

# BOS AGENDA

For Website





TOWN OF HENNIKER, NEW HAMPSHIRE  
**SELECTMEN & SEWER COMMISSIONERS**

**AGENDA**

**Place:** Henniker Community Center 57 Main Street  
Henniker, NH 03242

**Tuesday October 17, 2023**

**6:15 PM**

**I. CALL TO ORDER**

**II. PLEDGE OF ALLEGIANCE**

**III. ANNOUNCEMENTS**

Congratulations Human Services Director Carol Conforti-Adams for receiving the New Futures North award for Health and Advocacy at the October 11<sup>th</sup> 26<sup>th</sup> Annual Awards Celebration

**IV. CONSENT AGENDA**

1) [Consent Agenda October 17, 2023](#)

**V. PUBLIC COMMENT #1** – (For any comment by any Henniker resident on a topic. Request time limit, up to 3 minutes)

**VI. APPOINTMENTS WITH THE BOARD**

**VII. NEW BUSINESS**

- 2) [Application for Property Tax Exemption for Commercial & Industrial Properties pursuant to RSA 72:81 – Map/Lot 9-549-FX](#)
- 3) [Transfer Station request for NHDES grant to cost of new used oil fuel furnace](#)
- 4) [Fund Balance Policy – First Reading](#)
- 5) [Proposed 2024 Meeting Schedule](#)
- 6) [Wastewater Commissioner Bid Award Dewatering Equipment](#)
- 7) [Request to close Town Office on December 13th from noon to 2 pm for the town employee holiday lunch](#)

**VIII. CONTINUED BUSINESS**

**IX. TABLED BUSINESS**

- Policies
  - III.1, III.3, III.5, III.7, IV.5
  - Personnel Policies – tabled 3/21/23 pending input from TA/Finance/HR
- Crosswalk on Main St. Pending CNHRPC study and public input.
- ARPA Fund Prioritization
- SOLAR Pilot negotiation

**X. PAST MEETING MINUTES**

6) [Acceptance of Board of Selectmen public meeting minutes October 3, 2023, 6:15 p.m.](#)

**XI. COMMUNICATIONS**

- 7) [Town Administrator Report](#)
- 8) [Department Reports](#)
- 9) [Correspondence - Letters and Notices](#)
- 10) Selectmen Reports

**XII. PUBLIC COMMENT #2** (For any comment by any Henniker resident on a topic. Request time limit, up to 3 minutes)

**XIII. NON-PUBLIC – If Necessary** Non-public Session 91-A:3 II a, b, c, d, or e

**XIV. ADJOURNMENT**

**XV. UPCOMING DATES 2023**

October 18, 2023 – CANCELLED - Zoning Board of Adjustment Meeting @ 6:00 p.m.

October 23, 2023 – Budget Advisory Committee & Selectboard Joint Meeting @ 4:30 p.m.

October 23, 2023 – SAU 24 Board Meeting @ 6:00 p.m.

October 24, 2023 – Road Management Committee Meeting @ 6:30 p.m.

November 1, 2023 – Broadband Committee Meeting @ 4:30 p.m.

November 1, 2023 – Henniker Community School Board Meeting @ 6:00 p.m.

November 1, 2023 – Conservation Commission Meeting @ 7:00 p.m.

November 7, 2023 – Board of Selectmen Meeting @ 6:15 p.m.

Please see the town website [www.henniker.org](http://www.henniker.org) and bulletin boards for meeting dates, times, locations, and agendas. ([Calendar: Public Meeting + Holiday | Henniker, NH](#))

**Visitor Orientation to the Town Selectman's  
Meeting**

Welcome to this evening's Selectmen's meeting. Please note that the purpose of the meeting is for the Selectmen to accomplish its work within a qualitative timeframe. Meetings are open to the public, but public participation is limited. If you wish to be heard by the board, please note the "Public Comment" at the beginning and end of the meeting to speak about items on a meeting agenda and/or matters pertaining to the business of the Selectmen. In addition, public hearings may be scheduled for public comment on specific matters. Speakers must be residents of the Town of Henniker, property owners in the town of Henniker, and/or designated representatives of recognized civic organizations or businesses located in the Town of Henniker. When they are at the podium, speakers first need to recite their name and address for the record. Visitors should address their comments to the board and not to any individual member. Each speaker shall be provided with a single opportunity for comment, limited to three (3) minutes. Public forum shall be limited to fifteen (15) minutes. Visitors should not expect a response to their comments or questions since the Board may not have discussed or taken a position on a matter. Public Comment is not a two-way dialogue between speaker(s), Selectmen, and/or the Town Administrator. The Chair will preserve strict order and decorum at all Board of Selectmen meetings. Outbursts from the public are not permitted.



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TOWN OF HENNIKER, NEW HAMPSHIRE  
BOARD OF SELECTMEN  
CONSENT AGENDA

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**Tuesday, October 17, 2023**

Consent Agenda

- Item 1:** Payroll Check Register – October 11, 2023
- Item 2:** Accounts Payable Manifest – October 18, 2023
- Item 3:** 2023 MS-535 for Tax Year Ending 2022 – Financial Report of the Budget
- Item 4:** Sewer Abatement Request – Tompkins
- Item 5:** Sewer Abatement Request – Way Investment

Board of Selectmen Approval:

_____	_____
_____	_____
_____	

\*Please note that the Consent Agenda is subject to change until 4:00 pm the day of a scheduled Selectmen's Meeting.

**TOWN OF HENNIKER  
PAYROLL CHECK REGISTERS  
DATE: October 11, 2023**

**WAGES: \$49,990.50  
PAYROLL DEDUCTIONS: \$10,682.48  
TOTAL: \$60,672.98**

**BOARD OF SELECTMEN APPROVAL**

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**Kris Blomback** **Date**

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**Scott Osgood** **Date**

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**Bill Marko** **Date**

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**Neal Martin** **Date**

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**Jeff Morse** **Date**

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*Diane Kardar* *10/10/23*  
**Town Administrator** **Date**

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**Treasurer** **Date**

HAYKOL DEDUCTIONS

CHECK REGISTER FOR TOWN OF HENNIKER  
CHECK DATE 10/11/2023 - 10/11/2023

Check Date	Check	Vendor Name	Description	Amount
<b>Bank GEN GENERAL FUND CHECKING</b>				
10/11/2023	146(E)	EMPOWER RETIREMENT	Remittance Check	369.44
10/11/2023	147(E)	IRS PAYMENT	Remittance Check	10,066.56
10/11/2023	101181	AFLAC	INSURANCE FOR SEPTEMBER 2023	246.48
<b>GEN TOTALS:</b>				
Total of 3 Checks:				10,682.48
Less 0 Void Checks:				0.00
Total of 3 Disbursements:				<u>10,682.48</u>

## DEPARTMENTAL HOURS AND GROSS SUMMARY REPORT FOR TOWN OF HENNIKER

For 10/11/2023 to 10/11/2023

Pay Code	Regular Hours	Suppl. Hours	Regular Gross	OT Hours	OT Gross
<b>Department: CODE CODE</b>					
<b>Department Totals For: CODE</b>					
SALARY	18.00	0.00	485.57	0.00	0.00
Totals:	18.00	0.00	485.57	0.00	0.00
<b>Department: CSWW CSWW</b>					
<b>Department Totals For: CSWW</b>					
REGULAR	22.00	0.00	1,538.46	0.00	0.00
Totals:	22.00	0.00	1,538.46	0.00	0.00
<b>Department: FIRE/RESCUE FIRE/RESCUE</b>					
<b>Department Totals For: FIRE/RESCUE</b>					
REGULAR	123.50	0.00	2,722.12	0.00	0.00
STIPEND	0.00	0.00	595.23	0.00	0.00
Totals:	123.50	0.00	3,317.35	0.00	0.00
<b>Department: HIGHWAY HIGHWAY</b>					
<b>Department Totals For: HIGHWAY</b>					
REGULAR	183.50	0.00	5,058.90	0.00	0.00
SICK	4.50	0.00	90.23	0.00	0.00
VACATION	12.00	0.00	533.28	0.00	0.00
Totals:	200.00	0.00	5,682.41	0.00	0.00
<b>Department: LIBRARY LIBRARY</b>					
<b>Department Totals For: LIBRARY</b>					
REGULAR	88.00	0.00	1,884.03	0.00	0.00
SALARY	40.00	0.00	1,608.40	0.00	0.00
Totals:	128.00	0.00	3,492.43	0.00	0.00
<b>Department: POLICE POLICE</b>					
<b>Department Totals For: POLICE</b>					
EVENING	105.00	0.00	78.75	0.00	0.00
FTO	80.00	0.00	80.00	0.00	0.00
MIDNIGHT	109.00	0.00	109.00	0.00	0.00
OUTSIDE DETAIL	13.00	0.00	586.69	0.00	0.00
OVERTIME	0.00	0.00	0.00	12.00	637.02
REGULAR	403.00	0.00	11,415.32	0.00	0.00
VACATION	29.00	0.00	1,082.51	0.00	0.00
Totals:	739.00	0.00	13,352.27	12.00	637.02
<b>Department: RESCUE RESCUE</b>					
<b>Department Totals For: RESCUE</b>					
REGULAR	227.25	0.00	5,794.28	0.00	0.00
SICK	24.00	0.00	654.00	0.00	0.00
Totals:	251.25	0.00	6,448.28	0.00	0.00
<b>Department: SELECTMAN SELECTMAN</b>					
<b>Department Totals For: SELECTMAN</b>					
REGULAR	96.75	0.00	2,226.56	0.00	0.00
SALARY	78.75	0.00	3,603.53	0.00	0.00
SICK	2.00	0.00	40.10	0.00	0.00
USECOMP	3.25	0.00	65.16	0.00	0.00
VACATION	7.25	0.00	169.30	0.00	0.00
Totals:	188.00	0.00	6,104.65	0.00	0.00

DEPARTMENTAL HOURS AND GROSS SUMMARY REPORT FOR TOWN OF HENNIKER

For 10/11/2023 to 10/11/2023

Pay Code	Regular Hours	Suppl. Hours	Regular Gross	OT Hours	OT Gross
<b>Department: TC/TX TOWN CLERK / TAX COLLECTOR</b>					
<b>Department Totals For: TC/TX</b>					
REGULAR	40.00	0.00	798.40	0.00	0.00
SALARY	43.75	0.00	1,292.92	0.00	0.00
Totals:	83.75	0.00	2,091.32	0.00	0.00
<b>Department: TRANSFER TRANSFER</b>					
<b>Department Totals For: TRANSFER</b>					
REGULAR	130.00	0.00	3,087.50	0.00	0.00
Totals:	130.00	0.00	3,087.50	0.00	0.00
<b>Department: WELFARE WELFARE</b>					
<b>Department Totals For: WELFARE</b>					
REGULAR	9.00	0.00	191.16	0.00	0.00
VACATION	3.00	0.00	63.72	0.00	0.00
Totals:	12.00	0.00	254.88	0.00	0.00
<b>Department: WWTP WASTE WATER TREATMENT PLANT</b>					
<b>Department Totals For: WWTP</b>					
REGULAR	97.00	0.00	2,650.98	0.00	0.00
SICK	5.00	0.00	157.84	0.00	0.00
VACATION	20.00	0.00	689.54	0.00	0.00
Totals:	122.00	0.00	3,498.36	0.00	0.00
<b>Grand Totals:</b>					
EVENING	105.00	0.00	78.75	0.00	0.00
FTO	80.00	0.00	80.00	0.00	0.00
MIDNIGHT	109.00	0.00	109.00	0.00	0.00
OUTSIDE DETAIL	13.00	0.00	586.69	0.00	0.00
OVERTIME	0.00	0.00	0.00	12.00	637.02
REGULAR	1,420.00	0.00	37,367.71	0.00	0.00
SALARY	180.50	0.00	6,990.42	0.00	0.00
SICK	35.50	0.00	942.17	0.00	0.00
STIPEND	0.00	0.00	595.23	0.00	0.00
USECOMP	3.25	0.00	65.16	0.00	0.00
VACATION	71.25	0.00	2,538.35	0.00	0.00
Totals:	2,017.50	0.00	49,353.48	12.00	637.02

\$ 49,990.50



10/10/2023  
11:28 AM

Remittance Invoice Report

DEDUCTIONS  
Page: 1/1

Vendor	Item Code	GL Number	Amount
IRS - IRS PAYMENT			
	FITW	01-0000-2025-001	4,346.18
	SOCSEC_EE	01-0000-2025-001	2,153.56
	SOCSEC_ER	01-0000-2025-001	2,153.56
	MEDICARE_EE	01-0000-2025-001	706.63
	MEDICARE_ER	01-0000-2025-001	706.63

Invoice Total: 10,066.56

Sub Totals:

FITW	4,346.18
MEDICARE	1,413.26
SOCSEC	4,307.12

EMPOWER - EMPOWER RETIREMENT

EMPOWER	01-0000-2025-020	107.50
EMPOWER-ROTH	01-0000-2025-020	261.94

Invoice Total: 369.44

Sub Totals:

EMPOWER	107.50
EMPOWER-ROTH	261.94

Grand Totals:

Invoice Count: 2 10,436.00

Sub Totals:

EMPOWER	107.50
EMPOWER-ROTH	261.94
FITW	4,346.18
MEDICARE	1,413.26
SOCSEC	4,307.12

**TOWN OF HENNIKER  
ACCOUNTS PAYABLE MANIFEST  
DATE: OCTOBER 18, 2023**

**TOTAL: \$1,218,110.86**

**BOARD OF SELECTMEN APPROVAL**

<b>Kris Blomback</b>	<b>Date</b>
<b>Scott Osgood</b>	<b>Date</b>
<b>Bill Marko</b>	<b>Date</b>
<b>Neal Martin</b>	<b>Date</b>
<b>Jeff Morse</b>	<b>Date</b>
<b>Town Administrator</b>	<b>Date</b>
<b>Treasurer</b>	<b>Date</b>

7 [Redacted Signature] 10/12/23



Financial Report of the Budget

Henniker

For the period ending December 31, 2022

PREPARER'S EFILE CERTIFICATION

Under penalties of perjury, I declare that I have examined the information contained in this form and to the best of my belief it is true, correct and complete.

Sherry Bradstreet

GOVERNING BODY CERTIFICATION

Under penalties of perjury, I declare that I have examined the information contained in this form and to the best of my belief it is true, correct and complete.

Name	Position	Signature
Kris Blomback	Chairman	
William Marko	Vice-Chairman	
D. Scott Osgood	Selectman	
Jeff Morse	Selectman	
Neal B. Martin	Selectman	

This form must be signed, scanned, and uploaded to the Municipal Tax Rate Setting Portal:  
<https://www.proptax.org/>

For assistance please contact:  
NH DRA Municipal and Property Division  
(603) 230-5090  
<http://www.revenue.nh.gov/mun-prop/>



Expenditures

Account	Purpose	Voted Appropriations	Actual Expenditures
<b>General Government</b>			
4130-4139	Executive	\$31,663	\$23,034
4140-4149	Election, Registration, and Vital Statistics	\$96,343	\$91,922
4150-4151	Financial Administration	\$810,951	\$731,723
<i>Explanation: Savings related to wages and computer licenses</i>			
4152	Revaluation of Property	\$62,400	\$4,625
4153	Legal Expense	\$20,000	\$23,324
4155-4159	Personnel Administration	\$0	\$0
4191-4193	Planning and Zoning	\$36,200	\$25,279
4194	General Government Buildings	\$0	\$0
4195	Cemeteries	\$16,280	\$16,380
4196	Insurance	\$152,350	\$143,817
4197	Advertising and Regional Association	\$4,157	\$4,108
4199	Other General Government	\$0	\$0
<b>General Government Subtotal</b>		<b>\$1,230,344</b>	<b>\$1,064,212</b>
<b>Public Safety</b>			
4210-4214	Police	\$1,454,759	\$1,244,635
<i>Explanation: Savings due to staffing.</i>			
4215-4219	Ambulance	\$0	\$0
4220-4229	Fire	\$878,294	\$828,954
4240-4249	Building Inspection	\$27,853	\$29,054
4290-4298	Emergency Management	\$1,292	\$1,292
4299	Other (Including Communications)	\$0	\$0
<b>Public Safety Subtotal</b>		<b>\$2,362,198</b>	<b>\$2,103,935</b>
<b>Airport/Aviation Center</b>			
4301-4309	Airport Operations	\$0	\$0
<b>Airport/Aviation Center Subtotal</b>		<b>\$0</b>	<b>\$0</b>
<b>Highways and Streets</b>			
4311	Administration	\$826,294	\$744,937
<i>Explanation: Savings due to staffing</i>			
4312	Highways and Streets	\$731,500	\$637,747
<i>Explanation: Not as much road work performed</i>			
4313	Bridges	\$0	\$0
4316	Street Lighting	\$0	\$10,414
<i>Explanation: Was budgeted under 4312</i>			
4319	Other	\$0	\$0
<b>Highways and Streets Subtotal</b>		<b>\$1,557,794</b>	<b>\$1,393,098</b>



Expenditures

Account	Purpose	Voted Appropriations	Actual Expenditures
<b>Sanitation</b>			
4321	Administration	\$534,985	\$513,573
4323	Solid Waste Collection	\$0	\$0
4324	Solid Waste Disposal	\$0	\$0
4325	Solid Waste Cleanup	\$0	\$0
4326-4328	Sewage Collection and Disposal	\$0	\$0
4329	Other Sanitation	\$0	\$0
<b>Sanitation Subtotal</b>		<b>\$534,985</b>	<b>\$513,573</b>
<b>Water Distribution and Treatment</b>			
4331	Administration	\$0	\$0
4332	Water Services	\$0	\$0
4335	Water Treatment	\$0	\$0
4338-4339	Water Conservation and Other	\$0	\$0
<b>Water Distribution and Treatment Subtotal</b>		<b>\$0</b>	<b>\$0</b>
<b>Electric</b>			
4351-4352	Administration and Generation	\$0	\$0
4353	Purchase Costs	\$0	\$0
4354	Electric Equipment Maintenance	\$0	\$0
4359	Other Electric Costs	\$0	\$0
<b>Electric Subtotal</b>		<b>\$0</b>	<b>\$0</b>
<b>Health</b>			
4411	Administration	\$0	\$0
4414	Pest Control	\$9,408	\$2,707
4415-4419	Health Agencies, Hospitals, and Other	\$79,000	\$79,000
<b>Health Subtotal</b>		<b>\$88,408</b>	<b>\$81,707</b>
<b>Welfare</b>			
4441-4442	Administration and Direct Assistance	\$80,000	\$47,484
<i>Explanation: Not as much assistance needed as anticipated</i>			
4444	Intergovernmental Welfare Payments	\$0	\$0
4445-4449	Vendor Payments and Other	\$0	\$0
<b>Welfare Subtotal</b>		<b>\$80,000</b>	<b>\$47,484</b>
<b>Culture and Recreation</b>			
4520-4529	Parks and Recreation	\$47,340	\$37,488
4550-4559	Library	\$236,621	\$236,621
4583	Patriotic Purposes	\$2,600	\$2,559
4589	Other Culture and Recreation	\$9,990	\$7,195
<b>Culture and Recreation Subtotal</b>		<b>\$296,551</b>	<b>\$283,863</b>



Expenditures

Account	Purpose	Voted Appropriations	Actual Expenditures
<b>Conservation and Development</b>			
4611-4612	Administration and Purchasing of Natural Resources	\$2,515	\$3,153
4619	Other Conservation	\$0	\$0
4631-4632	Redevelopment and Housing	\$0	\$0
4651-4659	Economic Development	\$0	\$0
<b>Conservation and Development Subtotal</b>		<b>\$2,515</b>	<b>\$3,153</b>
<b>Debt Service</b>			
4711	Long Term Bonds and Notes - Principal	\$187,720	\$189,453
<i>Explanation: Includes lease payment, does not include debt principal paid through water and sewer funds.</i>			
4721	Long Term Bonds and Notes - Interest	\$23,536	\$21,432
4723	Tax Anticipation Notes - Interest	\$13,500	\$12,591
4790-4799	Other Debt Service	\$0	\$0
<b>Debt Service Subtotal</b>		<b>\$224,756</b>	<b>\$223,476</b>
<b>Capital Outlay</b>			
4901	Land	\$0	\$0
4902	Machinery, Vehicles, and Equipment	\$296,617	\$679,030
<i>Explanation: Funds requested from Trust Funds &amp; ARPA Funds spent</i>			
4903	Buildings	\$3,200,000	\$4,783
<i>Explanation: \$3.2M appropriation is accounted for in a Capital Project fund.</i>			
4909	Improvements Other than Buildings	\$185,000	\$924,608
<i>Explanation: Funds requested from Trust Funds</i>			
<b>Capital Outlay Subtotal</b>		<b>\$3,681,617</b>	<b>\$1,608,421</b>
<b>Operating Transfers Out</b>			
4912	To Special Revenue Fund	\$0	\$0
4913	To Capital Projects Fund	\$0	\$96,172
<i>Explanation: General fund amounts committed for WWTP capital project.</i>			
4914A	To Proprietary Fund - Airport	\$0	\$0
4914E	To Proprietary Fund - Electric	\$0	\$0
4914O	To Proprietary Fund - Other	\$0	\$0
4914S	To Proprietary Fund - Sewer	\$644,838	\$0
<i>Explanation: Accounted for in Sewer Special Revenue Fund</i>			
4914W	To Proprietary Fund - Water	\$528,205	\$0
<i>Explanation: Accounted for in Water Special Revenue Fund</i>			
4915	To Capital Reserve Fund	\$422,000	\$422,000
4916	To Expendable Trusts/Fiduciary Funds	\$905,211	\$905,211
4917	To Health Maintenance Trust Funds	\$0	\$0
4918	To Non-Expendable Trust Funds	\$0	\$0
4919	To Fiduciary Funds	\$0	\$0
<b>Operating Transfers Out Subtotal</b>		<b>\$2,500,254</b>	<b>\$1,423,383</b>



Expenditures

Account	Purpose	Voted Appropriations	Actual Expenditures
<b>Payments to Other Governments</b>			
4931	Taxes Assessed for County	\$0	\$1,291,520
4932	Taxes Assessed for Village District	\$0	\$0
4933	Taxes Assessed for Local Education	\$0	\$8,565,132
4934	Taxes Assessed for State Education	\$0	\$627,982
4939	Payments to Other Governments	\$0	\$0
<b>Payments to Other Governments Subtotal</b>			<b>\$10,484,634</b>
<b>Total Before Payments to Other Governments</b>		<b>\$12,559,422</b>	<b>\$8,746,305</b>
<b>Plus Payments to Other Governments</b>			<b>\$10,484,634</b>
<b>Plus Commitments to Other Governments from Tax Rate</b>		<b>\$10,484,634</b>	
<b>Less Proprietary/Special Funds</b>		<b>\$0</b>	<b>\$0</b>
<b>Total General Fund Expenditures</b>		<b>\$23,044,056</b>	<b>\$19,230,939</b>



Revenues

Account	Source of Revenues	Estimated Revenues	Actual Revenues
<b>Taxes</b>			
3110	Property Taxes	\$0	\$15,416,550
	<i>Explanation: Includes abatements</i>		
3120	Land Use Change Tax - General Fund	\$28,370	\$34,000
3121	Land Use Change Taxes (Conservation)	\$0	\$0
3180	Resident Tax	\$0	\$0
3185	Yield Tax	\$11,293	\$11,293
3186	Payment in Lieu of Taxes	\$354	\$511
3187	Excavation Tax	\$5,100	\$5,053
3189	Other Taxes	\$0	\$0
3190	Interest and Penalties on Delinquent Taxes	\$74,900	\$92,485
9991	Inventory Penalties	\$0	\$0
	<b>Taxes Subtotal</b>	<b>\$120,017</b>	<b>\$15,559,892</b>
<b>Licenses, Permits, and Fees</b>			
3210	Business Licenses and Permits	\$1,000	\$1,890
3220	Motor Vehicle Permit Fees	\$945,500	\$1,006,930
3230	Building Permits	\$45,000	\$51,462
3290	Other Licenses, Permits, and Fees	\$3,500	\$11,019
3311-3319	From Federal Government	\$0	\$185,843
	<i>Explanation: ARPA funds recognized and federal forest funds</i>		
	<b>Licenses, Permits, and Fees Subtotal</b>	<b>\$995,000</b>	<b>\$1,257,144</b>
<b>State Sources</b>			
3351	Municipal Aid/Shared Revenues	\$0	\$0
3352	Meals and Rooms Tax Distribution	\$395,228	\$395,228
3353	Highway Block Grant	\$171,563	\$316,935
	<i>Explanation: Includes additional highway aid distribution</i>		
3354	Water Pollution Grant	\$6,783	\$0
	<i>Explanation: Accounted for in Sewer Special Revenue Fund</i>		
3355	Housing and Community Development	\$0	\$0
3356	State and Federal Forest Land Reimbursement	\$114	\$114
3357	Flood Control Reimbursement	\$95,153	\$90,116
3359	Other (Including Railroad Tax)	\$9,990	\$282,488
	<i>Explanation: Includes additional bridge aid per SB 401</i>		
3379	From Other Governments	\$94,000	\$105,719
	<b>State Sources Subtotal</b>	<b>\$772,831</b>	<b>\$1,190,600</b>
<b>Charges for Services</b>			
3401-3406	Income from Departments	\$417,496	\$560,744
3409	Other Charges	\$0	\$96
	<b>Charges for Services Subtotal</b>	<b>\$417,496</b>	<b>\$560,840</b>





Revenues

Account	Source of Revenues	Estimated Revenues	Actual Revenues
<b>Miscellaneous Revenues</b>			
3501	Sale of Municipal Property	\$0	\$16,515
3502	Interest on Investments	\$0	\$8,301
3503-3509	Other	\$7,000	\$21,399
<b>Miscellaneous Revenues Subtotal</b>		<b>\$7,000</b>	<b>\$46,215</b>
<b>Interfund Operating Transfers In</b>			
3912	From Special Revenue Funds	\$0	\$0
3913	From Capital Projects Funds	\$0	\$0
3914A	From Enterprise Funds: Airport (Offset)	\$0	\$0
3914E	From Enterprise Funds: Electric (Offset)	\$0	\$0
3914O	From Enterprise Funds: Other (Offset)	\$0	\$0
3914S	From Enterprise Funds: Sewer (Offset)	\$638,055	\$0
<i>Explanation: Accounted for in Sewer Special Revenue Fund</i>			
3914W	From Enterprise Funds: Water (Offset)	\$528,205	\$0
<i>Explanation: Accounted for in Water Special Revenue Fund</i>			
3915	From Capital Reserve Funds	\$385,347	\$987,391
<i>Explanation: Additional amount received via selectmen agents to expend.</i>			
3916	From Trust and Fiduciary Funds	\$14,100	\$35,573
3917	From Conservation Funds	\$0	\$0
<b>Interfund Operating Transfers In Subtotal</b>		<b>\$1,565,707</b>	<b>\$1,022,964</b>
<b>Other Financing Sources</b>			
3934	Proceeds from Long Term Bonds and Notes	\$3,200,000	\$0
<i>Explanation: Grant funds are being requested first.</i>			
<b>Other Financing Sources Subtotal</b>		<b>\$3,200,000</b>	<b>\$0</b>
<b>Less Proprietary/Special Funds</b>		<b>\$0</b>	<b>\$0</b>
<b>Plus Property Tax Commitment from Tax Rate</b>		<b>\$15,497,267</b>	
<b>Total General Fund Revenues</b>		<b>\$22,575,318</b>	<b>\$19,637,655</b>



**Balance Sheet**

Account	Description	Starting Balance	Ending Balance
<b>Current Assets</b>			
1010	Cash and Equivalents	\$5,343,904	\$5,828,039
1030	Investments	\$0	\$0
1080	Tax Receivable	\$1,005,794	\$641,945
1110	Tax Liens Receivable	\$247,189	\$169,192
	<i>Explanation: Prior period adjustment made to BOY to record allowance.</i>		
1150	Accounts Receivable	\$697,446	\$808,368
	<i>Explanation: Prior period adjustment made to BOY to record allowance for uncollectibles.</i>		
1260	Due from Other Governments	\$3,354	\$0
1310	Due from Other Funds	\$443,015	\$79,162
1400	Other Current Assets	\$30,850	\$22,500
1670	Tax Deeded Property (Subject to Resale)	\$71,156	\$71,156
	<i>Explanation: Prior period adjustment made to BOY to correct deeded properties.</i>		
	<b>Current Assets Subtotal</b>	<b>\$7,842,708</b>	<b>\$7,620,362</b>
<b>Current Liabilities</b>			
2020	Warrants and Accounts Payable	\$320,174	\$268,237
2030	Compensated Absences Payable	\$0	\$0
2050	Contracts Payable	\$0	\$0
2070	Due to Other Governments	\$0	\$0
2075	Due to School Districts	\$5,228,805	\$4,518,114
2080	Due to Other Funds	\$0	\$45,982
2220	Deferred Revenue	\$0	\$346,507
	<i>Explanation: Includes ARPA funds not spent</i>		
2230	Notes Payable - Current	\$0	\$0
2270	Other Payable	\$322,977	\$64,054
	<b>Current Liabilities Subtotal</b>	<b>\$5,871,956</b>	<b>\$5,242,894</b>
<b>Fund Equity</b>			
2440	Non-spendable Fund Balance	\$30,850	\$22,500
2450	Restricted Fund Balance	\$0	\$0
2460	Committed Fund Balance	\$0	\$53,000
	<i>Explanation: Committed at 2023 Town Meeting</i>		
2490	Assigned Fund Balance	\$41,687	\$175,595
2530	Unassigned Fund Balance	\$1,898,215	\$2,126,373
	<i>Explanation: Prior Period adjustment was made to BOY fund balance to record allowance for uncollectible receivab</i>		
	<b>Fund Equity Subtotal</b>	<b>\$1,970,752</b>	<b>\$2,377,468</b>



**2023**  
**MS-535**

**Tax Commitment**

Source	County	Village	Local Education	State Education	Other	Property Tax
MS-535	\$1,291,520	\$0	\$8,565,132	\$627,982	\$0	\$15,416,550
Commitment	\$1,291,520	\$0	\$8,565,132	\$627,982		\$15,497,267
Difference	\$0	\$0	\$0	\$0		(\$80,717)

**General Fund Balance Sheet Reconciliation**

Total Revenues	\$19,637,655
Total Expenditures	\$19,230,939
Change	<b>\$406,716</b>
Ending Fund Equity	\$2,377,468
Beginning Fund Equity	\$1,970,752
Change	<b>\$406,716</b>



**Long Term Debt**

Description (Purpose)	Original Obligation	Annual Installment	Rate	Final Payment	Start of Year	Issued	Retired	End of Year
Sewer Project (wwtplant upgrade)	\$611,580	\$30,000	VAR	2024	\$90,000	\$0	\$30,000	\$60,000
Sewer UV System (upgrade uv system at wwtp)	\$223,000	\$14,867	3.625	2029	\$118,641	\$0	\$14,867	\$103,774
Water Meters (Install Water Meter billing system)	\$400,000	\$26,667	3.625	2029	\$212,815	\$0	\$26,667	\$186,148
Water Storage Tank (Restoration of Depot Hill Water Tank)	\$350,000	\$23,333	2.44	2027	\$140,002	\$0	\$23,333	\$116,669
Water System Improvements (Water System Improvements)	\$550,000	\$34,493	2.35	2040	\$521,090	\$0	\$22,320	\$498,770
Western Ave Bridge Replacement (town share of double span bridge)	\$1,208,940	\$80,596	2.79	2030	\$727,446	\$0	\$80,596	\$646,850
	<b>\$3,343,520</b>				<b>\$1,809,994</b>	<b>\$0</b>	<b>\$197,783</b>	<b>\$1,612,211</b>



**Sewer Abatement**

To the Collector of Taxes.

By vote of the Henniker Sewer Commissioners upon the application of:

Lindsey & Gregory Tompkins

Lot Number/Location: 5D-194-A / 134 Maple Street / Acct. # 02-1046S

We have abated the amount of: **\$57.27**

Pool water fill. Beginning read: 370,309.08 gal. Ending read: 373,172.41 gal.

Total gallons: 2,863.33 @ \$0.02 = \$57.27

**Approval by Henniker Sewer Commissioners**

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## Helga Winn

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**From:** Lindsey Tompkins [REDACTED]  
**Sent:** Monday, October 9, 2023 2:34 PM  
**To:** Helga Winn  
**Subject:** Pool Water Sewer Abatement - 134 Maple Street

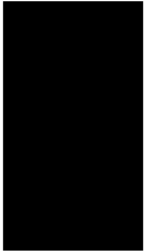
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Helga,

Per your request, I am re-submitting this abatement information below:

ACCT # 02-1046S<sup>SEP</sup>  
134 Maple Street<sup>SEP</sup>  
Henniker, NH 03242  
[REDACTED]

Below are the photos I took before we started the hose and then after it was filled. This took place on 5/17/23. The starting gallons were 370,309.08 and the ending was 373172.41 thus the sewer abatement is needed for 2863.33 gallons. I found it kind of interesting how much less water we used this year due to the rain normally it is in the 5,000-gallon range. So I think the abatement I am asking for is 2,863.33 gallons @ \$0.0200 = \$57.27. Let me know if I should short pay my current sewer bill which is \$611.16 and pay \$553.89.



----- Forwarded Message -----

**From:** Helga Winn [REDACTED]  
**To:** [REDACTED]  
**Cc:** Russ Roy [REDACTED]  
**Sent:** Monday, May 22, 2023 at 08:28:10 AM EDT  
**Subject:** RE: [Henniker, NH] Pool Water Sewer Abatement (Sent by Lindsey Tompkins [REDACTED])

Good morning, Lindsey,

Thank you for taking the pictures of the meter. That will help in your abatement request. However, we cannot hold on to the information for the next five months. Please resubmit this information once the sewer has been billed in October. Once it has been billed, you can then ask for the abatement.

Thank you and have a great day!

Helga Winn  
Executive Assistant  
Assessing & Land Use Coordinator

Town of Henniker  
18 Depot Hill Rd.  
Henniker, NH 03242

[www.henniker.org](http://www.henniker.org)

-----Original Message-----

**From:** [cmsmailer@civicplus.com](mailto:cmsmailer@civicplus.com) [REDACTED]  
**Sent:** Thursday, May 18, 2023 3:41 PM  
**To:** Helga Winn [REDACTED]  
**Subject:** [Henniker, NH] Pool Water Sewer Abatement (Sent by Lindsey Tompkins [REDACTED])

Hello hwinn,

Lindsey Tompkins [REDACTED] has sent you a message via your contact form  
([https://www.henniker.org/\[REDACTED\]](https://www.henniker.org/[REDACTED])) at Henniker, NH.

If you don't want to receive such e-mails, you can change your settings at [REDACTED]

Message:

ACCT # 02-1046S [REDACTED]  
134 Maple Street [REDACTED]  
Henniker, NH 03242  
[REDACTED]

Hi Helga,

I am not sure if you are the right person to contact as I think Russ Roy may have retired and I normally just email him. I did send this email to him too just in case I have the wrong information.

Every year we email Russ in regard to a sewer abatement for our pool water. When we first started doing this Russ told me to take photos of our water meter and email so that is the process I am taking this year again. If I need to do something different for you just let me know.

Attached are the photos I took before we started the hose and then after it was filled. This took place on 5/17/23. The starting gallons were 370,309.08 and the ending was 373172.41 thus the sewer abatement is needed for 2863.33 gallons. I found it kind of interesting how much less water we used this year due to the rain normally it is in the 5,000 gallon range.

Anyways can we have this deducted from our upcoming sewer bill? I know the sewer bill is a while away so I can send a reminder when the invoice comes in. I just wanted to send you the details and request now to make sure this will be ok again.

Attached are the photos of the meter for your records. Please let me know if you received the email ok as the PDF is a larger size.

Thanks so much!  
Lindsey and Greg Tompkins



Tompkins

Beginning Read

47000146

11114 N



47000146

**E-SERIES™**  
25



Badger Meter, Inc.

3/4"



High	Int	Low
99.89%	99.49%	99.10%



U200FE90

Tompkins  
Ending Read

47000140



0373 1124 1 GAL

**E-SERIES™**  
25



Badger Meter, Inc.

5 1/2" x 3/4"





# TOWN OF HENNIKER, NEW HAMPSHIRE

October 17, 2023

## Sewer Abatement

**Selectmen's Office**  
*Administration, Finance,  
Assessing, Planning,  
Zoning & Building Permits*  
18 Depot Hill Rd.  
Henniker NH 03242  
Ph (603) 428-3221  
Fx (603) 428-4366

**Town Clerk / Tax Collector**  
18 Depot Hill Rd.  
Henniker NH 03242  
Ph (603) 428-3240  
Fx (603) 428-4366

**Transfer / Recycling Center  
Parks and Properties**  
18 Depot Hill Rd.  
Henniker NH 03242  
**Physical:** 1393 Weare Rd.  
Ph (603) 428-7604

**Cogswell Spring Water Works**  
146 Davison Rd.  
Henniker NH 03242  
Ph (603) 428-3237  
Fx (603) 428-3362

**Wastewater Treatment Plant**  
18 Depot Hill Rd.  
Henniker NH 03242  
Ph (603) 428-7215  
Fx (603) 428-8312  
**Physical:** 199 Ramsdell Rd.

**Highway**  
18 Depot Hill Rd.  
Henniker NH 03242  
**Physical:** 209 Ramsdell Rd.  
Ph (603) 428-7200  
Fx (603) 428-7200

**Police**  
340 Western Ave.  
Henniker NH 03242  
Ph (603) 428-3213  
(Dial 911 for an Emergency)  
Fx (603) 428-7509

**Fire & Rescue**  
216 Maple St.  
Henniker NH 03242  
Ph (603) 428-7552  
(Dial 911 for an Emergency)  
Fx (603) 428-7628

To the Collector of Taxes.

By vote of the Sewer Commissioners upon application of:

Way Investments, LLC

Acct. Number/Location: 1902S / 566 Western Avenue (8 trailer mobile home park)

We have abated the amount of: **\$4,663.94**

**Leak at mobile home park.** Supporting documentation attached.

**Per Order:**

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**Henniker Waste Water Commissioners**

Received by  
TOWN OF HENNIKER

OCT 13 2023

SELECTMEN'S OFFICE

Way Investments, LLC  
844 Massachusetts Ave  
Lexington, MA 02420  
Tel: (617) 594 9512; Fax: (781) 860 0198; Email: [frankchen136@gmail.com](mailto:frankchen136@gmail.com)

October 7, 2023

Sewer Commissioner  
Town of Henniker  
18 Depot Hill Road  
Henniker, NH 03242

Dear Henniker Sewer Commissioner,

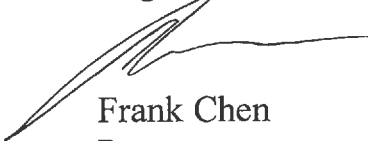
Per our conversation about the last sewer invoice adjustment, the final adjustment won't happen until the actual sewer bill is issued.

Attached is the latest sewer bill. Please issue the missing credit from last adjustment to cover the period from last water reading to the date the new water line was installed and then send me the new invoice so I can send in the correct payment.

The new water line was completed on April 23, 2023.

Thank you for all you have done for me for this water leakage issue. I am glad that this is finally over.

Regards,



Frank Chen  
Property manager of 566 Western Ave. Mobile Home Trailer Park

Town of Henniker  
18 Depot Hill Rd  
Henniker, NH 03242  
Temp - Return Service Requested

WAY INVESTMENTS LLC  
844 MASSACHUSETTS AVENUE  
LEXINGTON, MA 02430

**HENNIKER**  
**2023 SEWER BILL 22 OF 22**

Invoice: 2023S22000417  
Account: 1902S  
Print Date: Sep 28, 2023  
Billing Period: Apr 01 - Sep 30  
Payment Due Date: Nov 17, 2023  
Amount Due: \$ 6,867.40

8% APR Charged After 11/17/2023

The Tax Collectors Office will be closed on October 9 in observance of Columbus Day.  
Also, October 11-13 for Town Clerk Conference.  
Checks may be made payable to Henniker Waste Water Treatment (HWWT)

**Account Details**

**Billed To:** WAY INVESTMENTS LLC  
**Location:** 566 WESTERN AVE  
**Map:** 00005C      **Lot:** 000393      **Sub:** 0000A1  
**Account:** 1902S

**Billing Details**

Sewer -- 1 Flat Unit(s) @ \$ 240.00/unit      \$ 240.00  
Sewer -- 17,000gallon @ \$ 0.0000/1      \$ 0.00  
Sewer -- 331,370gallon @ \$ 0.0200/1      \$ 6,627.40

**Billing Summary**

**Billing Period:** Apr 01, 2023 to Sep 30, 2023  
**Payment Due Date:** Nov 17, 2023

**Meter Readings:**      **Current Reading:**      416,623.00  
                                 **Previous Reading:**      68,253.00  
                                 **Usage:**      348,370.00

**Sewer Bill:**      \$ 6,867.40

**Amount Due By 11/17/2023:** \$ 6,867.40

**2023 SEWER BILL 22 OF 22**

Town of Henniker  
Monday, Wednesday & Friday 8:00am to 4:00pm  
Tuesday 10:00am to 6:00pm Thursday Closed  
(603) 428-3240  
Tax Collector: Deborah C. Aucoin

**Mailed To:**  
WAY INVESTMENTS LLC  
844 MASSACHUSETTS AVENUE  
LEXINGTON, MA 02430

**Billed To:** WAY INVESTMENTS LLC  
**Location:** 566 WESTERN AVE  
**Map:** 00005C      **Lot:** 000393      **Sub:** 0000A1  
**Account:** 1902S  
**Invoice:** 2023S22000417

**Amount Due By 11/17/2023:** \$ 6,867.40  
**8% APR Charged After 11/17/2023**

**Remit To:**  
Town of Henniker  
18 Depot Hill Rd  
Henniker, NH 03242  
Temp - Return Service Requested

**RETURN THIS PORTION WITH PAYMENT**

**REMITTED AMOUNT:** \_\_\_\_\_



## TOWN OF HENNIKER, NEW HAMPSHIRE

Town Hall  
18 Depot Hill Road  
Henniker, NH 03242  
Tel: (603) 428-3221

# STAFF REPORT – To Sewer Commissioners

**DATE:** 8/1/2023

**TITLE:** Way Investments, Inc. -Sewer Abatement Request for 566 Western Avenue; Account # 1902S

**INITIATED BY:** Frank Chen – Way Investments, Inc.

**PREPARED BY:** Diane Kendall, Town Administrator

**PRESENTED BY:** Frank Chen – Way Investments, Inc.

**AGENDA DESCRIPTION:** Request Abatement of 2022 Sewer Bill 2 of 2 and 2023 Sewer Bill 1 of 2

**LEGAL AUTHORITY:** **Local Ordinance** Chapter 88 Town of Henniker Sewer Ordinance Article V Sewer Rents and Assessments. RSA 38:22, RSA 149-i:16, RSA 76:13

**FINANCIAL DETAILS:** Total sewer billed for 2 cycles: \$39,250.22  
Total abatement requested: \$33,347.00

**BACKGROUND:** On July 11, 2023, Mr. Frank Chen, representing Way Investments Trailer Park at 566 Western Ave., sought an abatement from two sewer bills because the trailer park had a water leak, and the water usage did not represent the volume of sewage that flowed to the treatment plant.

Mr. Chen sought an abatement of \$13,152.40 for the 11/7/2022 bill totaling \$16,111.48. The 11/7/2022 bill was previously abated by the Sewer Commissioners for a total of \$13,136.40 resulting in a net bill of \$2,975.08. This request has been settled. The system was repaired on or about April 24, 2023.

**Mr. Chen is also seeking abatement of \$20,194.60 for the 4/27/2023 bill that totaled \$23,183.74 based on average daily gallons of 747gpd. This would result in a net bill of \$2,944.14.**

At the July 11<sup>th</sup> meeting, the Board of Selectmen continued decision on the abatement seeking current water usage per day since the repair. The Cogswell Water reports the water usage from 4/24/23 (when the watermain and services were replaced and brought into service) through 7/10/23 was : 41,918 gallons with an average of 551.2 gpd.

**TOWN ADMINISTRATOR COMMENT:** Considering the current water usage since the system fixed, and it is unlikely that all the leaked water traveled to the wastewater plant, it is reasonable to grant the abatement requested, \$20,194.60.

**SUGGESTED ACTIONS / MOTIONS:** Move to abate \$20,194.60 of the current sewer bill dated April 27, 2023, for 566 Western Avenue, account number 1902S resulting in a net billing amount of \$2,944.14 and waive all interest accrued on remaining sewer bill.

**Other Action:** consider an abatement to the November 2023 billing after the bill is issued based on the 747gpd per day for the usage from April 1 to April 24, 2023.

Received by  
TOWN OF HENNIKER

MAY 08 2023

SELECTMEN'S OFFICE

Way Investments, LLC  
844 Massachusetts Ave  
Lexington, MA 02420

Tel: (617) 594 9512; Fax: (781) 860 0198; Email: [frankchen136@gmail.com](mailto:frankchen136@gmail.com)

May 05, 2023

Sewer Commissioner  
Town of Henniker  
18 Depot Hill Road  
Henniker, NH 03242

Dear Henniker Sewer Commissioner,

After months of troubleshooting with the water department, we completely replaced the water system at 566 Western Ave mobile home trailer park. As of April 25, 2023, the new water system is up and running. As you can see from the attached graph, the water usage dropped from around average of 12,481.55 gallons per day (4/4/23 – 4/23/23) to average 747 gallons per day (4/25/23 – 05/02/23) after we replaced the system.

According to our data, the actual amount of water usage with a working, non-leaking water system is average 747 gallons per day. There have been thousands of gallons lost to the leak. I have provided an hour-by-hour reading of water usage for this past month and can provide you additional data if needed.

Due to the water leak, there is a large discrepancy between the amount of water recorded by the meter versus the actual amount of water that reached the town sewer processing plant. The data recorded by the town does not account for water lost in between when the water usage is recorded to when this water reaches the plant. *Due to the extreme amount of water lost each day that did not make it to the sewer processing plant*, the mobile park is requesting a reimbursement or credit for the past two sewer bill invoices to account for this discrepancy.

Please see the following information

Invoice 2023S21000417 (October 1, 2022 – March 31, 2023)

Sewer – 1,144,937 gallons over 181 day period = 6325.62 gallons per day



6325.62 gallons per day recorded – 747 gallons per day actual usage = 5578.62 gallons lost per day  
5578.62 gallons lost per day over 181 day period = 1,009,730 gallons

1009730 gallons @0.0200/l = **\$20,194.60 to be refunded or credited**

Invoice 2022S22000416 (April 01, 2022 – September 30, 2022)

Sewer – 793,574 gallons over 182 day period = 4,369.30 gallons per day  
4,369.30 gallons per day recorded – 747 gallons per day actual usage = 3,613.30 gallons lost per day  
3,613.30 gallons lost per day over 182 day period = 657,620 gallons  
657,620 gallons @0.0200/l = **\$13,152.40 to be refunded or credited**

**Please also adjust for the upcoming bill between days April 1, 2023 and April 23, 2023.**

**Gallons recorded between April 1 – April 23, 2023 = 249,631 gallons @0.200/l = \$4,992.62**

**Actual average usage: 747 gallons per day @22 days = 16,434 gallons @0.200/l = \$ 328.68**

**Amount to be refunded for upcoming invoice: \$4663.94 to be refunded or credited**

**Total to be refunded or credited due to water discrepancy between water lost and water that actually reached sewer plant: \$38,010.94**

Please let me know if have any questions. The residents of the mobile home trailer park greatly appreciate your understanding of this unpredictable situation. We do not anticipate any further issues with the recording of water usage now that we have fixed the system.

Th

Frank Chen

Property manager of 566 Western Ave. Mobile Home Trailer Park

# NEW BUSINESS



# TOWN OF HENNIKER

18 DEPOT HILL ROAD  
HENNIKER, NH 03242

TOWN HALL (603) 428-3221 FAX (603) 428-4366  
WWW.HENNIKER.ORG

Received by  
TOWN OF HENNIKER

JUL 24 2023

SELECTMEN'S OFFICE

## Application for Property Tax Exemption

### For Commercial and Industrial Properties Pursuant to RSA 72:81

\*YOU MUST APPLY FOR EXEMPTION BEFORE STARTING CONSTRUCTION OR RENOVATION\*

Date: 7/24/23

Name of Business: Granite Holdings of Deering, LLC

Applicant/Title: Joyce Blythe, owner/member

Property Address: 1105 Old Concord Rd

Tax Map: 1-549-FX Lot: \_\_\_\_\_

Telephone: [REDACTED]

Email: [REDACTED]

Type of project to be completed:  New Construction  Addition  Renovation

Provide a description of the work to be done (Attach building plans if available):

Construct Storage Bldg w/ no water no sewer  
40' W X 80' long X 15' H: foundation cement blocks with  
4 - 40' X 8' High steel shipping containers

Anticipated start date: 9/1/23

Estimated completion date: 12/31/23

Estimated total cost of project: \$72,000.00

As voted by the Legislative Body of the Town of Henniker at the 2020 Town Meeting, the exemption shall apply only to the municipal and local school property taxes assessed by the Town. State education and county taxes are excluded from the exemption.

