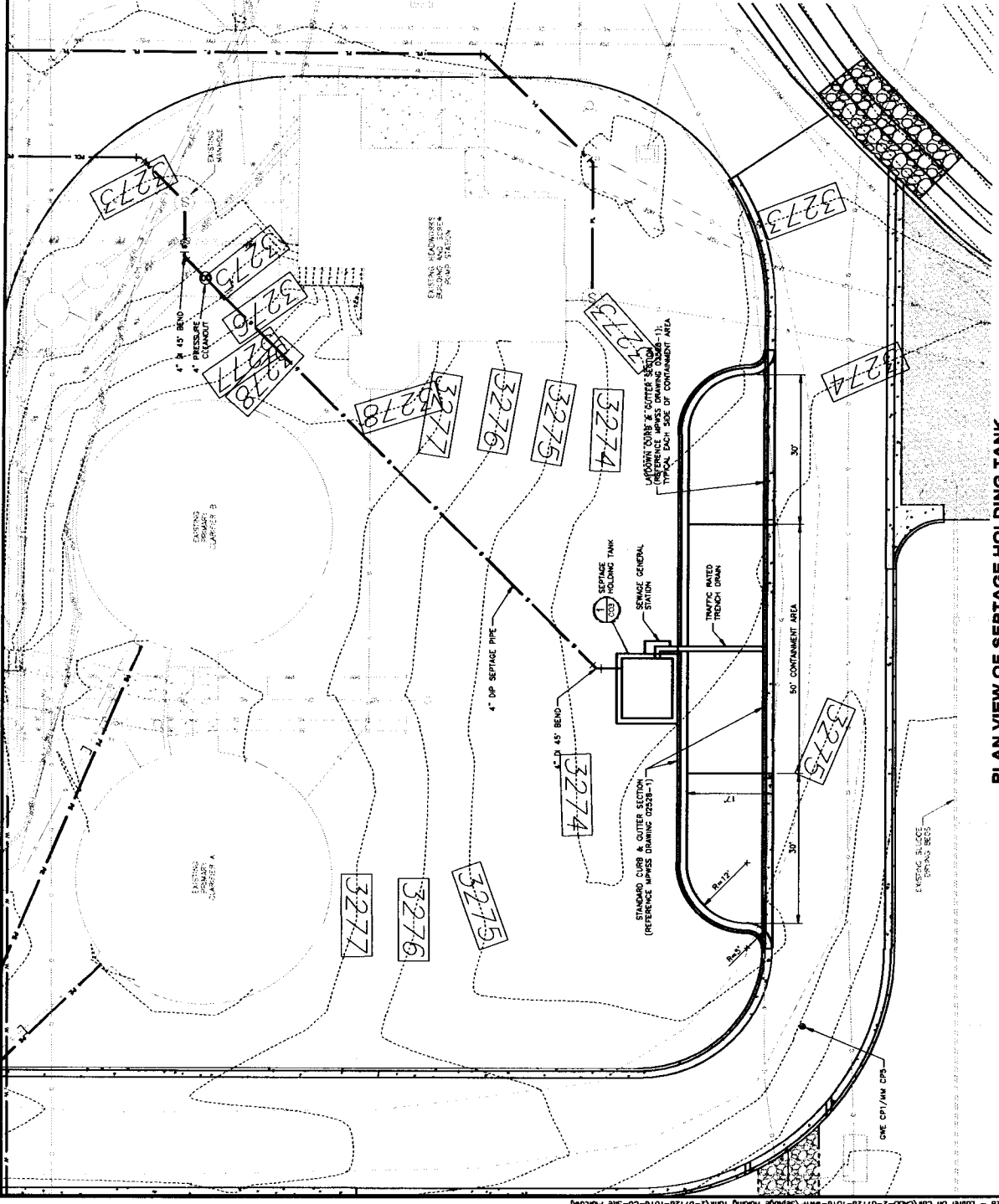
#	BID ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	4" Pipe	140	LF	\$ 40.00	\$ 5,600
2	Excavation and Backfill	120	CY	\$ 10.00	\$ 1,200
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4	5 HP Pump	1	LS	\$ 6,000.00	\$ 6,000
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6	Sewage General Station	1	LS	\$ 50,000.00	\$ 50,000
7	Electrical Installation	1	LS	\$ 15,000.00	\$ 15,000
8	I&C	1	LS	\$ 5,000.00	\$ 5,000
Direct Construction Subtotal					\$ 118,000
Engineering			20%		\$ 24,000
Contingency			7%		\$ 8,000
Construction Subtotal					\$ 150,000

Note: Assumes no mobilization as contractor is already onsite

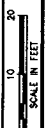
CITY OF LAUREL, MONTANA
WMTP BNR UPGRADE PROJECT
SEPTAGE HOLDING TANK PLAN VIEW



PROJECT: 201728	DESIGNED: DMP
NO.	REVISION DESCRIPTION
APPROVED: CEH	DATE: APRIL 23, 2014
CHECKED: CEH	
DRAWN: LJM	
BY DATE	



PLAN VIEW OF SEPTAGE HOLDING TANK



4.2-07128 - Lower Dn Con/COO-2-07128-1016-WMTP/Septage Holding Tank/2-07128-1016-CO-Site Plan.dwg