The exemption applies to the increase in assessed value attributable to construction of new structures, and additions, renovations, or improvements to existing structures, as follows: The exemption applies to the percentage of increased assessed value as follows - 50% for year 1 and 2, 40% for the year 3 and 4, 30% for the year 5 and 6, 20% for the year 7 and 8, 10% for the year 9 and 10. Subsequent years will be assessed at the full rate.

As voted by the Legislative Body of the Town of Henniker, in order to satisfy the public benefit requirement a minimum of one of the benefits listed below must be demonstrated. Where applicable, provide an explanation of the anticipated outcomes of the project for each of the following eligible public benefits (attach additional sheets if needed):

**1. Enhance economic growth and increase the Town's tax base:**

The Quanset hut will increase storage in the area and increase the tax base by installing this new commercial building.

**2. Creation of needed services or facilities not currently available in the Town:**

**3. Redevelop and revitalize commercial or industrial area:**

Develop 1105 Old Concord Rd to revitalize the commercial use of the property. Enhance storage ability to make equipment last longer + keep snow off of trailers to more safely move tractor trailer loads in the winter. See NH - Jessica's law RE: snow + ice on vehicles.

**4. Prevent or eliminate blight:**

Steel structure will be commercial grade with new materials. The 2 shipping containers will be new ones facing the road + all will have fresh light gray paint. Garage doors will also be brand new.

**5. Retain local jobs, increase local job base, and/or provide diversity in the job base:**

The project will help retain local truck driving jobs as the drivers won't have to worry about snow + ice flying off their equipment + hurting people on the roads.

I have read and understand the above conditions of this exemption. By signing below, I affirm that I am authorized to sign this application on behalf of the entity seeking this exemption.

Signature of Applicant & Title: \_\_\_\_\_



owner/member

Date: 7/24/23

**Office Use Only**

Director of Planning Review:



Assessor Review:

Please see Assessor letter dated 9/29/23.

Henniker Board of Selectmen: \_\_\_\_\_ Approve \_\_\_\_\_ Deny

\_\_\_\_\_  
Selectmen

\_\_\_\_\_  
Date

\_\_\_\_\_  
Selectmen

\_\_\_\_\_  
Date

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Date

**5. Retain local jobs, increase local job base, and/or provide diversity in the job base:**

The project will help retain local truck driving jobs as the drivers won't have to worry about snow + ice flying off their equipment + hurting people on the roads.

I have read and understand the above conditions of this exemption. By signing below, I affirm that I am authorized to sign this application on behalf of the entity seeking this exemption.

Signature of Applicant & Title: \_\_\_\_\_



owner/member

Date: \_\_\_\_\_

7/24/23

**Office Use Only**

Director of Planning Review:

\_\_\_\_\_  
\_\_\_\_\_

Assessor Review:

Starting assessment \$285,900. See Ar. dir letter.

Henniker Board of Selectmen: \_\_\_\_\_ Approve      \_\_\_\_\_ Deny

\_\_\_\_\_  
Selectmen

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Date

OWNER INFORMATION	SALES HISTORY	PICTURE																														
<b>GRANITE HOLDINGS OF DEERING LLC</b>  426 HEDGEHOG MOUNTAIN ROAD  DEERING, NH 03244	<table border="1"> <thead> <tr> <th>Date</th> <th>Book</th> <th>Page</th> <th>Type</th> <th>Price</th> <th>Grantor</th> </tr> </thead> <tbody> <tr> <td>07/24/2014</td> <td>3448</td> <td>2058</td> <td>U I 13</td> <td>90,000</td> <td>HENNIKER HOLDINGS LLC</td> </tr> <tr> <td>09/21/2011</td> <td>3273</td> <td>0806</td> <td>U I 40</td> <td></td> <td>1 DIORIO FOREST PRODUCTS</td> </tr> <tr> <td>08/26/2011</td> <td>3269</td> <td>1473</td> <td>Q 1</td> <td>640,000</td> <td>OLD CONCORD ROAD LLC</td> </tr> <tr> <td>08/01/2011</td> <td>3266</td> <td>0233</td> <td>U I 51</td> <td>300,000</td> <td>FRENCH RICHARD A SR &amp; JR</td> </tr> </tbody> </table>	Date	Book	Page	Type	Price	Grantor	07/24/2014	3448	2058	U I 13	90,000	HENNIKER HOLDINGS LLC	09/21/2011	3273	0806	U I 40		1 DIORIO FOREST PRODUCTS	08/26/2011	3269	1473	Q 1	640,000	OLD CONCORD ROAD LLC	08/01/2011	3266	0233	U I 51	300,000	FRENCH RICHARD A SR & JR	
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LISTING HISTORY	NOTES
09/13/22 ERHC 03/18/22 ERPR 03/04/21 RD01 MEASUR+1VISIT 07/31/20 VS14 FIELD REVIEW 04/03/19 BL01 MEASUR+1VISIT 03/06/17 GH98 ASSESSOR REVIEW 02/29/16 GH98 ASSESSOR REVIEW 06/02/15 KL15 SALE REVIEW	WHITE;REPAIR SHOP 09: ACREAGE PER TAX MAP UPDATE NO INC=SIZE 08/11 SALE INCLUDES 549F1/F1B/F2 15: RESIDED TO VINYL,14: RENO POST-SALE 16: 16X60 CANOPY ADDED, PAVEMENT APPROX 35X40; 17: 2 8X40 METAL STORAGE BLDGS ADDED WITH EACH ON ITS OWN CONCRETE PAD;DNPU REG/TEMP TRUCK BODY 19: ADDED METAL SHED 21: NO START - CK 2022; 3/22 PU NEW ROOF & SOLAR PANELS;NO BATHRM/SEPTIC-PORTA POTTY ONLY; 23: FIRE POND EASMNT W T/O HENNIKER RECORDED MCRD BK3820 PG896.

EXTRA FEATURES VALUATION								MUNICIPAL SOFTWARE BY AVITAR																											
Feature Type	Units	Lngh x Width	Size Adj	Rate	Cond	Market Value	Notes	<b>HENNIKER ASSESSING OFFICE</b>																											
MEZZANINE UNFIN.	1,080		75	11.00	82	7,306	Year: 1997	<table border="1"> <thead> <tr> <th colspan="4">PARCEL TOTAL TAXABLE VALUE</th> </tr> <tr> <th>Year</th> <th>Building</th> <th>Features</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>2022</td> <td>\$ 89,100</td> <td>\$ 22,200</td> <td>\$ 174,600</td> </tr> <tr> <td colspan="4" style="text-align: right;">Parcel Total: \$ 285,900</td> </tr> <tr> <td>2023</td> <td>\$ 89,100</td> <td>\$ 22,200</td> <td>\$ 174,600</td> </tr> <tr> <td colspan="4" style="text-align: right;">Parcel Total: \$ 285,900</td> </tr> </tbody> </table>				PARCEL TOTAL TAXABLE VALUE				Year	Building	Features	Land	2022	\$ 89,100	\$ 22,200	\$ 174,600	Parcel Total: \$ 285,900				2023	\$ 89,100	\$ 22,200	\$ 174,600	Parcel Total: \$ 285,900			
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PAVING	1,400	1400 x 1	71	3.25	50	1,615	Year: 2015																												
SHED-METAL	320	320 x 1	110	6.00	50	1,056	Year: 2016 - 8X40																												
SHED-METAL	320	320 x 1	110	6.00	50	1,056	Year: 2016 - 8X40																												
SHED-METAL	160	8 x 20	160	6.00	50	768	EST MEAS=LOC																												
SOLAR ELECT PANEL	26		100	400.00	100	10,400	2021;ROOF																												
<b>22,200</b>																																			

LAND VALUATION												LAST REVALUATION: 2022			
<b>Zone:</b> HEAVY COMMERCIAL		<b>Minimum Acreage:</b> 2.00			<b>Minimum Frontage:</b> 125			<b>Site:</b> AVERAGE <b>Driveway:</b> GRAVEL/DIRT <b>Road:</b> PAVED							
Land Type	Units	Base Rate	NC	Adj	Site	Road	DWay	Topography	Cond	Ad Valorem	SPI	R	Tax Value	Notes	
COM/IND	2.000 ac	127,000	E	100	100	100	95	95 -- MILD	150	171,900	0	N	171,900	USE/COMM ZONE	
COM/IND	4.790 ac	x 2,500	X	100				90 -- ROLLING	25	2,700	0	N	2,700	WET/UNUSABLE	
	<b>6.790 ac</b>									<b>174,600</b>			<b>174,600</b>		



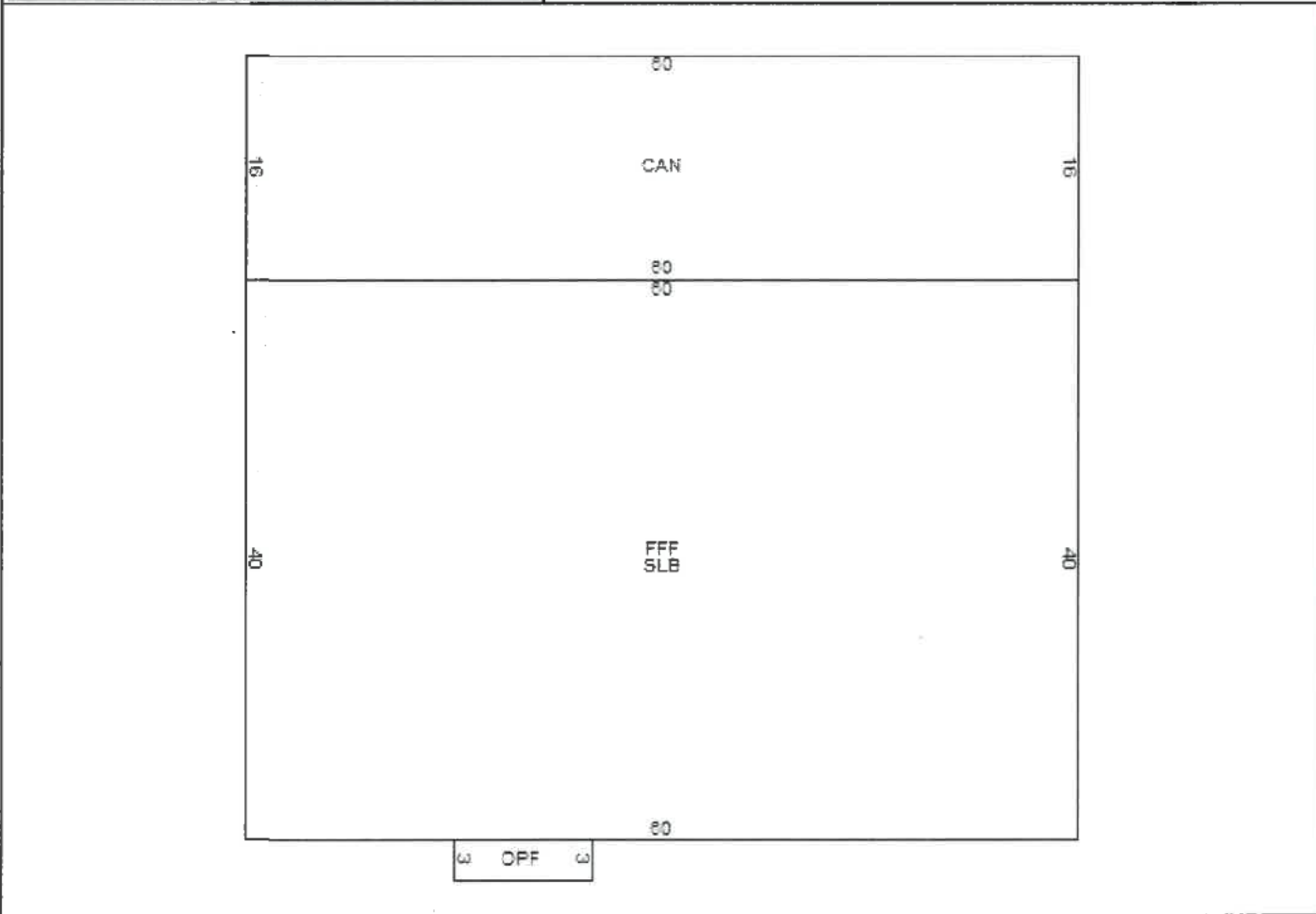
**OWNER**  
**GRANITE HOLDINGS OF DEERING L**  
 426 HEDGEHOG MOUNTAIN ROAD  
 DEERING, NH 03244

TAXABLE DISTRICTS	
District	Percentage

**BUILDING DETAILS**  
 Model: 1.00 STORY SERVICE SH  
 Roof: GABLE OR HIP/PREFAB METALS  
 Ext: VINYL SIDING  
 Int: AVERAGE 4 USE  
 Floor: CONCRETE  
 Heat: OIL/FA NO DUCTS  
 Bedrooms: Baths: NONE  
 Extra Kitchens: Fireplaces:  
 A/C: No Generators:  
 Quality: A0 AVG  
 Com. Wall: WOOD, 12 FT. 1.0000  
 Size Adj: 1.2272 Base Rate: CGS 46.00  
 Bldg. Rate: 0.9204  
 Sq. Foot Cost: \$ 42.34

**PERMITS**

Date	Project Type	Notes
07/25/23	NEW CONSTRUCTION	40' X 80' X 15' QUONSET HUT
10/04/21	ELECTRICAL	
10/04/21	ELECTRICAL	
10/26/20	ROOFING	
09/11/14	NEW CONSTRUCTION	



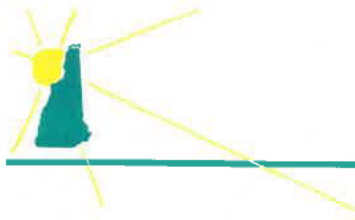
**BUILDING SUB AREA DETAILS**

ID	Description	Area	Adj.	Effect.
CAN	CANOPY	960	0.10	96
FFF	FST FLR FIN	2400	1.00	2400
SLB	SLB	2400	0.00	0
OPF	OPEN PORCH	30	0.25	8
<b>GLA:</b>	<b>2,400</b>	<b>5,790</b>		<b>2,504</b>

**2022 BASE YEAR BUILDING VALUATION**

Market Cost New:	\$ 106,019
Year Built:	1980
Condition For Age:	GOOD 16 %
Physical:	
Functional:	
Economic:	
Temporary:	
Total Depreciation:	16 %
<b>Building Value:</b>	<b>\$ 89,100</b>





# *Avitar Associates of New England, Inc.*

*A Municipal Services Company*

Received by  
TOWN OF HENNIKER

OCT 06 2023

SELECTMEN'S OFFICE

September 29, 2023

**Town of Henniker  
Helga Winn  
Board of Selectmen  
18 Depot Hill Road  
Henniker, NH 03242**

**Re: Commercial & Industrial Construction Exemption (72:81) – Map 9, Lot 549 Sub FX**

Dear Helga & Board Members;

Attached is my recommendation on the above-referenced application.

As always, should you have questions or concerns, please do not hesitate to contact me.

Sincerely,

**Evan Roberge  
Assessor Supervisor**

ER/sjc  
Enclosures

**Map 9, Lot 549 Sub FX      1105 Old Concord Road      Granite Holdings of Deering LLC**

The taxpayer has filed an application for the Commercial and Industrial Construction Exemption under RSA 72:81. This exemption is governed by RSA 72:80, 81, 82 and 83; please see below for additional information on those RSA's. According to town records and my most recent visit on March 18, 2022, this parcel is 6.79 acres in the Heavy Commercial Zone (much of it wet and unusable) with a 1980's 40'x60' garage and miscellaneous outbuildings. The taxpayer plans to construct a 40'x80' cement block foundation with 4, 40'x8' steel shipping containers (with no water or sewer) with an estimated cost of \$72,000.

Pursuant to RSA 72:81 – Application for Exemption, *“an owner shall apply for the exemption under RSA 72:81 prior to construction, but not after December 31st, before the beginning of the tax year for which the exemption is sought”* (sought for TY2024). As the taxpayer applied in July of 2023, this exemption, if approved will be effective for Tax Year 2024. The taxpayer did apply timely before construction was started, and no building or construction was started prior to April 1, 2023, meaning their value on that date of \$285,900, will be their starting assessment (base) when determining the *“increase in assessed value attributable to the construction of new structures”*. As this will be for TY2024, pursuant to statute the Town of Henniker has until *“February 28 before the beginning of the tax year for which the exemption is sought”* (February 28, 2024) to notify the applicant of their decision.

Pursuant to RSA 72:81, the exemption amount shall not exceed 50% and may run for a maximum period of 10 years, following the new construction. As the Town of Henniker has already adopted this, the maximum percentage rate (50%) and maximum duration (10 years) of the exemption as previously determined shall be the same for all applicants. However, pursuant to statute 72:81 II *“The percentage rate and duration of the exemption shall be granted on a per case basis based on the amount of value of public benefit as determined by the governing body”*. The exemption applies to the increase in assessed value attributable to the construction of new structures, and additions, renovations, or improvements to existing structures. The exemption shall only apply to the municipal and local school property taxes assessed by the municipality, which shall exclude state education property taxes and county taxes assessed. At adoption of this exemption, Henniker determined the maximum percentage of increase assessed value, which

shall be as follows: 50% for year 1 and 2, 40% for the year 3 and 4, 30% for the year 5 and 6, 20% for the year 7 and 8, 10% for the year 9 and 10, with all subsequent years assessed at the full rate.

For example, let's say I visit the property on April 1, 2024, the building is complete, and after review determine the increase in assessed value attributable to the new construction is adding \$50,000 (completely hypothetical at this point) to the market value of the property, meaning the total value of the property now would be \$335,900 (new construction structure, plus starting assessment). To determine the assessment towards the exemption, take the total assessment value of \$335,900, minus the starting/base assessment of \$285,900, the result being \$50,000 attributable to the new construction. Therefore, in this case, the taxpayer's exemption would be based on the value of \$25,000 ( $\$50,000 \times 50\%$ ) for years 2024 (year 1) and 2025 (year 2) and as previously mentioned, only shall apply to the municipal and local school portion of the tax rate, with the remaining \$310,900 towards the full tax rate.

**Recommendation:** As noted above, this application appears complete and timely filed for Tax Year 2024. The Board must determine if this project meets one of the 5 previously determined public benefits, i.e.,

- Enhance economic growth and increase the towns tax base.
- Creation of needed services or facilities not currently available in the town.
- Redevelop and revitalize commercial or industrial area.
- Prevent or eliminate blight; and
- Retain local jobs, increase job base, and/or provide diversity in the job base.

The taxpayer indicates meeting 4 of the 5 public benefits.

# **TITLE V TAXATION**

## **CHAPTER 72 PERSONS AND PROPERTY LIABLE TO TAXATION**

### **Commercial and Industrial Construction Exemption Statewide**

#### **Section 72:80**

##### **72:80 Definitions. –**

I. In this subdivision:

- (a) " Commercial uses " shall include all retail, wholesale, service, and similar uses.
- (b) " Eligible municipality " shall mean any city or town in the state.
- (c) " Industrial uses " shall include all manufacturing, production, assembling, warehousing, or processing of goods or materials for sale or distribution, research and development activities, or processing of waste materials.

II. An eligible municipality adopting a property tax exemption pursuant to RSA 72:81 may, in lieu of the definitions in this section, adopt by reference the definitions of similar terms as may be contained in that town's or city's zoning ordinances.

**Source.** 2017, 179:2, eff. Aug. 28, 2017.

# TITLE V TAXATION

## CHAPTER 72 PERSONS AND PROPERTY LIABLE TO TAXATION

### Commercial and Industrial Construction Exemption Statewide

#### Section 72:82

##### **72:82 Procedure for Adoption. –**

I. A municipality desiring to adopt the provisions of RSA 72:81 shall do so in accordance with the procedures set forth in RSA 72:27-a. The vote shall specify that the exemption, if granted, shall apply to all properties within the municipality if adopted in accordance with RSA 72:81, II(a) or to a specific group or groups of parcels within the municipality if adopted in accordance with RSA 72:81, II(b). The vote shall specify the maximum percentage of new assessed value to be exempted, the maximum number of years duration of the exemption following new construction, a definition of public benefit, and a reference to zoning use category definitions, if applicable. The exemption shall take effect in the tax year beginning April 1 following its adoption.

II. A vote adopting RSA 72:81 shall remain in effect for a maximum of 5 tax years; provided, however, that for any application which has already been granted prior to expiration of such 5 tax year period, the exemption shall continue to apply at the rate and for the duration in effect at the time it was granted.

**Source.** 2017, 179:2, eff. Aug. 28, 2017. 2019, 221:2, eff. July 12, 2019.

# TITLE V TAXATION

## CHAPTER 72 PERSONS AND PROPERTY LIABLE TO TAXATION

### Commercial and Industrial Construction Exemption Statewide

#### Section 72:83

##### **72:83 Application for Exemption. –**

- I. An owner shall apply for the exemption under RSA 72:81 prior to construction, but not after December 31 before the beginning of the tax year for which the exemption is sought. In such cases the selectmen or assessors may anticipatorily grant the exemption, subject to adjustment when the actual increase in assessed value becomes known. If construction is partially complete on April 1 of any year, the exemption for that year shall be based on the increased assessed value attributable to the partial construction, but the duration of the exemption shall be adjusted such that the cumulative amount of exemptions received, based on the construction as completed, is proportional to that received by other eligible properties.
- II. The selectmen or assessors shall notify the applicant of their decision no later than February 28 before the beginning of the tax year for which the exemption is sought. The decision shall specify the amount of the exemption, that it is effective with the new tax year, and the number of years for which the exemption applies to qualified construction. The decision of the selectmen or assessors may be appealed in the manner set forth in RSA 72:34-a.
- III. The selectmen or assessors may request such additional or updated information as is necessary to determine eligibility. If they are satisfied that the applicant has willfully made any false statement, or has refused to provide information after such a request, they may refuse to grant the exemption.
- IV. If the municipality completes a revaluation during the period for which an exemption has been granted, the amount of the exemption shall be adjusted by the difference in equalization ratios applicable in the municipality before and after the revaluation.

**Source.** 2017, 179:2, eff. Aug. 28, 2017.



## TOWN OF HENNIKER, NEW HAMPSHIRE

Town Hall  
18 Depot Hill Road  
Henniker, NH 03242  
Tel: (603) 428-3221

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# STAFF REPORT

---

**DATE:** 10/17/2023

**TITLE:** Transfer Station Used Oil Grant

**INITIATED BY:** Marc Boisvert, Transfer Station Superintendent

**PREPARED BY:** Diane Kendall, Town Administrator

**PRESENTED BY:** Diane Kendall, Town Administrator

**AGENDA DESCRIPTION:** Request Authorization to apply for Grant Funds

**LEGAL AUTHORITY:** "Governing body" means the select board; manage prudential affairs – [RSA 21:48](#)".

**FINANCIAL DETAILS:** \$2,500

**BACKGROUND:** The transfer station recently replaced the 25+ year old waste oil fired heater for \$9,200 plus labor and materials total \$11,300. We received \$500 in trade for the old. The old furnace's useful life ended, and replacement parts were no longer available. The replacement is eligible for up to \$2,500 in grant assistance from NHDES.

**TOWN ADMINISTRATOR/FINANCE DIRECTOR COMMENT:** Supports request.

**SUGGESTED ACTIONS / MOTIONS:**

*Motion to authorize TA Kendall to complete and submit NHDES Used Oil Grant Program application.*

# Invoice

DATE	INVOICE #
10/5/2023	34068

603-444-3313  
603-444-0508

<b>BILL TO</b>
Town of Henniker 18 Depot Hill Rd. Henniker, N.H. 03242

<b>SHIP TO</b>
Town of Henniker Transfer Station 1393 Weare Rd. - Rte 114 Henniker, N.H. 03242

*MB*  
*10/10/23*  
*4324-4430*

P.O. NO.	TERMS
	Due on receipt

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
EL200H	Energylogic 200,000 BTU Waste Oil Fired Heater ID # 4003335	1	9,200.00	9,200.00
Traded Equipment	Less Traded Equipment		-500.00	-500.00
Installation	INSTALLATION MATERIALS	1	750.00	750.00
Labor	LABOR	1	1,850.00	1,850.00

Thank you for your business.

**Subtotal** \$11,300.00

**Sales Tax (0.00)** \$0.00

**Total** \$11,300.00

TERMS: 2% Interest shall accrue on unpaid balance after 30 days of invoice date or maximum allowed by law. Purchaser to pay all collection costs, including legal fees.



## What is the Used Oil Grant Program?

The Department of Environmental Services (DES) issues gift grants (not matching grants) for the purpose of encouraging the establishment, improvement and operation of used oil collection centers that serve residents who change their own oil. The used oil that is collected at these centers is then properly recycled.



## Who Can Apply for the Grant?

Towns, cities, counties, solid waste districts, other government entities, and non-profit organizations that focus on waste management and recycling issues are eligible to receive grant funds. The grant is also open to private businesses that are registered motor vehicle inspection stations.

## Grant Criteria

To qualify for the grant, the used oil collection center must meet the following criteria:



- **Serve local "Do-It-Yourself" oil changers.**
- **Recycle used oil collected either on-site or off-site.**
- **Promote the safe storage and management of used oil.**

Most grants are for a specified amount, up to \$2,500. A center that serves two or more towns may qualify for up to \$5,000.

### Regulatory Information

Used oil generated from businesses, or other private/commercial entities *is not* "Do-It-Yourself" used oil and must undergo testing prior to being collected. Collectors of these types of used oil are obligated to follow the Used Oil Marketer Regulations (Env-Hw 807.09)



## The Application Process



A Paper application is available from DES or you can download one from the DES website. The Used Oil Grant Application may be submitted at any time.

If your application is approved, you will receive a grant agreement from DES. This grant agreement is a contract which must be signed and states that the grantee intends to use the grant funding to collect "Do-It-Yourself" used oil and/or used oil filters.

Once a grant contract has been approved, the recipient will be notified by DES that they have been approved for the grant.

Work must be completed within one year of grant approval. All receipts are to be returned to DES within 30 days of project completion.

## When to Apply

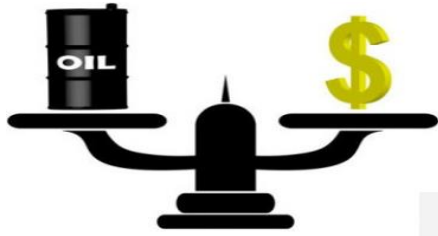
It is best to apply for grant funds and to receive grant approval before incurring any expenses. This ensures that the funds are available for the specific grant recipient.



All suitable applications will be considered until all grant funds have been expended for the fiscal year. The State's fiscal year runs from July 1st through June 30<sup>th</sup>.

Notes:

## How Can the Funds be Used?



Grant funds may be used to establish, improve, or operate a used oil collection center, as well as to transport used oil off-site to a recycler. Typical uses for the grant funds have been:

- Collection Tanks
- Drum Containment
- Spill Kits / Sorbents
- Used Oil Fuel Burners
- Funnels
- Fill Gauges
- Related Security Hardware
- Used Oil Filter Crushers
- Sheds
- Transfer
- Pumps
- Promotional Material
- Transport Costs to a Recycler
- Used Oil Burner Cleaning & Servicing
- Sampling Costs
- Removal of Collection Tank Sludge
- Replace Used Oil Heater Chimneys

## Frequently Asked Questions

### How are Grant Awards Prioritized?

Grant awards are issued on a first-come, first-served basis with the highest priority for towns that have no collection center, then towns that do have a collection center, followed by other government entities, private inspection stations, and non-profits.

### How can I Prevent Receiving Contaminated oil?

DES offers training to Certified Solid Waste Operators and other interested parties to assist them in identifying contaminated oil before it is added to a collection container.

### What if the oil we Collect Becomes Contaminated?

The State of NH has a \$10,000 fund for disposal of tainted Do-It-Yourself used oil. This fund applies only to tanks & containers of "Do-It-Yourself" used oil.

### Where Does the Money Come From?

When new motor oil is purchased in NH, a 2¢ per gallon fee is assessed. This money is placed into a dedicated fund for used oil collection programs.

Put Used Oil



In Its Proper Place

Over 200  
New Hampshire  
Municipalities Collect  
Used Oil.

Contact Us To See How We Can  
Help You!



Scan this code with your smart phone or visit our web-page by going to <https://www.des.nh.gov/business-and-community/loans-and-grants/used-oil-collection>

Call the NH Department of Environmental Services at:

Send us an e-mail at [UsedOilGrants@des.nh.gov](mailto:UsedOilGrants@des.nh.gov)

(603) 271-6424



Used Oil Program  
29 Hazen Drive, PO Box 95, Concord, NH  
03302-0095

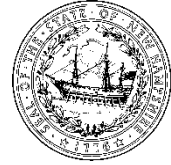
# USED OIL

## GRANT PROGRAM





## USED OIL COLLECTION ASSISTANCE GRANT APPLICATION



### Used Oil Grant Program

RSA 147-B:13, Env-Hw 500, Env-Hw 807

#### APPLICATION INSTRUCTIONS:

- 1) Complete all four sections of the application as well as the Grant Agreement, Work Plan, & Certificate of Authorization and mail them to DES no earlier than July 1 of each fiscal year.
- 2) Complete the Work Plan: The work plan is an outline of purchases/services you wish to have considered for grant monies. Please provide as much detail as possible.
- 3) Create a Certificate of Authorization: The intent of the Certificate is to certify the action that was taken to authorize a particular Grantee Signor to enter into a grant agreement on behalf of the municipality. Please use one of the templates provided.
  - Only one Certificate is required. Complete the standard template if a specific person has been designated by name to act as the grantee signor. Complete the alternate template if a job title, rather than a named individual, has been designated to act as the grantee signor. The person or job title indicated should match the individual who signs the grant agreement.
  - In either case the Town/City Clerk will enter the meeting date at which an individual or job title was authorized by the Selectmen/Aldermen to enter into grant agreements. Notarization procedure is the same for both the Grant Agreement as well as the Certificate of Authorization.
- 4) Insurance: Please submit valid copies of your town/city Certificate of Liability Coverage and Worker's Compensation. Please ensure DES is listed as the Certificate Holder.
- 5) Private Facility Applicants: Additional information such as a Certificate of Good Standing will be requested of motor vehicle inspection stations and non-profit organizations. Private entities are encouraged to call for more information prior to submitting applications.
- 6) Applications will be accepted on a rolling basis annually until funds are depleted. Incomplete or late applications may not be considered.

[UsedOilGrants@des.nh.gov](mailto:UsedOilGrants@des.nh.gov)

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095  
Telephone: (603) 271-6424 • TDD Access: Relay NH 1-800-735-2964

[www.des.nh.gov](http://www.des.nh.gov)

Page 1 of 12

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**SECTION I (GENERAL INFORMATION)**

1. Name of municipality: \_\_\_\_\_
2. Municipality's Mailing Address: \_\_\_\_\_  
(Street)  
\_\_\_\_\_  
(Town / City) (State) (Zip Code)
3. Date of Application: \_\_\_\_\_  
(Applications will not be accepted before July 1)
4. Primary Contact: Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail address \_\_\_\_\_@\_\_\_\_\_
5. Secondary Contact Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail address \_\_\_\_\_@\_\_\_\_\_
6. Who should the public contact with questions about used oil drop-off? \_\_\_\_\_

---

**SECTION II (Site Information & Communities Served)**

Collection Center: Name: \_\_\_\_\_  
Physical Address: \_\_\_\_\_  
Inspection Station Number if applicable: \_\_\_\_\_

1. Communities Served by this Collection Center


2. Do you have a limit on the amount of used oil a resident can bring to the collection center? Y / N  
If yes, what is the limit? \_\_\_\_\_

---

**SECTION III ( Work Plan)**

**Description:** The applicant collects, or intends to collect, Do-It-Yourselfer used oil and/or filters from residents who generate used oil as a household waste when they change their own automotive oil. The applicant is requesting grant funds related to their Do-It-Yourselfer used oil collection center. Details are provided below.

Line Item (Service or Product)	Cost

**Total Estimated Cost**

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**SECTION IV (AUTHORIZATION)**

I certify that, to the best of my knowledge, all of the foregoing information is complete and accurate.

\_\_\_\_\_  
(Signature of Authorized Person from Section I.) (Date)

\_\_\_\_\_  
(Print Name and Title of Authorized Person)

<p><b>Mail application to:</b> NH Dept. of Environmental Services Used Oil Program 29 Hazen Drive, PO Box 95 Concord, NH 03302-0095</p>
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<p><b>Please contact us with any questions you may have:</b>  Telephone: (603) 271-6424 E-mail: UsedOilGrants@des.nh.gov</p>
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## TOWN OF HENNIKER, NEW HAMPSHIRE

Town Hall  
18 Depot Hill Road  
Henniker, NH 03242  
Tel: (603) 428-3221

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# STAFF REPORT

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**DATE:** 10/3/2023

**TITLE:** Adoption of Selectboard Policy III. 13 Financial Fund Balance Policy

**INITIATED BY:** Diane Kendall, Town Administrator and Sherry Bradstreet, Finance Director

**PREPARED BY:** Diane Kendall, Town Administrator and Sherry Bradstreet, Finance Director

**PRESENTED BY:** Diane Kendall, Town Administrator

**AGENDA DESCRIPTION:** Request Board of Selectmen adopt a Financial Fund Balance Policy

**LEGAL AUTHORITY:** "Governing body" means the select board; manage prudential affairs – [RSA 21:48](#)".

**FINANCIAL DETAILS:** described in policy.

**BACKGROUND:** The Governmental Accounting Standards Board (GASB) and Government Finance Officer Association (GFOA) recommends that local governments establish a formal policy on the level of unrestricted fund balance that should be maintained in the general fund for Generally Accepted Accounting Principles (GAAP) and budgetary purposes.

Such a guideline should be set by the appropriate policy body (Governing Body) and articulate a framework and process for how the government would increase or decrease the level of unrestricted fund balance over a specific time period. In particular, governments should provide broad guidance in the policy for how resources will be directed to replenish fund balance should the balance fall below the level prescribed. NH Department of Revenue Administration (DRA) and the Government Finance Officers Association (GFOA) recommend guidelines regarding the appropriate level of unassigned fund balance to be retained in the general fund which are included in the draft policy. The policy should include language for planned corrective actions should the unit's fund balance drop below the intended level at the end of a fiscal year. Developing and maintaining a well-considered General Fund policy can provide stability to the unit that will serve the citizens well.

Established in 1984, the Governmental Accounting Standards Board (GASB) is the independent, private- sector organization based in Norwalk, Connecticut, that **establishes accounting and financial reporting standards for U.S. state and local governments that follow Generally Accepted Accounting Principles (GAAP).**

The GASB standards are recognized as authoritative by state and local governments, state Boards of Accountancy, and the American Institute of CPAs (AICPA). The GASB develops and issues accounting standards through a transparent and inclusive process intended to promote financial reporting that provides useful information to taxpayers, public officials, investors, and others who use financial reports.

**TOWN ADMINISTRATOR/FINANCE DIRECTOR COMMENT:** The timing of this policy proposal is important in consideration setting the 2023 tax rate and development of the 2024 proposed budget. It is a matter of good governance and compliance with GASB 54 and GAAP. We recommend the Board of Selectmen adopt a fund balance policy to maintain a fund balance that is consistent with other NH local governments. The policy is brief and simple to

understand. The Town Administrator and Finance Director are tasked with developing and proposing operating budgets that maintain the fund balance in accordance with the policy and are charged with managing the finances in compliance with the policy.

**SUGGESTED ACTIONS / MOTIONS:**

Motion to accept the proposed Fund Balance Policy as a first reading and move the policy to a second reading at the next meeting of the Board of Selectmen.

# III. 13 Financial Fund Balance Policy

*Adopted:*

## 1. PURPOSE AND SCOPE

The general purpose of this policy is to ensure a stable tax rate, an excellent credit rating and to improve the financial stability of the Town of Henniker by protecting the town against unexpected emergencies, economic downturns, pending litigation, fluctuating revenues and unanticipated expenditures. This policy also addresses the minimum unassigned fund balance reserves, the Town's plan to achieve the target level of unassigned fund balance reserves and the allowable uses of unassigned fund balance reserves.

## 2. FUND BALANCE CATEGORIES

In accordance with the Governmental Accounting Standards Board (GASB) Statement No. 54, Fund Balance Reporting and Governmental Fund Type Definitions, the Selectboard recognizes the following with regards to fund balance.

Fund balance must be classified into one or more of the five following categories:

**Non-Spendable Fund Balance.** (Inherently non-spendable) portion of net resources that cannot be spent because of their form. Portion of net resources that cannot be spent because they must be maintained intact. Examples include permanent trust funds (non-expendable portion), non-cash assets such as inventories or prepaid items.

**Restricted Fund Balance.** Funds legally restricted for specific purposes, such as grants, library, income balance of permanent funds, and capital project fund cannot change purpose.

**Committed Fund Balance.** Amounts that can only be used for specific purposes pursuant to a formal vote at Town Meeting, such as expendable trust (capital reserve), non-lapsing appropriations, and other special revenue funds not listed under restricted can change purpose via vote at Town Meeting. The Town Meeting, as the government's highest level of decision-making authority, may authorize special revenue funds in accordance with the provisions of the New Hampshire Revised Statutes Annotated (RSAs) and expendable trust (capital reserve funds).

**Assigned Fund Balance.** Amounts intended by the Selectboard for specific purposes. The Board can choose to delegate this authority to the Town Administrator, depending on the situation. Items that would fall under this type of fund balance could be encumbrances. **Lapse of appropriations.** All appropriations shall lapse at the end of the fiscal year unless authorized in accordance with the provision of RSA 32:7.

**Unassigned Fund Balance.** Residual spendable fund balance after subtracting all of the above amounts.

## 3. GUIDELINES TO MANAGE FUND BALANCES

**Spending Prioritization.** When an expenditure is incurred that would qualify for payment with either restricted or unrestricted funds, it will be paid first from restricted funds. When an expenditure is incurred that qualifies for payment from either of the three unrestricted fund balance categories, it will be applied in the following order: committed, assigned, and unassigned.

**Appropriate Level of Unassigned General Fund Balance Reserves:** The Government Finance



### III. 13 Financial Fund Balance Policy

*Adopted:*

Officer Association (GFOA) recommends that governments establish a formal policy on the level of unrestricted fund balance that should be maintained in the general fund for GAAP and budgetary purposes. Such a guideline should be set by the appropriate policy body (Governing Body) and articulate a framework and process for how the government would increase or decrease the level of unrestricted fund balance over a specific time period. In particular, governments should provide broad guidance in the policy for how resources will be directed to replenish fund balance should the balance fall below the level prescribed. NH Department of Revenue Administration (DRA) and the Government Finance Officers Association (GFOA) recommend the following guidelines regarding the appropriate level of unassigned fund balance to be retained in the general fund:

DRA - Recommends retaining 5% to 10% of the gross general fund operating expenditures, including Town, School, and County appropriations.

GFOA - Recommends retaining 8% to 17% of the gross general fund operating expenditures, including Town, School, and County appropriations.

This example is derived from the 2022 NH Department of Revenue Tax Rate Breakdown papers.

If General Fund	DRA		GFOA	
	5%	10%	8%	17%
Operating Expenses are:				
\$ 18,677,796	\$ 933,890	\$ 1,867,780	\$ 1,494,224	\$ 3,175,225

**Minimum Unassigned Fund Balance.** It shall be the goal of the Town of Henniker to achieve and maintain an unassigned fund balance of at least 5% and maximum of 10% of general fund operating expenditures as determined by the annual audit of the town using a modified accrual basis of accounting. General Fund Operating Expenditures include town, net school and county appropriation minus the enterprise and current year bonds.

**Plan to Achieve Minimum Unassigned Fund Balance.** The Unassigned Fund Balance target may be achieved by conservatively estimating annual revenues, expenditures, and overlay; and limiting use of Unassigned Fund Balance to reduce taxes.

**Use of Excess Unassigned Fund Balance.** The Selectboard may appropriate any amount of the unassigned fund balance in excess of the designated percentage to offset property taxes as part of the final adopted budget for the fiscal year. In addition, excess funds may be used, upon town meeting approval, for capital improvement projects, equipment replacement and other similar budgetary needs.

**Emergency Use of Unassigned Fund Balance.** The Town will follow the provisions of the State Municipal Budget Law (RSA 32) in emergency situations which may cause an over-expenditure of total appropriations. The Selectboard may appropriate funds from the unassigned fund balance for emergency purposes in accordance with RSA 32:11 even if such use decreases the fund balance below the designated percentage. An emergency purpose does not include the offsetting of property taxes or mismanagement of funds.

#### 4. ANNUAL REVIEW

Policy First Reading 10/3/2023

### III. 13 Financial Fund Balance Policy

*Adopted:*

Compliance with the provisions of this policy shall be reviewed as a part of the annual budget adoption process.

**Adoption and Effective Date:** This policy is effective immediately upon adoption by the Selectboard.

Adopted by:

Date:

DRAFT



Town Hall  
18 Depot Hill Road  
Henniker, NH 03242

Tel: (603) 428-3221  
Fax: (603) 428-4366

Incorporated November 10, 1768  
"Only Henniker on Earth"

## TOWN OF HENNIKER, NEW HAMPSHIRE

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To: Board of Selectmen  
From: Helga Winn, Executive Assistant  
Date: October 13, 2023  
Ref.: Board of Selectmen 2024 Proposed Meeting Schedule

Please find the proposed Board of Selectmen 2024 meeting schedule will be as follows:

<b>DATES</b>
January 2 <sup>nd</sup> and January 16 <sup>th</sup>
February 6 <sup>th</sup> and February 20 <sup>th</sup>
March 5 <sup>th</sup> and March 19 <sup>th</sup>
April 2 <sup>nd</sup> and April 16 <sup>th</sup>
May 7 <sup>th</sup> and May 21 <sup>st</sup>
June 4 <sup>th</sup> and June 18 <sup>th</sup>
July 16 <sup>th</sup>
August 6 <sup>th</sup> and August 20 <sup>th</sup>
September 3 <sup>rd</sup> and September 17 <sup>th</sup>
October 1 <sup>st</sup> and October 15 <sup>th</sup>
November 5 <sup>th</sup> and November 19 <sup>th</sup>
December 3 <sup>rd</sup> and December 17 <sup>th</sup>



## TOWN OF HENNIKER, NEW HAMPSHIRE

Town Hall  
18 Depot Hill Road  
Henniker, NH 03242  
Tel: (603) 428-3221

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# Wastewater Commissioners STAFF REPORT

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<b>DATE:</b>	10/17/2023
<b>TITLE:</b>	WWTP Dewatering Award
<b>INITIATED BY:</b>	Underwood Engineering; Rich Slager, WWTP Superintendent
<b>PREPARED BY:</b>	Diane Kendall, Town Administrator
<b>PRESENTED BY:</b>	Diane Kendall
<b>AGENDA DESCRIPTION:</b>	Request Board of Selectmen award bid for purchase of dewatering equipment for the WWTP.
<b>LEGAL AUTHORITY:</b>	Purchase policy
<b>FINANCIAL DETAILS:</b>	\$295,000 equipment purchase only.

### BACKGROUND:

The sludge dewatering equipment (Belt Filter Press) was identified in the 2019 asset management report as the highest priority for replacement. The previously used belt filter press was bought in 1988. While it is still operational, it has exceeded its estimated useful life, parts are no longer available, and it requires excessive staff time in order to keep it in service. In summer 2023, the press was not operable for several weeks and cost considerable time and funding to repair.

The NH Department of Environmental Services (NHDES) completed its review of the Request for Proposals (RFP) for pre-purchase of dewatering equipment for the WWTF Upgrade Project (Underwood, September 2023) in Henniker, NH, and approved.

Underwood drafted the RFP, it was posted on the website and published in the Union Leader. Bid results were received on October 12 and forwarded to Underwood for review and recommendation.

**TOWN ADMINISTRATOR COMMENTS:** recommends awarding as stated in attached letter from Underwood.

**WASTEWATER SUPERINTENDENT:** recommends bid award to BDP Industries.

### SUGGESTED ACTIONS / MOTIONS:

*Motion: Motion to award the Screw Press Dewatering System for the Henniker WWTF Upgrade to BDP Industries Inc. of Greenwich, NY in the amount of \$295,000.00*

2801.21

October 16, 2023

Ms. Diane Kendall, Town Administrator  
Town of Henniker  
18 Depot Hill Road  
Henniker, NH 03242

Re: **Dewatering System Award Recommendation  
Henniker WWTF Upgrade  
CWSRF No. CS-334118-04**

Dear Diane

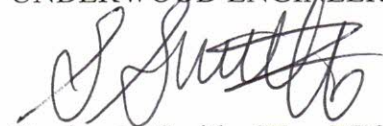
We have reviewed the bids received for the above-referenced project and have compiled the attached Bid Tabulation. Based on this compilation and our evaluation of the submitted bids, we recommend the Town of Henniker award the dewatering system to **BDP Industries Inc of Greenwich, NY** in the amount of **\$295,000.00**.

Upon the Town's confirmation to award we will need to obtain approval from NHDES. Once approved the Town can then proceed with the formal purchase order for the equipment.

Please call if you have any questions in the meantime.

Very truly yours,

UNDERWOOD ENGINEERS, INC.



Stephen E. Smith, CEng MICE  
Senior Technical Leader

Enclosures

cc: David Mercier - UEI

BID TABULATION - HENNIKER WWTF, NH

2801 - PRE-PURCHASE DEWATERING SYSTEM

BID OPENING - THURSDAY OCTOBER 12TH, 2023 @ 2:00PM

Bidder Award

BID ITEM DESCRIPTION	Quantity	Units	BDP		Huber		FKC		BDP	
			UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST
Screw Press Dewatering System and Ancillary Equipment	1	LS	\$ 295,000.00	\$ 295,000.00	\$ 315,000.00	\$ 315,000.00	\$ 323,132.00	\$ 323,132.00	\$ 367,000.00	\$ 367,000.00
<b>TOTAL BID PRICE</b>			\$ 295,000.00		\$ 315,000.00		\$ 323,132.00		\$ 367,000.00	

Notes :

- Lowest bid shall be the basis for award of the contract.
- Bid received from Archie Supply on October 4th, 2023 for \$71,500.00 was **REJECTED** in its entirety due to being a non-conforming bid.
- No errors (other than the informalities listed below) were found when tabulating the bids and there is no change to the lowest bid.
- The bid received from BDP for \$367,000 was submitted to meet the minimum filtration area of 56 SF per specification clause 2.3.C.9. The value quoted in the specification was an error and should have been 25 SF.

Bids Tabulated By:  
Stephen Smith, CEng MICE (UK)

Bids Checked By:  
David J. Mercier, P.E (NH, VT)

THE INFORMATION IN THE ABOVE TABULATION IS A TRUE AND ACCURATE REFLECTION OF THE BIDS AFTER REVIEW BY THE ENGINEER

  
ENGINEER

10/16/23  
DATE:

  
ENGINEER

10/16/23  
DATE:



The State of New Hampshire  
**Department of Environmental Services**



Robert R. Scott, Commissioner

September 5, 2023

Steve Smith, CEng MICE  
Senior Technical Leader  
Underwood Engineers  
99 North State Street  
Portsmouth, NH 03301

**Re: Henniker, NH – WWTF Upgrade  
NHDES Project No. D2023-0402**

**EQUIPMENT AUTHORIZATION TO BID**

Dear Mr. Smith:

The NH Department of Environmental Services (NHDES) has completed its review of the Request for Proposals (RFP) for pre-purchase of dewatering equipment for the WWTF Upgrade Project (Underwood, September 2023) in Henniker, NH, and hereby approves same. Procurement of the equipment is potentially eligible for NHDES funding assistance under Chapter Env-Wq 500 (State Water Pollution Control Revolving Loan Fund) and the American Rescue Plan Act (ARPA). The project is therefore subject to certain bidding/contract procedures and documentation requirements which require your careful attention, as follows:

1. Bid Date: As cited in the approved RFP, bids are due by 2:00 PM, October 12, 2023, to the Town of Henniker. Please advise this office of any changes to this date.
2. Addenda. Any changes made to the approved RFP during the bid period must be by *addenda*, as reviewed and approved by NHDES and issued at least five (5) days prior to the bid date.
3. American Iron and Steel. This project is subject to an “American Iron and Steel” procurement requirement, which requires the contractor for the WWTF construction contract use iron and steel products produced in the U.S.
4. Contract Award. Upon completion of the bidding process, please forward to NHDES the following information and documentation for our records:
  - a. A tabulation of all bids that were received;
  - b. A letter signed by the Town's authorized representative, indicating the name of the bidder to whom a contract will be awarded;
  - c. The bid proposal of the bidder to whom a contract will be awarded;
  - d. Evidence that results of the bidding process are made available to the public.

Steve Smith, CEng MICE  
WWTF Upgrade Project / WWEB Project#D2023-0402  
September 5, 2023  
Page 2 of 2

Feel free to contact me at the address below, or by e-mail at [dennis.greene@des.nh.gov](mailto:dennis.greene@des.nh.gov), if you need further assistance regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Dennis J. Greene". The signature is written in a cursive style with a large initial 'D'.

Dennis J. Greene, P.E.  
Sanitary Engineer  
Wastewater Engineering Bureau

cc: *Diane Kendall – Town Administrator, Town of Henniker*  
*Alysha Clark – NHDES/Grants Mgt. Section*  
*Kathleen Bourret - NHDES/Grants Mgt. Section*





**TOWN OF HENNIKER, NH**

**REQUEST FOR BIDS  
FOR  
SCREW PRESS DEWATERING SYSTEM**

**FOR THE**

**HENNIKER WWTF UPGRADE**

**SEPTEMBER 2023**

Prepared and Copyrights by

Underwood Engineers, Inc.  
99 North State Street  
Concord, New Hampshire 03301

**Table of Contents**

**SECTION 1 – BIDDING REQUIREMENTS.....2**  
1.1 Request for Bids .....2  
1.2 Instruction for Bidders .....3  
1.3 Bid Schedule.....4

**SPECIFICATIONS**

**Division 11 Equipment**

11350 Screw Press Dewatering System

## SECTION 1 – BIDDING REQUIREMENTS

### 1.1 Request for Bids

The Town of Henniker is requesting submission of bid proposals from select Equipment Manufacturers of screw press dewatering systems for prepurchase followed by installation by a contractor under a separate contract. Equipment Manufacturers that are invited to submit proposals are limited to **BDP**, **FKC**, and **Huber**. The goal of this bid request package is to select an Equipment Manufacturer from which to prepurchase the equipment upon which installation bidding documents for the Henniker Wastewater Treatment Facility (WWTF) Upgrade project will be based.

The Equipment Manufacturers shall provide one (1) screw press dewatering system and ancillary equipment to replace the existing one (1) belt filter press dewatering system at the Henniker WWTF. The Equipment Manufacturers shall provide a lump sum price for the one (1) screw press unit and all ancillary equipment associated with the screw press dewatering system.

Equipment Manufacturers should submit a sealed bid to the:

**Town of Henniker**  
**Attn: Diane Kendall, Town Administrator**  
**18 Depot Hill Road**  
**Henniker, NH 03242**

Bids shall be submitted no later than **2:00 p.m. on Thursday, October 12<sup>th</sup>, 2023**. In lieu of mailed bid packages, manufacturers may submit electronic bid packages to Diane Kendall at the following e-mail address: [diane.kendall@henniker.org](mailto:diane.kendall@henniker.org). E-mailed bids must also be received no later than the date and time stated above.

Written questions or requests for interpretation of the Bidding Documents will be accepted via e-mail no later than **Tuesday October 3<sup>rd</sup>, 2023, at 4 p.m.** Requests should be sent to:

Stephen Smith, Senior Technical Leader  
[ssmith@underwoodengineers.com](mailto:ssmith@underwoodengineers.com)

Responses to questions will be compiled and issued by addendum via e-mail to all parties invited to submit a proposal by **5 pm on Thursday October 5<sup>th</sup>, 2023**.

The Town of Henniker reserves the right to accept or reject any or all bid proposals submitted and waive informalities and technicalities. The Town will review and analyze each proposal and reserves the right to interview selected Equipment Manufacturers. The Town shall select the Equipment Manufacturer, which in the Town's opinion, has made the proposal best suited to the needs and goals of the Town and its operations and deemed in compliance with the terms of the Bid Documents.

**END OF SECTION**

## 1.2 Instruction for Bidders

Manufacturers shall fill in the Bid Schedule in **Section 1.3**, which is a lump sum for the equipment being requested for the Henniker WWTF Upgrade project. The scope of equipment supply includes:

- One (1) Screw Press Unit
- One (1) Polymer Dosing System
- One (1) Polymer Injection Equipment
- One (1) Control Panel

The proposed screw press dewatering system proposals shall also include the following:

- Cutsheets on the recommended screw press to best address the performance criteria listed in the attached Specification 11350. The cutsheets shall also include the equipment weight.
- Dimensional drawings of the screw press unit, polymer dosing system, and control panel. Electrical diagrams shall also be provided.
- How many years your organization has been in business supplying screw presses for wastewater applications, and total number of units sold for wastewater applications.
- List of current New England screw press installations including contact information and noting the type of sludge being dewatered at that installation.
- Discussion on the availability of service representatives to perform maintenance on the screw press as required. Include the locations of these service representatives and the hourly and/or trip rates for service to **Henniker, NH**. Proposals should note the typical durations (hours) between each milestone service, and the approximate time it will take to schedule a service.
- Warranty terms and conditions.
- Payment terms and conditions.
- Delivery schedule once the shop drawing is approved.
- A list of deviations (if any) between the attached Specification 11350 and the proposal.

Interpretations or questions regarding the proposal will be responded to via an Addendum that will be emailed to all parties invited. Questions received less than **7 days** prior to the date on which bids must be submitted by will not be answered. Equipment Manufacturer's must acknowledge receipt of the Addendum.

**END OF SECTION**

**1.3 Bid Schedule**

<i>Bid Item</i>	<i>Est. Qty.</i>	<i>Bid Item Description and Unit Price in Words</i>	<i>Unit Price in Figures (Dollars and Cents)</i>	<i>Extended Total in Figures (Dollars and Cents)</i>
-----------------	------------------	-----------------------------------------------------	--------------------------------------------------	------------------------------------------------------

**BID: SCREW PRESS DEWATERING SYSTEM**

1	Lump Sum	Screw Press Dewatering System and Ancillary Equipment: _____ _____ _____ Dollars and _____ Cents per L.S.	per _____ L.S.	_____
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NOTE: BIDS shall include sales tax and all other applicable taxes and fees.

TOTAL BID PRICE:

(In figures) \$ \_\_\_\_\_

(In words) \_\_\_\_\_ Dollars and  
\_\_\_\_\_ Cents

**BID CONDITIONS**

1. This Proposal shall be filled in by the BIDDER with prices written in both words and numerals and the extensions made by him/her. In case of discrepancy between words and numerals, the amount shown in words shall govern.
2. In the case of discrepancy between the Unit Price given and the Total Price of an Item, the Unit Price shall govern.
3. The BIDDER agrees that the Bid shall be valid and may not be withdrawn for a period of **sixty (60) calendar days** after the scheduled closing time for receiving bids.

**END OF SECTION**

SECTION 11350  
SCREW PRESS DEWATERING SYSTEM

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. The screw press equipment specified in this section shall be provided by a single supplier to ensure coordination and compatibility of equipment.
- B. The screw press manufacturer is advised to familiarize themselves with the overall plant process in order to evaluate the compatibility of their equipment to dewater the particular sludge generated.
- C. The manufacturer shall provide one (1) complete Screw Press dewatering system as specified herein. The system shall include the following: screw press unit, polymer dosing system, and control panel. The screw press dewatering system must be complete and integrated such that it can operate in a fully interlocked manner while achieving the performance requirements as specified in this document.
- D. The dewatering system shall be designed to concentrate and dewater wastewater sludge by means of a screw press. The connected ancillary equipment as stated within this specification shall be supplied by the Screw Press Manufacturer to ensure system compatibility and system responsibility.

1.2 DESCRIPTION OF SYSTEM AND PERFORMANCE CRITERIA

- A. Screw Press Operational Requirements: The Screw Press (referred to as “screw press” or “press” in the remainder of this document) shall meet the following operating parameters when processing the sludge specified.
  - 1. The screw press unit shall be capable of meeting the performance criteria as set forth below:
    - a. Performance:

PARAMETER	REQUIREMENT
Sludge Type	Secondary Waste Activated Sludge
Sludge Feed Solids (% wt)	0.5 – 0.8
Solids Throughput (dry lb/hr)	123
Sludge Flow Rate (gpm)	31 to 49
Maximum Polymer Dosage (act. lb/dry ton)	60
Minimum Discharge Cake Solids (% wt)	14
Minimum Solids Capture (%)	95

- B. Process Performance Test and Guarantee: Once a representative sludge has been established, the manufacturer shall operate the press at or above the required flow rate and solids loading for a minimum period of 6 hours with samples of feed, discharge cake, and filtrate collected hourly. Samples will be analyzed per ASTM standards for total suspended solids (TSS) and total solids (TS), and the results averaged. The average cake solids and polymer dosage must be better than the above requirements in order to demonstrate compliance. Should the screw press fail to meet the minimum standards specified, the following shall occur:
1. Plant operating procedures shall be reviewed to determine that the sludge is in fact representative of normal operation and within the design specifications.
  2. If it is determined that the sludge is representative and within these specifications, the manufacturer shall make any modifications necessary to accomplish the specified performance levels.
  3. If the sludge can be demonstrated as representative and within specified parameters and if the manufacturer cannot meet the performance, the owner may elect to have the manufacturer remove the unit and refund any monies paid.

### 1.3 QUALIFICATIONS

- A. The screw press equipment shall be furnished by a single supplier who has a minimum of twenty years' experience in the manufacture of sludge dewatering equipment. The equipment shall be designed, constructed, and installed in accordance with the best practices and methods, and shall be equal to Basis of Design.
- B. The equipment manufacturer must meet all of the following criteria:
1. Equipment manufacturer shall be a certified UL508 panel shop for the last 10 years.
  2. All buy-out items on the screw press shall be standard off-the-shelf mounts. The screw press manufacturer must also supply all of the original part numbers for all original equipment manufacturers' buy-out items as well as a list of local suppliers located near the installed location.
- C. These specifications describe equipment of a certain level of quality and process capability. There are specific areas affecting process functions, operation and maintenance, and reliability under which no exceptions shall be allowed. These are as follows:
1. High Strength Tubular Stainless-Steel Frame Construction with Machined Bearing Pads.
  2. 304 Stainless Steel Construction.
- D. The balance of this specification shall determine the quality level under which equipment shall be reviewed.
- E. The owner and engineer reserve the right to reject any bid that does not meet all of the machine requirements as detailed in this specification.

## PART 2 - MATERIALS AND EQUIPMENT

### 2.1 GENERAL

- A. The equipment covered by these specifications is intended to be screw press dewatering equipment of proven ability as manufactured by reputable concerns having long experience in the production of such equipment. The equipment furnished shall be designed and constructed in accordance with the best practice and methods.
- B. All components of the sludge dewatering equipment shall be engineered for long continuous and uninterrupted service. Provisions shall be made for easy lubrication, adjustment, or replacement of all parts. Corresponding parts of multiple units shall be interchangeable. Except as otherwise specified, steel plates and shapes shall have a minimum thickness of 1/4" and bolts shall have a minimum diameter of 1/2".
- C. All welding shall be in accordance with the latest acceptable codes of the American Welding Society ANSI/AWS D1.6.
- D. All material used in the construction of the sludge dewatering equipment shall be of the best quality and entirely suitable in every respect for the service required. All structural steel shall conform to the ASTM standard specification for structural stainless steel, designation A554-MT304. All iron casting shall conform to the ASTM standard specification for gray iron casting, designation A48-76, and shall be of a class suitable for the purpose intended. Other materials shall conform to ASTM specifications where such specifications exist; the use of such material shall be based on continuous and successful use under the similar conditions of service.
- E. Unless otherwise specified herein, all metal parts in contact with polyelectrolyte or sludge shall be type 304L stainless steel. All fasteners, pins, and anchor bolts shall be type 304L stainless steel.
- F. All fiberglass-reinforced plastics (FRP) shall be manufactured in conformance with NBS standards PS15-69.

### 2.2 SURFACE PROTECTION

- A. The main frame and other misc metals, excluding drives, shall be stainless steel per ASTM A554-MT304 specification. Buyout items will be covered with the following paint system:
  - 1. First coat of Tnemec #66 epoxy of contrasting color to a minimum of four (4) dry mils thickness.
  - 2. Apply a second coat of Urethane topcoat, finished color, minimum of four (4) mils thickness. Total thickness of the two (2) coats will be a minimum of eight (8) mils dry.
  - 3. Flame sprayed galvanizing is not acceptable.
- B. All pre-painted purchased equipment such as electrical motors, gear boxes, etc., are to be painted with a final coat of the above system.
- C. The control panel enclosure shall be Nema 4 X constructed of type 304 stainless steel. Inside of the box shall be white.



## 2.3 MECHANICAL DETAILS

### A. Main Structural Frame

1. The frame shall be fabricated from stainless steel structural members designed to adequately support all components and accessories. Steel shall meet the requirements of ASTM A554-MT304; all welding shall be performed in accordance with ANSI/AWS D1.6. Where frame components are bolted, stainless steel fasteners shall be used.
2. The fabricated steel frame shall be designed to withstand the maximum stresses imposed on the individual members with a safety factor of 5. Specifically, the maximum actual stress on any member, connection, plate, etc., shall not exceed 1/5 of the yield strength of the frame material used. The deflection ratio of any structural member shall not exceed  $L/600$  where L is the member span.
3. Drip pans shall be fabricated of a minimum 14-gauge type 304L stainless steel and shall collect filtrate.
4. The framework shall be constructed in such a manner that it will insure absolute plane parallelism of all rotating elements by machined bearing pads.
5. The framework shall be of welded and/or bolted construction. No disassembled component shall weigh more than 5,000 lbs. Lifting lugs shall be provided as necessary to afford convenient access to maintenance points throughout the screw filter.

### B. Flocculation/Conditioning System - To achieve rapid contact between sludge particles and a solution of dilute polyelectrolyte, provide:

1. One (1) 316L stainless steel, venturi mixer. The mixer shall be equipped with a Vortex polymer injection ring with four (4) tangentially mounted polymer injectors. The mixer shall be located upstream of the screw presses. The screw press manufacturer shall recommend the proper layout of the system.

### C. Pressure Zone

1. The screw press shall be supplied with a tapered shaft design with a smaller diameter at the inlet and a large diameter at the discharge.
2. Designs that utilize a variable pitch with constant shaft diameter, or designs with two-stage shaft diameters are not allowed.
3. The basket assembly around the screw must be constructed of stainless steel with slotted openings to allow for maximum porosity and avoidance of small diameter holes that tend to plug.
4. Designs that utilize basket assemblies constructed of wedge wire or moving rings will not be allowed.
5. The design of the screw auger shall be a tapered shaft to reduce the volume and therefore provide an increasing pressure profile on the solids. The tapered shaft of the screw is designed to force the sludge closer to the slotted screen, thus reducing the path length for liquid to be expressed from the cake. The tapered shaft reduces the potential of plug formation, where the cake turns with the screw and is not conveyed to the discharge point.

6. The high-pressure section shall consist of a variable pressure cone shaped plate on the discharge opening of the screw press. The cone shall be pneumatically adjustable for automatic operation that avoids binding.
7. Units that do not include a pressure cone will not be considered.
8. The cone shall be actuated pneumatically in both directions.
9. Minimum effective filtration area of the pressure zone of the screw press shall be 56 sq. ft.

#### D. Shower Wash System

1. A wash station shall wash the screw press. The wash system shall use high-pressure water spray nozzles. The spray assembly shall be housed in an enclosure in a manner that contains the spray pattern and mist within the housing assembly. The housing and nozzle assembly shall be readily removable. The housing shall be fabricated from type 304 stainless steel.
2. The screw shower shall be pneumatically actuated with an adjustable timer setting on the OIT.
3. The screw system shower bar shall have nozzles placed to wash both the basket and the inside of the enclosure for simplified operation.
4. Wash water required shall not exceed an average of 4 GPM per unit at 80 psi.
5. The shower system shall include a dual basket strainer.
6. Each screw press shall be provided with a 3 HP wash water booster pump that will be installed as shown on the contract drawings. The wash water booster pump shall be a Goulds model eSV or approved equal.
7. Each shower header shall include a motorized ball valve for remote control of the shower as well as for pre-set timed intervals to wash the equipment.

#### E. Drives

1. The screw press drive shall be a 3.0 HP variable speed with a variable frequency AC drive unit. Multiple belt drives shall not be acceptable.
2. The nominal input horsepower rating of each gear or speed reducer shall be at least equal to the nameplate horsepower of the drive motor. Each drive unit shall be designed for 24-hour continuous service.
3. Each gear reducer shall be totally enclosed, water spray proof, oil lubricated with anti-friction bearings throughout. All motors shall be TEFC.
4. The screw auger drive shall be a 3.0 HP, shaft-mounted motor and gear reducer assembly. The drive must be on the discharged end of the screw shaft to reduce wear on the screen and flights due to deflection of the screw shaft.
5. The drives shall be furnished with provisions for use on 480-volt, 60 hertz, 3-phase power supply.

F. Safety Guards -All equipment having exposed moving parts such as fans, V-belts, gears, couplings, chains, and including the pressure roll section, shall be provided with safety guards as required by OSHA standards.

G. Bearings

1. The shafts shall be equipped with heavy-duty greaseable type, self-aligning ball or roller bearings in sealed, splash proof housings. The housing shall be sealed to provide adequate protection from moisture and grime.
2. All bearings shall have a minimum B-10 bearing life of 500,000 hours based on ANSI-B13.6-1972. The B-10 bearing life of 500,000 hours shall be based on the maximum summation of all forces applied to the bearing.
3. Bearings and housings shall be US manufactured and shall be manufactured by FMC Corporation, Link-Belt Division, Indianapolis, Indiana; Reliance Electric Industrial Company, Dodge Division, Greenville, South Carolina, or approved equal.

H. Drainage Pans - Drainage pans shall be supplied as necessary to contain all filtrate and wash water within the unit and to reduce rewetting of downstream cake. Filtrate and wash water pans shall be constructed of minimum 14-gauge type 304 stainless steel. All drainage piping shall be furnished adequately sized for the intended service and rigidly attached to the press frame.

## 2.4 POLYMER FEED SYSTEM

A. General Requirements

1. The press manufacturer shall provide as a part of the total dewatering equipment package, One (1) polymer feed system capable of automatically metering, diluting, activating and feeding a liquid polymer with water.

B. Polymer Dosing Unit

1. Polymer and water shall be mixed in a chamber designed to create sufficient mixing energy. This design shall include a progressive cavity metering pump, solenoid valve and pressure regulator.
2. The pumps shall have an adjustable speed with a variable frequency drive. The pumps shall be supplied with a 1/2 hp, 120 volt AC motor.
3. A motor driven impeller mixer shall be provided that will mix the polymer and water into solution.

C. Polymer Feed Pump

1. The polymer system shall be equipped with progressive cavity pump each capable of pumping up to 5 GPH.
2. The pump shall be designed with a high viscosity wet end pump capable of pumping neat polymer solution to the mixing chamber.
3. The pump shall be a Seepex, Netzsch, or approved equal.
4. The drive motor shall be a variable speed, 1/2 horsepower, complete with an SCR control unit. The SCR control unit shall have local speed adjustment, ON-OFF switch and

running indication. The control unit shall provide adjustments of feed rate over a range of 20 to 1.

#### D. Dilution Capability

1. The primary dilution shall feed into the motorized mixing chamber and shall be capable of 1200 GPH.
2. The dilution capability shall be adjustable with a clear rotameter with a stainless steel float.
3. Furnish a solenoid valve or ON-OFF control of dilution water supply

#### E. Emulsion Unit Control Panel

1. Each polymer system shall be supplied with a NEMA 4X control panel that provides an automated mixing system. The controls for the polymer make-down system shall be supplied in the screw press control panel.
2. The control panel shall include all timers and relay for a complete manual and auto system. The polymer mixer chamber and metering pump shall turn on and the water solenoid valve shall open.
3. The polymer feed pump shall include start/stop indicating lights, potentiometer and local remote control.
4. The polymer mixer and polymer metering pump shall be provided with start/stop pushbuttons, indicating lights and motor starters.
5. Single phase, 120 volt, 60 Hertz power shall be supplied to the main control panel.
6. All devices within the panels shall be permanently identified. Nameplates shall be made of laminated phenolic materials with a black face and white core.

### 2.5 ELECTRICAL REQUIREMENTS

#### A. General Requirements

1. Provide one (1) control panel constructed of 304 stainless steel, NEMA 4X construction.
2. The panel shall be a full operating panel complete with all motor control and supervisory devices for press-mounted and ancillary equipment. All electrical work shall be performed in accordance with applicable local and national electric codes. The control panel shall include an Allen Bradley Compact Logix PLC and a 12" color OIT Panel View Plus 7 touch screen. An Ethernet connection shall be provided for communication with plant control system. Allen Bradley AC Power Flex 525 Variable Frequency Drives shall be used for each of the following individual components in the local control panels: Screw Press drive, and the Filtrate Recycle Pump drive.
3. The ancillary equipment to be controlled by this panel includes the sludge feed pumps, polymer blending unit, washwater booster pump, discharge conveyor system. The washwater booster pump will have a motor starter in the control panel. All motor starters and VFDs will be protected by in-line dedicated circuit breakers. The PLC will include logic for all necessary system interlocks and will control process and emergency shutdowns.

4. The controls shall be such that selection of the desired ancillary equipment is easily accomplished at the OIT touchscreen for the Screw Press.
5. Three phase, 460 volt, 60-Hertz power shall be supplied to the control panels. A control transformer will be provided for 120-volt, single phase power source for motor starter coils, lights, relays, timers, controllers, and other related items.
6. The control panel shall be provided with terminal blocks for power wiring to and from the panel. The incoming terminal blocks shall be provided with a single magnetic circuit breaker disconnect switch. Circuit breaker protected motor starters with thermal overloads shall be supplied for each motor furnished with the unit.
7. All electrical equipment controls located on each screw press shall have NEMA 4X enclosures and wired, through PVC conduit, to a single common NEMA 4X terminal box.
8. All devices within the panel shall be permanently identified. Nameplates shall be provided on the face of the panel or on the individual device as required. Nameplates shall be made of laminated phenolic materials with a white face and a black core.
9. The panel shall be designed for manual starting and stopping of all drives. A master manual / auto system switch shall be supplied to override the alarm system and allow operation of any drive through a momentary contact pushbutton. The control panel shall contain start/stop pushbuttons, run lights, and alarm indications for all ancillary equipment.
10. The operator interface terminal (OIT) touchscreen shall be equipped with a start/stop switch and run light for each adjustable piece of equipment. The screw drive, and polymer solution pumps as hereafter specified, shall also incorporate speed control and speed indication. The control panel shall include start/ stop pushbutton, run lights, speed control and 4 to 20 mA signal generators for the polymer solution and sludge pumps controls.
11. Alarm lights, sensors, and related circuitry shall be provided for the following functions: zero speed, emergency stop push button on each side of the press, low water pressure, and low air pressure. In the event of any of the above malfunctions, the machine will shut down and an alarm sound. The alarm system shall include an audible horn rated at 90 DBA at 10'. The system shall include silencing provisions, but the function alarm indicating light shall remain lit until the alarm condition is satisfied. A separate set of alarm contacts shall be provided for remote alarm indication.
12. Arrange control panel to allow either manual or automatic control of screw press equipment. When "MANUAL" operation is selected, all equipment associated with the screw press shall be controlled by "START/STOP" pushbuttons. When "AUTOMATIC" operation is selected, control of equipment shall be "AUTOMATIC/START" and "AUTOMATIC/STOP" pushbuttons, and programmable controller:
  - a. Local screw press control panel shall include OIT touchscreens with the following:
    - 1) One control mode selector switch marked "AUTOMATIC/ MANUAL." When "MANUAL" operation is selected, all equipment associated

with screw press shall be controlled by “START/STOP” pushbuttons. Provide one “START” and one “STOP” pushbutton for each of the following:

- a) Screw Press Drive.
  - b) Sludge Pump
  - c) Polymer Pump
  - d) Discharge Conveyor.
- 2) One speed potentiometer for manual adjustment of each drive speed.
  - 3) Digital indicators for sludge feed flow rate. Indicators shall accept 4 to 20 mA DC field input and shall be calibrated in gpm.
  - 4) Green indicating lights for “RUNNING” status for each unit operated from panel, including wash water solenoid valve energized indication.
  - 5) Red indicating lights for “OFF” status for each unit operated from panel, including wash water solenoid valve de-energized indication.
  - 6) One each “AUTOMATIC/START” and one “AUTOMATIC/STOP” momentary pushbuttons, for automatically starting and stopping each screw press system. Sludge cake conveyor shall be manually controlled when screw press control mode selector switch is in the “MANUAL” position.
  - 7) One “EMERGENCY STOP” red mushroom pushbutton.

### 13. Automatic Controls and Sequencing:

#### a. General:

- 1) Program the PLC for automatic control of screw press, system sequencing, and interlock functions as specified.
- 2) Configuration and programming of PLC system shall be the responsibility of screw press manufacturer. System documentation including memory loading, I/O configuration and programming shall be provided.
- 3) Provide and install auxiliary relays and wiring for equipment and devices specified in this Section required for implementing functional requirements specified.

#### b. “AUTOMATIC START/AUTOMATIC STOP” Cycle (typical for all screw presses):

- 1) Automatic start cycle request to PLC shall be initiated by “AUTOMATIC/START” pushbutton.
- 2) Control logic for an “AUTOMATIC/START” cycle shall start screw press in the following order after “AUTOMATIC/START” command has been initiated and interlocks are complete.
  - a) Wash water motorized ball valve.
  - b) Screw Shower “Pre-Wash”
  - c) Discharge conveyors.

- d) Screw press drive.
- e) Polymer solution pump drive.
- f) Sludge feed pump drive.
- 3) Each drive shall not start until previous drive is running and necessary time delay has elapsed. The screw press manufacturer shall determine where time delays are required and shall program settings to provide smooth start-up of equipment.
- 4) Once all drives are confirmed running by motor run contacts from their respective starters, PLC shall cause the run indicating light to illuminate. Loss of run status contact for a drive once cycle logic is complete shall shut down screw press and associated equipment.
- 5) Upon “AUTOMATIC /STOP” command, system shall shut down in order that is reverse of specified start-up order with necessary time delays.
- c. Interlocks: The following interlocks shall be satisfied when control mode selector switch is in either “AUTOMATIC” or “MANUAL” position. Failure of any one signal during start cycle or after cycle is complete shall shut down all associated screw press equipment.
  - 1) Sludge cake conveyors servicing the screw press shall be operating and confirmed by conveyor zero speed switches.
  - 2) Washwater must be on and sufficient washwater pressure must be sensed at a specified level.
  - 3) Air pressure must be sensed at a specified level.
  - 4) Polymer activation tank level must be at specified level.
  - 5) Control mode selector switch shall be in “AUTOMATIC” position.
  - 6) “EMERGENCY STOP” pushbutton shall be in operating position.

14. Annunciation and Alarms:

- a. Provide audible alarm and detailed alarm history in screw press control panel for alarming of the following:
  - 1) Screw drive failure.
  - 2) Local emergency stop initiated at either screw press control panel, screw press frame-mounted buttons or conveyor pull cord switches.
  - 3) Pump/VFD fail at sludge feed pump.
  - 4) Low wetwell level for sludge feed.
  - 5) Low washwater pressure.
  - 6) Low air pressure.
  - 7) Discharge conveyors zero speed switches.
  - 8) Polymer pump failure.

- 9) Sludge pump failure.
  - 10) Polymer activation tank low level alarm.
  - b. Wire all alarms to PLC system for relaying to remote location.
15. Additional stations shall be included as hereinafter specified for other ancillary drives or systems.
- B. Electric Motors furnished with this equipment shall meet the following requirements:
- 1. Rated for continuous duty at 40°C ambient and insulated with a minimum of Class F insulation, with Class B temperature rise. All motors shall be totally enclosed, fan cooled or non-ventilated. All motors supplied shall be rated at 150% nameplate horsepower of the required horsepower maximum service condition.

## 2.6 AIR COMPRESSOR

- A. A complete pneumatic system shall be provided and shall include an air compressor and air drier. This package shall include pump, motor, valves, air tank, all controls and piping as necessary to provide a complete and operating system. The unit shall include a low-pressure switch, system pressure gauge, and pressure relief.
- B. The air compressor shall be an Ingersoll Rand T30 2 stage compressor with a 5 HP TEFC motor.
- C. The air drier shall be an Ingersoll Rand D31EC.
- D. The air compressor unit will be floor mounted away from the press to eliminate wash down spray.
- E. The installation contractor shall supply air tubing from the air compressor unit to the press. The contractor shall include quick disconnects for air hose connections.

## 2.7 FLOW METER

- A. The screw press manufacturer shall supply a totalizing flow meter for the screw press, as supplied by Siemens or approved equal. Each flow meter shall include a 3" ANSI flange connection, a digital display, and 30 feet of display cord.
- B. The electromagnetic induction flow meter shall generate a voltage linearly proportional to flow for full-scale velocity setting from 2 to 33 feet per second. Standard accuracy of plus output shall be +/- 0.5% of rate for all meters.
- C. The meter shall incorporate a high impedance amplifier of 1012 ohms or greater, eliminating the need for electrode cleaning systems the meter shall utilize bipolar pulsed DC coil excitation with auto-integrated zeroing each half-cycle. Manual zero adjustments shall not be required – even at start-up. Power consumption shall be no more than 15 VA, independent of meter size. Input power required will be from 85 to 260 VAC, 46-65 Hz, with DC input option available.
- D. The magnetic flow meter shall be microprocessor based with integral electronics. The electronics shall be interchangeable for all sizes from 1/12" to 78". The housing is to be powder coated cast aluminum with a NEMA 4X rating.



- E. The meter's analog and pulse outputs shall be independently selected by push buttons. The analog output shall be an isolated 4-20mA DC into 700 ohms load. The pulse output shall be an open collector output with a maximum frequency of 1,000 Hz with configurable pulse width (0.5 to 2 sec). An open collector status output shall indicate either system or process error or flow direction. An auxiliary input shall be available to positive zero return. A low flow cutoff will be standard which can be turned on or off by pushbuttons.
- F. A 2-line, 16-digit LCD backlit display shall indicate flow rate and/or total flow. The totalizer value is protected by EEPROM during power outages, and utilizes an overflow counter. The display shall also be capable of indicating error messages such as empty pipe condition, error condition and low flow cutoff.

### PART 3 - INSTALLATION

#### 3.1 INSTALLATION SUPERVISION

- A. The manufacturer shall provide the services of a qualified factory representative to advise the installing contractor on proper installation, setting, piping, and wiring procedures. The installing contractor is responsible for all interconnections between the supplied equipment and plant utilities, including but not limited to, all piping, valves, wiring, conduits, foundation work, building and concrete work. The manufacturer shall provide two (2) days onsite over one (1) trip for installation supervision.

#### 3.2 OPERATION & MAINTENANCE MANUALS

- A. Two (2) paper copies and an electronic copy (in .pdf format) of operation and maintenance manuals shall be furnished. The manuals shall be prepared specifically for this installation and shall include detailed operating and maintenance instructions and specifications relative to the assembly, alignment, checking, lubrication, placing in operation, adjustment, and maintenance of each unit of equipment and auxiliaries furnished under this contract, together with complete parts lists, copies of dimension drawings, electrical drawings, and a copy of the manufacturer's start-up report.

#### 3.3 START-UP SERVICES

- A. Before the equipment is started up, the manufacturer shall make a thorough inspection of the installation to make sure the press has been installed properly and that all equipment relating to it has been installed according to the needs of the press. The equipment manufacturer shall provide two (2) days onsite over one (1) trip for mechanical check-out and pre-startup inspection.
- B. The manufacturer shall provide three (3) days over one (1) trip of onsite services of a qualified factory representative to place the units in operation and conduct performance testing. The owner shall assist the manufacturer by starting up and operating all support systems such as water, sludge feed pumping, polymer mixing, electrical power and instrumentation, and other ancillary equipment as needed. The services provided by the manufacturer shall be as detailed in the O&M manuals and shall include at least the following:
  1. Check equipment alignment and assure that there are no unusual internal stresses.
  2. Calibrate all instrumentation.

3. Check systems to insure proper operation.
4. Check lubrication in all drives.
5. Check Motor rotations, etc.
6. Adjust spray wash angles and discharge cone pressure system.
7. Start the drives and assure they are operating properly with no binding and with correct rotation.
8. Ensure that all ancillary systems have been properly adjusted, including polymer and sludge feed.

### 3.4 TRAINING SUPERVISION

- A. During the start-up procedures, the equipment manufacturer shall provide training to the owner's employees for proper operation and maintenance of the sludge dewatering equipment.
- B. At a minimum, the manufacturer shall make an additional two (2) follow-up training and inspection trips after the equipment has been in operation at least 90 days at the owner's request.

## PART 4 - MISCELLANEOUS

### 4.1 SPARE PARTS

- A. The screw press manufacturer shall provide the following spare parts to the Owner.
  1. Ten (10) spare spray nozzles.
  2. Two (2) relays of each type and size.
  3. One (1) full set of screw wipers.

END OF SECTION



**INDUSTRIES, INC.**

# Dewatering Screw Press Equipment Proposal

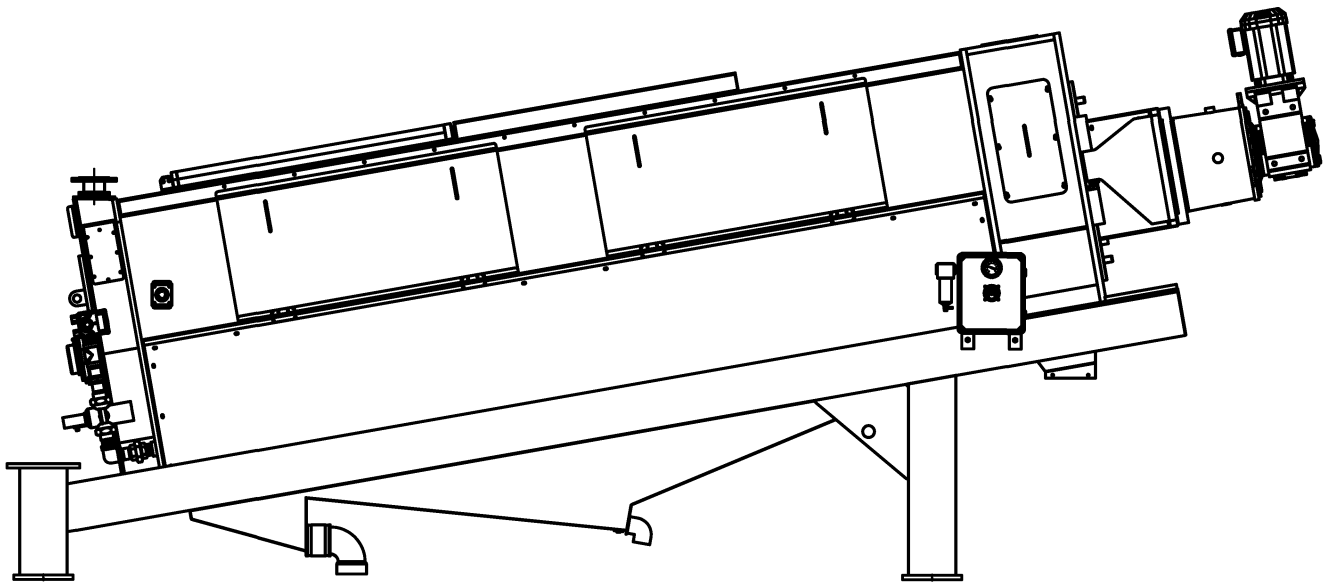
Henniker WWTF Upgrade  
Town of Henniker, NH

**Screw Press Manufacturer:**

BDP Industries, Inc.  
354 State Route 29  
Greenwich, NY 12834  
A.J. Schmidt  
PH: (518) 695-6851  
aj@bdpindustries.com

**Local Representative:**

Carlsen Systems  
41 Crossroads Place  
West Hartford, CT 06117  
Michael Sullivan  
(508) 878-1016  
msullivan@carlensystems.com



**BDP Industries, Incorporated**  
Screw Press Dewatering System

Model DSP 12



354 State Route 29 Greenwich, New York 12834  
Phone No 518-695-6851  
E-mail: dan@bdpindustries.com

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354 State Route 29, Greenwich, New York 12834  
Phone No 518-695-6851  
E-mail: dan@bdpindustries.com

Date: Thursday, October 12, 2023

To: Town of Henniker  
18 Depot Hill Road  
Henniker, NH 03242

Re: Henniker WWTF Upgrade  
Screw Press Dewatering System and Ancillary Equipment  
DSP 12  
Cover Letter

BDP Industries, Inc., has reviewed the Request for Bids document for the Henniker WWTF Upgrade project and is pleased to present our bid and support information as well as express our interest in being selected for this work. We would like to call attention to the following items as they relate to our bid offering.

Filtration Area:

This proposal includes a 12" diameter screw press which meets the specified performance requirements, but does not meet the required filtration area as listed in section 2.3.C.9 of the specification. This size screw press is the exact same size as the pilot unit that performed an onsite pilot demonstration in August of 2022. During the onsite pilot, the DSP 12 Screw Press demonstrated that it can achieve the specified throughput, discharge cake solids, solids capture and polymer dosage.

USA Manufactured:

The BDP Screw Press is fully designed, fabricated, assembled, programmed and tested at our factory in Greenwich, NY. The factory is two hours and forty minutes (125 miles) away from Henniker. The screw press is manufactured "from scratch" completely in the USA. All metal is received in raw structural steel shapes, plate and sheetmetal. BDP manufactures the screw press through the entire process, from cutting, to machining, welding, bending, forming, assembling and final testing. BDP is a UL rated panel shop, and we build and program all control panels at the main factory. BDP is the only manufacturer that fabricates the rotating element of the screw press in the United States. Buy-out items such as cylinders, gearboxes, bearings, motors and electrical switches are standard items with the OEM part numbers provided by BDP for local sourcing by the customer.

BDP has been in business, manufacturing dewatering equipment since 1978. BDP first built a screw press in 2000 and designed the current model screw press in 2009.

Reference Installations:

BDP takes great pride that our screw press installations have all met the performance requirements that were specified. The throughput capacity of screw press equipment is important in that it decides the size and number of units offered in the bid. Meeting the specified discharge cake solids, polymer dosage and solids capture is important, but only if achieved while also operating at the required hydraulic and solids loading rate.



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Phone No 518-695-6851  
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BDP has 53 screw press installations with 7 additional screw presses currently in production. In New England BDP has 67 Biosolids installations, 2 being screw press installations. Within 400 miles of Henniker BDP has 22 screw press installations.

Service: Replaceable Flights / Wipers:

BDP's main, and only factory in Greenwich, NY is our main service center. The BDP Screw Press includes wipers that act as a "lip seal" between the tips of the flights and the slotted screen basket. The **wipers increase the drainage rate** for filtrate to flow through the basket screen, allowing for a higher filtration rate in the screw press. The wipers need to be changed between every 3,000 – 5,000 hours depending on the sludge type, the amount of grit, and the RPM of the screw.

Reduced Maintenance Time and Space:

The BDP Screw Press has a unique **pivoting basket design**. This allows the screw press basket to be opened easily for screw wiper changes, without having to remove or lift the basket halves out of the way and without having to remove the screw core. With this recent development, the time and cost of wiper changes has been significantly reduced (Reduces time to one person, 5 hours). Also, the wiper change can be accomplished with less required maintenance space adjacent to the screw press. The equipment spacing shown in our recommended layout drawing is adequate for performing the screw wiper changes.

Warranty:

BDP Industries is providing a three (3) year machine warranty period as part of this bid. BDP will warrant the screw baskets for five (5) years and the screw core, frame, frame coating, inlet box and outlet box for a period of ten (10) years.

Original Part Numbers:

BDP supplies all original part numbers so that buyout items can be purchased from the plant local suppliers without having to purchase through BDP.

We appreciate this opportunity to extend our bid and if we can answer questions or supply additional information, please do not hesitate to contact Mike Sullivan at (508) 878-1016 or myself at (518) 695-6851.

Sincerely,

Dan Fronhofer, P.E.  
Vice President  
BDP Industries, Inc.

**1.3 Bid Schedule**

<i>Bid Item</i>	<i>Est. Qty.</i>	<i>Bid Item Description and Unit Price in Words</i>	<i>Unit Price in Figures (Dollars and Cents)</i>	<i>Extended Total in Figures (Dollars and Cents)</i>
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**BID: SCREW PRESS DEWATERING SYSTEM**

1	Lump Sum	Screw Press Dewatering System and Ancillary Equipment: Two Hundred Ninety Five Thousand _____ Dollars and Zero _____ Cents per L.S.	per <u>\$295,000.00</u> L.S.	<u>\$295,000.00</u>
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NOTE: BIDS shall include sales tax and all other applicable taxes and fees.

**TOTAL BID PRICE:**

(In figures) \$ \$295,000.00

(In words) Two Hundred Ninety Five Thousand Dollars and  
Zero Cents

**BID CONDITIONS**

1. This Proposal shall be filled in by the BIDDER with prices written in both words and numerals and the extensions made by him/her. In case of discrepancy between words and numerals, the amount shown in words shall govern.
2. In the case of discrepancy between the Unit Price given and the Total Price of an Item, the Unit Price shall govern.
3. The BIDDER agrees that the Bid shall be valid and may not be withdrawn for a period of **sixty (60) calendar days** after the scheduled closing time for receiving bids.

**END OF SECTION**

**ADDENDUM NO. 1**  
**DATED THURSDAY OCTOBER 5<sup>th</sup>, 2023**  
**TOWN OF HENNIKER, NH**  
**REQUEST FOR BIDS**  
**SCREW PRESS DEWATERING SYSTEM**

The following changes and information are hereby incorporated into the Request for Bids document:

**BIDDING REQUIREMENTS:**

**Changes to Section 1.1 Request for Bids:**

1. No changes.

**Changes to Section 1.2 Instruction for Bidders:**

2. No changes.

**Changes to Section 1.3 Bid Schedule:**

3. No changes.

**TECHNICAL SPECIFICATIONS:**

**Changes to Technical Specifications:**

1. **Specification 11350 Screw Press Dewatering System:** Clause 1.3.B.1 **DELETE** the words "Equipment manufacturer" and **REPLACE** with "Equipment manufacturer or their designated panel supplier".
2. **Specification 11350 Screw Press Dewatering System:** Clause 2.2.C **DELETE** the words "Inside of the box shall be white"
3. **Specification 11350 Screw Press Dewatering System:** Clause 2.3.C.4 **DELETE** the words "Designs that utilize basket assemblies constructed of wedge wire or moving rings will not be allowed" and **REPLACE** with "Designs that utilize basket assemblies constructed of wedge wire or moving rings are acceptable".
4. **Specification 11350 Screw Press Dewatering System:** Clause 2.3.D.2 **DELETE** the words "The screw shower shall be pneumatically actuated with an adjustable timer setting on the OIT" and **REPLACE** them with "The screw shower shall be pneumatically or electrically actuated with an adjustable timer setting on the OIT.".

**ADDITIONAL INFORMATION:**

- 1) Below are responses to questions raised during the bidding period:

*Question #1 – Does the engineering team have an estimation for substantial completion date for this project?*



**Answer #1** – The construction contract is estimated to be awarded May / June 2024 with a 12-month duration for substantial completion.

**Question #2** – *Paragraph 1.3.B.1: Please revise this to “Equipment manufacturer or their designated panel supplier shall be certified....”*

**Answer #2** – Specification clause amended, see changes to technical specifications.

**Question #3** – *Paragraph 2.2.C: Stainless steel enclosures are typically not painted, and this would require a custom enclosure without tangible benefit for the customer. May an enclosure be supplied that meets construction requirements while omitting the requirement for white internal painting?*

**Answer #3** – Non painted stainless-steel finish is acceptable, see changes to technical specifications.

**Question #4** – *Paragraph 2.3.B.1: This outlines the injection/mixing design of another manufacturer and cannot be supplied as written. We are requesting confirmation that our standard injection ring and mixing equipment that meets the design intent of the specifications be accepted, please confirm.*

**Answer #4** – The standard injection ring and mixing equipment provided by all manufacturers are acceptable.

**Question #5** - *Paragraph 2.3.C.4: HUBER’s basket/screen design utilizes wedge wire, which is referenced as not allowed. Can you please confirm or rewrite the section allowing for our design.*

**Answer #5** – Hubers basket / screen using wedge wire is acceptable, see changes to technical specifications.

**Question #6** - *Paragraph 2.3.D.2: This section calls for a pneumatically actuated shower. HUBER’s design is an electrically actuated spray wash shower. Is this acceptable in lieu of what is stated? Please confirm.*

**Answer #6** – Electrically actuated spray wash shower is acceptable, see changes to technical specifications.

**Question #7** - *Paragraph 2.3.D.4: HUBER’s design uses a spray wash system with instantaneous flow rate of approx. 45 gpm. Is suitable water available for this design? What is the site pressure, so that we can properly size booster pump. Will our design be accepted for supply?*

**Answer #7** – Yes suitable water is available and the equipment supplier shall assume the pressure to be in the range of 40 to 60 psi.

**Question #8** - *Paragraph 2.5.A.3: HUBER requests information of the sludge feed pump being used to ensure/confirm the pump can overcome backpressure associated with manufacturers mixing device. Please confirm the maximum pressure for the pump or please provide pump type and pump curve if available.*

**Answer #8** - The existing sludge feed pumps are Penn Valley double disc pumps and have a design point of 80 gpm at 27 feet TDH. These pumps send sludge to a day tank, after which a separate progressive cavity pump transfers the sludge from the day tank to the existing belt filter press. The existing pumps will either be modified or replaced to provide the required sludge feed for the selected dewatering equipment.

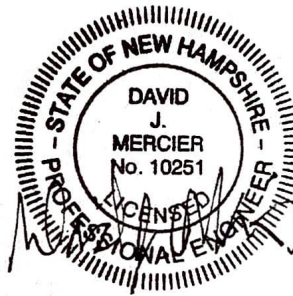
**Question #9 - Paragraph 2.5.A.9:** Full manual operation bypasses safety interlocks and has the possibility to damage the screw press if operated for extended periods. HUBER will supply Hand control, but this operation is intended only for maintenance on the machines, not for complete operation of a dewatering system. HUBER's strategy for operation is automatic only. Please confirm this will be acceptable for consistent operation in automatic mode.

**Answer #9 -** The above is acceptable and the screw press will be operated in automatic mode during normal operating conditions. The control panel shall be designed for a manual starting and stopping of all drives per Section 2.5.A.9 to allow the operators to have full control for maintenance purposes, noting that this will not be for extended periods.

UNDERWOOD ENGINEERS, INC.

David J. Mercier, P.E.  
Vice President

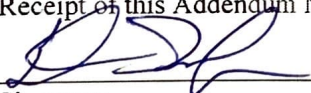
**Dated October 5<sup>th</sup>, 2023.**



**ACKNOWLEDGEMENT**

In order to acknowledge this addendum, please fill out the below noted information and fax this page upon receipt to (603) 431-4733 or email to [concord@underwoodengineers.com](mailto:concord@underwoodengineers.com).

Receipt of this Addendum No. 1 (3 pages) is acknowledged:

  
Signature

10/12/23  
Date

Dan Fronhofer  
Name (printed)

BDP Industries  
Company



354 State Route 29, Greenwich, New York 12834  
Phone No 518-695-6851  
E-mail: dan@bdpindustries.com

**Date: Thursday, October 12, 2023**

**To: Town of Henniker  
18 Depot Hill Road  
Henniker, NH 03242**

**Attn: Diane Kendall  
Town Administrator**

**Re: Henniker WWTF Upgrade  
Screw Press Dewatering System and Ancillary Equipment  
Acknowledging Addendum #1  
BDP Bid Proposal #: 100923-0831**

BDP Industries, Inc. is pleased to offer our quotation for One (1) DSP 12 Screw Press and accessories for Henniker, NH. Below is a summary description of our proposed scope of supply.

#### **EQUIPMENT DESCRIPTION**

The Screw Press equipment package includes a complete press and appurtenant equipment described as follows:

1. One (1) 316L stainless steel polymer injection and polymer/sludge mixing system consisting of an injection ring, variable vortex mixer, and reducing fittings.
2. One (1) 12" Screw Presses, with the following design features:
  - a. 304 stainless steel frame.
  - b. 304 stainless steel wetted parts.
  - c. 304 stainless steel hardware.
  - d. Replaceable wear flights.
  - e. Automatic, intermittent oscillating screen shower.
  - f. Pneumatically adjustable discharge cone.
  - g. TEFC IP65 severe duty variable speed motor.
  - h. PVC conduit.
  - i. NEMA 4X pre-wired junction box.
3. One (1) complete electrical control panel for all Screw Press control functions and drives.
  - a. NEMA 4X
  - b. 304 Stainless Steel.
  - c. UL508
  - d. 12" Color Allen Bradley Panelview Plus 7 OIT.
  - e. Allen Bradley Compact Logix PLC.
  - f. Allen Bradley 525 Variable Frequency Drives.
  - g. IEC motor starters.
  - h. 460/3/60
  - i. 120-volt transformer.
  - j. Ethernet Communication.



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Phone No 518-695-6851  
E-mail: dan@bdpindustries.com

4. One (1) Ingersoll Rand Air Compressor, 5 HP, 80 Gallons.
5. One (1) Ingersoll Rand D31EC Air Drier.
6. One (1) Washwater Booster Pumps, Goulds model eSV, vertical multistage pump. 304 stainless steel construction, 3 HP TEFC motor, 3500 RPM.
7. One (1) Emulsion polymer blending unit with 2 GPH progressive cavity neat polymer pump and 1200 GPH dilution water capability.
8. One (1) 3" Diameter Siemens Magnetic Flow Meter.
9. One (1) Lot of spare parts per section 4.1.
10. All start-up, mechanical checkout and operator training as specified. Service to include five (5) separate trips with nine (9) days of on-site service.
11. Three-year equipment warranty. Five-year warranty for the screw baskets. Ten-year warranty for the frame, frame coating, screw core, and inlet and outlet boxes
12. Freight to the jobsite.

The Screw Press will come completely factory-assembled, tested and will be shipped as a single piece. The polymer injection device, booster pump, air compressor, polymer system and electrical control panel will all be packed separately. This quotation is for furnishing equipment only and does not include any installation labor or field services other than checkout, start up and testing services as listed above. All installation, on-site assembly, anchorage, pads and other work required to facilitate the setting of the equipment is to be by others. All materials and labor for interconnecting between the press and the auxiliary equipment is to be completed by others applicable taxes or installation.

#### **ITEMS NOT INCLUDED IN SCOPE OF SUPPLY**

1. Unloading at the jobsite.
2. Installation.
3. Operator platforms.
4. Sump grating.
5. Sludge feed pump.
6. Conveyance.
7. Temporary or mobile dewatering.
8. Anchor bolts.
9. Applicable taxes of any kind.
10. Interconnecting plumbing and wiring.
11. Valves or instrumentation not listed above.



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E-mail: dan@bdpindustries.com

### **SUBMITTAL DATA**

Submittals will be made in the number of copies specified and will be available within 8 to 10 weeks after firm purchase order and all information is received at the factory.

### **SHIPMENT**

Approximate shipping weight of the unit is 5,000 pounds. Estimated shipping time is 30 to 40 weeks after submittal approval.

### **FIELD SERVICE**

Installation observation, testing and operator instruction services as listed above will be supplied. Additional service can be supplied at a service rate of \$1,400 per day plus travel expenses.

### **BID PRICING**

The total price for the above equipment is listed in Section 1.4 of the bid forms. This price includes the shipping cost to the job site or nearest unloading point. The price does not include unloading cost and applicable taxes of any kind. This quotation will be valid for sixty (60) days from the date of this proposal.

### **TERMS**

Terms of payment are 30% upon submittal approval, 60% upon shipment of equipment and 10% upon start up. The attached Conditions of Sale are hereby made a part of this proposal.

We appreciate this opportunity to extend our quotation. If we can answer questions or supply additional information, please do not hesitate to contact Michael Sullivan of Carlsen Systems at 508-878-1016.

Sincerely,

Dan Fronhofer, PE  
BDP Industries, Inc.

cc: A.J. Schmidt, BDP Industries, Inc.  
&  
Michael Sullivan  
[msullivan@carlensystems.com](mailto:msullivan@carlensystems.com)  
cell – 508-878-1016  
[www.carlensystems.com](http://www.carlensystems.com)



354 State Route 29, Greenwich, New York 12834  
Phone No 518-695-6851  
E-mail: dan@bdpindustries.com

**CONDITIONS OF SALE - COS 5-86**

**GENERAL** -- This contract will exist between BDP Industries, Inc. (hereafter referred to as BDP) and the buyer only when accepted in writing by an officer of BDP. The prices quoted herein are firm for a period of 180 days if a contract is entered within thirty (30) days from the date on the face of this proposal. Any amendment to this contract must be in writing and acknowledged by both parties.

**TERMS OF PAYMENT** -- Payment is to be made on a net basis within thirty (30) days after invoice, subject to credit approval by BDP. The buyer's payment obligation is not dependent upon the buyer's receipt of payment from any other party. BDP reserves the right to invoice on partial shipments. Any balance owed by the buyer beyond thirty (30) days or more after due is subject to delinquency charges of 1.5% per month or any fraction thereof. This shall be in addition to any other amounts due and buyer shall reimburse BDP for all collection costs, including attorney's fees BDP may incur with respect to collection of past due amounts from the buyer.

**TAXES** -- This proposal does not include any Federal, State or Local Sales, Privilege, Use or any other taxes of any kind applicable to the sale of the equipment covered under this agreement. These taxes shall be paid by the buyer or the buyer shall provide BDP with a tax exemption certificate applicable to proper taxing authority.

**SHIPMENT** -- All shipment will be F.O.B. factory. Shipping estimates contained herein are based on time of receipt at BDP's factory of all details pertaining to the order which are essential to contract completion.

**FORCE MAJEURE** -- BDP shall not be liable for any loss or damage of any nature whatsoever incurred or suffered as a result of any failures or delays in performance due to any cause or circumstances beyond its, or its subcontractors' or suppliers' control, including, but not by way of limitation, failure or delays in performance caused by strikes, lockouts or labor disputes, acts of purchaser, fires, acts of God or the public enemy, riots, incendiaries, interferences by civil or military authorities, compliance with the laws of the United States or with the orders or policies of any Governmental authority, delays in transit or delivery on the part of transportation companies or communication facilities or failure of sources of raw material. In the event of such delay, the time of delivery or completion shall be extended by a period of time equal to the period of delay plus such time as needed for start-up and/or remobilization, provided however, should the Force Majeure situation extend beyond six months the contract may be canceled by either party. Purchaser shall reimburse BDP for all costs and expenses including overhead costs which BDP may have reasonably incurred in terminating the contract, plus an amount as reasonable profits on that portions to the contract which has been completed.

**WARRANTY** -- BDP warrants the equipment manufactured by it to be free from defects in materials and workmanship for a period of 18 months from the date of shipment or 12 months from the date of start-up, whichever occurs first. BDP will repair or replace, at its option, F.O.B. its factory, any defective part or material, provided prompt notification is rendered in writing. The repair or replacement of items such as light bulbs, grease, oil, drive belts or chains, pump seals, etc. are not covered by this warranty and are considered normal consumption and routine maintenance items. In addition to the replacement of defective parts, BDP will also provide such labor as it deems necessary, to repair a defect in the main frame structure. BDP will not assume the cost of any modification or repair of its equipment unless it specifically gives authority for such action. **THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHERS. BDP MAKES NO WARRANTY AS TO FITNESS OF ITS PRODUCTS FOR PARTICULAR PURPOSE OR MERCHANTABILITY.**

**LIMITATION OF LIABILITY** -- A. In no event, be it due to breach of any warranty hereunder or any other cause rising out of performance or non-performance of the obligations herein, whether any such breach or cause be or sound in tort, contract or otherwise, shall BDP be liable for indirect, special or consequential damages (such as, but not limited to, loss of profits, plant downtime, fines, penalties, or cost of replacement services) or sued by third parties against the purchaser (excluding suits regarding patents on title to the goods furnished hereunder). B. BDP's total cumulative liability for any and all reasons shall not exceed an amount equal to the contract price.

**CLAIMS** -- The buyer shall immediately inspect equipment within ten (10) days after receipt, BDP is not obligated to consider any claim for shortages or non-conformance unless notified by the buyer within ten (10) days after his receipt of the goods in question, BDP is not responsible for loss or damage in transit, however they will lend any possible assistance to the buyer in his pursuit of claim recovery.

**CANCELLATION** -- BDP will accept cancellation of this order upon receipt of payment for percentage of the contract equal to a percentage of the work completed. This shall be, at a minimum, 20% of the contract price.

**STORAGE** -- If the buyer delays shipment, then the buyer agrees to pay all invoices as they become due. The buyer further agrees to pay, in addition, storage charges computed at 1.5% per month of the invoice price of equipment stored.

**PERMITS** -- The buyer shall assume full cost and responsibility to obtain all permits or licenses with respect to the installation and operation of the equipment covered under this agreement. This shall include all requirements by Federal, State and Local governmental bodies.

**OTHER** -- This contract shall be governed in accordance with the laws of the State of New York. These conditions and terms are the only terms and conditions that will be binding upon the parties unless amended, and acknowledged, in writing by both parties. No assignment of this proposal or any purchase order resulting here from shall be binding on BDP unless accepted in writing by BDP.



# PERFORMANCE AFFIDAVIT

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## Henniker WWTF Upgrade DSP 12 Screw Press

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BDP Industries has examined the Contract Documents and hereby state that the DSP 12 Screw Press meets in every way the performance requirements set forth or implied in Specification Section 11350 of the Contract Documents.

<b>Parameter</b>	<b>Requirement</b>
Sludge Type	Secondary Waste Activated Sludge
Sludge Feed Solids (% wt)	0.5 – 0.8
Solids Throughput (dry lb/hr)	123
Sludge Flow Rate (gpm)	31 – 49
Maximum Polymer Dosage (act. lb/dry ton)	60
Minimum Discharge Cake Solids (% wt)	14
Minimum Solids Capture (%)	95

*A.J. Schmidt*  
A.J. Schmidt  
President

***SCREW PRESS PILOT DEMONSTRATION***  
***Henniker Wastewater Treatment Plant***  
***Henniker, NH***



August 1<sup>st</sup> – 3<sup>rd</sup>, 2022

Presented for:

Underwood Engineering  
&  
Henniker Wastewater Treatment Plant

Conducted by:

Luke Fronhofer & Damon Brownell  
BDP Industries



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## **1. EXECUTIVE SUMMARY**

The Henniker Wastewater Treatment Plant located in Henniker, NH currently uses one belt filter press to process their solids. Underwood Engineering is evaluating an upgrade to their dewatering system including the addition of screw press units. As part of the study, BDP Industries was invited to operate the Model DSP Screw Press during an onsite pilot test from August 1<sup>st</sup> – 3<sup>rd</sup>, 2022. The DSP offers the latest in dewatering technology including a filtrate recycle system and slotted screen basket design. The design is based on over forty years of experience and ongoing improvements to BDP dewatering equipment.

The BDP Screw Press Pilot was able to demonstrate the ease of operation, maintenance requirements, and unique features of the DSP screw press design.

The following parameters were deemed to be of interest in the pilot study:

1. Cake Dryness
2. Accessibility of spare parts and service.
3. Automation
4. Hydraulic/Dry Solids Loading
5. Polymer Dosage

***Table 1: Performance for the 12” diameter DSP Screw Press while dewatering aerobically digested sludge:***

Operating Parameter	DSP - 12 Range	DSP - 12 Average	Expected Benefits of DSP
<b>Hydraulic, gpm</b>	11.2 – 50.7	21.6	Independent rotary drum provides higher hydraulic throughput
<b>Dry Solid, lb/hr</b>	31 – 122	50	Independent rotary drum provides higher solids throughput for given screw diameter
<b>Cake Dryness, wt %</b>	14.47 – 25.57	18.91	Pre-thickening, tapered shaft, and variable pneumatic cone pressure achieves higher solids
<b>Polymer Dosage, lb/ton</b>	25.6 – 45.5	35.5	Improved conditioning and dewatering technology optimizes polymer use and discharge solids
<b>Solids Capture, %</b>	96.8 – 98.6	97.64	Screen slot design and filtrate recycle system result in higher solids capture rates

In summary, the pilot test demonstrated the capabilities and operability of the Model DSP Screw Press. The DSP can produce the desired discharge cake solids at high loading rates. The rugged construction, coupled with a modern and improved press design, provides for low operator attention and optimized dewatering performance.

## **2. INTRODUCTION**

The BDP pilot trailer unit includes a Model 3012 DSP Screw Press with a 30” diameter optional rotary drum thickener and a 12” diameter screw press. The unit is skid mounted on a trailer with all of the accessories to provide a complete dewatering system. The skid

includes a 5 HP MXQ progressive cavity sludge feed pump, an emulsion polymer blending unit, a filtrate recycle system, a washwater booster pump, a small belt conveyor, and a control panel providing automatic control of the entire system. The control panel includes an Allen Bradley Compact Logix PLC and HMI touchscreen set up for single button start and single button shutdown. The system is programmed to run unattended in batch mode; when the desired number of gallons is reached the system goes into a cleanout cycle and shuts itself down.

The BDP Screw Press is fully designed, fabricated, assembled, programmed and tested at our factory in Greenwich, NY. All parts of the screw press and rotary drum thickener are made in-house at BDP's factory. BDP is a UL rated panel shop, and we build and program all control panels at the main factory. Buy-out items such as cylinders, gearboxes, bearings, motors and electrical switches are standard items with the OEM part numbers provided by BDP for local sourcing by the customer.

### **3. SET UP & TEST PROCEDURES**

The screw press trailer was delivered to the site on Friday, July 29<sup>th</sup>. A three-inch hose was lowered into the sludge holding tank. Polymer was fed and metered from the emulsion polymer blending unit on the screw press skid into the sludge line. All filtrate was collected in the skid-mounted dropbox and piped via four-inch hose lines to a man-hole near the trailer that returned to the head of the plant.

The solids loading, polymer dosage, polymer type, and cone pressure were varied during the testing to produce a range of results for analysis. Samples were collected after these settings had reached steady state for at least 30 minutes. BDP Industries collected feed solids and cake solids utilizing two O'Haus moisture analyzers for quick results and feedback on the trailer. BDP Industries collected feed solids, filtrate and cake solids samples for analysis at a laboratory using Standard Method. The Plant Staff collected duplicate samples to be analyzed in the laboratory at the plant.

**Day 1** – The first day included the setup of the screw press trailer on site. Water, sludge and filtrate lines were all plumbed into the piping at the treatment facility while power was hooked up to the breaker panel provided by the plant staff. The screw press, sludge pump and polymer unit were tested and the unit processed solids for 3 hours.

**Day 2** – The first day of testing included varying polymer dosages and polymer addition points at lower solids throughputs to identify the conditioning characteristics of the sludge/polymer mixture. Samples were collected for analysis by the laboratory.

**Day 3** – The third day of testing included more testing with lower solids loading rates. Higher solids loading rates were also tested while varying polymer dosage. Samples were collected for analysis by the laboratory. The trailer was cleaned and packed up.

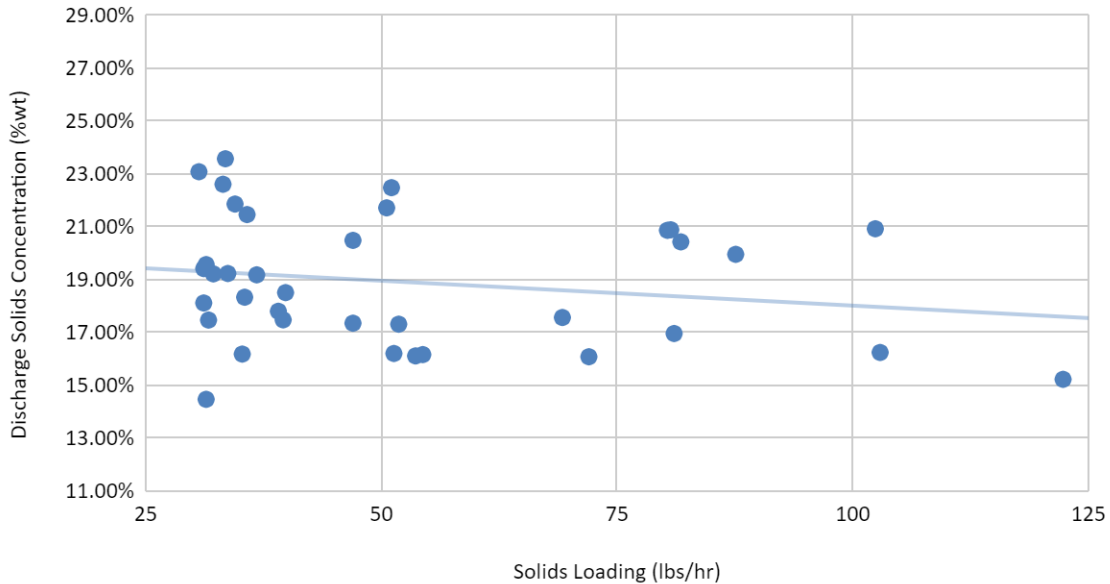
### **4. DISCUSSION OF RESULTS**

#### **4.1. SOLIDS LOADING**

Discharge cake solids concentrations are dependent on the sludge characteristics, polymer type and conditioning, the amount of free water present, the amount of pressure and shear applied to the material, and the residence time in the press to

allow the free water to be expressed. Figure 1 below shows a direct relationship between cake solids and solids loading whereas solids loading was increased the cake solids decreased.

Discharge Solids Concentration vs Solids Loading

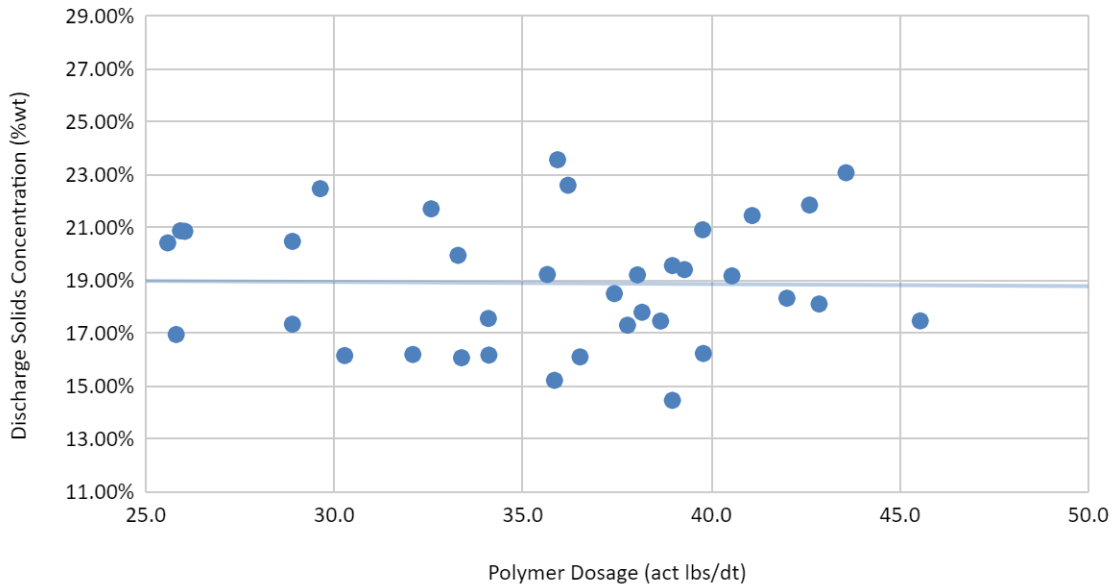


*Figure 1 - Discharge Solids Concentration vs. Solids Loading*

#### 4.2. POLYMER DOSAGE

Typical mechanical dewatering shows increased cake solids with increased polymer dosage, or an optimal polymer dosage with a bell-shaped curve. However, Figure 2 below shows a straight curve with an average polymer dosage around 36 lbs/dt. This is the result of a variation of solids loading rates with different polymer dosages.

## Discharge Solids Concentration vs Polymer Dosage



*Figure 2 - Discharge Solids Concentration vs. Polymer Dosage*

### 4.3.SOLIDS CAPTURE

Solids Capture can be interpreted as the “efficiency” of the dewatering equipment for removing solids from the plant. The Solids Capture represents the percentage of material that makes it through the dewatering equipment and out for disposal, instead of being recycled to the head of the plant. The filtrate recycle system on the DSP Screw Press allows the operator to increase the solids capture beyond what is typically achieved in a screw press.

Solids Capture was recorded by sending filtrate samples to the laboratory for analysis. The average solids capture for the duration of the pilot was 97.64%. Maintaining a clear filtrate returning to the head of the plant was critical and was a key point of discussion with the plant staff.

$$\text{Percent Capture} = \frac{C}{F} * \frac{F - (E * \frac{Q + S}{Q})}{C - (E * \frac{Q + S}{Q})} * 100$$

## **5. CONCLUSIONS AND RECOMMENDATIONS**

The pilot activity at the Henniker Wastewater Treatment Plant demonstrated the operability and features of the Model DSP Screw Press. The screw is able to process high hydraulic and solids loading rates while yielding high discharge solids concentrations and very high solids capture rates.

BDP would like to thank Underwood Engineering and the Henniker Wastewater Treatment Plant staff for the invitation to pilot and for their hospitality and support during the pilot activities. Please feel free to contact us at any time with questions regarding the screw press design, operation or performance.

*Filtrate from the BDP Screw Press (no shower water)*



*Discharge Cake from the BDP Screw Press*





Route 29 Greenwich, New York 12834  
Phone No 518-695-6851

**APPENDIX I – OPERATING AND TEST DATA**

**BDP Screw Press Data Sheet:**

Time (hh:mm)	Sludge Pump (%)	Feed Flow Rate (gpm)	Inlet Consist. (% wt)	Blending Unit		Drum Speed (%)	Screw Speed (%)	Drum Transfer Speed (%)	Cone Pressure (psi)	Solids Loading (lb/hr)	Blending Unit		BDP Lab Sample (%)	Plant Lab Sample (%)	Filtrate Sample (Mg/l)	Percent Capture (%)
				Polymer Pump Frequenc (HZ)	Single Dilution Water (gpm)						Polymer Flow Neat GPH	Active Polymer Dosage (lb/dry ton)				
<b>8/1/2022</b>											2.00					
2:00	33	24.8	0.71	9.4	2	70	6	20	30	81	0.31	25.8	16.96%	16.30%		
2:15	33	25.0	0.71	9.4	2	70	5	20	30	82	0.31	25.6	20.43%			
2:30	33	24.7	0.71	9.4	2	70	11	20	40	81	0.31	25.9	20.89%			
2:45	33	24.6	0.71	9.4	2	70	10	20	40	80	0.31	26.0	20.87%			
<b>8/2/2022</b>																
8:00	22	16.0	0.51	6.6	2		10		40	36	0.22	41.1	21.46%			
8:30	22	15.5	0.51	6.6	2		5		40	34	0.22	42.6	21.86%			
8:45	22	15.8	0.51	5.4	2		5		40	35	0.18	34.1	16.18%			
9:15	22	15.1	0.51	5.4	2		5		50	33	0.18	35.9	23.57%			
9:30	22	15.2	0.51	5.4	2		10		50	34	0.18	35.7	19.23%		64	98.62%
10:00	22	15.0	0.51	5.4	2		5		50	33	0.18	36.2	22.61%			
10:30	28	20.4	0.51	6.1	2		12		50	47	0.20	28.9	20.49%			
10:45	28	20.4	0.51	6.1	2		9		50	47	0.20	28.9	17.35%			
11:30	30	22.0	0.51	6.8	2		11		60	51	0.23	29.6	22.48%	21.60%		
11:45	30	22.1	0.51	7.4	2		12		60	51	0.25	32.1	16.21%			
12:00	30	21.8	0.51	7.4	2		6		60	51	0.25	32.6	21.72%			
12:15	30	23.3	0.51	7.4	2		16		60	54	0.25	30.3	16.17%			
12:45	30	22.3	0.51	8.8	2		7		60	52	0.29	37.8	17.32%			
1:15	30	23.0	0.51	8.8	2		9		60	54	0.29	36.5	16.12%			
1:45	40	30.2	0.51	10.8	2		12		60	72	0.36	33.4	16.08%			
2:15	20	14.6	0.51	5.5	2		5		60	32	0.18	38.0	19.22%		148.00	96.79%
2:30	20	14.4	0.51	5.5	2		6		60	32	0.18	38.7	17.47%			
2:45	20	14.3	0.51	5.5	2		7		60	31	0.18	39.0	19.57%			
<b>8/3/2022</b>																
8:00	20	14.2	0.51	5.5	2		6		60	31	0.18	39.3	19.42%			
8:15	20	14.3	0.51	5.5	2		5		60	31	0.18	39.0	14.47%			
8:30	20	14.2	0.51	6.0	2		6		60	31	0.20	42.9	18.12%			
8:45	20	14.0	0.51	6.0	2		5		60	31	0.20	43.6	23.08%			
9:15	40	29.1	0.51	10.6	2		12		60	69	0.35	34.1	17.57%			
9:30	49	36.8	0.51	13.1	2.5		15		60	88	0.44	33.3	19.96%			
9:45	58	42.6	0.51	18.3	2.5		14		60	102	0.61	39.8	20.93%			
10:15	58	42.8	0.51	18.4	2.5		22		60	103	0.61	39.8	16.25%		135.00	97.28%
10:30	67	50.9	0.51	19.7	3		28		60	122	0.66	35.8	15.23%			
11:00	22	15.9	0.51	6.7	2		5		60	35	0.22	42.0	18.34%			
11:15	22	16.4	0.51	6.7	2		7		60	37	0.22	40.5	19.18%			
11:30	25	17.6	0.51	6.7	2		7		60	40	0.22	37.4	18.51%		100.00	97.88%
11:45	25	17.3	0.51	6.7	2		11		60	39	0.22	38.2	17.80%			
12:00	25	17.5	0.51	8.1	2		10		60	40	0.27	45.5	17.48%			





354 State Route 29, Greenwich, New York 12834

Phone No 518-695-6851

Fax No. 518-695-5417

mike@bdpindustries.com

## WARRANTY

BDP Industries, INC., warrants the equipment supplied in this scope to be free from defects in materials and workmanship for a period of 36 months from the date of startup or 42 months from the date of shipment, whichever occurs first. BDP warrants the screw baskets for five (5) years from the date of startup. BDP warrants the screw press frame, frame coatings, screw press core, screw press inlet and outlet boxes for a period of ten (10) years from the date of startup. BDP will repair or replace, at its' option, FOB Greenwich Factory, any defective part or material provided prompt notification is rendered.

BDP will warrant the bearings, drives, etc. for the warranty period. The buyout items will be replaced at no cost to the owner as long as the equipment is operated and maintained per the maintenance manual provided by BDP.

The repair or replacement of items such as light bulbs, grease, oil, drive belts or chains, pump seals, etc., are not covered by this warranty and are considered normal consumption and routine maintenance.

BDP will not assume the cost of any modification or repair of its equipment, unless it specifically gives authority for such action. BDP disclaims any responsibility as a result of changes or additions by others made to its' equipment after shipment from the factory.

In no event shall BDP be responsible for special or consequential damages of any nature, including, but not limited to loss of profits or revenues, loss of any equipment, cost of capital, cost of temporary facilities, downtime costs, or other claims brought as a result of breach of contract, warranty, or negligence.

**THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHERS. BDP MAKES NO WARRANTY AS TO FITNESS OF ITS' PRODUCT(S) FOR ANY PARTICULAR PURPOSE OF MERCHANTABILITY.**



Route 29 Greenwich, New York 12834  
Phone No 518-695-6851  
Email: dan@bdpindustries.com

### **Corporate Overview:**

BDP Industries employs 60 people in the design and fabrication of thickening, dewatering, and compost equipment. All manufacturing is done “in house” at our Greenwich, NY facility, with the latest in manufacturing equipment including CNC lathes, CNC machining centers, Laser cutting, and waterjet cutting machines. BDP manufactures and coats all rollers in house. BDP is also a UL certified panel shop with complete engineering and programming design. This combination of engineering, manufacturing and service allows BDP to have complete control over our production capabilities, quality and schedule, while providing exceptional service and industry leading product improvements. BDP’s relatively small size and focus on the dewatering marketplace allows us to focus our energy completely on product development and customer service.



# Model DSP Screw Press



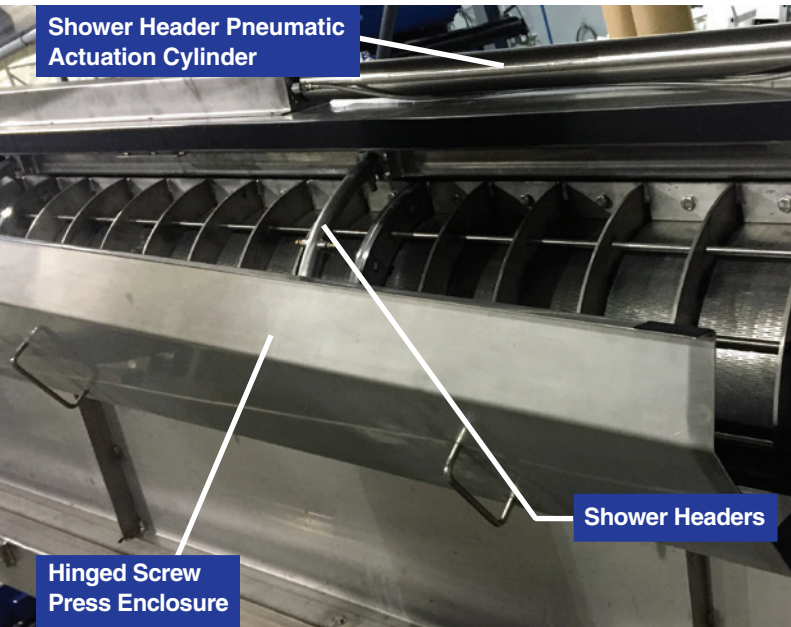
Industry Leader in Design and Manufacture of Thickening, Dewatering, and Composting Systems

# BDP Model DSP Screw Press



Filtrate recycle pump

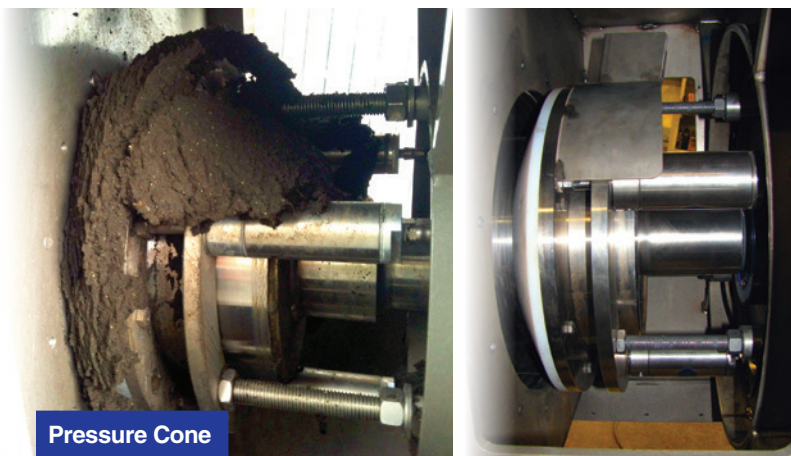
Pressure section filtration collection



Shower Header Pneumatic Actuation Cylinder

Shower Headers

Hinged Screw Press Enclosure



Pressure Cone

Developed especially for:  
**biosolids and challenging dewatering applications.**

**High capacity and excellent solids capture in a fully enclosed system for simplified operation.**

- Odor Hoods trap odor and vents pull
- Three Screw Press diameters available – 12", 18" and 30"
- Stainless steel construction for excellent corrosion resistance
- External bearings for easy access and contamination control
- Enclosed design for odor and moisture control
- PLC control for unattended operation
- Superior solids handling – all with a small footprint

## **FILTRATE POLISHING SYSTEM:**

- Increases solids capture by recycling filtrate from the screw press high pressure section back to the inlet of the RDT
- Capture rates above 95%

## **TAPERED SCREW DESIGN:**

- Reduced plugging: tapered screw core compresses cake against the screen rather than the flights
- Consistent pressure profile
- Accelerated filtrate extraction: tapered core reduces cake thickness as it progresses toward discharge

## **BASKET SCREEN DESIGN:**

- Unique slotted dewatering screen
- Multiple patterns for custom dewatering
- Tapered profile slots for optimized solids capture and eliminates plugging
- Split basket design allows for flight maintenance without removal of screw auger

## **SCREW SHOWER SYSTEM: Low water usage.**

- Optional RDT Filtrate Recycling: filtrate from RDT recycled to reduce wash water consumption
- Automated Wash System: showers use preprogrammed cycle to eliminate shut down of flow to screw press
- Pneumatically actuated showering system
- Nozzle designed to wash baskets and enclosure interior

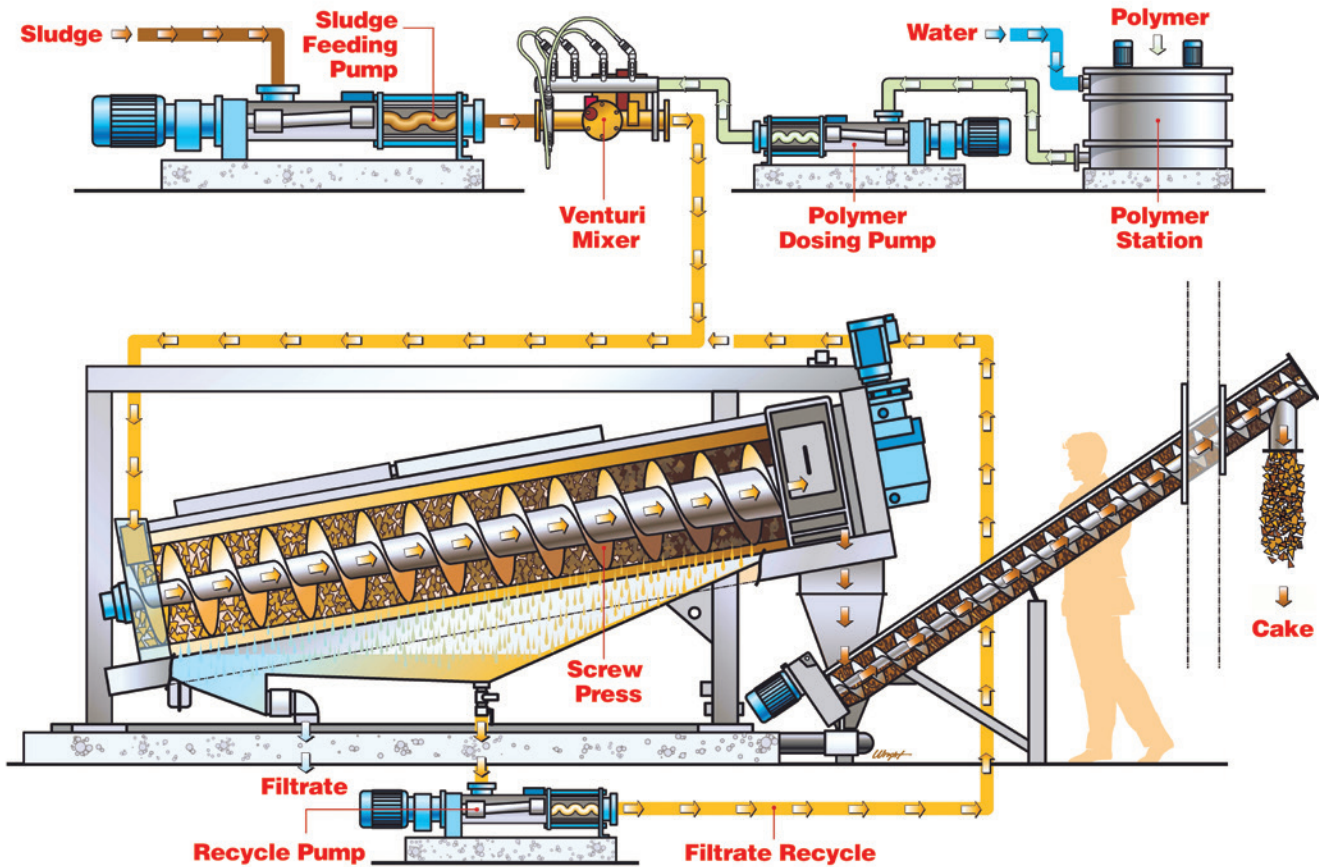
## **REPLACEABLE FLIGHTS:**

- Simplified maintenance
- Custom material design
- Extended life of the flight

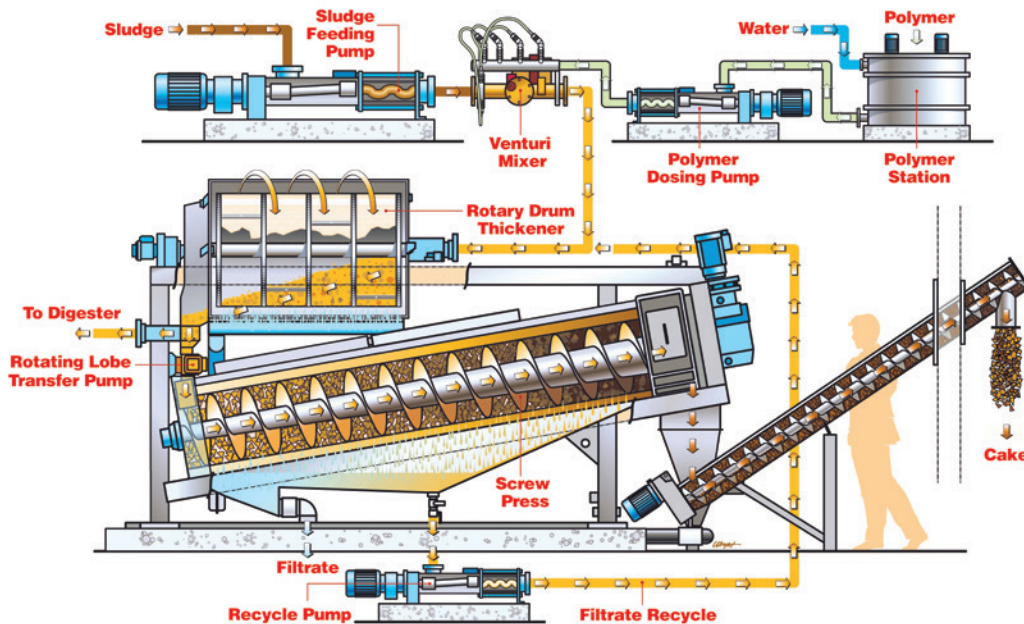
## **PRESSURE CONE:**

- Self-compensating, pneumatically actuated discharge cone enhances dewatering
- Maximize cake solids with adjustment of pneumatic regulator
- Actuates in both directions via selector switch for fast hassle-free clean up

## Standard **Screw Press Configuration**



## Optional **Configuration with Rotary Drum Thickener**



### OPTIONAL **INDEPENDENT PRE-THICKENING:**

- Enhanced capacity and dewatering performance
- Pre-thickens slurry, reducing volumetric flow to screw
- Higher hydraulic throughputs
- More time under pressure resulting in higher discharge cake solids
- Dual Mode operation – operate as a thickening or dewatering system



### **BDP Contacts:**

**Sales:** 518-796-1440

**Factory:** 518-695-6851

**Email:** [info@bdpindustries.com](mailto:info@bdpindustries.com)

P.O. Box 118, 354 State Route 29  
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[www.bdpindustries.com](http://www.bdpindustries.com)

Henniker, NH  
Screw Press Support Services



**BDP SERVICE PERSONNEL**

NAME	YEARS OF EXPERIENCE	TITLE	PHONE	LOCATION
A.J. Schmidt	27	President - Owner of BDP - Clarkson University, BS Chemical Engineering - Process Engineer - Manufacturing Supervisor	(518) 796-2344 (cell)	Greenwich, NY
Dan Fronhofer	17	Vice President - Owner of BDP - Marketing Manager - Process Engineer - R&D Support - P.E. NY state - Cornell University, BS Environmental Engineering	(518) 796-1440 (cell)	Greenwich, NY
Mike Gratton	18	Design Engineer - Mechanical and Electrical Design - Process Support - Rensselaer Polytechnical Institute, BS Mechanical Engineering	(518) 796-2256 (cell)	Greenwich, NY
Socrates Fronhofer	34	Vice President - Composter Support - University of Albany, BS Computer Science	(518) 796-5246 (cell)	Greenwich, NY
Steve Dobert	27	Design Engineer - R&D Design - Rochester Institute of Technology, BS Mechanical Engineering	(518) 695-6851 (office)	Greenwich, NY
Mike Jaworski	12	Assembly Foreman - Startup Services - Suny Oneonta, BS Environmental Science	(845) 594-1342 (cell)	Greenwich, NY
Jim Phillips	34	Assembly	(518) 796-5321 (cell)	Greenwich, NY

Henniker, NH  
Screw Press Support Services



**BDP SERVICE PERSONNEL**

NAME	YEARS OF EXPERIENCE	TITLE	PHONE	LOCATION
Kelly Brown	37	Marketing and Process Support - University of Utah, BS Mineral Processing, MBA Business Management	(518) 527-5417 (cell)	Salt Lake City, UT
Carl Fronhofer	45	R&D Manager - Product and Process Support - Manufacturing Support - Previous Owner of BDP	(518) 796-2331 (cell)	Greenwich, NY
Alex Whitaker	8	Support Engineer - Waterjet Programmer - Inventory Manager - Clarkson University, BS Mechanical Engineering	(518) 695-6851 (office)	Greenwich, NY
Wyatt Wesner	6	Process Engineer / Field Service - Startup Services - Lab Sampling - Suny ESF, BS Environmental Engineering	(518) 339-2936 (cell)	Greenwich, NY
Daryl Harper	5	Electrical Technician / Spare Parts - Spare Parts Department - Electrical Troubleshooting - PLC/OIT Programmer	(518) 695-6851 (office) (716) 935-7620 (cell)	Greenwich, NY
Dan Sartell	16	Electrical Technician / Spare Parts - Electrical Support - Spare Parts Department - Field Service / Equipment Rebuilds	(518) 742-6232 (cell)	Greenwich, NY
Dave Deaton	36	Field Service Technician - Startup Services - 14 years experience in contract dewatering	(937) 313-9314 (cell)	Eaton, OH
Jim Roell	33	Field Service Technician - Startup Services - 24 years experience in contract dewatering	(937) 903-5733 (cell)	Eaton, OH



Henniker, NH  
Screw Press Support Services



**BDP SERVICE PERSONNEL**

NAME	YEARS OF EXPERIENCE	TITLE	PHONE	LOCATION
Roger Gracey	43	Project Startup Engineer - Class AA license - Hazardous waste certified - City of Conroe TX employee 10 years	(832) 928-4661 (cell)	Conroe, TX
Luke Fronhofer	5	Process Engineer / Field Service - Startup Services - Lab Sampling - Worcester Polytechnic, BS Civil Engineering	(518) 415-5161 (cell)	Greenwich, NY
Brady Labarron	5	Field Service Technician - Startup Services - Field Service / Equipment Rebuilds	(518) 320-2122 (cell)	Greenwich, NY
Jared O'Connor	5	Field Service Technician - Startup Services - Field Service / Equipment Rebuilds	(518) 4157284 (cell)	Greenwich, NY
Jake DeFoe	3	Process Engineer / Field Service - Startup Services - Composter Field Service	(413) 441-5047 (cell)	San Diego, CA
Gerry Morris	5	Computer Programer - Startup Services - PLC/OIT Programmer	(518) 396-6408 (cell)	Greenwich, NY

BDP Industries, Inc.  
Reference Installation List  
New England

Plant Name	State	QTY	Model	Size	Start Up Date	Sludge Type	Contact	Cell Phone	Plant Phone	Email
Town of Orange WWTF	MA	1	RDT	Dual 4x10	9/27/2023	WAS	Oscar Rodriguez		(978) 544-1114	wwtp@townoforange.org
St. Johnsbury WWTP	VT	1	DSP	18x12	9/18/2023	Anaerobic	Jim Brimblecombe		(802) 748-9124	
Town of Orleans WWTF	MA	1	RDT	Dual 4x10	3/13/2023	SBR and Septage Blend	Edwin McAuliffe		(781) 206-5256	edwin.mcauliffe@veolia.com
Kingston WWTP	MA	1	GBT	1.0m	2/22/2023	RBC	Dave Walsh	(781) 706-2591	(781) 422-2253	
Town of Kent WWTP	CT	1	2VP	0.5m	1/4/2021	Aerobic	Lyle Sommers	(860) 309-7535	(860) 927-4075	lsommers@kentsewer.org
West Side Bridgeport WWTP	CT	1	RDT	Dual 4x10	6/12/2020	WAS	Joe Covati	(516) 315-5930		
City of Montpelier WWTP	VT	2	RDT	4x10	3/20/2020	WAS,Primary,Recuperative	Chris Cox		(802) 223-9511	ccox@montpelier-vt.org
City of Montpelier WWTP	VT	2	DSP	3630	3/20/2020	Anaerobic,Septage	Chris Cox		(802) 223-9511	ccox@montpelier-vt.org
Milford WWTP	MA	2	RDT	Dual 4x10	8/29/2019	Primary and Secondary	John Manini Sr		(508) 473-2054	
Lowell WWTP Duck Island	MA	1	RDT	Dual 4x10	2/21/2019	WAS	Evan Walsh		(978) 674-1638	
Newport WWTP	RI	2	RDT	4x10	5/1/2017	WAS	Tom Ciolfi		(401) 845-2000	
Krofta	MA	1	RDT	30x5	5/1/2016	Industrial	Jelte Lanting		(651) 795-5932	jelte.lanting@ecolab.com
Charles River WWTP	MA	1	GBT	3.0m	4/16/2016	Primary and Secondary	Daniel Pickering		(508) 533-6762	dpickering@charlesriverpcd.org
Great Barrington WWTP	MA	2	3DP	1.5m	9/1/2015	Primary and Secondary	Shea Gibbs		(413) 528-0650	SGibbs@Townofgb.org
Leominster WWTP	MA	2	RDT	Dual 4x10	8/24/2015	Primary and Secondary	Bob Chalifoux		(978) 537-5720	
Waterbury WWTP	VT	1	RDT	4x6	10/1/2014	MBR	Peter Krolczyk	(802) 598-3450	(802) 244-7792	pkroczyk@waterburyvt.com
Bucklin Point WWTP	RI	2	GBT	2.0m	8/13/2013	WAS	Dave Brouillard		(401) 461-8848	
Biddeford WWTP	ME	1	RDT	4x6	7/1/2013	WAS	Alex Buechner		(207) 282-1579	
Danvers WTP	MA	1	GBT	1.5m	6/9/2013	Water Treatment	Jason McCarthy	(978) 689-5864	(978) 774-5054	jdmccarthy.watertreatment@gmail.com
Fitchburg Easterly WWTF	MA	2	EGBT	2.0m	11/12/2012	WAS	Ken Letourneau	(978) 265-2479	(978) 345-9626	kletourneau@fitchburgma.gov
Putnam WPCF	CT	1	3DP	1.5m	10/24/2012	Anaerobic	Stan Daniels		(860) 963-6824	putnamwastewater@putnamct.us
Heritage Village WWTF	CT	1	GBT	1.0m	6/12/2012	WAS	Andrew Skully	(860) 391-1164	(203) 264-8100	
New Milford WWTP	CT	2	3DP	1.0m	8/9/2011	Oxidation Ditch	Robert Pudelka	(860) 354-3758	(860) 355-1049	
LAWPCA	ME	2	GBT	2.0m	5/11/2011	WAS	Travis Peaslee	(207) 450-3824	(207) 782-0917	tpeaslee@lawpca.org
South Windsor WPCF	CT	2	GBT	2.0m	12/10/2010	WAS	Jeff Lemay		(860) 289-0185	jeff.lemay@southwindsor-ct.gov
Westborough WWTP	MA	2	GBT	3.0m	9/10/2010	WAS	Christopher Gordon		(508) 366-7615	christopher.gordon@veolia.com
Stratford WPCF	CT	2	GBT	2.0m	8/1/2009	WAS	Tom Buzelle	(203) 953-1075	(203) 385-4065	
Lenox WWTP	MA	1	3DP	1.0m	2/26/2009	Primary and Secondary	Jeff White	413-822-505	(413) 637-5547	lenoxwwtp@townoflenox.com
Georgetown WWTP	CT	1	GBT	1.0m	4/8/2008	WAS	George Ciccone		(203) 544-7017	
Beaver Brook WWTP	CT	1	3DP	2.0m	11/27/2007	Anaerobic	Ed Kozlowski JR	(203) 988-2468	(203) 783-3277	ekozlowski@ci.milford.ct.us
Housatonic WWTP	CT	2	3DP	2.0m	11/27/2007	Anaerobic	Ed Kozlowski JR	(203) 988-2468	(203) 783-3277	ekozlowski@ci.milford.ct.us
Simsbury WWTP	CT	2	3DP	2.0m	3/27/2007	Primary and Secondary	Tony Piazza		(860) 658-1380	apiazza@simsbury-ct.gov
Adams WWTP	MA	1	3DP	1.5m	9/13/2005	Primary and Secondary	Robert Rumbolt		(413) 743-8370	rrumbolt@town.adams.ma.us

BDP Industries, Inc.  
Reference Installation List  
New England

Androscoggin Mill	ME	1	3DP	2.0m	6/21/2005	Primary and Secondary	Chuck Kraske	(207) 931-8636	(207) 897-1336	charles.kraske@pixelle.com
Springfield WWTP	VT	1	BDP	1.5m	5/3/2005	WAS	Rick Chambers	(802) 732-7021	(802) 885-2584	
Chester WWTP	VT	1	RDT	4x10	4/4/2005	WAS	Jeff Holden	(802) 384-3000	(802) 875-4325	wastewater@chestervt.gov
Scarborough WWTP	ME	1	GBT	1.5m	3/5/2005	WAS				
Springfield WWTP	VT	1	GBT	1.0m	9/4/2004	WAS	Rick Chambers	(802) 732-7021	(802) 885-2584	
Pepperell WWTF	MA	1	EGBT	0.8m	8/8/2004	WAS	"Richard ""Pez"" Pezzolesi"	(781) 697-6008	(978) 925-4431	rpezzolesi@town.pepperell.ma.us
Winchendon WWTP	MA	1	2VP	2.0m	6/6/2004	WAS	Chip Gagne		(978) 297-0536	chip.gagne@veolia.com
Borough of Jewett City WWTF	CT	1	GBT	1.0m	6/4/2004	WAS	David Drobiak		(860) 376-2955	
Norwich WWTP	CT	1	3DP	1.5m	6/1/2004	Anaerobic	Eric Dungan	(860) 823-4136	(860) 823-4506	
Hoosac WQD WWTP	MA	1	3DP	2.0m	5/10/2004	Primary and Secondary	Bradley Furlon	(413) 884-4192	(413) 458-8423	brad.furlon@verizon.net
Bennington WWTF	VT	1	BDP	2.0m	4/7/2004	Anaerobic RBC	Jon D'Amour	(802) 733-1079		jdamour@benningtonvt.org
Westfield WPCP	MA	2	GBT	2.0m	4/4/2004	WAS	Jeff Gamelli		(413) 572-6268	j.gamelli@cityofwestfield.org
Linden Pond WWTP	MA	1	EGBT	0.75m	2/4/2004	WAS	Dick Gould			rgould@woodardcurran.com
Norwich WWTP	CT	1	RDT	Dual 4x10	10/1/2003	WAS	Dave Grundwalski	(860) 887-2555	(860) 823-4506	
Stowe WWTP	VT	1	RDT	Dual 4x6	8/1/2002	WAS	Bryan Longe		(802) 253-6135	
Branford WWTP	CT	1	GBT	3.0m	7/2/2002	WAS	Dan Gregory		(203) 488-3125	
Kingston WWTP	MA	1	GBT	1.0m	3/2/2002	RBC	Dave Walsh	(781) 706-2591	(781) 422-2253	
Acton Wastewater	MA	1	EGBT	0.8m	8/7/2001	WAS				
Erving WWTP	MA	1	HO	2.0m	3/1/2001	Primary and Secondary	Ethan Covloi	(413) 544-3519		
Norwalk WWTP	CT	2	GBT	1.0m	8/10/1998	BNR	Pete Veterosa	(203) 943-1267	(203) 939-6881	
New Canaan WWTP	CT	2	GBT	2.0m	4/6/1998	WAS	James Rogers	(203) 594-3700		james.roger@newcanaanct.com
Hoosac WQD WWTP	MA	1	BDP	2.0m	1/5/1998	Primary and Secondary	Carl Dickenson		(413) 458-8423	
Uconn	CT	1	GBT	2.0m	4/4/1995	WAS	Ken Pelza		(860) 486-4235	kenneth.pelzar@uconn.edu
Barre WWTP	VT	1	GBT	2.0m	1/2/1995	WAS	Brandon Guyette		(802) 793-6579	wwt.teamlead@barrecity.org
Barre WWTP	VT	1	BDP	2.0m	1/2/1995	Primary and Secondary	Brandon Guyette		(802) 793-6579	wwt.teamlead@barrecity.org
Hoosac WQD WWTP	MA	1	BDP	2.0m	1/8/1992	Primary and Secondary	Bradley Furlon	(413) 884-4192	(413) 458-8423	brad.furlon@verizon.net
Ahlstrom Nonwovens	CT	1	BDP	2.0m	8/8/1989	Industrial	Steve Doherty	(860) 986-9618	860654855	steve.doherty@ahlstrom.com
Winsted WPCF	CT	2	BDP	1.0m	1/1/1989	Primary and Secondary	Alex Combes		(860) 379-4905	winstedwpcf@gmail.com
Crane & Company	MA	1	BDP	1.0m	3/5/1985	Paper Fiber				
Seaman Paper	MA	1	BDP	1.0m	7/8/1982	Paper Fiber	David Mallet		(413) 824-1408	david.mallet@seamanpaper.com
Spencer WWTP	MA	1	RDT	Dual 4x10	In Production	WAS				
Seamans Paper	MA	1	HO	1.0m	In Production	Paper Fiber	David Mallet		(413) 824-1408	david.mallet@seamanpaper.com
Hooksett WWTP	NH	2	DSP	18V	In Production	WAS	Ken Conaty		(603) 485-7000	ken.hooksettwwastewater@gmail.com

BDP Industries, Inc.  
Screw Press Reference Installation List

Plant Name	State	QTY	Model	Size	Start Up Date	Sludge Type	Contact	Cell Phone	Plant Phone	Email
St. Johnsbury WWTP	VT	1	DSP	18x12	9/18/2023	Anaerobic	Jim Brimblecombe		(802) 748-9124	
City of Montpelier WWTP	VT	2	DSP	3630	3/20/2020	Anaerobic,Septage	Chris Cox		(802) 223-9511	ccox@montpelier-vt.org
Hooksett WWTP	NH	2	DSP	18V	In Production	WAS	Ken Conaty		(603) 485-7000	ken.hooksettwwastewater@gmail.com
Sherman WWTP	NY	1	DSP	12x8	9/19/2023	Aerobic	Jay Irwin	(716) 581-3397		
Dundee WWTP	NY	1	DSP	12V	7/26/2023	SBR	Nate	(607) 382-6391		wwtp@dundeevillageny.com
Village of Middleburgh WWTP	NY	1	DSP	12x8	8/31/2022	Aerobic	Nicholas Dunscombe	(518) 231-0328		
Castleton on Hudson WWTP	NY	1	DSP	12x8	12/2/2021	Aerobic	Kenneth Meyer	(518) 701-8045	(518) 732-2752	
Hudson Valley Fish Farm	NY	1	DSP	12x4	11/29/2021	MBR,Fish Waste	Ed Tribe			edtribe@gmail.com
Naples WWTP	NY	1	DSP	12x4	9/28/2021	Fixed Film Secondary	Kyle Kuner	(585) 746-5291		wastewater@naplesny.us
Mexico WWTP	NY	1	DSP	12x8	5/21/2021	Aerobic	Jason Cusyck	(315) 440-0333	(315) 298-2673	omipulaski@frontiernet.net
Ontario WWTP	NY	1	DSP	3618	1/21/2021	Aerobic	Brian Whipple	(585) 857-0756		bwhipple@ontariotown.org
Watkins Glen Montour Falls WWTF	NY	1	DSP	30x12	9/15/2020	Aerobic	Terry Wilcox	(607) 742-6871		twilcox@watkinglen.us
Alden WWTP	NY	1	DSP	18x12	11/21/2019	Anaerobic	Daniel Czelusta		(716) 937-4497	danc@aldenvillage.org
Sodus Point WWTP	NY	1	DSP	12x4	8/15/2019	Aerobic	Jeff Cook		(315) 483-9454	
Town of Hanover WWTP	NY	1	DSP	18x12	7/1/2019	Aerobic	Rob Weiskerger	(716) 640-4311	(716) 934-2250	
Village of Potsdam WWTP	NY	1	DSP	3630	4/2/2019	Anaerobic	James Blackmore		(315) 265-8670	jblackmore@vi.potsdam.ny.us
Coeymans WWTP	NY	1	DSP	3012	9/19/2018	Aerobic	Keith Geraldson	(518) 331-6444	(518) 756-6180	wwtp@coeymans.org
Hastings WWTP	NY	1	DSP	3012	1/26/2018	Aerobic	Dustin Clark	(315) 415-4041		dcmaverick24@gmail.com
Village of Bergen WWTP	NY	1	DSP	12x8	5/17/2017	WAS	Chris Fay	(585) 202-0326	(585) 202-0326	cfay@villageofbergen.com
Village of Medina WWTP	NY	1	DSP	18x12	10/10/2016	Anaerobic RBC	Steve Rodland	(585) 230-0521		stevenrodland@frontier.com
Waverly WWTP	NY	1	DSP	3618	7/7/2016	MBR with BNR	Doug Kinsley	(607) 738-5696	(607) 565-5203	waverlywwtp@gmail.com
Walton WWTP	NY	1	DSP	3630	5/5/2016	Aerobic	Shane Boyce	(607) 267-6871	(607) 865-6993	waltonwste@stny.rr.com
Caneadea WWTP	NY	1	DSP	3012	5/5/2015	Anaerobic Trickling Filter	Jeff Tubolino			
Penn Yan WWTP	NY	1	DSP	3012	10/21/2014	Anaerobic RBC	Yvonne Tucker	(315) 418-5353	(315) 536-3023	ytucker@villageofpennyan.com
Williamson WWTF	NY	1	DSP	3012	9/2/2014	Aerobic	John Manahan	(585) 766-9333	(315) 589-9371	wastewaterplant@towilliamson.com
Village of Suffern WWTP	NY	2	DSP	3012	11/8/2013	Anaerobic Trickling Filter	Aramis Morris	(845) 263-2349		amorris@suffern.ny.gov
Macedon WWTP	NY	1	DSP	3012	4/24/2013	Anaerobic Trickling Filter	Jerry Locey	(315) 310-5016	(315) 538-0715	macedonwwtp@gmail.com
Groton WWTP	NY	1	DSP	3012	3/3/2010	Aerobic SBR	Village of Groton		(607) 898-5185	
Pottsville WWTP	TX	1	DSP	3012	9/14/2023	Aerobic	Mike Thompson	(903) 814-1201		mthompson@cityofpottsville.com
Sellersburg WWTP	IN	2	DSP	3630	5/2/2023	WAS	Lori Kearney	(502) 376-4962		lkearney@sellersburg.org
Erie North WTF	CO	2	DSP	30x12	3/13/2023	ATAD	Jon Coyle	(303) 434-1334		jcoyle@erieco.gov
Security Sanitation District WWTP	CO	1	DSP	3630	9/14/2022	WAS,Anaerobic	Nick Sipe	(719) 492-0255		n.sipe@securitywsd.com
Anniston Choccolocco Creek WWTP	AL	1	DSP	3630	10/21/2021	ATAD	Clif Osborne		(205) 987-7411	clif.osborne@krebseng.com
Nipomo WWTP	CA	1	DSP	30x12	8/3/2021	WAS	Derek Calleja	(805) 459-3798		dcalleja@ncsd.ca.gov

BDP Industries, Inc.  
Screw Press Reference Installation List

Gregg Township WWTP	PA	1	DSP	3630	2/11/2021	Aerobic SBR with BNR	Jason Koch	(570) 850-9338	(570) 538-3313	jwk@gtma.comcastbiz.net
Christian County WRD	IL	2	DSP	30x12	11/5/2020	Primary and Secondary	Bob Willard		(217) 824-6833	
Beardstown WWTP	IL	1	DSP	3618	12/12/2019	Aerobic Oxidation Ditch	Wells Petersen	(217) 371-1081	(217) 323-3521	treatit@casscomm.com
Arcanum WWTP	OH	1	DSP	3012	8/5/2019	Anaerobic Trickling Filter				
Calls Creek WRF	GA	1	DSP	3618	8/27/2018	WAS	Erin Carlton	(706) 521-1925	(706) 769-3963	ecarlton@oconee.ga.us
Miamisburg WRF	OH	1	DSP	3630	6/3/2018	Anaerobic	Dave Reinker	(937) 847-6651		
Baldwin City	KS	1	DSP	3012	5/6/2018	Aerobic	Steve Gorden		(785) 594-3261	
Wilmore WWTP	KY	1	DSP	3012	1/18/2018	Aerobic Oxidation Ditch	James Zweifel	(859) 285-9602		
Scappoose WWTP	OR	1	DSP	3618	5/1/2017	Aerobic	Kevin Turner		(971) 246-6189	kturner@cityofscappoose.org
Fountain WWTP	CO	1	DSP	3012	1/17/2017	Aerobic	Tim Long	(719) 491-6864	(719) 382-5303	fsdfieldsuper@fsd901.org
Macon WWTP	MO	1	DSP	3618	7/16/2016	Primary and Secondary	Ronny Smith	(660) 346-0418	(660) 385-2532	mmuwwtf@cvalley.net
Kentucky State Reformatory WWTP Oldham County	KY	1	DSP	3618	5/5/2016	Aerobic	Jim Hagerty	(502) 548-0598		jhagerty@hagertyco.us
MWH Global- Boeing	CA	1	DSP	3012	2/8/2016	Water Treatment	John Parkes	(714) 719-6873	(818) 466-8011	
Union WWTP	OH	1	DSP	3618	12/14/2015	Aerobic	John Applegate	(937) 477-2442	(937) 836-8624	japplegate@union.oh.org
Georgetown WWTP	CO	1	DSP	3618	4/15/2015	Aerobic	John Curtis	(303) 888-3900	(303) 569-2867	towntreas@townofgeorgetown.us
Brookville WWTP	OH	1	DSP	3012	9/9/2013		John Weist	(937) 473-9323	(937) 833-2515	
Paradise Cove	CA	1	DSP	3012	Onsite Pending Startup	SBR	Barbara Bradley			
Brady WWTP	TX	1	DSP	18x12	Onsite Pending Startup					
Wellington WWTP	CO	2	DSP	30x12	In Production		Ryan White	(970) 420-4324		
Taylor WWTP	AL	1	DSP	12x4	Onsite Pending Startup					
Slab Creek WWTP	AL	1	DSP	30V	Onsite Pending Startup					
Calls Creek WRF	GA	1	DSP	18V	In Production	WAS	Erin Carlton	(706) 521-1925	(706) 769-3963	ecarlton@oconee.ga.us
Grantham WWTP (Upper Allen Municipal Authority)	PA	1	DSP	30V	In Production					
O'Fallon WWTP	IL	2	DSP	30V	Onsite Pending Startup					
Blossburg Municipal Authority WWTP	PA	1	DSP	18V	In Production					
Destin Wastewater Treatment Plant	FL	2	DSP	30V	In Production					
Forest Creek WWTP	TX	1	DSP	30V	In Production					



# PROJECT FACT SHEET

## City of Montpelier WWTP | Montpelier, VT

Facility Contact: Chris Cox (802)-223-9511

Local Representative: Mike Sullivan - Carlsen Systems (508)-878-1016

Two (2) DSP 3630 Screw Presses  
Start Up: April 2020

The Montpelier Wastewater Treatment Plant was looking to make a change to their mechanical dewatering. The plant wanted equipment that was enclosed and could offer solids containment, while also being able to run unattended. BDP's Screw Press offered all of these qualities, as well as drier cake. Two 30" Screw Presses were supplied along with two integrated rotary drum thickeners. The facility runs two different sludge types: anaerobically digested and septage. The screw presses run unattended 10 - 16



<u>Sludge Type</u>	<u>Average Loading</u>	<u>Performance</u>
Anaerobic	30 - 40 GPM	<ul style="list-style-type: none"> <li>• 3.0% Inlet Feed</li> <li>• 24 - 26% Discharge Solids</li> </ul>
Septage	70 - 100 GPM	<ul style="list-style-type: none"> <li>• 1.0 - 1.5% Inlet Feed</li> <li>• 26 - 30% Discharge Solids</li> </ul>



### Manufacturer of Systems for Solids Dewatering

BDP Industries, Inc. | 354 State Route 29 - Greenwich, NY 12834 | Phone: (518)-695-6851 | Fax: (518)-695-5417 | [bdpindustries.com](http://bdpindustries.com)

# Bergen WWTP Bergen, NY



The Village of Bergen wastewater treatment plant piloted screw presses and rotary chamber presses with the intent of replacing their drying beds. BDP Industries Model 12" x 8' DSP Screw Press was selected as the basis of design after completing the pilot test and efficiently dewatering the plants aerobically digested solids. The BDP screw press was determined to be the best overall value because of its features and abilities to get high cake solids, low maintenance, unattended operation and BDPs equipment reliability and service.



Average Daily Flow	0.113 MGD
Start Up	April 2017
Type of Equipment	12" x 8' DSP Screw Press
Sludge Type	Aerobically Digested Blend
Performance & Capability	0.8% Inlet Feed 20 GPM 16 - 19% Discharge Cake
Facility Contact	Chris Fray 585-202-0326
Local Representative	Mark Koester- Koester Associates 315-727-0836
Special Features	BDP Belt Conveyor



## Manufacturer of Systems for Solids Dewatering



# PROJECT FACT SHEET

## Christian County WRD | Taylorville, IL

Facility Contact: Bob Willard (217)-824-6833

Local Representative: Brian Gorniak - Vandevanter (636)-343-8880



Two (2) 30 x 12 DSP Screw Press  
Start Up: November 2020

The Christian County Water Reclamation District previously used belt presses as their primary dewatering equipment. The facility started looking for replacement dewatering equipment that would offer better solids containment and ease of access for maintenance. The BDP Screw Press offered both. BDP provided two screw presses along with the sludge pumps, washwater pump, polymer blending unit, stainless steel polymer age tank, polymer solution pumps, discharge conveyors and control panel for a fully integrated system.

**The BDP Screw Press offered the best overall value based on the following:**

- High Cake Solids
- Unattended Operation
- Low Maintenance
- BDP Equipment Reliability
- BDP Equipment Service
- Completely Integrated System



Dry Tons per Year	1,000
Sludge Type	WAS
Performance & Capability	<ul style="list-style-type: none"> <li>• 5 - 6% Inlet Feed</li> <li>• 30 - 40 GPM</li> <li>• 24 - 26% Discharge Solids</li> <li>• 25 lbs/dt Polymer Dosage</li> <li>• 95%+ Solids Capture</li> </ul>



**Watkins Glen Montour  
Falls Regional WWTP  
Watkins Glen, NY**



The communities of Watkins Glen and Montour Falls both had aging wastewater treatment facilities that were no longer meeting their permits. A 1.2 MGD regional facility was designed and constructed to discharge clean water into Seneca Lake. The aerobically digested solids are handled on a 30" diameter BDP Screw Press. The screw press processes 30 - 40 GPM while achieving 18 - 22% discharge solids.



Average Daily Flow	1.2 MGD
Start Up	September 2020
Type of Equipment	DSP 30 Screw Press
Sludge Type	Aerobically Digested
Performance & Capability	2.0 - 3.0% Inlet Feed Solids 30 - 40 GPM 18 - 22% Discharge Cake 97%+ Solids Capture
Facility Contact	Terry Wilcox (937) 535-9962
Engineering Reference	Bradley Sick - Larson Engineering (607) 936-7076
Local Representative	Mike Ademovic - Koester Associates (315) 790-0561



**Manufacturer of Systems for Solids Dewatering**

## **Subject: Operations and Maintenance**

The DSP Screw Press is made of 304 stainless steel for excellent corrosion resistance. All bearings are located outside the press for easy greasing. The most major maintenance task, changing the screw flights, only requires removing one half of the screw basket (250 lbs) and can be performed by BDP personnel or plant staff with sufficient training every 3000-5000 hours. The press only requires 3 feet of clearance on one side to perform maintenance tasks; it is convenient to have 3 feet of space on both sides, but not mandatory. It is nice to have 2-3 feet of clearance on the inlet and discharge ends of the screw, but not necessary. See the Maintenance and Lubrication Schedules in this section for further information.

All components (drives and bearings included) other than the screw flights may be replaced with off the shelf equivalents. Part numbers will be provided for any such item for ease and speed of replacement.

BDP's production facility is located in Greenwich, NY. The entire manufacturing process from raw steel reception through fabrication and assembly all occur at this one central location. Should there be an emergency issue with any component fabricated by BDP, we can ensure 2 day turnaround from receipt of request to shipping the replacement item. Please see BDP Support Staff sheet under the Company Track Record and Availability tab for a service staff roster with experience listed.

OM-SCREW DATE: 3/23/16	MAINTENANCE	SECTION: 9 PAGE: 1
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## **IX. Maintenance of the Screw Press**

### **A. General**

The best method to continued operation of the press is through an effective preventative maintenance program. This will greatly minimize any remedial maintenance work on the press. The following program is presented to serve as a guide for proper maintenance of the screw press unit.

#### **Check the Following Once Per Week**

- Hoses - for minor leak
- Cylinders - operability
- Shafts and Bearings - for any shaft movement
- E-stop pushbutton - operability

#### **Check the Following Once Per Month**

- Check screw shaft for wear
- Check slotted screen basket for wear
- Check belt closures and fabrics
- Check pivot points and pins

#### **Check Per Original Equipment Instruction**

- Bearings
- Motors
- Drives
- Wash water booster pump (optional)
- Air compressor (optional)
- Polymer System
- Sludge Pump

OM-SCREW DATE: 3/23/16	MAINTENANCE	SECTION: 9 PAGE: 2
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### **B. Bearings**

There are two bearings, located on either end of the screw shaft that require periodic greasing. Please refer to the Lubrication & Maintenance Schedule in this section as well as to the bearing manufacturer's instructions.

### **C. Motors and Gearboxes**

There are two motors and gearboxes on the screw press unit: The Screw drive and Recycle pump drive. There may also be ancillary equipment supplied with this system that includes motors and gearboxes. The motors do not require regular maintenance. The gearboxes often do require periodic oil changes. Please refer to the Lubrication & Maintenance Schedule in this section as well as to the gearbox manufacturer's instructions.

### **D. Replacing the Screw Flights**

On all screw presses, the tips of the flights will wear over time and eventually will require rebuilding or replacement to maintain the proper tolerance to the screw basket. The BDP unit utilizes a unique replaceable flight to prevent the need of having to remove the screw for this work. Depending on the abrasiveness of the material to be dewatered, this replacement should be done anywhere from every 3,000 to 5,000 hours. In order to complete this work, follow the instructions below:

- 1) Lock-out / Tag-out the equipment and ensure a safe working area and environment.
- 3) Remove all screw housing doors and corner supports.
- 4) Disconnect main water feed to shower, remove shower clips from track, then remove entire shower assembly, and shower track.
- 5) Remove all bolts from the screw clam baskets.
- 6) Remove the shim from the center of the screw basket *before* lifting the top screw baskets.
- 7) Remove top screw baskets.
- 8) Replace the individual parts of the screw flights.
- 9) Replace all items and re-install in the opposite order as listed above.

DSP SCREW PRESS O&M DATE: 3/23/16	<b>LUBRICATION &amp; MAINTENANCE SCHEDULE</b>	SECTION: 9
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ITEM	LUBRICANT	FREQUENCY	METHOD	REMARKS
GEAR REDUCERS – SCREW DRIVE & SLUDGE PUMP	KENDALL INDUSTRIAL GEAR OIL – ISO GRADE 220	CHANGE AFTER FIRST 500 HOURS, THEN EVERY 10,000 HOURS OR 2 YEARS	DRAIN AND FILL	SEE MFG. INSTRUCTIONS
BEARINGS	KENDALL L- ,OMNIGUARD 778589	EVERY 1500 HRS RUN TIME OR 10 WEEKS	GREASE GUN, ADD SLOWLY PURGE ROTATE SAFELY – DO NOT OVER GREASE	SEE MFG. INSTRUCTIONS
C-FACED DRIVE MOTORS (IF REQUIRED)	KENDALL L- POLYTAC NLGI GRADE 2 OR . EQUAL	EVERY 4,750 HRS RUN TIME	GREASE GUN, ADD SLOWLY PURGE ROTATE SAFELY – DO NOT OVER GREASE	SEE MFG. INSTRUCTIONS

## EQUIVALENT LUBRICANT REFERENCE

<b>Company</b>	<b>Gear Oil (ISO VG 220)</b>	<b>All Purpose Grease (NLGI 2)</b>	<b>Hydraulic Oil</b>
Kendall	Industrial Gear Oil - ISO 220	L-427 Super Blue Hi Temp Grease	Four Season AW-46
Mobil	Mobilgear 630	Mobilux EP 2	Mobil D. T. E. 25
BP	Energol HL-C 220	Energrease LS-EP 2	Energol HLP-HM 46
Chevron	AIO ISO 220	Duralith Grease EP	Rykon AW 46
Phillips 66	Magnus 220	Philube Hi-temp EP	Magnus 46
Shell	Tonna Oil V 220	Anvania Grease EP 2	Tellus Plus oil 46
Sunoco	Sunep 1070	Sunaplex 992 EP	Sunvis 831 WR
Texaco	Meropa 220	Multifak EP	Rando Oil HDB 46

# LUBRICANTS

The approximate lubricant in US gallons and liters per mounting position is as follows:

Gear Unit	Mounting Position											
	M1		M2		M3		M4		M5		M6	
	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters
F27	0.16	0.60	0.21	0.80	0.17	0.65	0.18	0.70	0.16	0.60	0.16	0.60
F37	0.25	0.95	0.33	1.25	0.18	0.70	0.33	1.25	0.26	1.00	0.29	1.10
F47	0.40	1.50	0.48	1.80	0.29	1.10	0.50	1.90	0.40	1.50	0.45	1.70
F57	0.69	2.60	0.92	3.50	0.55	2.10	0.92	3.50	0.74	2.80	0.77	2.90
F67	0.71	2.70	1.00	3.80	0.50	1.90	1.00	3.80	0.77	2.90	0.84	3.20
F77	1.55	5.9	1.95	7.3	1.15	4.30	2.10	8.0	1.60	6.0	1.65	6.3
F87	2.85	10.8	3.45	13.0	2.05	7.7	3.65	13.8	2.85	10.8	2.90	11.0
F97	4.90	18.5	5.9	22.5	3.35	12.6	6.7	25.2	4.90	18.5	5.3	20.0
F107	6.5	24.5	8.4	32.0	5.1	19.5	9.9	37.5	7.1	27.0	7.1	27.0
F127	10.7	40.5	14.4	54.5	9.0	34.0	16.1	61.0	12.2	46.3	12.4	47.0
F157	18.2	69.0	27.5	104.0	16.6	63.0	27.7	105.0	22.7	86.0	20.6	78.0
FF27	0.16	0.60	0.21	0.80	0.17	0.65	0.18	0.70	0.16	0.60	0.16	0.60
FF37	0.26	1.00	0.33	1.25	0.18	0.70	0.34	1.30	0.26	1.00	0.29	1.10
FF47	0.42	1.60	0.49	1.85	0.29	1.10	0.50	1.90	0.40	1.50	0.45	1.70
FF57	0.74	2.80	0.92	3.50	0.55	2.10	0.98	3.70	0.77	2.90	0.79	3.00
FF67	0.71	2.70	1.00	3.80	0.50	1.90	1.00	3.80	0.77	2.90	0.84	3.20
FF77	1.55	5.9	1.95	7.3	1.15	4.30	2.15	8.1	1.60	6.0	1.65	6.3
FF87	2.85	10.8	3.50	13.2	2.05	7.8	3.70	14.1	2.90	11.0	2.95	11.2
FF97	5.00	19.0	5.9	22.5	3.35	12.6	6.8	25.6	5.00	18.9	5.4	20.5
FF107	6.7	25.5	8.4	32.0	5.1	19.5	10.2	38.5	7.3	27.5	7.4	28.0
FF127	11.0	41.5	14.7	55.5	9.0	34.0	16.6	63.0	12.2	46.3	12.9	49.0
FF157	19.0	72.0	27.7	105.0	16.9	64.0	28.0	106.0	23.0	87.0	20.9	79.0
FA/FH/FV27 FAF/FHF/FVF27 FAZ/FHZ/FVZ27	0.16	0.60	0.21	0.80	0.17	0.65	0.18	0.70	0.16	0.60	0.16	0.60
FA/FH/FV37 FAF/FHF/FVF37 FAZ/FHZ/FVZ37 FT37	0.25	0.95	0.33	1.25	0.18	0.70	0.33	1.25	0.26	1.00	0.29	1.10
FA/FH/FV47 FAF/FHF/FVF47 FAZ/FHZ/FVZ47 FT47	0.40	1.50	0.48	1.80	0.29	1.10	0.50	1.90	0.40	1.50	0.45	1.70
FA/FH/FV57 FAF/FHF/FVF57 FAZ/FHZ/FVZ57 FT57	0.71	2.70	0.92	3.50	0.55	2.10	0.90	3.40	0.77	2.90	0.79	3.00
FA/FH/FV67 FAF/FHF/FVF67 FAZ/FHZ/FVZ67 FT67	0.71	2.70	1.00	3.80	0.50	1.90	1.00	3.80	0.77	2.90	0.84	3.20
FA/FH/FV77 FAF/FHF/FVF77 FAZ/FHZ/FVZ77 FT77	1.55	5.9	1.95	7.3	1.15	4.30	2.10	8.0	1.60	6.0	1.65	6.3
FA/FH/FV87 FAF/FHF/FVF87 FAZ/FHZ/FVZ87 FT87	2.85	10.8	3.45	13.0	2.05	7.7	3.65	13.8	2.85	10.8	2.90	11.0
FA/FH/FV97 FAF/FHF/FVF97 FAZ/FHZ/FVZ97 FT97	4.90	18.5	5.9	22.5	3.35	12.6	6.7	25.2	4.90	18.5	5.3	20.0
FA/FH/FV107 FAF/FHF/FVF107 FAZ/FHZ/FVZ107	6.5	24.5	8.4	32.0	5.1	19.5	9.9	37.5	7.1	27.0	7.1	27.0
FA/FH/FV127 FAF/FHF/FVF127 FAZ/FHZ/FVZ127	10.3	39.0	14.4	54.5	9.0	34.0	16.1	61.0	11.9	45.0	12.3	46.5
FA/FH/FV157 FAF/FHF/FVF157 FAZ/FHZ/FVZ157	18.0	68.0	27.2	103.0	16.4	62.0	27.5	104.0	22.4	85.0	20.3	77.0

For additional information on F-Series mounting positions, refer to the SEW Catalog.

# LUBRICANTS

The approximate lubricant in US gallons and liters per mounting position is as follows:

Gear Unit	Mounting Position											
	M1 <sup>1)</sup>		M2 <sup>1)</sup>		M3 <sup>2)</sup>		M4		M5 <sup>2)</sup>		M6 <sup>2)</sup>	
	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters
RX57	0.16	0.6	0.21	0.8	0.34	1.3	0.34	1.3	0.24	0.9	0.24	0.9
RX67	0.21	0.8	0.21	0.8	0.45	1.7	0.50	1.9	0.29	1.1	0.29	1.1
RX77	0.29	1.1	0.40	1.5	0.69	2.6	0.71	2.7	0.42	1.6	0.42	1.6
RX87	0.45	1.7	0.66	2.5	1.27	4.8	1.27	4.8	0.77	2.9	0.77	2.9
RX97	0.55	2.1	0.90	3.4	1.96	7.4	1.85	7	1.27	4.8	1.27	4.8
RX107	1.03	3.9	1.48	5.6	3.06	11.6	3.14	11.9	2.03	7.7	2.03	7.7
RXF57	0.13	0.5	0.21	0.8	0.29	1.1	0.29	1.1	0.18	0.7	0.18	0.7
RXF67	0.18	0.7	0.21	0.8	0.40	1.5	0.45	1.7	0.26	1	0.26	1
RXF77	0.24	0.9	0.40	1.5	0.63	2.4	0.66	2.5	0.42	1.6	0.42	1.6
RXF87	0.42	1.6	0.66	2.5	1.29	4.9	1.24	4.7	0.77	2.9	0.77	2.9
RXF97	0.55	2.1	0.95	3.6	1.88	7.1	1.85	7	1.27	4.8	1.27	4.8
RXF107	0.82	3.1	1.56	5.9	2.96	11.2	2.77	10.5	1.90	7.2	1.90	7.2
R17/R17F	0.07	0.25	0.16	0.6	0.09	0.35	0.16	0.6	0.09	0.35	0.09	0.35
R27/R27F	0.07 (0.11)	0.25 (0.4)	0.18	0.7	0.11	0.4	0.18	0.7	0.11	0.4	0.11	0.4
R37/R37F	0.08 (0.26)	0.3 (1)	0.24	0.9	0.26	1	0.29	1.1	0.21	0.8	0.26	1
R47/R47F	0.18 (0.40)	0.7 (1.5)	0.42	1.6	0.40	1.5	0.45	1.7	0.40	1.5	0.40	1.5
R57/R57F	0.21 (0.45)	0.8 (1.7)	0.50	1.9	0.45	1.7	0.55	2.1	0.45	1.7	0.45	1.7
R67/R67F	0.29 (0.61)	1.1 (2.3)	0.69 (0.92)	2.6 (3.5)	0.74	2.8	0.85	3.2	0.48	1.8	0.53	2
R77/R77F	0.32 (0.79)	1.2 (3)	1.00 (1.14)	3.8 (4.3)	0.95	3.6	1.14	4.3	0.66	2.5	0.90	3.4
R87/R87F	0.61 (1.59)	2.3 (6)	1.77 (2.22)	6.7 (8.4)	1.90	7.2	2.03	7.7	1.66	6.3	1.72	6.5
R97	1.22 (2.59)	4.6 (9.8)	3.09 (3.70)	11.7 (14)	3.09	11.7	3.54	13.4	2.99	11.3	3.09	11.7
R107	1.59 (3.62)	6 (13.7)	4.31	16.3	4.46	16.9	5.07	19.2	3.49	13.2	4.20	15.9
R137	2.64 (6.61)	10 (25)	7.40	28	7.79	29.5	8.32	31.5	6.61	25	6.61	25
R147	4.07 (10.57)	15.4 (40)	12.29	46.5	12.68	48	13.74	52	10.44	39.5	10.83	41
R167	7.13 (18.49)	27 (70)	21.66	82	20.61	78	23.25	88	17.44	66	18.23	69
RF17	0.07	0.25	0.16	0.6	0.09	0.35	0.16	0.6	0.09	0.35	0.09	0.35
RF27	0.07 (0.11)	0.25 (0.4)	0.18	0.7	0.11	0.4	0.18	0.7	0.11	0.4	0.11	0.4
RF37	0.11 (0.26)	0.4 (1)	0.24	0.9	0.26	1	0.29	1.1	0.21	0.8	0.26	1
RF47	0.18 (0.40)	0.7 (1.5)	0.42	1.6	0.40	1.5	0.45	1.7	0.40	1.5	0.40	1.5
RF/RM57	0.21 (0.45)	0.8 (1.7)	0.48	1.8	0.45	1.7	0.53	2	0.45	1.7	0.45	1.7
RF/RM67	0.32 (0.66)	1.2 (2.5)	0.71 (0.95)	2.7 (3.6)	0.71	2.7	0.82	3.1	0.50	1.9	0.55	2.1
RF/RM77	0.32 (0.69)	1.2 (2.6)	1.00 (1.08)	3.8 (4.1)	0.87	3.3	1.08	4.1	0.63	2.4	0.79	3
RF/RM87	0.63 (1.59)	2.4 (6)	1.8 (2.09)	6.8 (7.9)	1.88	7.1	2.03	7.7	1.66	6.3	1.69	6.4
RF/RM97	1.35 (2.69)	5.1 (10.2)	3.14 (3.70)	11.9 (14)	2.96	11.2	3.70	14	2.96	11.2	3.12	11.8
RF/RM107	1.66 (3.94)	6.3 (14.9)	4.20	15.9	4.49	17	5.07	19.2	3.46	13.1	4.20	15.9
RF/RM137	2.51 (6.61)	9.5 (25)	7.13	27	7.66	29	8.59	32.5	6.61	25	6.61	25
RF/RM147	4.33 (11.10)	16.4 (42)	12.42	47	12.68	48	13.74	52	11.10	42	11.10	42
RF/RM167	6.87 (18.49)	26 (70)	21.66	82	20.61	78	23.25	88	17.17	65	18.76	71

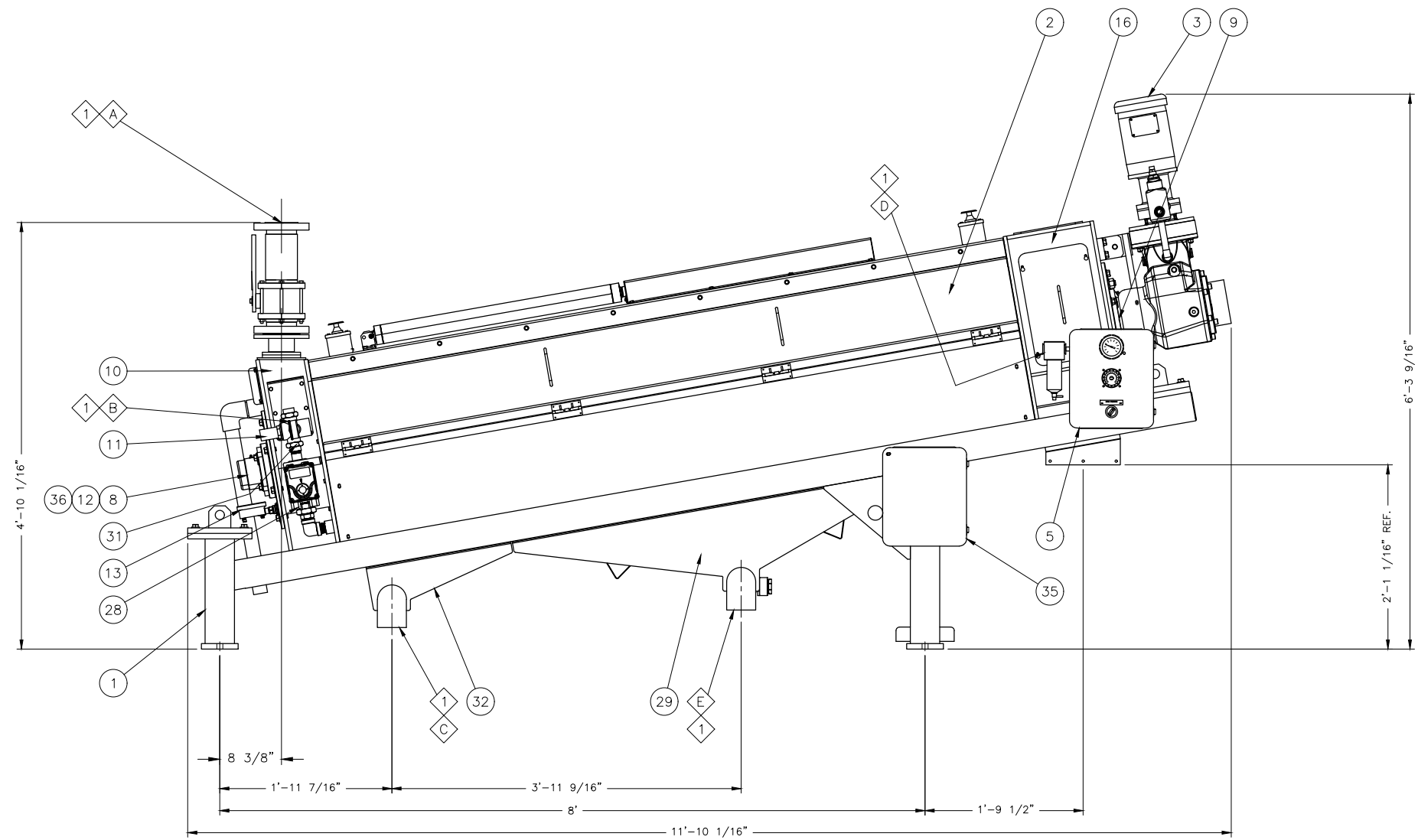
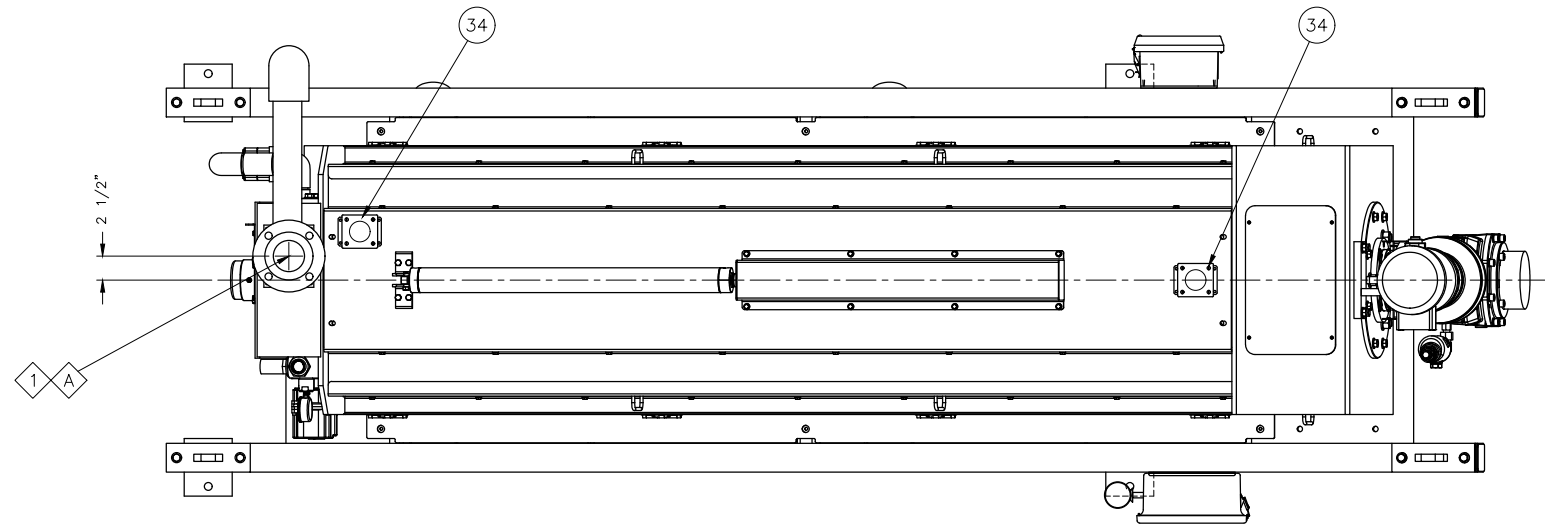
<sup>1)</sup> On compound gear units the primary (larger) gear unit is provided with the oil quantity in parenthesis.

<sup>2)</sup> On compound gear units having mounting positions M3, M5, or M6 the secondary (smaller) gear unit is provided with the oil filling of the M1 flanged mounting position.

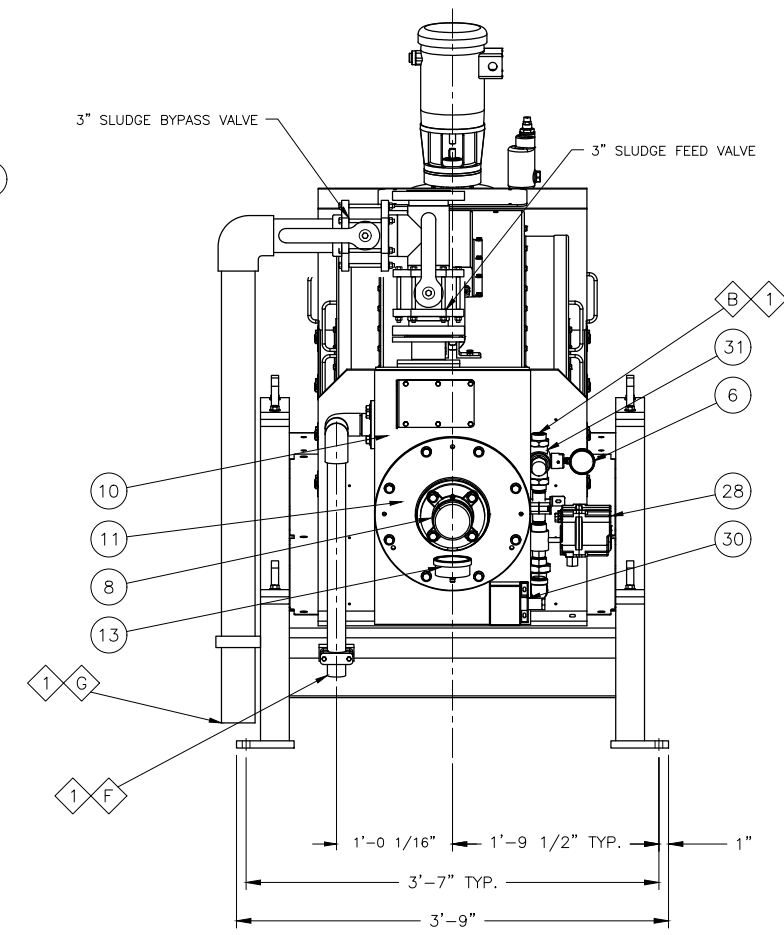
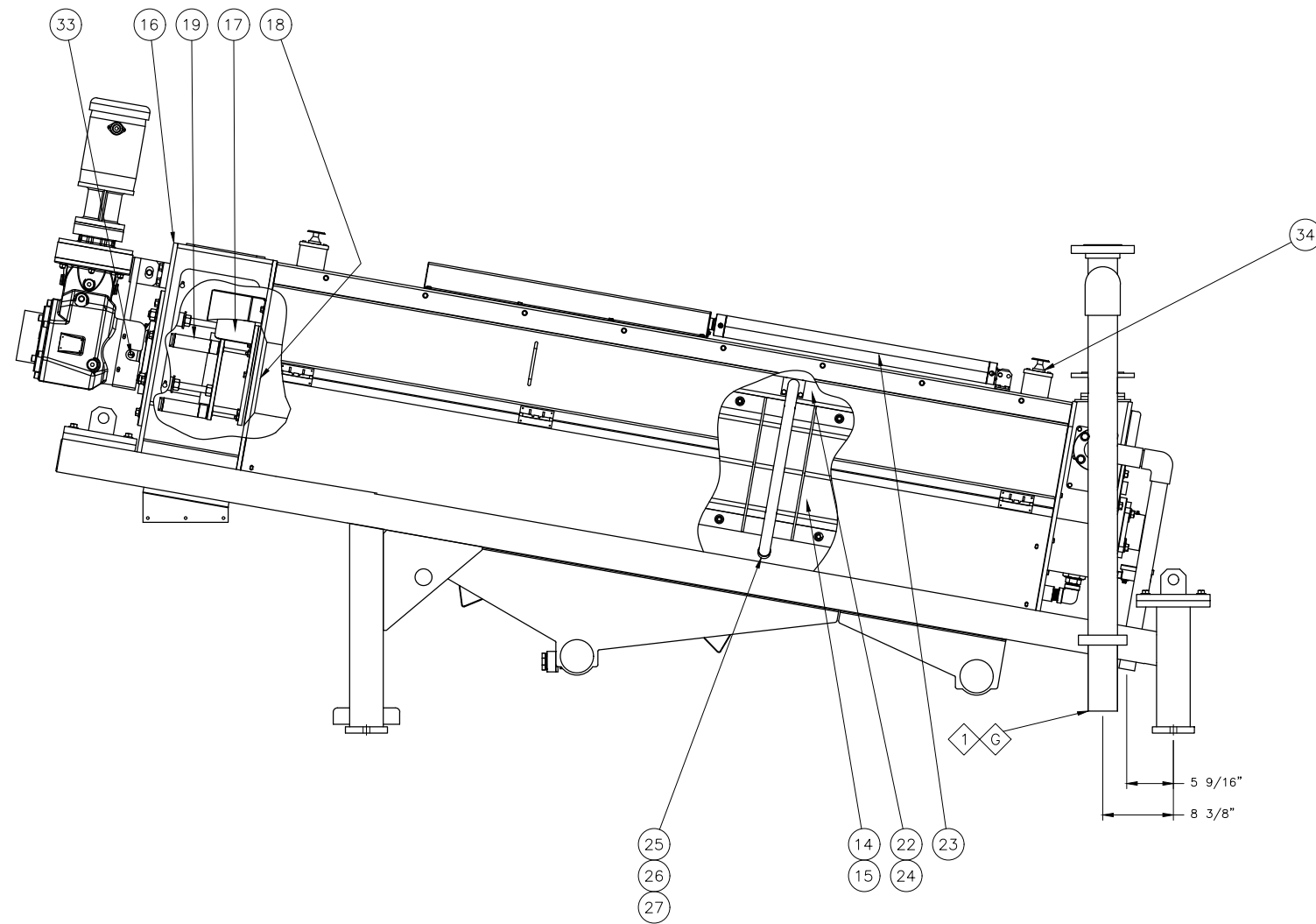


For additional information on R-Series mounting positions, refer to the SEW Catalog or call the SEW FAXline, 1-800-601-6195, and request Document #2111.

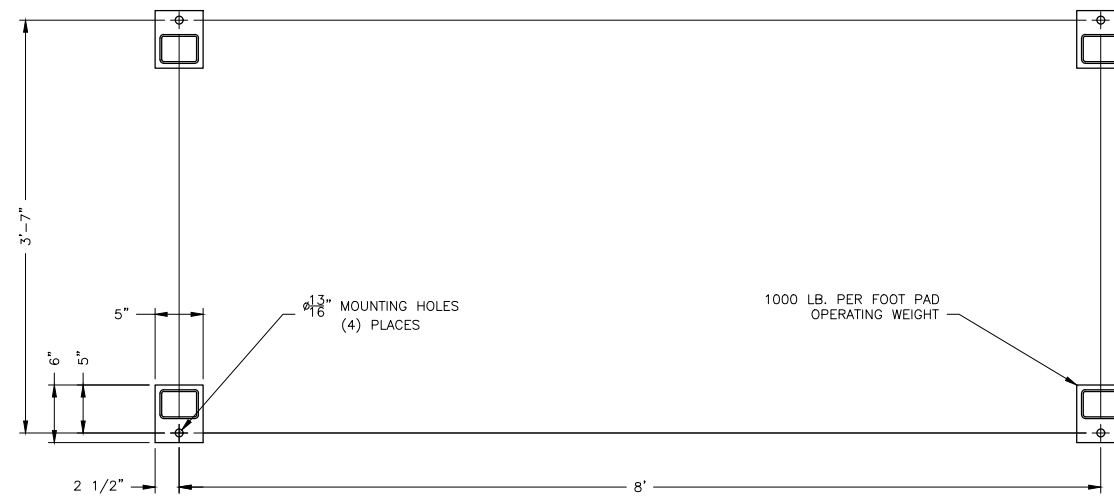




QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURG, NY	MACHINE: DSP 12x8	DWG TITLE GENERAL ARRANGEMENT MODEL DSP 12x8 SCREW PRESS		
BDP JOB NO. 1581	DWN BY: MJG	DATE: 5/26/21		
APP'D BY:	SCALE:	SHT. OF 1 3	DWG NO. 1-1581-1	REV. 3



QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURG, NY		MACHINE: DSP 12x8		DWG TITLE GENERAL ARRANGEMENT
BDP JOB NO. 1581	DWN BY: MJG	DATE: 5/26/21	MODEL DSP 12x8 SCREW PRESS	
APP'D BY:	SCALE:	SHT. OF 2 3	DWG NO. 1-1581-1	REV. 3



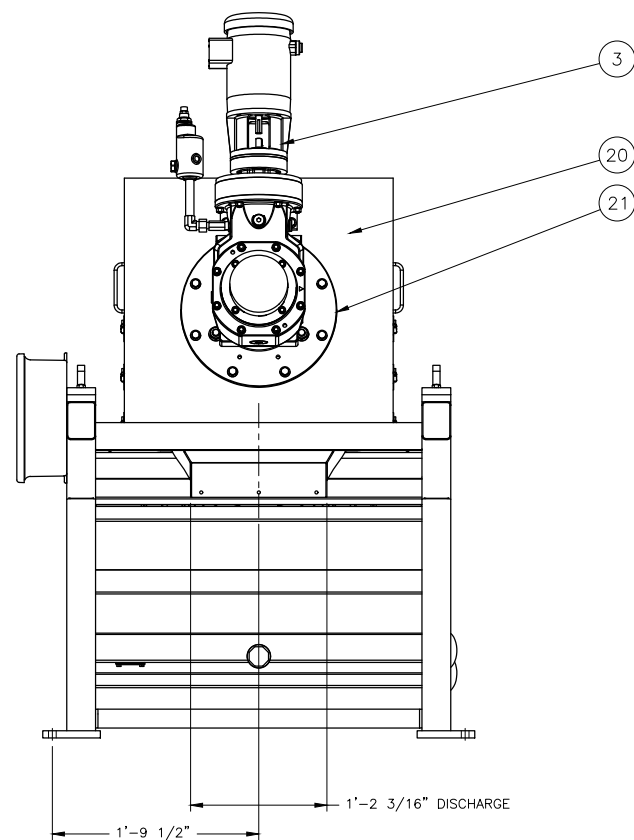
FOOT PAD LAYOUT

CONNECTION LEGEND

- ◇ A 3"-150# ANSI FEED INLET FLANGE
- ◇ B 1" NPT WASHWATER INLET
- ◇ C 3" SCREW SUMP PAN DRAIN
- ◇ D 1/2" NPTF PNEUMATIC PANEL INLET
- ◇ E 3" UPPER PAN SECTION DRAIN
- ◇ F 1-1/2" OVER PRESSURE DRAIN
- ◇ G 3" INLET BYPASS DRAIN

NOTES:

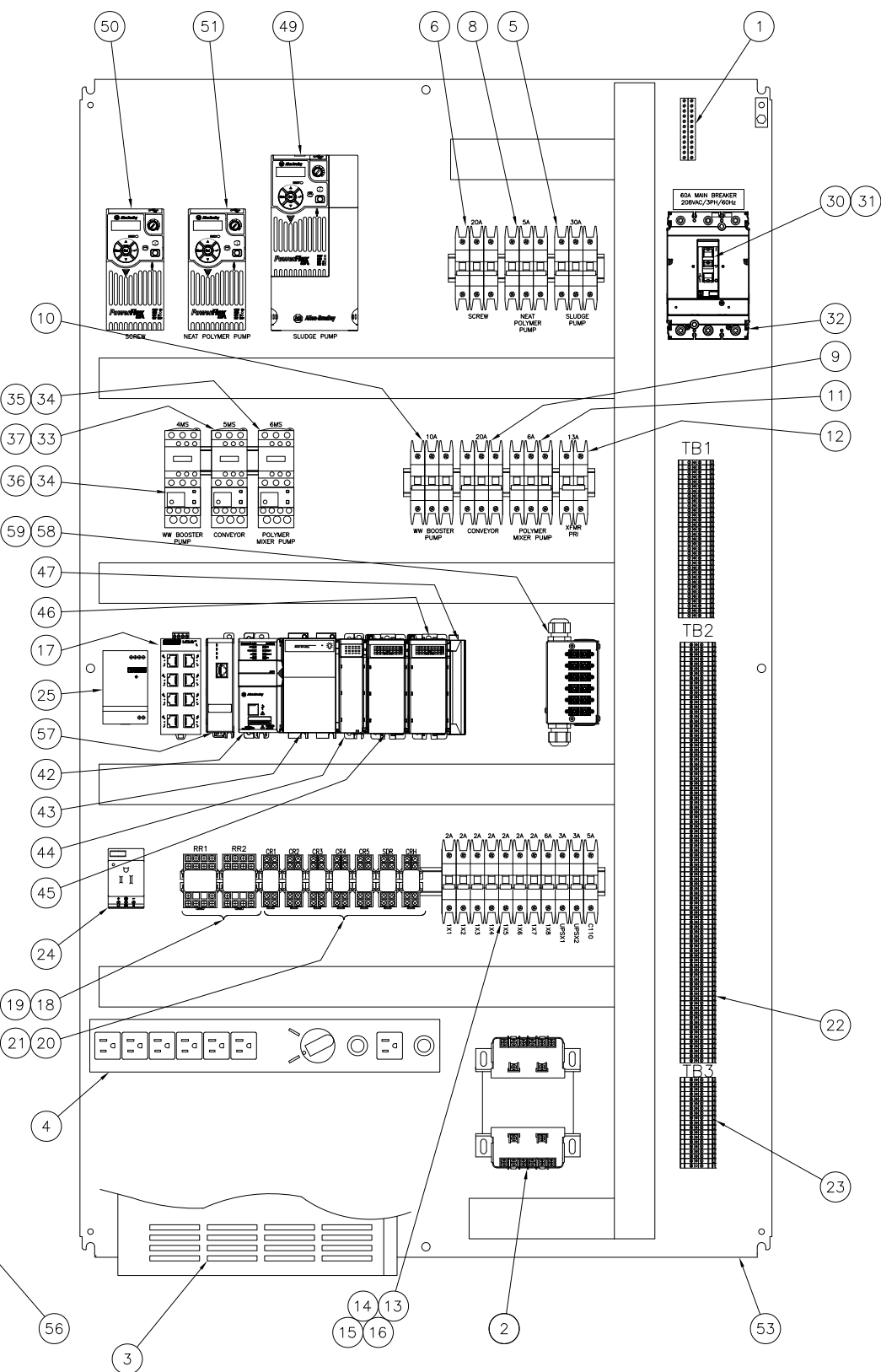
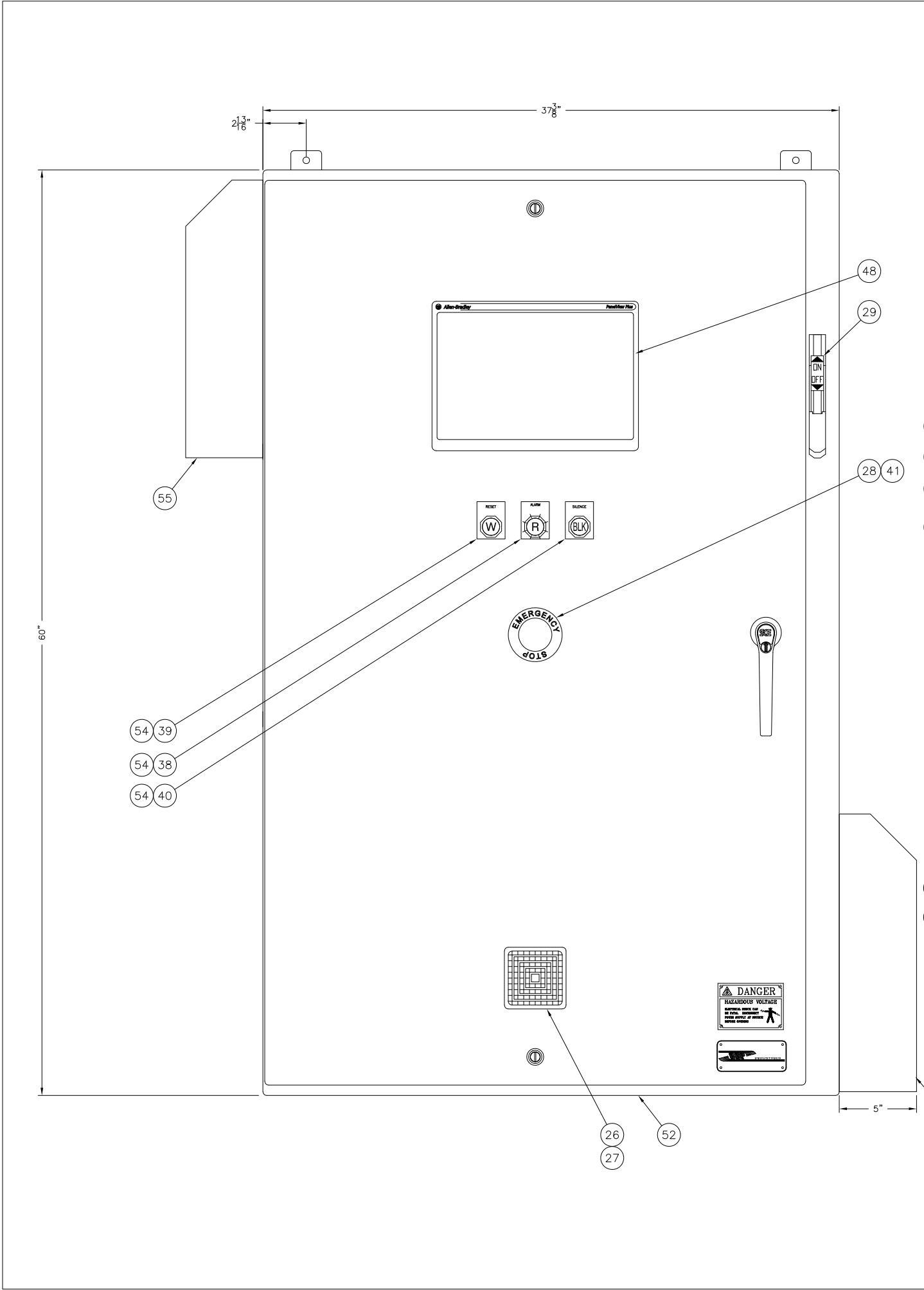
1. PIPING BEYOND THIS POINT INDEPENDENTLY SUPPORTED (NOT BY BDP).
2. FRAME IS TUBULAR STEEL A554-MT304, SAND BLASTED CLEAN WITH TOP CLEAR COAT.
3. ALL STAINLESS STEEL SHEET AND PLATE IS TYPE 304 SS. FASTENERS AND HARDWARE ARE TYPE 304 SS.
4. ITEMS NOT OTHERWISE PROTECTED ARE COATED WITH NAPA URETHANE ENAMEL PER BDP SPECIFICATION QA94-006.
5. APPROXIMATE WEIGHTS: 3,200 LBS. DRY  
4,000 LBS. OPERATING
6. ELECTRICAL CONDUIT IS PVC.
7. SUMITOMO GEARMOTOR, LHYJS-5B14DB-Y2-501-145TC, 501:1, SHAFT MOUNT, Y2 MOUNT, 65mm SHRINK DISC, BALDOR MOTOR CEM3558T, 2HP, 1800 RPM, 460V, TEFC.



3	SHOW UPGRADED INLET PLUMBING	8/16/22	MJG
2	SHOW UPGRADED SPLIT SUMP PANS	11/15/21	SKD
REV.	DESCRIPTION	DATE	BY

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
1	SECONDARY INLET SHAFT SEAL	PALMETTO	36	9155-0095-981P
1	ELECTRICAL JUNCTION BOX	FRP	35	
2	EMERGENCY STOP BUTTUN	ALLEN-BRADLEY	34	800H-FRXJT6A1
1	ZERO SPEED SWITCH	ALLEN BRADLEY	33	871TM-BHBN18-H2
1	LOWER SCREW FILTRATE PAN	304 SS	32	
1	PRESSURE REDUCING VALVE	MCMMASTER	31	45805K68
1	LOW WASHWATER SWITCH	SOR	30	6NN-K3-N4-F1A
1	UPPER SCREW FILTRATE PAN	304 SS	29	
1	1" ELECTRIC BALL VALVE	TRIAC	28	22-TX-100/WEA1-XX
24	SCREW SHOWER FLOODJET NOZZLE	SPRAYING SYSTEMS	27	1/BK-2
24	SCREW SHOWER VEEJET NOZZLE	SPRAYING SYSTEMS	26	H1/BVV-8004
6	SCREW SHOWER MANIFOLD	304 SS	25	
4	SHOWER CARRIAGE WHEEL	NYLON	24	3-810-297
1	SCREW SHOWER AIR CYLINDER	BIMBA	23	SS-5030-DXPWEE0.625
1	SCREW SHOWER CARRIAGE	304 SS	22	
1	SCREW OUTLET BEARING PLATE	304 SS	21	
1	SCREW OUTLET HOUSING	304 SS	20	
3	CONE PNEUMATIC CYLINDER	BIMBA	19	SS-173-DW
1	BACKPRESSURE CONE	UHMW	18	2-810-143 P3
1	SCREW BACKPRESSURE ASSEMBLY	304 SS	17	
1	SCREW OUTLET HOUSING	304 SS	16	
4	SCREW FILTER SCREEN ASSEMBLY	304 SS	15	
1	DEWATERING SCREW ASSEMBLY	304 SS	14	
1	SCREW PRESSURE SENSOR	IFM	13	PG2797
1	PRIMARY INLET SHAFT SEAL	HARWALL	12	2.438x3.25x.375 HHP1
1	SCREW INLET BEARING PLATE	304 SS	11	
1	SCREW INLET HOUSING	304 SS	10	
1	2-15/16" FLANGED BEARING	LINKBELT	9	FC-B22447E7E7
1	1-15/16" FLANGED BEARING	LINKBELT	8	F-B22431E7C5S
			7	
1	PRESSURE GAUGE		6	
1	PNEUMATIC CONTROL PANEL	FRP	5	
			4	
1	SCREW PRESS DRIVE	SUMITOMO	3	NOTE 7
1	SCREW PRESS ENCLOSURE	304 SS	2	
1	TUBULAR STEEL FRAME		1	A554-MT304

		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834	
CUSTOMER: MIDDLEBURG, NY	MACHINE: DSP 12x8	DWG TITLE GENERAL ARRANGEMENT	
BDP JOB NO. 1581	DWN BY: MJG	DATE: 5/26/21	MODEL DSP 12x8 SCREW PRESS
APP'D BY:	SCALE:	SHT. OF 3 3	DWG NO. 1-1581-1
			REV. 3



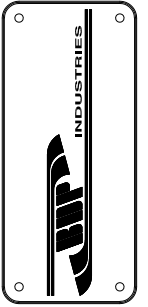
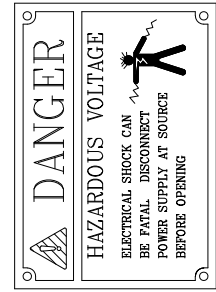
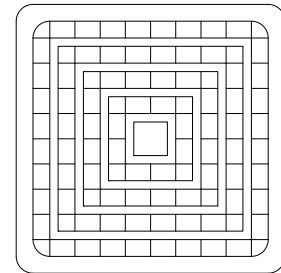
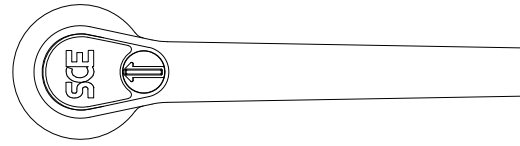
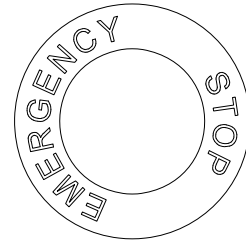
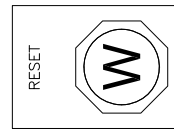
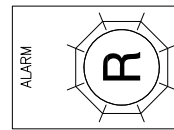
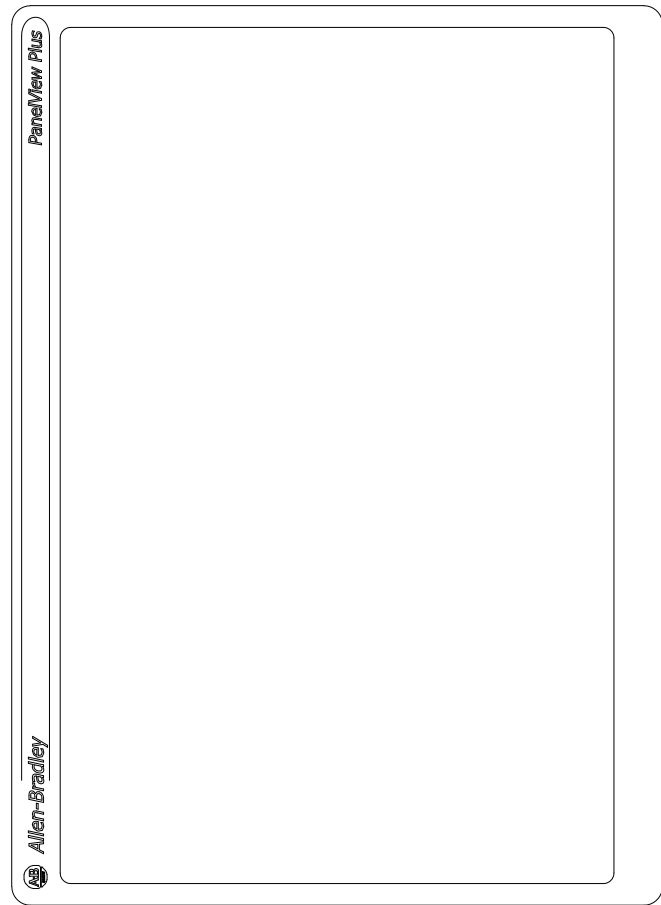
**INCOMING POWER**  
208VAC, 3 $\phi$ , 60Hz

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
1	LC/LC FIBER PATCH CABLE, 2 METER LONG	DINS, SNAP	59	039696002M
1	FIBER OPTIC PATCH PANEL, DIN RAIL MOUNT, LC CONNECTORS	DINS, SNAP	58	SNAP-12LC-MM
1	EMBEDDED SWITCH, ETHERNET/IP TAP 1 COP, 2 FIB	A.B.	57	1783-ETAP2F
1	NEMA 4X FILTER HOOD	KOOLTRONIC	56	KNPA60FLV
1	NEMA 4X FILTER FAN, 115V	KOOLTRONIC	55	KNP40FLV
3	LEG-1 STANDARD LEGS PER PRINT	BDP	54	LEG-1
1	BACK PANEL	SAGINAW	53	SCE-60P36
1	NEMA 4X ENCLOSURE, 304 STAINLESS STEEL	SAGINAW	52	SCE-60XEL37125SLP
1	POWERFLEX 525, 1 HP, 240V, NEMA 1	A.B.	51	25B-B5PON104
1	POWERFLEX 525, 2 HP, 240V, NEMA 1	A.B.	50	25B-B8PON104
1	POWERFLEX 525, 7.5 HP, 240V, NEMA 1	A.B.	49	25B-B024N104
1	PANELVIEW PLUS 7, 12" STANDARD TERMINAL	A.B.	48	2711P-12W21D8S
1	RIGHT END CAP/TERMINATOR	A.B.	47	1769-ECR
1	4CH ANALOG INPUT CARD	A.B.	46	1769-IF4
1	16 PT OUTPUT CARD	A.B.	45	1769-OA16
1	16 PT INPUT CARD	A.B.	44	1769-IA16
1	COMPACTLOGIX POWER SUPPLY	A.B.	43	1769-PA2
1	COMPACTLOGIX PROCESSOR	A.B.	42	1769-L30ER
1	MUSHROOM HEAD E-STOP BUTTON	A.B.	41	800H-FRXJT6A1
1	BLACK PUSH BUTTON	A.B.	40	800H-BR2A
1	WHITE PUSH BUTTON, 2 NORMALLY OPEN CONTACT BLOCK	A.B.	39	800H-BR5MOXX
1	RED PILOT LIGHT, LED STYLE	A.B.	38	800H-QRH2R
1	OVERLOAD UNIT, 7 TO 10 AMPS	SQUARE D	37	LRD14
1	OVERLOAD UNIT, 4 TO 6 AMPS	SQUARE D	36	LRD10
1	OVERLOAD UNIT, 2.5 TO 4 AMPS	SQUARE D	35	LRD08
2	CONTACTOR, NON-REV, 9 AMP, 120 VOLT COIL	SQUARE D	34	LC1D09G7
1	CONTACTOR, NON-REV, 12 AMP, 120 VOLT COIL	SQUARE D	33	LC1D12G7
1	POWER DISTRIBUTION LUG KIT	SQUARE D	32	PDC6HD6
1	CIRCUIT BREAKER, 3 POLE, 60 AMP	SQUARE D	31	HDL36060
1	VARIABLE DEPTH OPERATING MECHANISM	SQUARE D	30	9422RQ1
1	OPERATING HANDLE, NEMA 4X	SQUARE D	29	9422A2
1	EMERGENCY STOP CIRCULAR LEGEND	SQUARE D	28	9001KN8330
1	HORN MOUNTING KIT	FEDERAL	27	K8435666A
1	WEATHER PROOF HORN	FEDERAL	26	350-120-30
1	24 VOLT DC POWER SUPPLY, 90 WATT	PHOENIX	25	2902994
1	SIMPLEX PLUG SOCKET, 120V	PHOENIX	24	804155
25	TERMINAL BLOCK - BLUE	PHOENIX	23	3044115
100	TERMINAL BLOCK - GRAY	PHOENIX	22	3044102
7	RELAY BASE	IDEC	21	SH2B-05
2	2 POLE RELAY	IDEC	20	RH2B-UL-120VAC
2	RELAY BASE	IDEC	19	SH4B-05
2	4 POLE RELAY	IDEC	18	RH4B-UL-120VAC
1	8 PORT ETHERNET SWITCH	PHOENIX	17	2891929
7	CIRCUIT BREAKER, 1 POLE, 2 AMP, C CURVE	EATON	16	FAZ-C2/1-NA-L
2	CIRCUIT BREAKER, 1 POLE, 3 AMP, C CURVE	EATON	15	FAZ-C3/1-NA-L
1	CIRCUIT BREAKER, 1 POLE, 5 AMP, C CURVE	EATON	14	FAZ-C5/1-NA-L
1	CIRCUIT BREAKER, 1 POLE, 6 AMP, C CURVE	EATON	13	FAZ-C6/1-NA-L
1	UL 489 BREAKER, 2 POLE, 13 AMP, D TRIP CURVE	EATON	12	FAZ-D13/2-NA-L
1	UL 489 BREAKER, 3 POLE, 6 AMP, D TRIP CURVE	EATON	11	FAZ-D6/3-NA-L
1	UL 489 BREAKER, 3 POLE, 10 AMP, D TRIP CURVE	EATON	10	FAZ-D10/3-NA-L
1	UL 489 BREAKER, 3 POLE, 20 AMP, D TRIP CURVE	EATON	9	FAZ-D20/3-NA-L
1	UL 489 BREAKER, 3 POLE, 5 AMP, C TRIP CURVE	EATON	8	FAZ-C5/3-NA-L
			7	
1	UL 489 BREAKER, 3 POLE, 20 AMP, C TRIP CURVE	EATON	6	FAZ-C20/3-NA-L
1	UL 489 BREAKER, 3 POLE, 30 AMP, C TRIP CURVE	EATON	5	FAZ-C30/3-NA-L
1	HOT SWAP MAINTENANCE BYPASS	EATON	4	EBHPL1500R-PDUJU
1	TOWER STYLE UPS 700VA, 120V	EATON	3	9SX700
1	1500VA CONTROL TRANSFORMER	HAMMOND	2	PH1500MQMJ
2	UL LISTED GROUND BAR	MORRIS	1	91140

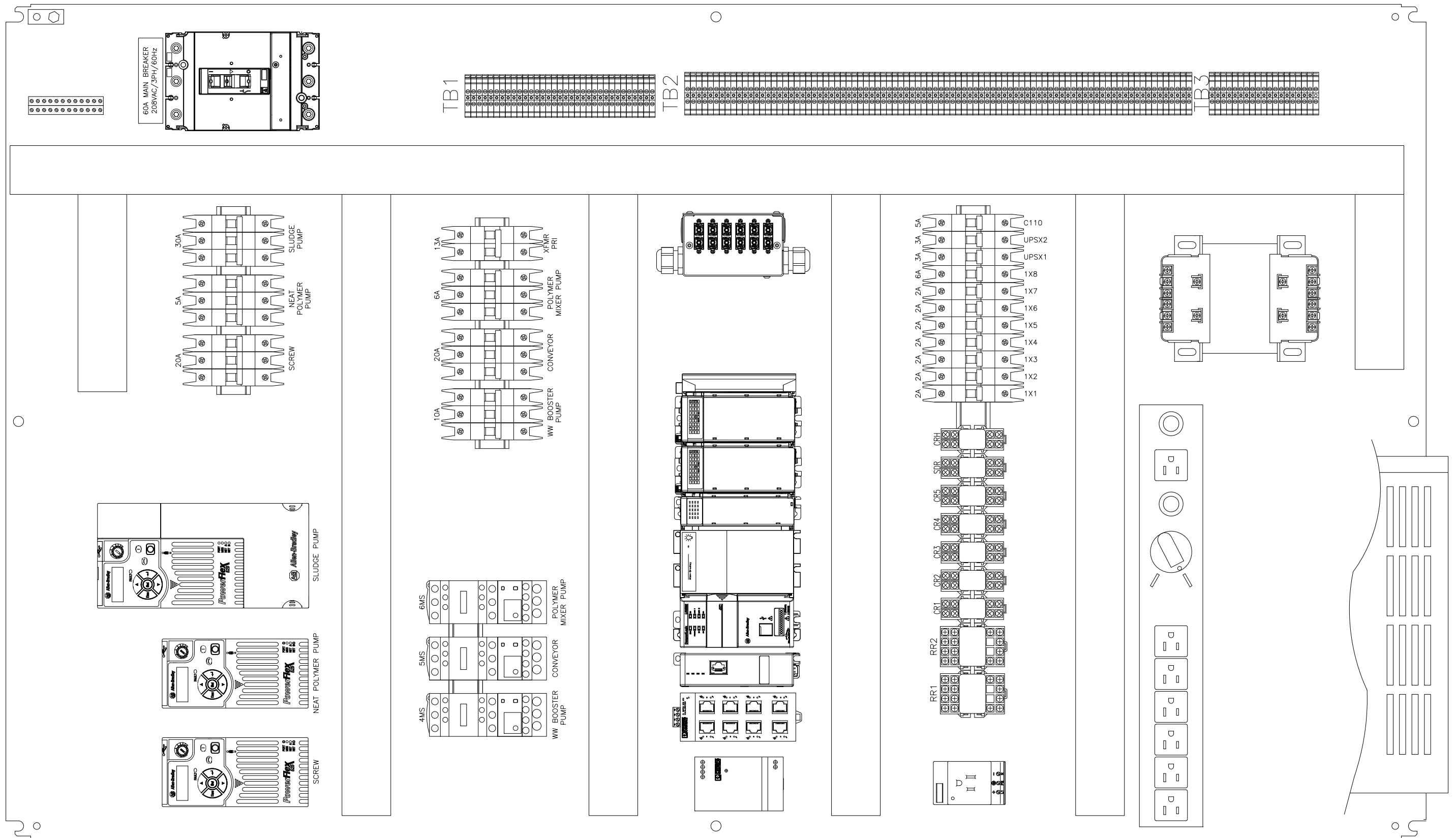
**BDP INDUSTRIES, INC.**  
GREENWICH, N.Y. 12834

CUSTOMER: MIDDLEBURGH, NY  
MACHINE: 12X8 DSP  
BDP JOB NO. 1581  
DWN BY: MJG  
DATE: 7/13/21  
APP'D BY: SCALE: SHT. OF 1 3

DWG TITLE: GENERAL ARRANGEMENT ELECTRICAL CONTROL PANEL  
DWG NO. 1-1581-4  
REV. 3



QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12X8 DSP		DWG TITLE GENERAL ARRANGEMENT ELECTRICAL CONTROL PANEL
BDP JOB NO. 1581	DWN BY: MJG	DATE: 7/13/21		
APP'D BY:	SCALE:	SHT. OF 2 3	DWG NO. 1-1581-4	REV. 3

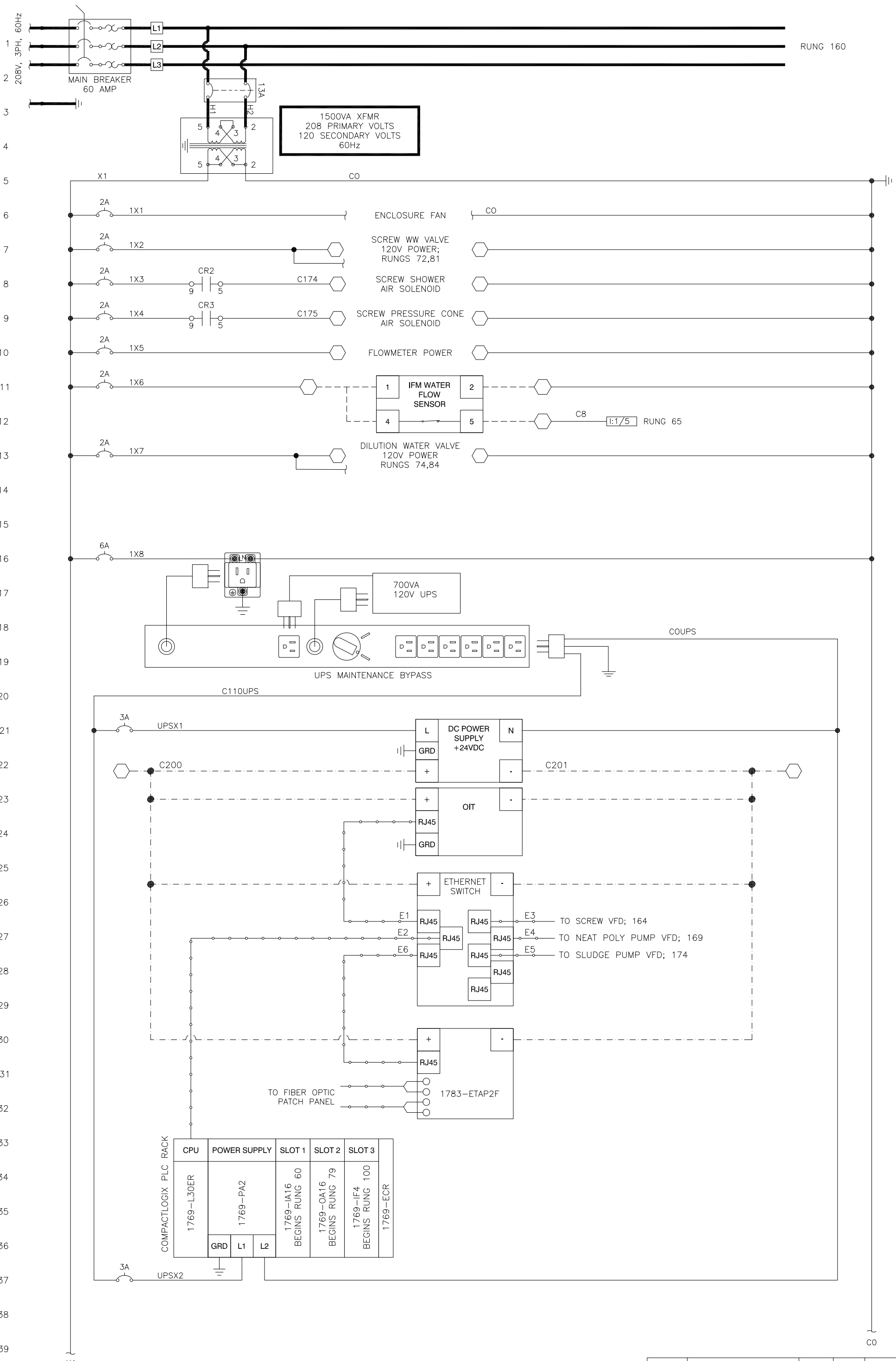


**NOTES:**

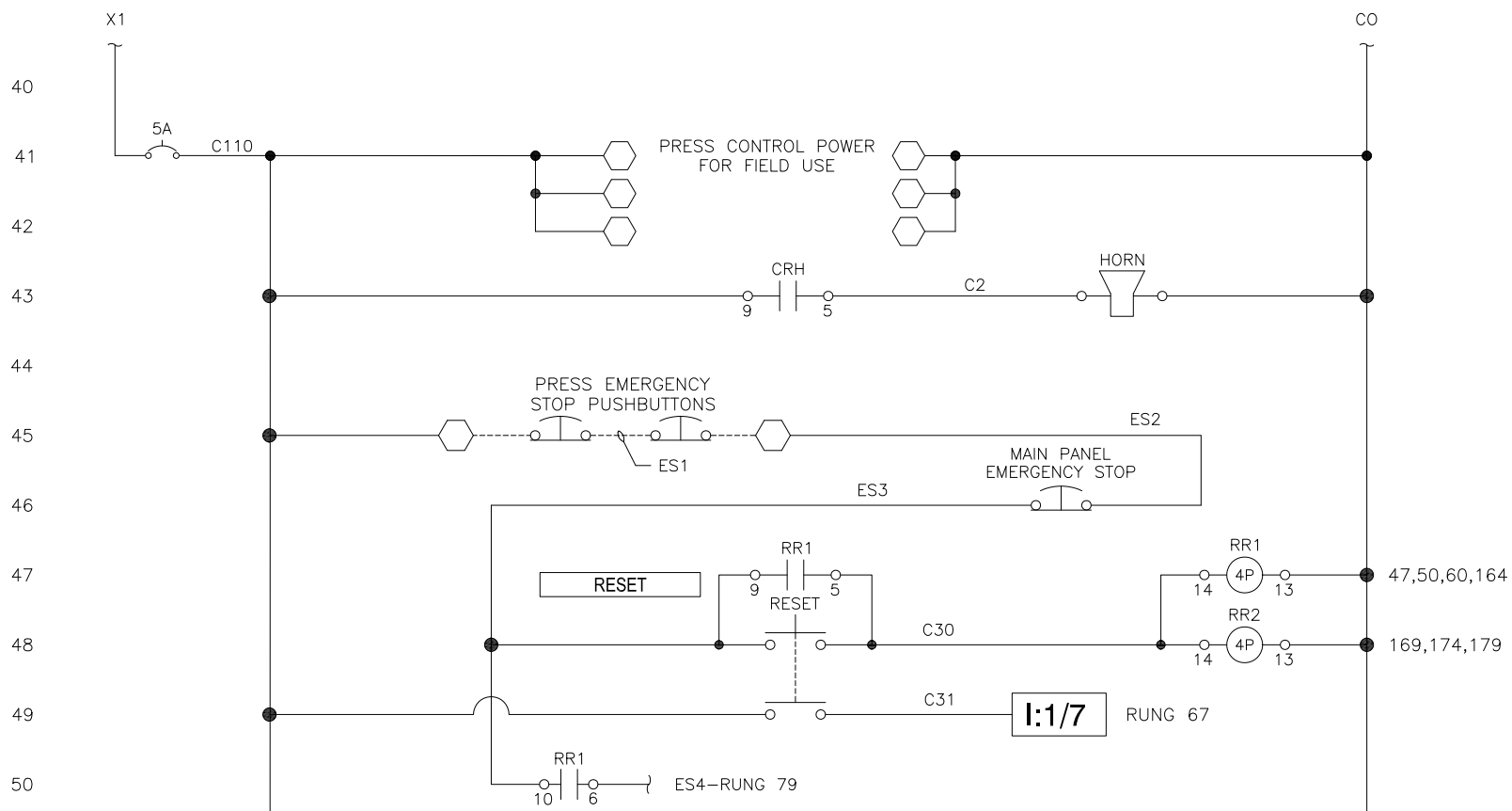
1. THIS DRAWING TO BE USED WITH DRAWINGS 1-1581-5 & 1-1581-6.
2. WEIGHT DRY - 300 LBS
3. ALL DOOR MOUNTED OPERATOR DEVICES ARE ALLEN-BRADLEY AND ARE NEMA 4X RATED.
4. REFER TO VENDOR DATA SECTION OF SUBMITTAL FOR CATALOG CUTS AND ADDITIONAL INFORMATION.
5. SYMBOL  $\Delta$  INDICATES A REVISION WHERE THE # IS THE REVISION NUMBER.

3	AS BUILT	7/7/22	DH
2	ADD ITS. 57-59	9/15/21	MJG
1	INITIAL RELEASE	7/13/21	MJG
REV.	DESCRIPTION	DATE	BY

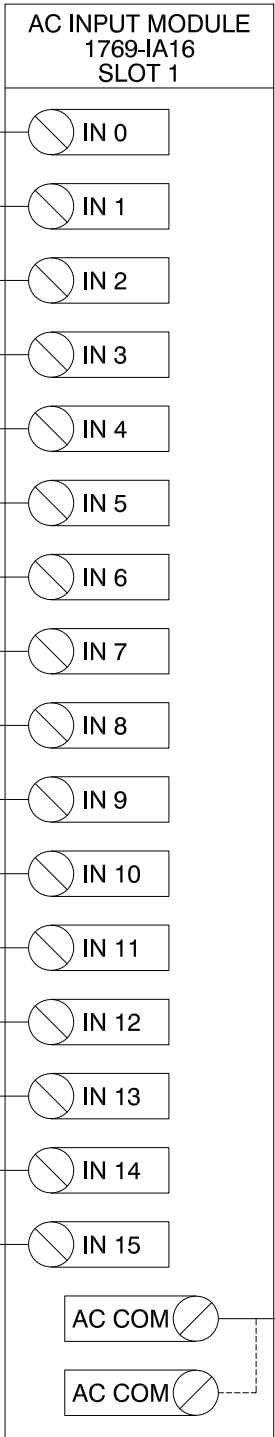
QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12X8 DSP		DWG TITLE GENERAL ARRANGEMENT ELECTRICAL CONTROL PANEL
BDP JOB NO. 1581	DWN BY: MJG	DATE: 7/13/21		
APP'D BY:	SCALE:	SHT. OF 3	OF 3	DWG NO. 1-1581-4
				REV. 3




QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE
BDP JOB NO. 1581		DWN BY: MJG		DATE: 7/9/21
APP'D BY:	SCALE:	SHT. OF	1 4	DWG NO. 1-1581-5
				REV. 3

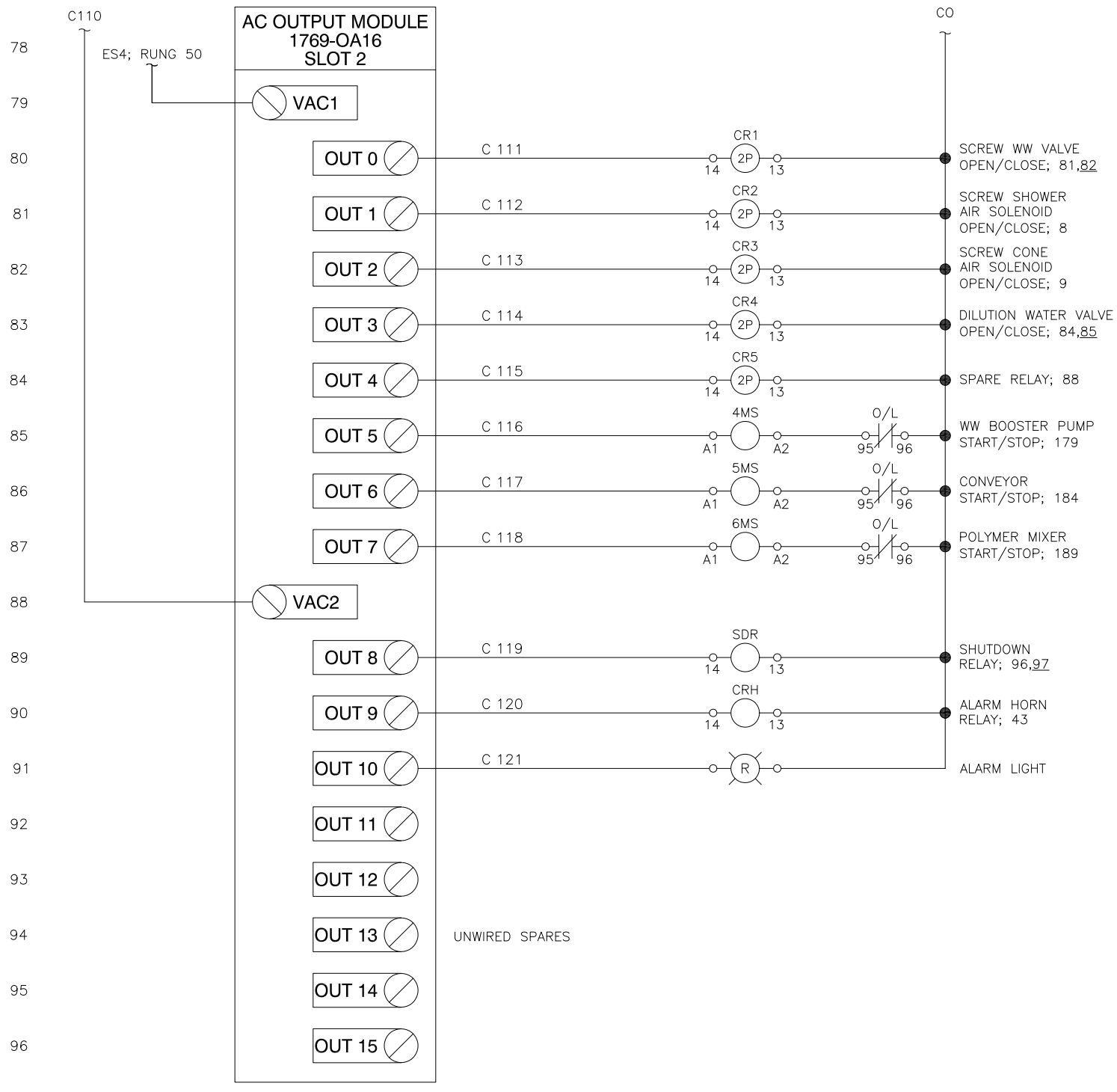


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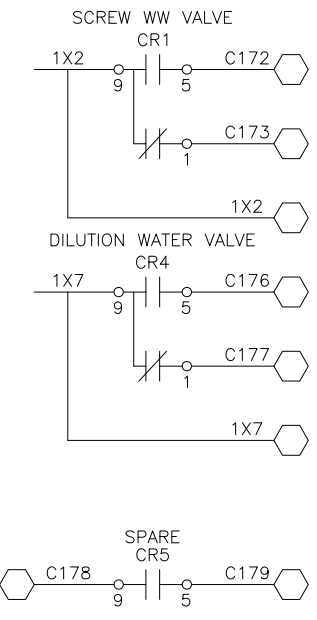


QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE SCHEMATIC POWER AND CONTROL
BDP JOB NO. 1581		DWN BY: MJG DATE: 7/9/21		
APP'D BY:		SCALE:		SHT. OF 2 4
DWG NO. 1-1581-5				REV. 3

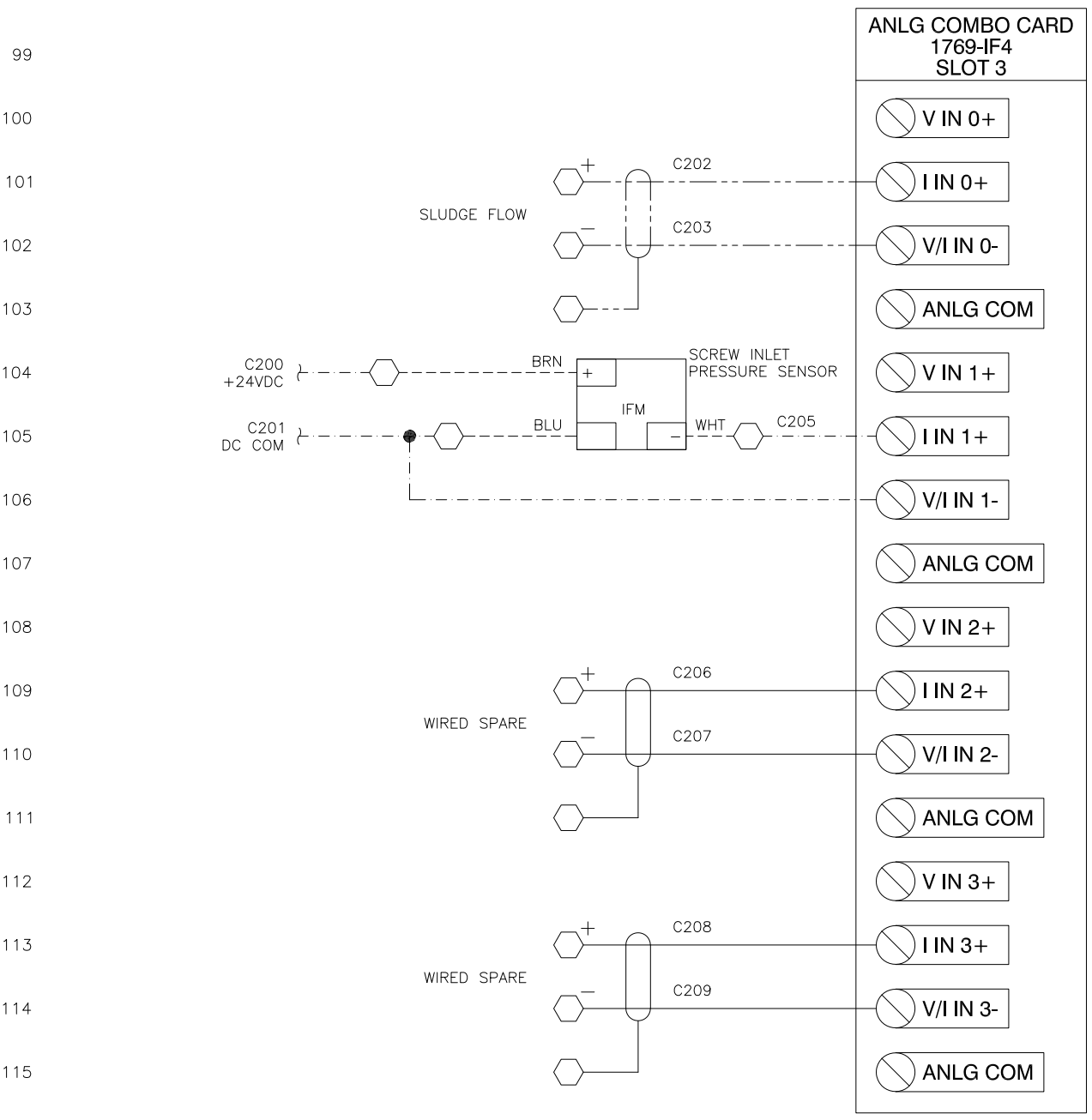
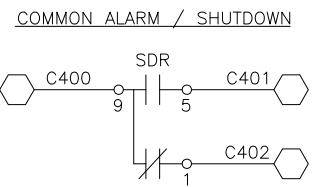




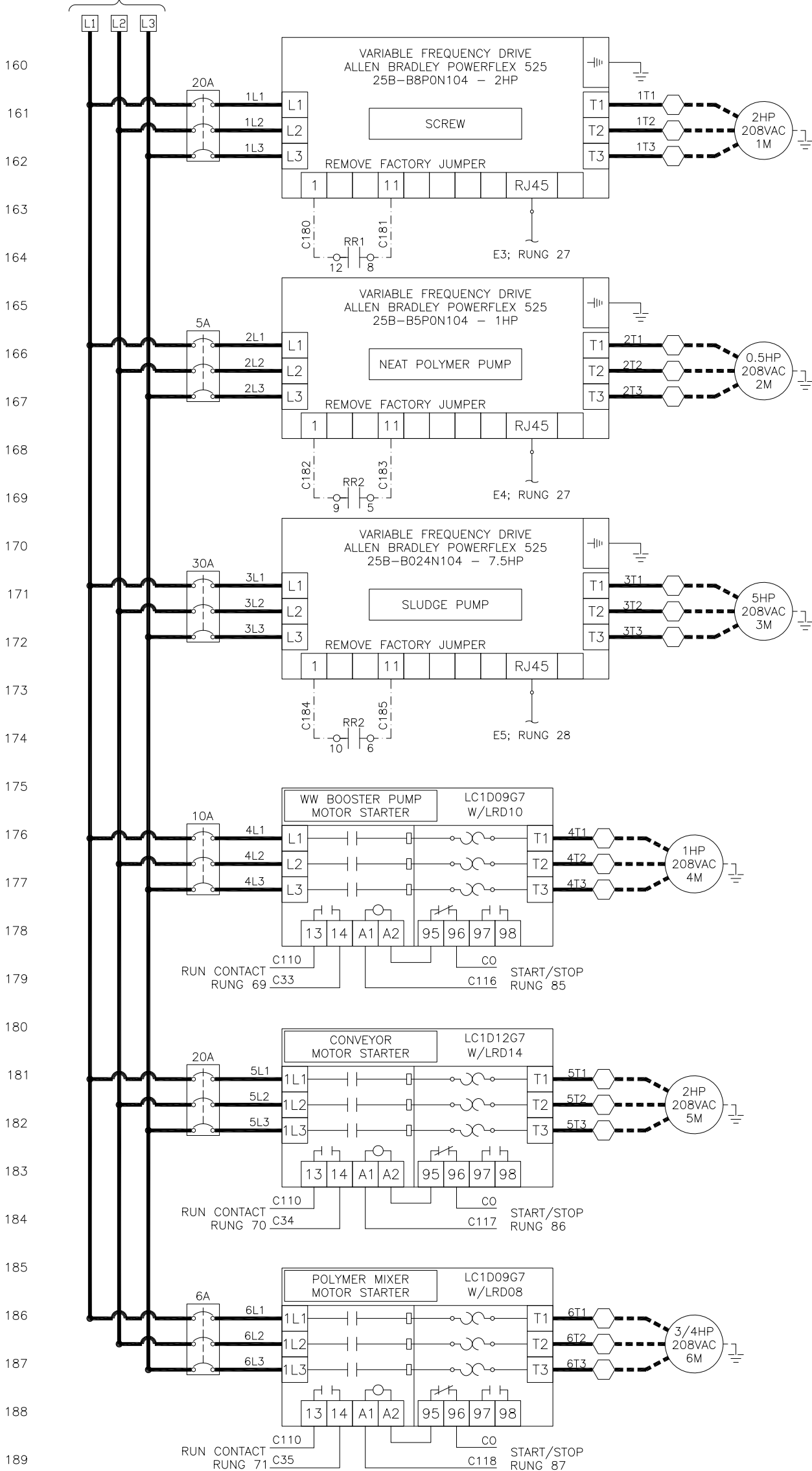
**START / STOP CONTACTS**



**INTERLOCKS DRY ALARM CONTACTS**



QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE
BDP JOB NO. 1581		DWN BY: MJG		DATE: 7/9/21
APP'D BY:	SCALE:	SHT. 3	OF 4	REMARKS
DWG NO. 1-1581-5				REV. 3



- PowerFlex 525 Common Drive Parameters**
- Set Accel [P041] to 5 sec
  - Set Decel [P042] to 5 sec
  - Set Min Freq [P043] to 10 Hz
  - Set Stop Mode [P045] to 1 (Coast)
  - Set Start Src [P046] to 5 (Ethernet/IP)
  - Set Speed Ref [P047] to 15 (Ethernet/IP)
  - Set EN Data Out 1 [C157] to 3
  - Set Max Voltage [A534] to 480
  - Set Auto Restrt Tries [A541] to 3
  - Set Auto Restrt Delay [A542] to 2.0 sec

**LEGEND**

- ⊖ - NORMALLY OPEN RELAY CONTACT
- ⊕ - NORMALLY CLOSED RELAY CONTACT
- ⊖ - CIRCUIT BREAKER
- ⊖ - TERMINAL BLOCK
- ⊖ - PUSH-TO-TEST PILOT LIGHT
- ⊖ - PILOT LIGHT
- ⊖ - LIMIT SWITCH
- ⊖ - PUSHBUTTON
- ⊖ - RELAY COIL
- ⊖ - HORN
- ⊖ - PRESSURE SWITCH
- ⊖ - FLOAT SWITCH
- ⊖ - ZERO SPEED SWITCH
- ⊖ - REVISION
- \* - CUSTOMER SUPPLIED CONTACT
- - WIRING EXTERNAL TO PANEL (BY CONTRACTOR)
- - 120VAC CONTROL WIRING
- - VDC WIRING
- - ETHERNET CABLE
- - SHIELDED 4-20mA CABLE
- - HIGH VOLTAGE WIRING (208/240/460/575V)

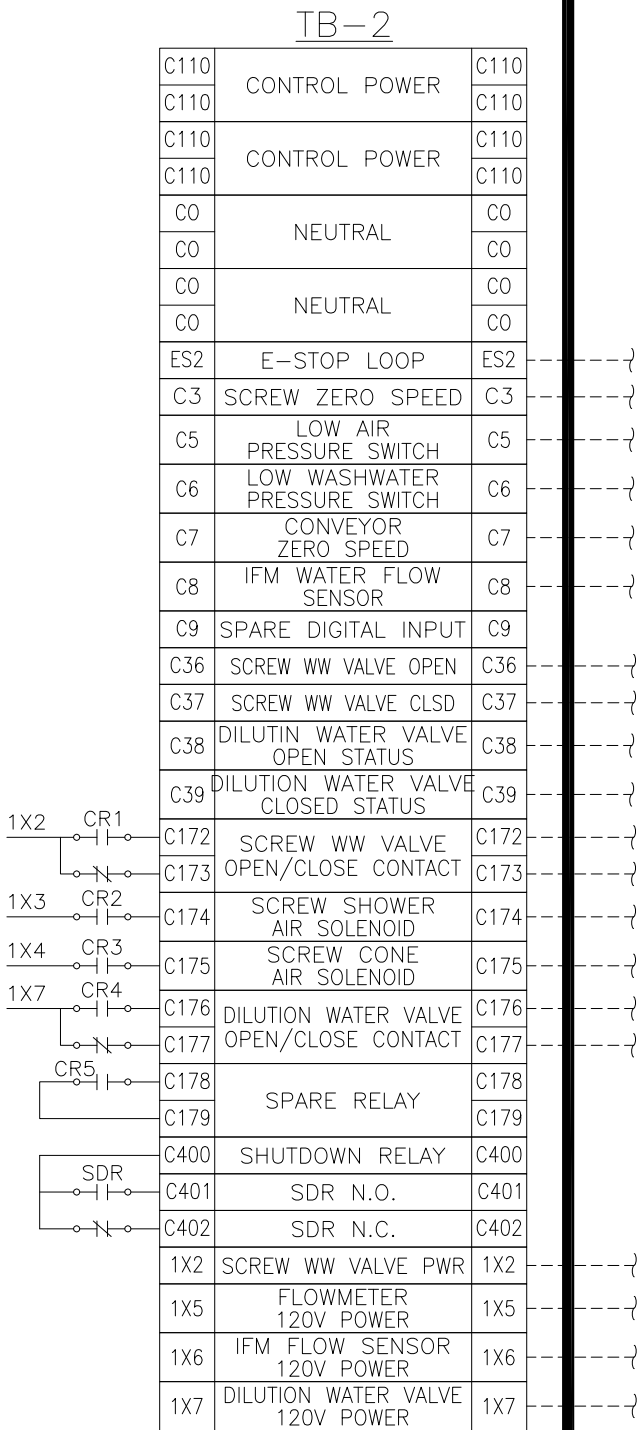
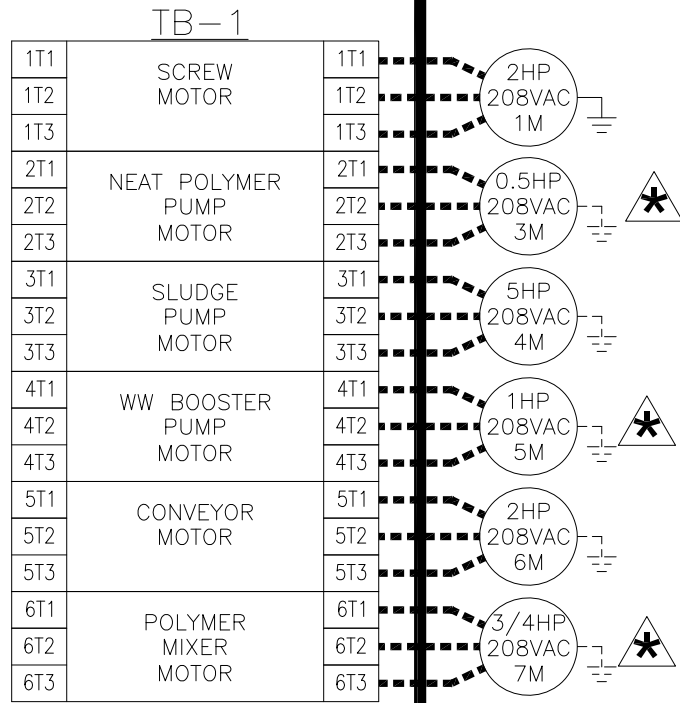
- NOTES:**
1. THIS DRAWING TO BE USED WITH DRAWINGS 1-1581-4 & 1-1581-6.
  2. POWER WIRING TO BE SIZED FOR LOAD.
  3. WIRING SHALL BE COLOR CODED:  
 (A) BLACK - LOAD & CONTROL AT LINE VOLTAGE, AC OR DC  
 (B) RED - AC CONTROL CIRCUITS  
 (C) BLUE - DC CONTROL CIRCUITS  
 (D) GREEN - EQUIPMENT GROUNDING CONDUCTOR(S)  
 (E) WHITE - NEUTRAL
  4. USE 16 GAUGE (MIN.) STRANDED MACHINE TOOL WIRE FOR CONTROL WIRING.
  5. ALL WIRES MUST BE TAGGED AT BOTH ENDS, TERMINAL STRIP TERMINALS AND WIRE NUMBERS TO HAVE SAME LABEL.

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE
BDP JOB NO. 1581		DWN BY: MJG		DATE: 7/9/21
APP'D BY:		SCALE:	SHT. OF	REV.
3 AS BUILT		7/7/22	DH	
2 ADD ETAP MODULE		9/15/21	MJG	
1 INITIAL RELEASE		7/9/21	MJG	
REV. DESCRIPTION		DATE	BY	
DWG NO. 1-1581-5				3

**PRESS CONTROL PANEL**

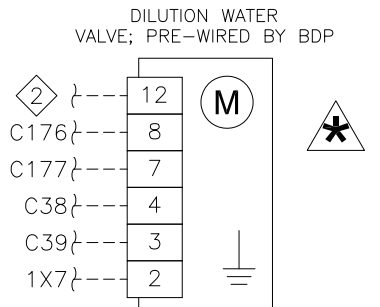
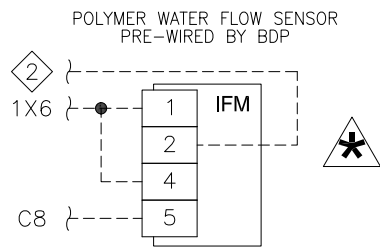
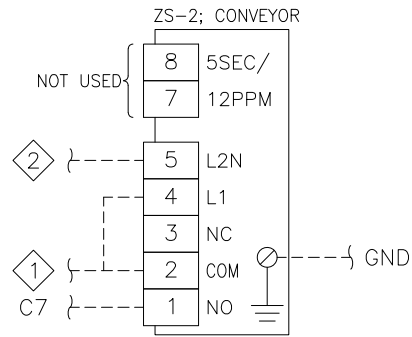
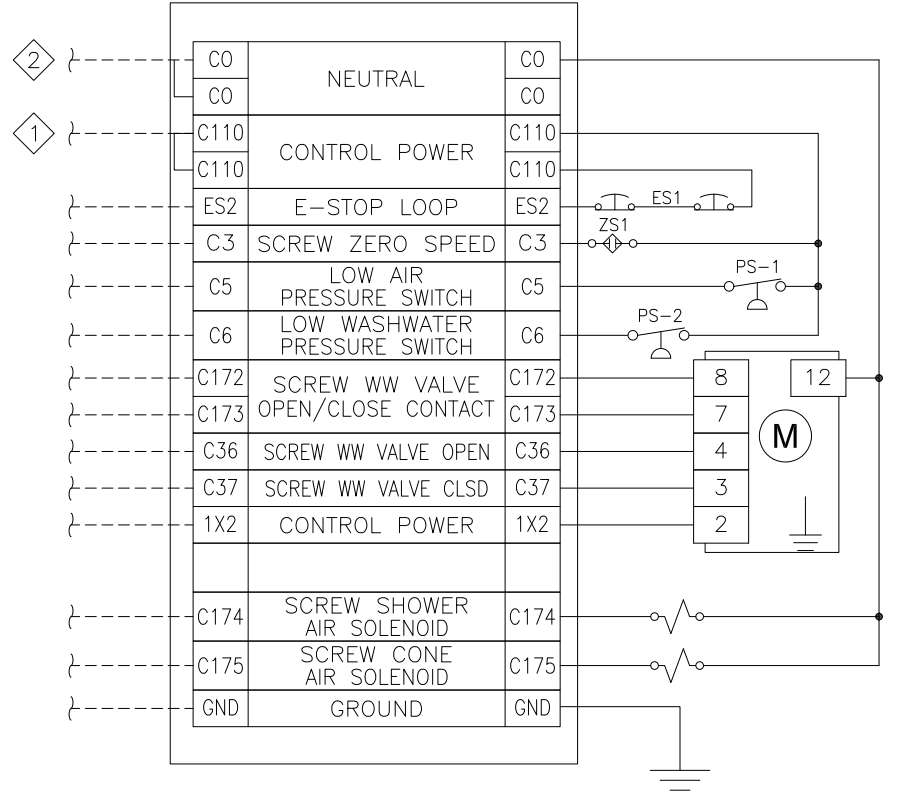
**FIELD**

- SYMBOL SHOWN FOR BDP PRE-WIRED SKID MOUNTED COMPONENTS  
 - ALL OTHER FIELD WIRING BY OTHERS



**120V JUNCTION BOX**

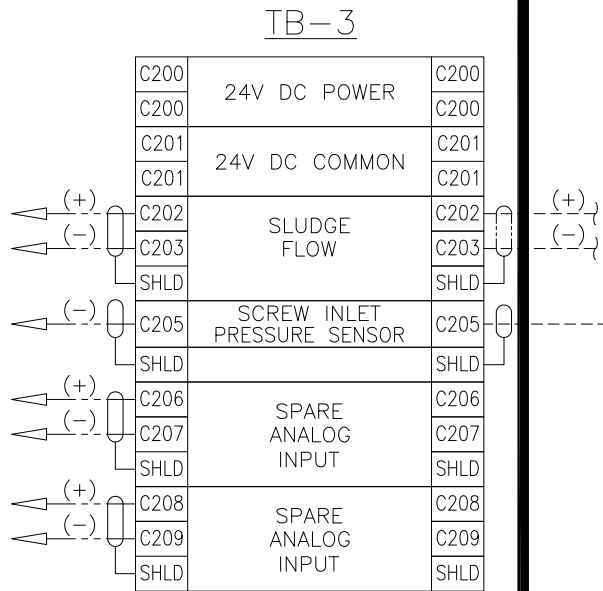
- ITEMS PRE-WIRED TO JUNCTION BOX BY BDP
- PULL (18) MINIMUM 16GA. WIRES FROM PANEL TO JUNCTION BOX



QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE: TERMINAL STRIP ARRANGEMENT
BDP JOB NO. 1581		DWN BY: MJG		DATE: 7/13/21
APP'D BY:	SCALE:	SHT. OF	1 2	DWG NO. 1-1581-6
				REV. 2

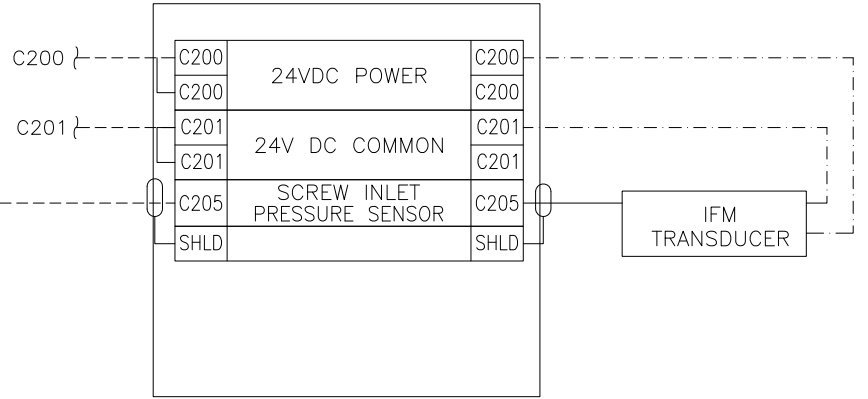
# PRESS CONTROL PANEL

# FIELD

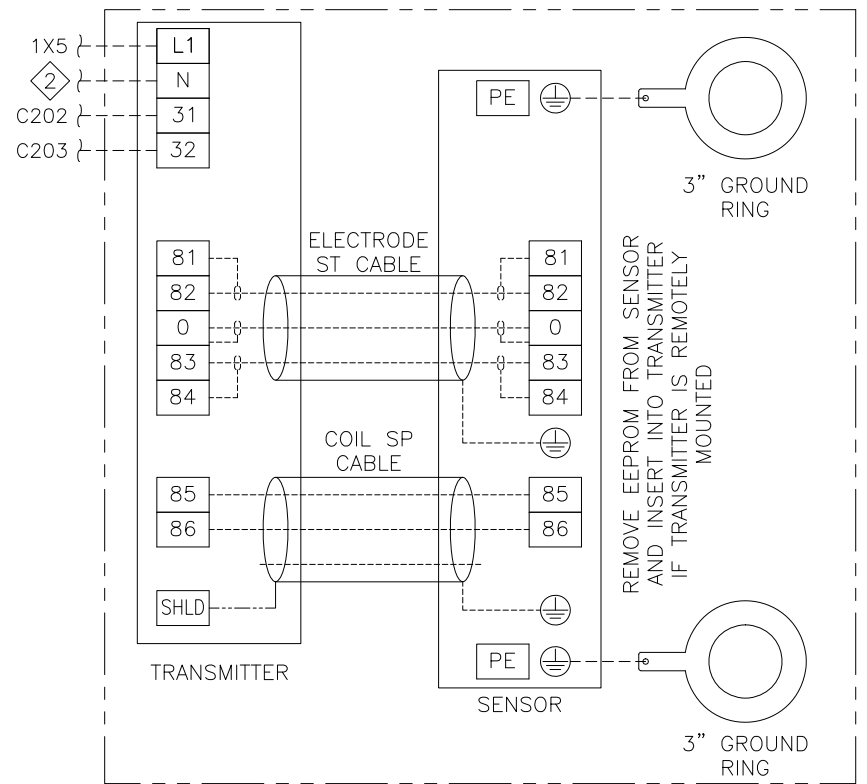


## PRESS JUNCTION BOX

- ITEMS PRE-WIRED TO JUNCTION BOX BY BDP
- PULL (2) MINIMUM 16GA. WIRES FROM PANEL TO JUNCTION BOX FOR DC CONTROL
- PULL (2) MINIMUM TWISTED PAIR 18GA SHIELDED CABLES



## SLUDGE FLOWMETER



LEGEND	
	NORMALLY OPEN RELAY CONTACT
	NORMALLY CLOSED RELAY CONTACT
	CIRCUIT BREAKER
	TERMINAL BLOCK
	PUSH-TO-TEST PILOT LIGHT
	PILOT LIGHT
	LIMIT SWITCH
	PUSHBUTTON
	RELAY COIL
	HORN
	PRESSURE SWITCH
	FLOAT SWITCH
	ZERO SPEED SWITCH
	REVISION
	CUSTOMER SUPPLIED CONTACT
	WIRING EXTERNAL TO PANEL
	120VAC CONTROL WIRING
	VDC WIRING
	ETHERNET CABLE
	SHIELDED 4-20mA CABLE
	HIGH VOLTAGE WIRING (208/240/460/575V)
	RUN WITH C110 FROM TOP OF TB-2
	RUN WITH CO FROM TOP OF TB-2

### NOTES:

1. THIS DRAWING TO BE USED WITH DRAWINGS 1-1581-4 & 1-1581-5.

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER: MIDDLEBURGH, NY		MACHINE: 12x8 DSP		DWG TITLE: TERMINAL STRIP ARRANGEMENT
BDP JOB NO. 1581	DWN BY: MJG	DATE: 7/13/21		
APP'D BY:	SCALE:	SHT. OF 2	OF 2	REV. 2
DWG NO. 1-1581-6				



## SCREW PRESS CONTROLS DESCRIPTION

The DSP Screw press will have a NEMA 4X 304 stainless steel control panel. The main panel will contain a touch screen, all VFDs, motor starters, and PLC wiring. The panel will have the necessary set point adjustments needed to control the speeds of the necessary equipment. The example control schematics 1-1534-4, 1-1534-5, and 1-1534-6 show the wiring between the panel and the auxiliary equipment. The following items are controlled and/or displayed from the front of the OIT:

1. Hand-Off-Auto selector button
2. Auto Start/Stop buttons
3. Washwater Booster Pump Start/Stop buttons and speed control
4. Screw Drive Start/Stop buttons and speed control
5. Sludge Pump Start/Stop buttons and speed control (via network with SCADA)
6. Polymer System Start/Stop buttons and speed control
7. Emergency Stop mushroom head pushbutton
8. Hour Run Display
9. Test/Reset pushbutton
10. Silence pushbutton
11. Speed Displays for all variable speed drives
12. Sludge Flow Display
13. Various Alarm Displays

Control of the equipment is accomplished through the OIT mounted on the front of the panel. The OIT communicates to the PLC through Ethernet. The PLC is an Allen Bradley CompactLogix and the OIT is an Allen Bradley 12" PanelView Plus 7. See drawing 1-1534-5 for all digital inputs needed for press operation. Starting and stopping the equipment is done through the digital output cards or via Ethernet to a VFD. Speed control is through the analog output card of the PLC or via Ethernet to a VFD. The setpoint is set through the OIT and the speed command is sent through the Ethernet link to the VFD. Speed feedbacks and all other displayed information will be communicated through Ethernet.

**Auto Setup / Overview Screen**



## SCREW PRESS CONTROLS DESCRIPTION

This screen will be the start of every operation. The mode of operation can be selected from this screen. In the OFF position, none of the components will operate. In the HAND position, the operator will then go to the Hand Mode screen to operate the press with the individual buttons for each component. In the AUTO position, the AUTO START button will activate an automatic starting of the components in order but the operator will be responsible for adjusting the speeds, and the AUTO STOP button will then stop the components in the reverse order.

### **Auto Mode**

When in Auto mode, the AUTO START button begins the startup sequence and the operator will be responsible for setting the component speeds. The PLC will begin to start the following components in order. The washwater booster pump will be called to start. The screw drives will be called to start and will rotate at the speed adjustable by the setpoint on the OIT screen. The system will then enter a Pre-Wash Cycle and will highlight a display on the OIT screen. This cycle is usually 180 seconds long to allow pre wetting of the drum media and screw flights. The display on the OIT screen will indicate the press is in Pre-Wash and show a countdown of the time. After the pre wash cycle has completed, the Wash Cycle display will turn off, and the SCREW READY display will highlight. At this point, conditioned sludge will pass through the feed pipe, into the flocculation drum and down to the screw press. The dewatered cake will fall from the screw press into a cake pump for removal. When the cake pump is set to auto speed, the pump will automatically adjust speed control based on the signal from the load cell under the pump to keep a consistent level.

The screw shower is set up for intermittent cleaning. An adjustable time delay is programmed to open an air solenoid that moves the shower cage, and at the same time opens an electric valve to allow water to pass through the shower cage nozzles. The time adjustments for the screw shower can be made from the Misc Data screen. In Auto Mode, the transfer pump speed will automatically adjust based on the level sensor in the transfer hopper. The screw speed will automatically adjust based on the pressure sensed at the inlet of the screw.

When operation is complete, pressing the AUTO STOP button will automatically shut down the components in the reverse order that they started. First, the sludge pump and polymer system will be called to stop and the WASH CYCLE display will highlight again. The post wash cycle usually lasts 20 minutes to allow all sludge to be removed from the screw press and cake pump. This also allows sufficient time for operators to wash down the machine. After the wash cycle, the screw press drives and washwater booster pump will stop, and the washwater valves will close.



## SCREW PRESS CONTROLS DESCRIPTION

### **Hand Mode Screen**

From the Auto Setup / Overview screen Hand Mode should be selected and then switch to the Hand Mode Screen to operate. In Hand Mode the operator is responsible for starting and stopping the components individually. The components are arranged on the screen so that starting will commence from the top to the bottom. The order of operation should follow the same steps as described in the AUTO MODE above.

### **Misc. Setup Data Screen**

This screen allows the operator to select pumps, and to change the various time delays and setpoints such as:

- Pre-wash cycle duration
- Post-wash cycle duration
- Screw shower cycle duration
- Screw shower cycle start interval
- Screw inlet pressure high/low setpoints
- Booster Pump VFD speed setpoints for drum shower and combined drum+screw shower
- Slide gate automatic open/close timers

### **Emergency Stop Pushbutton**

The E-stop is a jumbo head red pushbutton on the panel door. When pressed, the button is maintained and can only be released by twisting the head. See ALARMS below for functionality.



## SCREW PRESS CONTROLS DESCRIPTION

### Alarms

Any of the following alarms will cause an Emergency shutdown:

- Emergency Stop pushbutton
- Emergency Stop buttons on press
- Screw Zero Speed

Any of the following alarms will cause a Programmed shutdown:

- Low Washwater Pressure
- Low Air Pressure
- Sludge Pump Failure
- Polymer System Failure

An emergency shutdown will immediately wash water booster pump, screw press drives, polymer system, sludge pump, and cake pump. The emergency shutdown interrupts all power to the equipment and activates the audible alarm horn. The SILENCE pushbutton will stop the alarm horn. Once the problem is corrected, the RESET button will clear the alarm. The equipment will not automatically restart on its own for safety reasons, the operator must restart the equipment again from the OIT.

A programmed shutdown will immediately stop the sludge feed pump, and polymer system feeds. All press drives will continue to run for fifteen seconds to allow all sludge to empty from the drum, and then all press drives will stop.



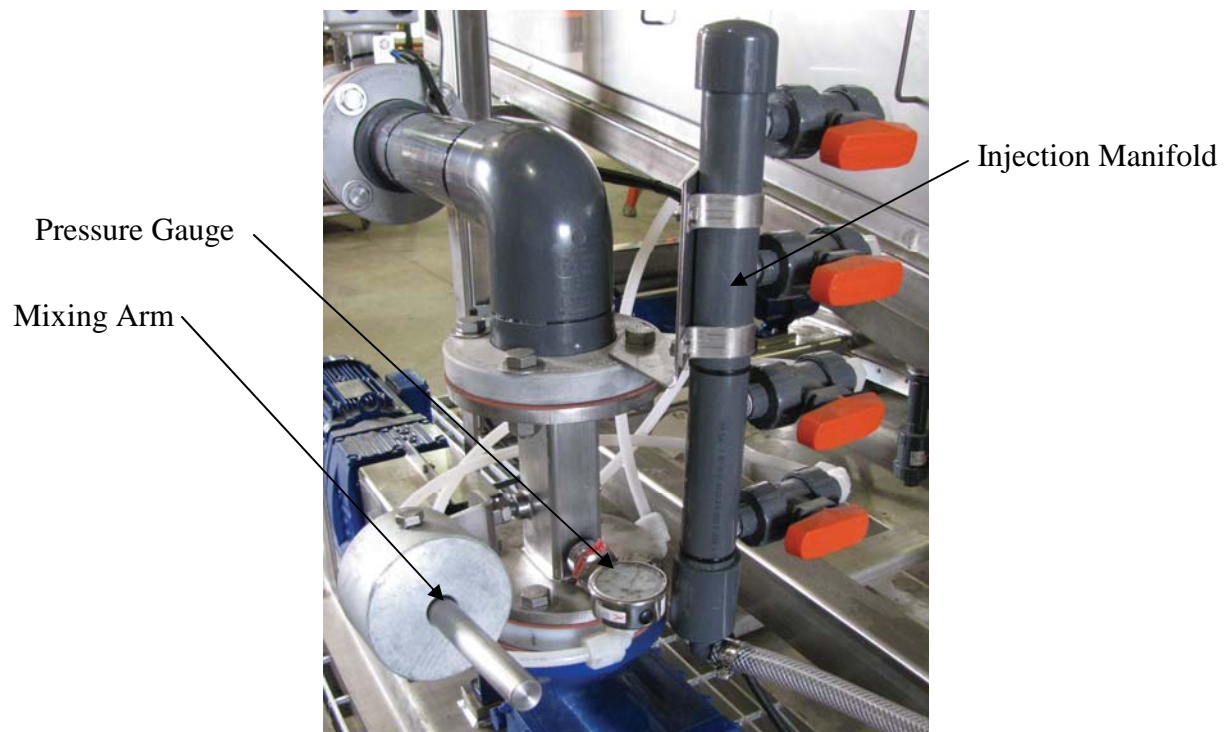
	<b>VENTURI MIXER</b>	
--	----------------------	--

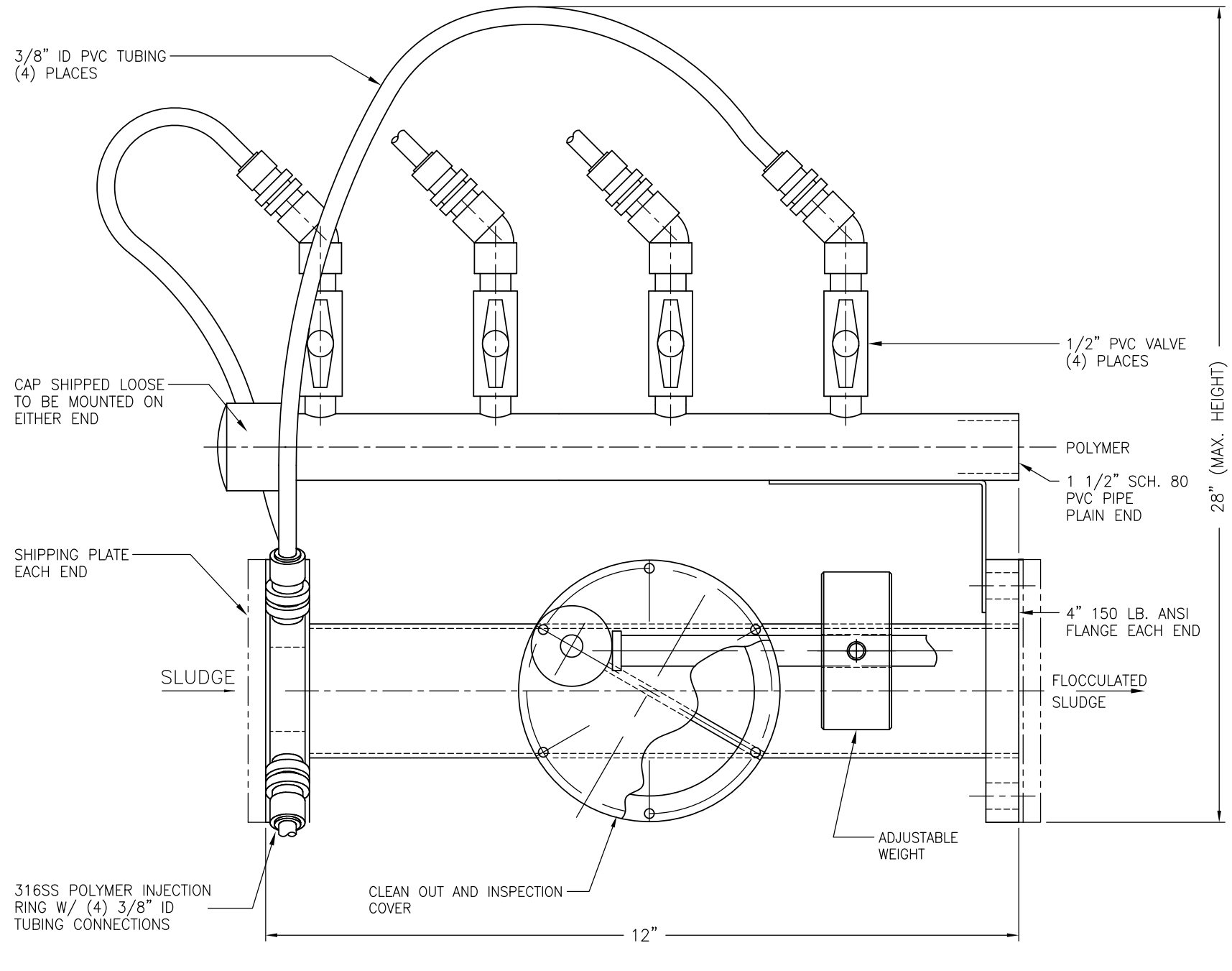
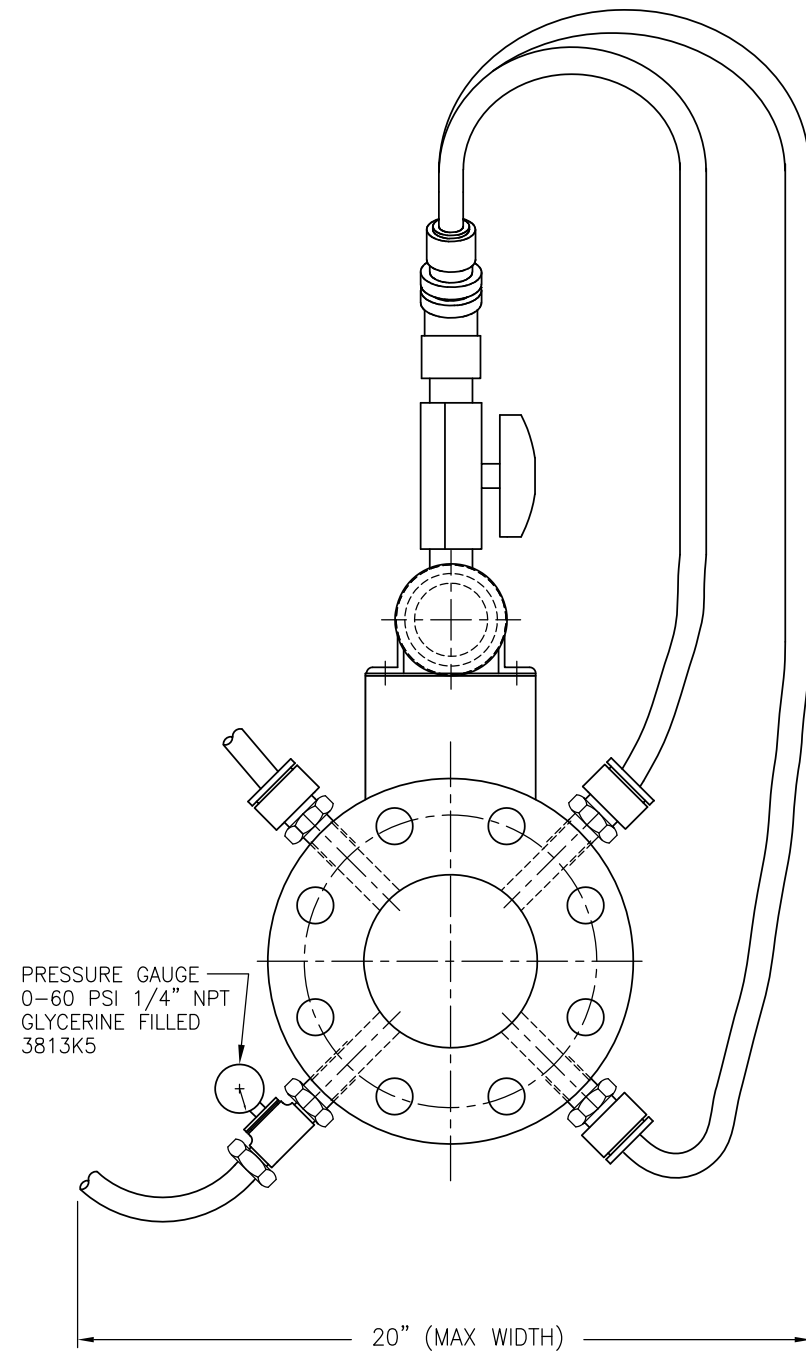
## **VENTURI MIXER**

### **A. General**

All venturi mixers are designed and fabricated by BDP Industries. The in-line venturi mixer is designed to mix the feed slurry with made down polymer solution in order to obtain flocculated feed slurry. “Made down” is defined as diluting the polymer from its original state to a desired percentage (e.g., 0.35%) solution mixture. Depending on the type of sludge and the molecular weight and charge of the polymer solution, the amount of mixing required in the venturi mixer will vary. The mixing intensity is varied by adding or removing weight on the mixing arm. The amount of mixing intensity is measured by the pressure gauge mounted to the injection polymer manifold.

The venturi mixer is supplied with a vortex polymer injection ring with four (4) tangentially mounted polymer injection ports. The injection manifold is supplied with PVC ball valves. The mixer is provided with an adjustable counter weight on the mixing arm which moves the wear plate inside the mixer. This controls the amount of mixing.





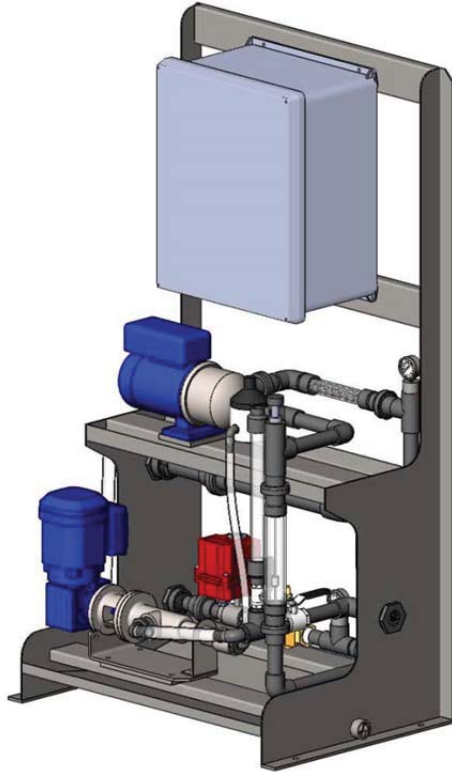
**NOTE:**  
 1. MAY BE MOUNTED HORIZONTAL OR VERTICAL.  
 2. VENTURI MIXER IS MANUFACTURED BY BDP.

3	ADDED 316 SS CONSTRUCTION NOTE	DCW	6/12/03
2	CHG'D PIPE BRACKET	KCE	2/22/01
1	ISSUED	KCE	1/18/01
REV.	DESCRIPTION	BY	DATE

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER: GENERAL		MACHINE:		DWG TITLE 4" VENTURI MIXER 316 SS CONSTRUCTION
BDP JOB NO.	DWN BY: SKD	DATE: 0118/01		
APP'D BY:	SCALE:	SHT. OF 1 1	DWG NO. 3-110-83	REV. 2



## SBM1200-5P-1



### Stationary Boost Mixing Polymer Make Down System

<b>Dilution Water Capacity:</b>	1200 gallons per hour
<b>Neat Polymer Capacity:</b>	5 gallons per hour neat polymer pump
<b>Control System:</b>	Level 1

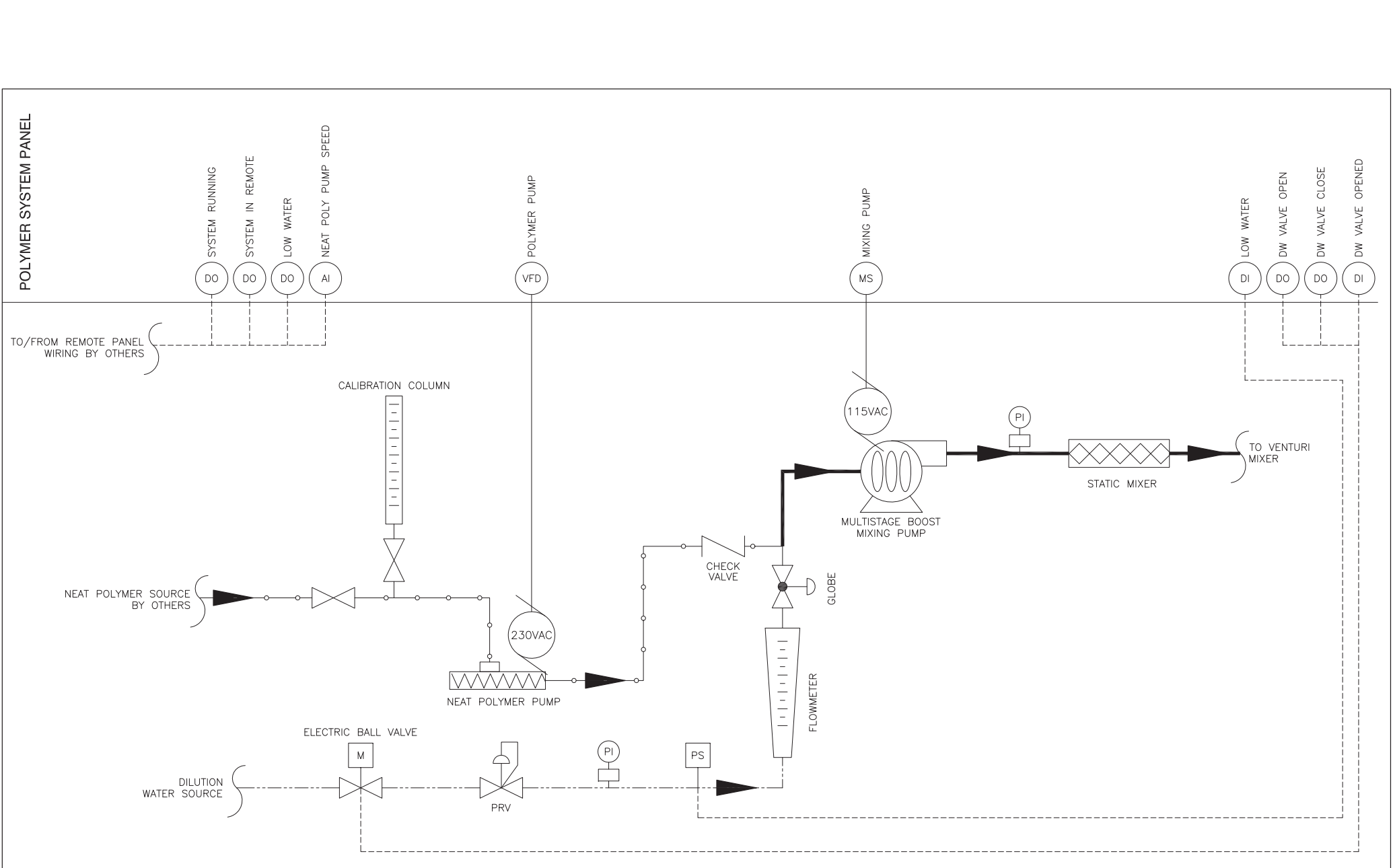


# **SBM1200-5P-1**

## **SECTION 1 – System Description**

The boost mixing polymer system from BDP is designed to provide an instantaneously mixed polymer solution directly to the process stream. The desired solution concentration is achieved by electronically adjusting the speed of the neat polymer pump while manually adjusting the dilution water flow. Controls for the system are pre wired to a NEMA 4X control box on the skid. The following is a description of the system components and capacities:

Dilution Water:	1200 GPH (20 GPM) maximum capacity
Neat Polymer Pump:	Moyno progressive cavity pump, ¼ HP, 5 GPH (.08 GPM) maximum capacity
Boost Mixing Pump:	Goulds multistage pump, ¾ HP
Maximum Water Pressure:	100 psi
Minimum Water Pressure:	50 psi
Controls:	Level 1, 115VAC 1Ø 60Hz 20 amp, see section 3 for more details
System Frame:	304 SS
Approx. Operating Weight:	300 lbs



POLYMER SYSTEM PANEL

SYSTEM RUNNING (DO)  
 SYSTEM IN REMOTE (DO)  
 LOW WATER (DO)  
 NEAT POLY PUMP SPEED (AI)

POLYMER PUMP (VFD)

MIXING PUMP (MS)

LOW WATER (DI)  
 DW VALVE OPEN (DO)  
 DW VALVE CLOSE (DO)  
 DW VALVE OPENED (DI)

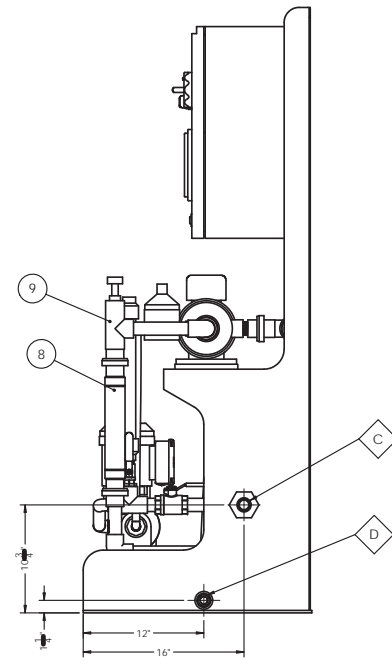
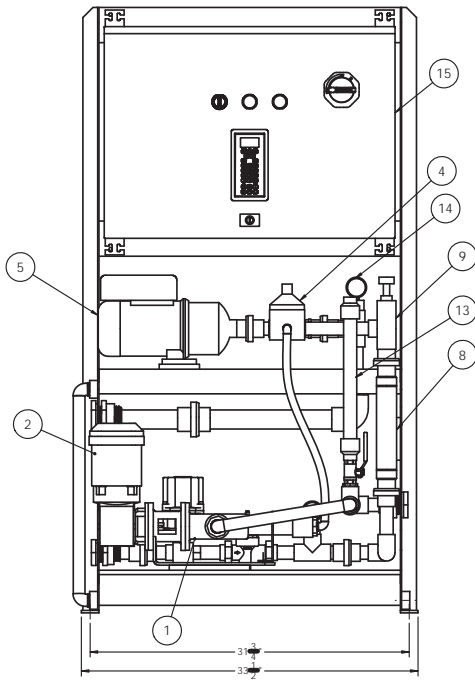
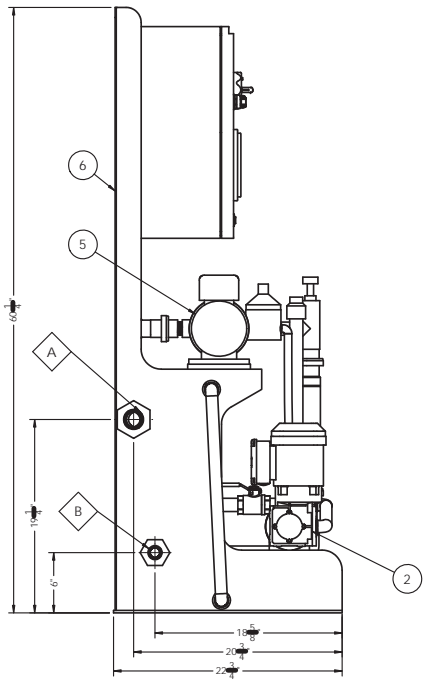
TO/FROM REMOTE PANEL WIRING BY OTHERS

TO VENTURI MIXER

- NOTES:**
1. ALL INTERCONNECTING PIPING TO AND FROM SYSTEM SKID SUPPLIED BY OTHERS.
  2. ALL WIRING FROM PANEL BOX TO DEVICES MOUNTED ON SKID BY BDP.
  3. DRAWING IS FOR REFERENCE ONLY. NOT TO BE USED FOR CONSTRUCTION.

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER:		MACHINE#:		DWG TITLE:
BDP JOB NO.:		DWR BY:		DATE:
APPRO BY:		SCALE:	SHT. OF	REV.
		NONE	1 2	1
DWG NO.:				BM-1 PID

REV.	DESCRIPTION	DATE	BY



LOCATION	CONNECTION
A	1-1/2" FNPT SOLUTION OUTLET
B	1" FNPT DILUTION WATER INLET
C	1" FNPT NEAT POLYMER INLET
D	1" FNPT PAN DRAIN

NOTES:  
 1. APPROX. WEIGHT: 275 LBS  
 2. MAX. WATER PRESSURE: 100 PSI

1	CONTROL BOX		15	
2	PRESSURE GAUGE, 0-100 PSI	TRERICE	14	D82LFB2502LA110
1	CALIBRATION COLUMN	MCMASTER	13	4446K72
1	STATIC MIXER, 1"	MCMASTER	12	35385K24
1	PRESSURE REDUCING VALVE	WATTS	11	LFN45BDU-M1
1	PRESSURE SWITCH	SOR	10	6NN-K3-N4-F1A
1	ANGLE GLOBE VALVE	HAYWARD	9	AV10100T
1	FLOWMETER	KING	8	7205-0181-31W
1	ELECTRIC BALL VALVE, 1"	TRIAC	7	22-TX-100/WEA1-XX
1	SYSTEM FRAME: 304SS		6	2-110-580
1	MIXING PUMP	GOULDS	5	3HM06N1116PBOE
1	BACK PRESSURE VALVE	GRIFFCO	4	BPG050P
1	METERING PUMP BASE		3	3-110-897
1	PUMP DRIVE: .25 HP	SEW	2	WF20DR57154-IP65
1	PROGRESSIVE CAVITY NEAT PUMP	MOYNO	1	B4100 DSSF3 SAA
QTY.	DESCRIPTION	MAT.	ITEM	REMARKS



**BDP INDUSTRIES, INC.**  
 GREENWICH, N.Y. 12834

CUSTOMER: \_\_\_\_\_ MACHINE: SBM

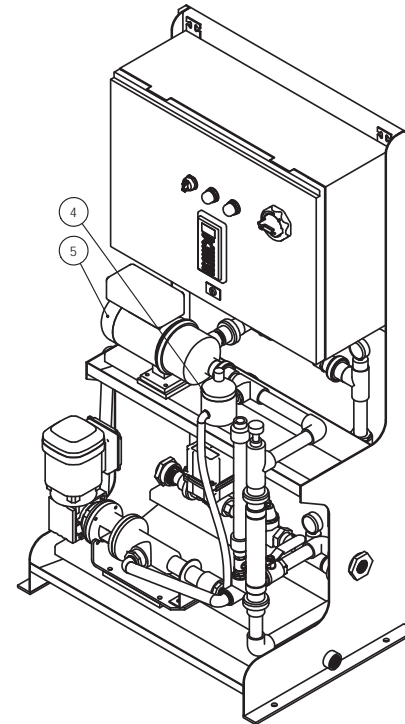
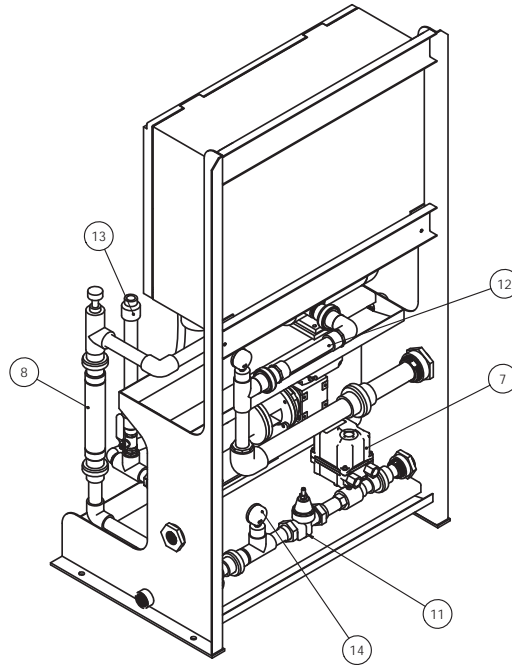
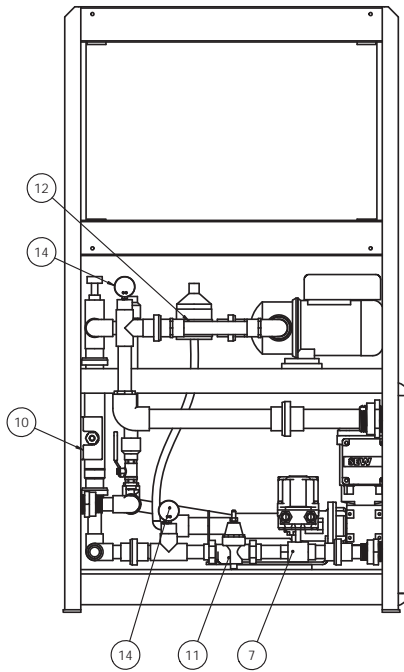
DWG TITLE  
**POLYMER MAKE DOWN SYSTEM**  
 SBM1200-5P-1

BDP JOB NO. \_\_\_\_\_ DWN BY: MJB DATE: 8/18/15


APPD BY: \_\_\_\_\_ SCALE: \_\_\_\_\_ SH. OF: 1 2

DWG NO. **2-110-579**

REV: **3**



3	REVISED FRAME FOR CONTROL BOX	2/11/16	MJG
2	WATTS PRV HAD CPVC UNIONS	10/12/15	MJG
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
		<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834		
CUSTOMER:	MACHINE:	DWG TITLE		
	SBM	POLYMER MAKE DOWN SYSTEM		
BDP JOB NO.	DWN BY:	DATE:	SBM1200-5P-1	
	MJG	8/18/15		
APP'D BY:	SCALE:	SHT. OF	DWG NO.	REV.
		2 2	2-110-579	3



# **SBM1200-5P-1**

## **SECTION 3 – Electrical**

Level 1 Controls:      On-Off-Remote selector switch  
                                 System Running Light  
                                 Low Water Pressure Alarm  
                                 Digital Speed Potentiometer for polymer pump  
                                 FRP Nema 4X control enclosure

Power Feed:            115V, 1Ø, 60Hz, 20 amp

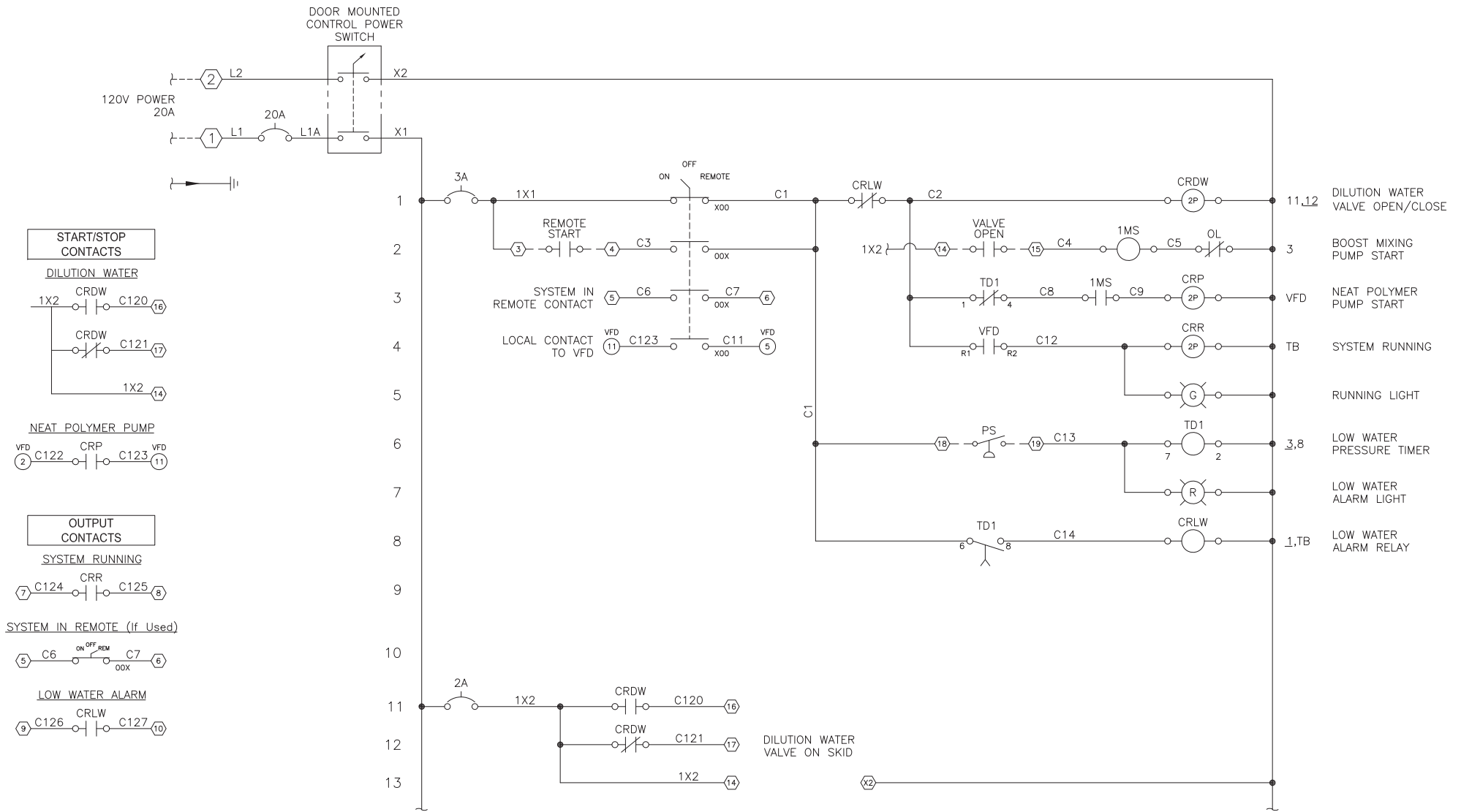
Available Outputs:    System Running  
                                 Low Water Pressure  
                                 System in Remote


Remote Inputs:        Remote Start/Stop  
                                 4-20mA pump speed signal

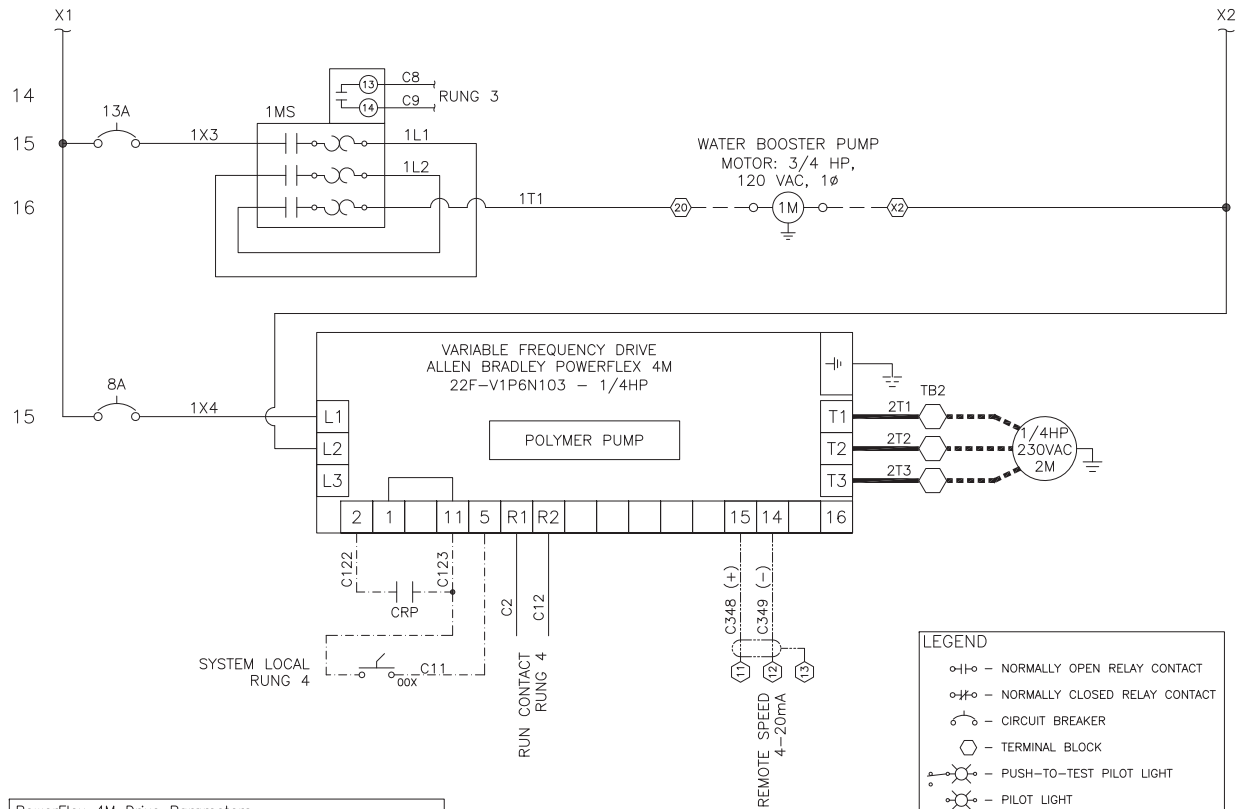
The system is designed for local or remote control. When the selector switch is in ON position, the electric dilution water ball valve will open. Once fully opened, the neat polymer pump and mixing pump will start. The neat polymer pump speed can be adjusted through the digital speed pot on the front of the panel. The dilution water is manually adjusted with the globe valve atop the water flowmeter. If low water pressure is detected, the switch will trigger a timer in the panel. The switch will instantly stop the neat polymer pump, but will continue to allow the flow of dilution water through the system. If sufficient pressure does not rebuild after 15 seconds, the system will shut down and annunciate the low water alarm.

When the selector switch is in the REMOTE position, the remote panel can start and stop the system. When in the remote position, the speed of the neat polymer pump can be adjusted remotely through a 4-20mA signal.





QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
 <b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER:		MACHINE:		DWG TITLE
BDP JOB NO.		SBMXXX-XP-1		SBMXXX-XP-1
DWY BY:	MJG	DATE:	6/24/15	
APPR BY:	SCALE:	SHT. OF	1 3	REV. 2
DWG NO. BM-1				



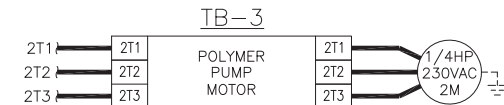
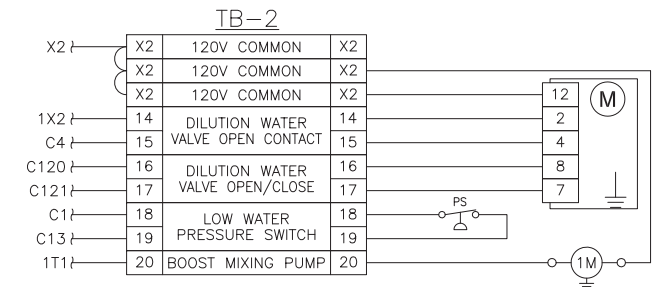
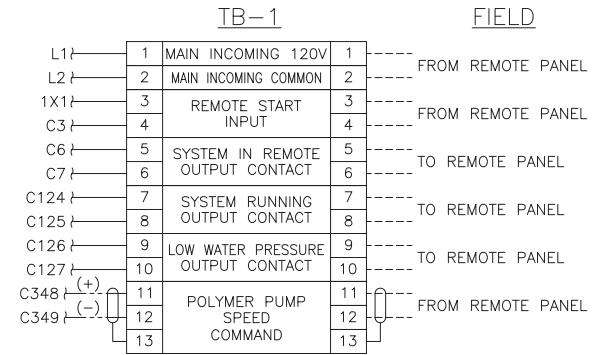
- PowerFlex 4M Drive Parameters**
- Set Min Freq [P104] to 10 Hz
  - Set Start Src [P106] to 2 (2 wire)
  - Set Stop Mode [P107] to 1 (Coast)
  - Set Speed Ref [P108] to 2 (0-10V)
  - Set Accel [P109] to 5 sec
  - Set Decel [P110] to 5 sec
  - Set Digital In 1 Sel [t201] to 14 (20mA in Control)
  - Set Relay Out Sel [t221] to 2 Motor Run
  - Set Auto Rstrt Tries [A451] to 3
  - Set Auto Rstrt Delay [A452] to 2.0
  - Set Max Voltage [A457] to 240V

**NOTES:**

1. POWER WIRING TO BE SIZED FOR LOAD.
2. WIRING SHALL BE COLOR CODED:
  - (A) BLACK - LOAD & CONTROL AT LINE VOLTAGE, AC OR DC
  - (B) RED - AC CONTROL CIRCUITS
  - (C) BLUE - DC CONTROL CIRCUITS
  - (D) GREEN - EQUIPMENT GROUNDING CONDUCTOR(S)
  - (E) WHITE - NEUTRAL
3. USE 16 GAUGE (MIN.) STRANDED MACHINE TOOL WIRE FOR CONTROL WIRING.
4. ALL WIRES MUST BE TAGGED AT BOTH ENDS.

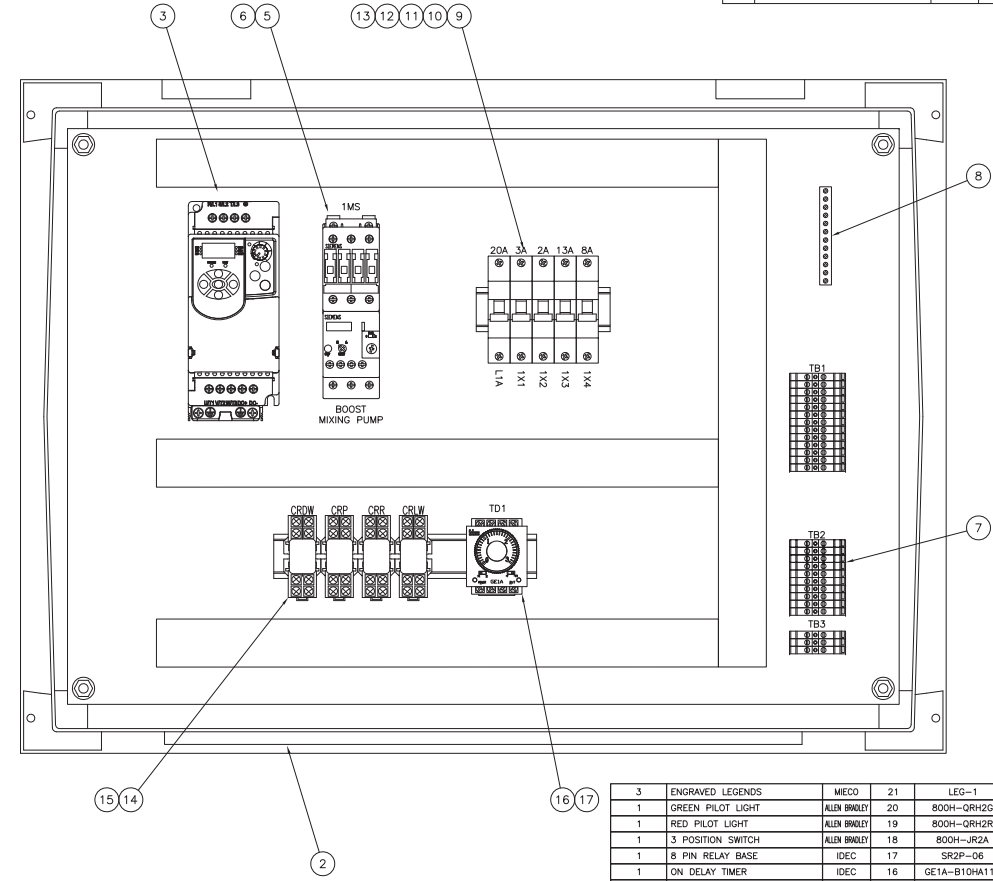
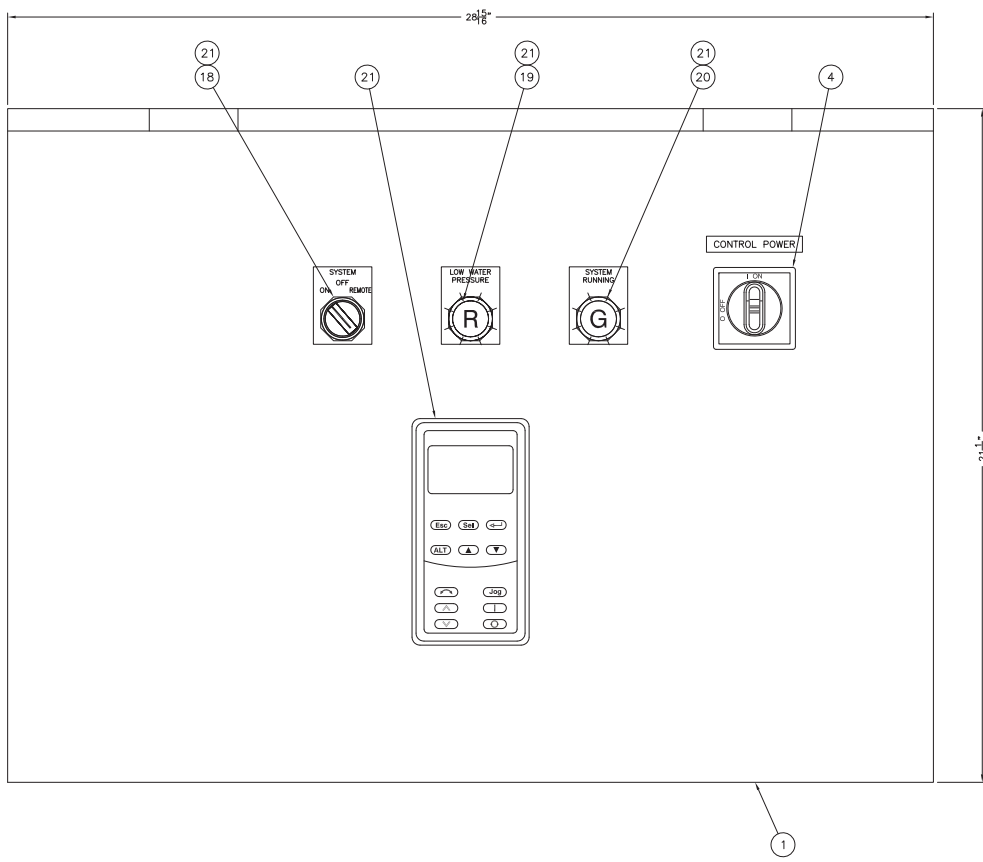
**LEGEND**

- ⏏ - NORMALLY OPEN RELAY CONTACT
- ⏏̄ - NORMALLY CLOSED RELAY CONTACT
- ⏏ - CIRCUIT BREAKER
- ⏏ - TERMINAL BLOCK
- ⏏ - PUSH-TO-TEST PILOT LIGHT
- ⏏ - PILOT LIGHT
- ⏏ - LIMIT SWITCH
- ⏏ - PUSHBUTTON
- ⏏ - RELAY COIL
- ⏏ - HORN
- ⏏ - PRESSURE SWITCH
- ⏏ - FLOAT SWITCH
- ⏏ - ZERO SPEED SWITCH
- ⏏ - REVISION
- \* - CUSTOMER SUPPLIED CONTACT
- - WIRING BY CONTRACTOR
- - 120VAC CONTROL WIRING
- - VDC WIRING
- - ETHERNET CABLE
- - SHIELDED 4-20mA CABLE
- - HIGH VOLTAGE WIRING (208/240/460/575V)



QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
<b>BDP INDUSTRIES, INC.</b> GREENWICH, N.Y. 12834				
CUSTOMER:		MACHINE:		DWG TITLE
BDP JOB NO.		SBMXXX-XP-1		SCHEMATIC DIAGRAM
DWR BY:		DATE:		SBMXXX-XP-1
MUG		6/24/15		
APPRO BY:	SCALE:	SHT. OF		REV.
		2 3		
DWG NO. BM-1				2

REV.	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	6/24/15	MJG
2	REVISED ENCLOSURE SIZE KEYPAD WAS DART DIGITAL POT	2/8/16	MJG



**INCOMING POWER**  
120VAC, 1φ, 60Hz

QTY.	DESCRIPTION	MAT.	ITEM	REMARKS
3	ENGRAVED LEGENDS	MIECO	21	LEG-1
1	GREEN PILOT LIGHT	ALLEN BRADLEY	20	800H-QRH2G
1	RED PILOT LIGHT	ALLEN BRADLEY	19	800H-QRH2R
1	3 POSITION SWITCH	ALLEN BRADLEY	18	800H-JR2A
1	8 PIN RELAY BASE	IDEC	17	SR2P-D6
1	ON DELAY TIMER	IDEC	16	GE1A-B10HA110
4	2 POLE RELAY BASE	IDEC	15	SH2B-D5
4	2 POLE RELAY	IDEC	14	RH2B-UL-120VAC
1	1P, C CURVE BREAKER; 2 AMP	SQUARE D	13	60103
1	1P, C CURVE BREAKER; 3 AMP	SQUARE D	12	60104
1	1P, C CURVE BREAKER; 8 AMP	SQUARE D	11	60109
1	1P, C CURVE BREAKER; 13 AMP	SQUARE D	10	60111
1	1P, C CURVE BREAKER; 20 AMP	SQUARE D	9	60113
2	GROUND BAR	C. H.	8	GBK10
25	TERMINAL BLOCKS - GRAY	ABB	7	011511607
1	CONTACTOR OVERLOAD	SIEMENS	6	3RU1126-1JB0
1	MOTOR CONTACTOR	SIEMENS	5	3RT1025-1AK60
1	PANEL DISCONNECT SWITCH	SQUARE D	4	VC DN20
1	POLYMER PUMP VFD; 1/4 HP	ALLEN BRADLEY	3	22F-V1P6N103
1	BACK PANEL	VYNCNICKER	2	MP2016S
1	ENCLOSURE; FRP NEMA 4X	VYNCNICKER	1	VJ2016HWPL2

**BDP INDUSTRIES, INC.**  
GREENWICH, N.Y. 12834

**CUSTOMER:** SBMXXX-XP-1  
**MACHINE:** SBMXXX-XP-1  
**DWG TITLE:** SCHEMATIC DIAGRAM SBMXXX-XP-1

**BDP JOB NO.:** [blank]  
**DWG BY:** MJG  
**DATE:** 6/24/15

**APPRO BY:** [blank]  
**SCALE:** [blank]  
**SHT. OF:** 3 OF 3  
**DWG NO.:** BM-1  
**REV.:** 2

# SITRANS F flowmeters

## SITRANS F M

### MAGFLO MAG 5100 W

#### Overview



The SITRANS F M MAGFLO MAG 5100 W is an electromagnetic flow sensor designed to meet ground water, drinking water, waste water, sewage or sludge applications.

#### Benefits

- DN 25 to DN 1200 (1" to 48")
- Connection flanges EN 1092-1 (DIN 2501), ANSI, AWWA and AS.
- NBR Hard Rubber liner for all water applications
- Drinking water EPDM liner with approvals
- Hastelloy integrated grounding and measuring electrodes
- Increased low flow accuracy for water leak detection, due to coned liner design.
- Drinking water approvals
- Suitable for direct burial and constant flooding
- Build-in length according to ISO 13359
- Easy commissioning, SENSORPROM unit automatically uploads calibration values and settings.
- Designed that patented in-situ verification can be conducted. Using SENSORPROM fingerprint.

#### Application

The main applications of the SITRANS F M MAGFLO electromagnetic flow sensors can be found in the following fields:

- Water abstraction
- Water treatment
- Water distribution network (leak detection management)
- Custody transfer water meters
- Irrigation
- Waste water treatment
- Filtration plant (e.g. reverse osmosis and ultra filtration)
- Industrial water applications

#### Mode of operation

The flow measuring principle is based on Faradays law of electromagnetic induction where the sensor converts the flow into an electrical voltage proportional to the velocity of the flow.

#### Function

- Highly resistant to a wide range of chemicals
  - Pattern approval OIML R49 (Denmark, Germany)
  - conforms to ISO 4064 and EN 14154
  - MI-001 Custody Transfer approval for billing (EU)
- Meets EEC directives: PED, 97/23/EC pressure directive for EN1092-1 flanges
- Simple onsite or factory upgrade to IP68/NEMA 6P of a standard sensor.

#### Integration

The complete flowmeter consists of a flow sensor and an associated transmitter SITRANS F M MAGFLO MAG 5000, MAG 6000 or MAG 6000 I.

The flexible communication concept USM II simplifies integration and update to a variety of fieldbus systems, e.g. HART, PROFIBUS DP & PA, MODBUS RTU/RS485.

# SITRANS F flowmeters

## SITRANS F M

### MAGFLO MAG 5100 W

#### Technical specifications

Design	Full bore sensor	Coned bore sensor	Full bore sensor
Nominal size	DN 25 ... 40 (1" ... 1½")	DN 50 ... 300 (2" ... 12")	DN 350 ... 1200 (14" ... 48")
<b>Measuring principle</b> Electromagnetic induction			
Excitation frequency	12.5 Hz	<ul style="list-style-type: none"> <li>• 50 ... 65 mm (2" ... 2½"): 12.5 Hz</li> <li>• 80 ... 150 mm (3" ... 6"): 6.25 Hz</li> <li>• 200 ... 300 mm (8" ... 12"): 3.125 Hz</li> </ul>	<ul style="list-style-type: none"> <li>• DN 350 ... 450 (14" ... 18"): 3.125 Hz</li> <li>• DN 500 ... 1200 (20" ... 48"): 1.5625 Hz</li> </ul>
<b>Process connection</b>			
Flanges		Flat face flanges	
<ul style="list-style-type: none"> <li>• EN 1092-1</li> </ul>	PN 40 (580 psi)	<ul style="list-style-type: none"> <li>• 50 ... 300 mm: PN 16 (2" ... 12": 230 psi)</li> <li>• 200 ... 300 mm: PN 10 (8" ... 12": 145 psi)</li> </ul>	<ul style="list-style-type: none"> <li>• PN 10 (145 psi)</li> <li>• PN 16 (230 psi)</li> </ul>
<ul style="list-style-type: none"> <li>• ANSI B16.5</li> </ul>	Class 150 lb	Class 150 lb ~20 bar (290 psi)	--
<ul style="list-style-type: none"> <li>• AWWA C-207</li> </ul>	--	--	28" ... 48": Class D
<ul style="list-style-type: none"> <li>• AS4087</li> </ul>	PN 16 (230 psi) DN 50 ... 1200 (2" ... 48"), 14 bar (232 psi)		
<b>Rated Operation conditions</b>			
Ambient temperature			
<ul style="list-style-type: none"> <li>• Sensor</li> </ul>	-40 ... +70 °C (-40 ... +158 °F)		
<ul style="list-style-type: none"> <li>• With compact transmitter MAG 5000/6000</li> </ul>	-20 ... +50 °C (-4 ... +122 °F)		
<ul style="list-style-type: none"> <li>• With compact transmitter MAG 6000 I</li> </ul>	-20 ... +60 °C (-4 ... +140 °F)		
Operating pressure	0.01 ... 40 bar (0.15 ... 580 psi)	0.03 ... 20 bar (0.44 ... 290 psi)	0.01 ... 16 bar (0.15 ... 232 psi)
Enclosure rating			
<ul style="list-style-type: none"> <li>• Standard</li> </ul>	IP67 to EN 60529 / NEMA 4X/6 (1 mH <sub>2</sub> O for 30 minutes)		
<ul style="list-style-type: none"> <li>• Option</li> </ul>	IP68 to EN 60529 / NEMA 6P (10 mH <sub>2</sub> O continuously)		
Pressure drop at 3 m/s (10 ft/s)	As straight pipe	Max. 25 mbar (0.36 psi)	As straight pipe
<b>Medium conditions</b>			
Temperature of medium			
<ul style="list-style-type: none"> <li>• NBR</li> </ul>	-10 ... +70 °C (14 ... +158 °F)		
<ul style="list-style-type: none"> <li>• EPDM</li> </ul>	-10 ... +70 °C (14 ... +158 °F)		
EMC	89/336 EEC		
<b>Design</b>			
Weight	See dimensional drawings		
Material			
<ul style="list-style-type: none"> <li>• Housing and flanges</li> </ul>	Carbon steel, St 37.2		
<ul style="list-style-type: none"> <li>• Terminal box</li> </ul>	Standard Fibre glass reinforced polyamide		
<ul style="list-style-type: none"> <li>• Measuring pipe</li> </ul>	AISI 304 (1.4301)		
<ul style="list-style-type: none"> <li>• Liner</li> </ul>	NBR Hard Rubber (hydro carbon resistant) EPDM		
<ul style="list-style-type: none"> <li>• Electrodes</li> </ul>	Hastelloy C276		
<ul style="list-style-type: none"> <li>• Grounding electrodes standard</li> </ul>	Hastelloy C276		
<b>Certificates and approvals</b>			
Custody Transfer (only together with MAG 5000/6000 CT), order as special	OIML R 49 pattern approval cold water (Denmark and Germany): DN 50 ... 300 (2" ... 12") MI 001 cold water (EU): DN 50 ... 300 (2" ... 12")		
Approvals	FM Class 1, Div 2		
Drinking water approvals			
<ul style="list-style-type: none"> <li>• EPDM</li> </ul>	NSF61 (Cold water, US) WRAS (WRc, BS6920 cold water, GB) ACS listed (F), DVGW W270 (D) Belaqua (B)		
<ul style="list-style-type: none"> <li>• NBR</li> </ul>	NSF61 (Cold water, US)		
Approvals	PED – 97/23 EC <sup>1)</sup> , CRN		

<sup>1)</sup> For sizes larger than 600 mm (24") in PN 16 PED conformity is available as a cost added option. The basic unit will carry the LVD (Low Voltage Directive) and EMC approval.

# SITRANS F flowmeters


## SITRANS F M

### MAGFLO MAG 5100 W

Selection and Ordering data	Order No.
<b>SITRANS F M Flowsensor MAGFLO MAG 5100 W</b> F)	<b>7 ME 6 5 2 0 -</b>
Hastelloy electrodes, carbon steel flanges	1 - 2
<b>Diameter</b>	
DN 25 (1")	2 D
DN 40 (1½")	2 R
DN 50 (2")	2 Y
DN 65 (2½")	3 F
DN 80 (3")	3 M
→ DN 100 (4")	3 T
DN 125 (5")	4 B
DN 150 (6")	4 H
DN 200 (8")	4 P
DN 250 (10")	4 V
DN 300 (12")	5 D
DN 350 (14")	5 K
DN 400 (16")	5 R
DN 450 (18")	5 Y
DN 500 (20")	6 F
DN 600 (24")	6 P
DN 700 (28")	6 Y
DN 750 (30")	7 D
DN 800 (32")	7 H
DN 900 (36")	7 M
DN 1000 (40")	7 R
42"	7 U
44"	7 V
DN 1200 (48")	8 B
<b>Flange norm and pressure rating</b>	
to EN 1092-1	
PN 10 (DN 200 ... 1200/8" ... 48")	B
PN 16 (DN 50 ... 1200/2" ... 48")	C
PN 16, non PED (DN 700 ... 1200/28" ... 48")	D
PN 40 (DN 25 ... 40/1" ... 1½")	F
→ to ANSI B16.5	
class 150 (1" ... 24")	J
to AWWA C-207	
Class D (28" ... 48")	L
to AS 4087	
PN 16	N
<b>Liner material</b>	
EPDM	2
NBR Hard Rubber	3
<b>Transmitter</b>	
→ Sensor for remote transmitter (Order transmitter separately)	A
MAG 6000 I, Aluminum, 18 ... 90 V DC, 115 ... 230 V AC	C
MAG 6000, Polyamid, 11 ... 30 V DC/11 ... 24V AC	H
MAG 6000, Polyamid, 115/230 V AC	J
MAG 5000, Polyamid, 11 ... 30 V DC/11 ... 24V AC	K
MAG 5000, Polyamid, 115/230 V AC	L
<b>Communication</b>	
→ None	A
HART	B
PROFIBUS PA Profile 3 (only MAG6000/MAG6000 I)	F
PROFIBUS DP Profile 3 (only MAG6000/MAG6000 I)	G
MODBUS RTU/RS 485 (only MAG6000/MAG6000 I)	E

Selection and Ordering data	Order No.
<b>SITRANS F M Flowsensor MAGFLO MAG 5100 W</b> F)	<b>7 ME 6 5 2 0 -</b>
Hastelloy electrodes, carbon steel flanges	1 - 2
<b>Cable glands/terminal box</b>	
Metric	1
½" NPT	2
▶ Available ex stock.	

Selection and Ordering data	Order code
<b>Additional information</b>	
Please add "-Z" to Order No. and specify Order code(s) and plain text.	
Customer specific converter setup	Y20
Tag name plate, stainless steel fixed with SS wire (add plain text)	Y17
Tag name plate, plastic (self adhesive)	Y18
Factory certificate according to EN 10204-2.1	C15
Factory certificate according to EN 10204-2.2	C14
Sensor cables wired (specify cable order no.)	Y40
Sensor for remote transmitter's junction box potted to IP68 with wired cable (specify cable order no.)	Y41
Other postproduction requirements (add desired text)	Y99

Description	Order No.	Symbol
Potting kit for terminal box of MAGFLO sensors for IP68/NEMA 6P (Not ATEX)	F) <b>FDK-085U0220</b>	

MAG 5000/6000 transmitters and sensors are packed in separate boxes, the final assembly takes place during installation at the customer's place. MAG 6000 I transmitters and sensors are delivered compact mounted from factory. Communication module will be pre-mounted in the transmitter.

Please use online Product selector to get latest updates.

Product selector link:

[www.pia-selector.automation.siemens.com](http://www.pia-selector.automation.siemens.com)

Please also see [www.siemens.com/SITRANSOrdering](http://www.siemens.com/SITRANSOrdering) for practical examples of ordering

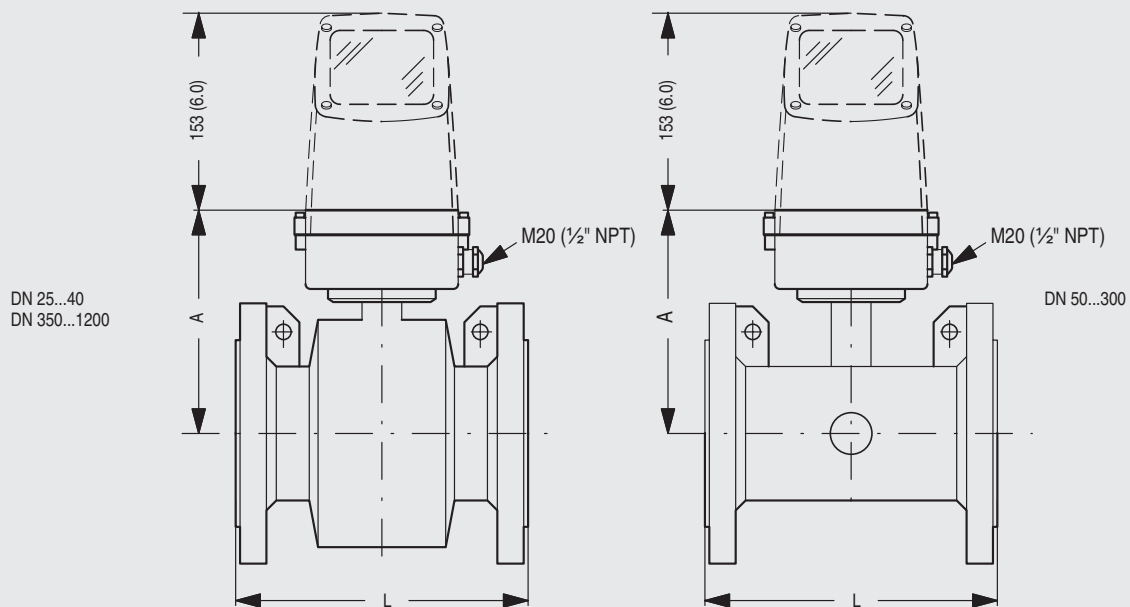
F) Subject to export regulations AL: 91999, ECCN: N.

# SITRANS F flowmeters

## SITRANS F M

### MAGFLO MAG 5100 W

#### Dimensional drawings



Nominal size		A		L									
				PN 10		PN 16		PN 40		Class 150 / AWWA		AS	
[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]
25	1	187	7.4	-	-	-	-	200	7.9	200	7.9	200	7.87
40	1½	197	7.8	-	-	-	-	200	7.9	200	7.9	200	7.87
50	2	188	7.4	-	-	200	7.9	-	-	200	7.9	200	7.87
65	2½	194	7.6	-	-	200	7.9	-	-	200	7.9	200	7.87
80	3	200	7.9	-	-	200	7.9	-	-	200	7.9	200	7.87
100	4	207	8.1	-	-	250	9.8	-	-	250	9.8	250	9.84
125	5	217	8.5	-	-	250	9.8	-	-	250	9.8	250	9.84
150	6	232	9.1	-	-	300	11.8	-	-	300	11.8	300	11.81
200	8	257	10.1	350	13.8	350	13.8	-	-	350	13.8	350	13.78
250	10	284	11.2	450	17.7	450	17.7	-	-	450	17.7	450	17.72
300	12	310	12.2	500	19.7	500	19.7	-	-	500	19.7	500	19.69
350	14	382	15.0	550	21.7	550	21.7	-	-	550	21.7	550	21.65
400	16	407	16.0	600	23.6	600	23.6	-	-	600	23.6	600	23.62
450	18	438	17.2	600	23.6	600	23.6	-	-	600	23.6	600	23.62
500	20	463	18.2	600	23.6	600	23.6	-	-	600	23.6	600	23.6
600	24	514	20.2	600	23.6	600	23.6	-	-	600	23.6	600	23.6
700	28	564	22.2	700	27.6	700	27.6	-	-	700	27.6	700	27.6
750	30	591	23.3	-	-	-	-	-	-	750	29.5	750	-
800	32	616	24.3	800	31.5	800	31.5	-	-	800	31.5	800	31.5
900	36	663	26.1	900	35.4	900	35.4	-	-	900	35.4	900	35.4
1000	40	714	28.1	1000	39.4	1000	39.4	-	-	1000	39.4	1000	39.4
	42	714	28.1	-	-	-	-	-	-	1000	39.4	-	-
	44	765	30.1	-	-	-	-	-	-	1100	43.3	-	-
1200	48	820	32.3	1200	47.2	1200	47.2	-	-	1200	47.2	1200	47.2

- not available

# SITRANS F flowmeters

## SITRANS F M

### MAGFLO MAG 5100 W

#### Weight

Nominal size		PN 10		PN 16		PN 40		Class 150/AWWA		AS	
[mm]	[inch]	[kg]	[lbs]	[kg]	[lbs]	[kg]	[lbs]	[kg]	[lbs]	[kg]	[lbs]
25	1	-	-	-	-	4	9	4	9	4	9
40	1½	-	-	-	-	7	15	6	13	7	15
50	2	-	-	9	20	-	-	8	20	9	20
65	2½	-	-	10.7	24	-	-	11	24	10.7	24
80	3	-	-	11.6	26	-	-	13	28	11.6	26
100	4	-	-	15.2	33	-	-	19	41	15.2	33
125	5	-	-	20.4	45	-	-	24	52	20.4	45
150	6	-	-	26	57	-	-	29	64	26	57
200	8	48	106	48	106	-	-	56	124	48	106
250	10	64	141	69	152	-	-	79	174	69	152
300	12	76	167	86	189	-	-	110	243	86	189
350	14	104	229	125	274	-	-	139	307	115	254
400	16	119	263	143	314	-	-	159	351	125	277
450	18	136	299	173	381	-	-	182	400	141	311
500	20	163	359	223	491	-	-	225	495	189	418
600	24	236	519	338	744	-	-	320	704	301	664
700	28	270	595	314	692	-	-	273	602	320	704
750	30	-	-	-	-	-	-	329	725	-	-
800	32	346	763	396	873	-	-	365	804	428	944
900	36	432	951	474	1043	-	-	495	1089	619	1362
1000	40	513	1130	600	1321	-	-	583	1282	636	1399
	42	-	-	-	-	-	-	687	1512	-	-
	44	-	-	-	-	-	-	763	1680	-	-
1200	48	643	1415	885	1948	-	-	861	1896	813	1789

- not available

With transmitter MAG 5000 and MAG 6000 compact, weight is increased by approximately 0.8 kg (1.8 lbs), with MAG 6000 I, weight is increased by 5.5 kg (12.1 lb).



# SITRANS F flowmeters

## SITRANS F M

### Transmitter MAGFLO MAG 5000/6000

#### Overview



Transmitter MAG 5000/6000 compact version (left) and 19" insert version (right)

The MAG 5000 and 6000 are microprocessor-based transmitters engineered for high performance, easy installation, commissioning and maintenance. The transmitters evaluate the signals from the SITRANS F M MAGFLO sensors type MAG 1100, MAG 1100 F, MAG 3100 and MAG 5100 W.

Transmitter types:

- MAG 5000: Max. measuring error 0.5% of rate (incl. sensor)
- MAG 6000: Max. measuring error 0.25% of rate (incl. sensor, see also sensor specifications) and with additional features such as: Plug & Play insert bus modules; integrated batch functions.

#### Benefits

- Superior signal resolution for optimum turn down ratio
- Digital signal processing with many possibilities
- Automatic reading of SENSORPROM data for easy commissioning
- User configurable operation menu with password protection.
- 3 lines, 20 characters display in 11 languages.
- Flow rate in various units
- Totalizer for forward, reverse and net flow as well as additional information available
- Multiple functional outputs for process control, minimum configuration with analogue, pulse/frequency and relay output (status, flow direction, limits)
- Comprehensive self-diagnostic for error indication and error logging (see under SITRANS F M MAGFLO diagnostics)
- Batch control
- Custody transfer approval: PTB, OIML R75, R117, OIML R 49 and MI-001,
- MAG 6000 with add-on bus modules for HART, MODBUS RTU/RS485, PROFIBUS PA and DP

#### Application

The MAG flowmeters are suitable for measuring the flow of almost all electrically conductive liquids, pastes and slurries. The main applications can be found in:

- Water and waste water
- Chemical and pharmaceutical industries
- Food & beverage industries
- Power generation and utility

#### Design

The transmitter is designed as either IP67 NEMA 4X enclosure for compact or wall mounting or 19" version as a 19" insert as a base to be used in:

- 19" rack systems
- Panel mounting IP65/NEMA 4
- Back of panel mounting IP20/NEMA 2
- Wall mounting IP66/NEMA 4

Several options on 19" versions are available such as:

- Transmitters mounted in safe area for Ex ATEX approved flow sensors (incl. barriers)
- Transmitters with electrode cleaning unit

#### Function

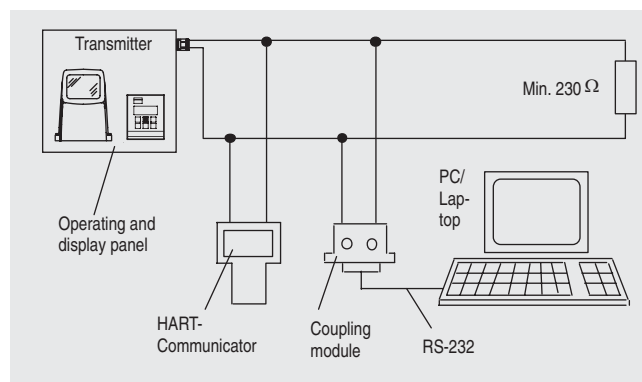
The MAG 5000/6000 are microprocessor-based transmitters with a built-in alphanumeric display in several languages. The transmitters evaluate the signals from the associated electro-magnetic sensors and also fulfil the task of a power supply unit which provides the magnet coils with a constant current.

Further information on connection, mode of operation and installation can be found in the data sheets for the sensors.

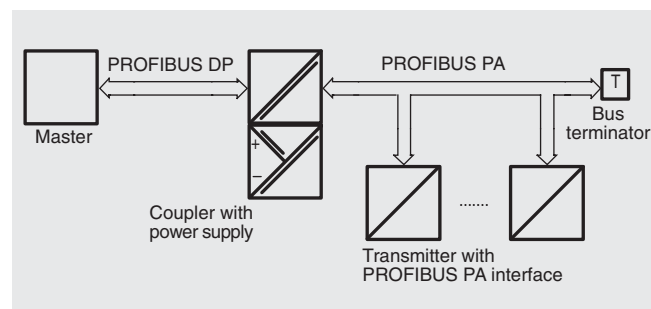
#### Displays and controls

Operation of the transmitter can be carried out using:

- Control and display unit
- HART communicator
- PC/laptop and SIMATIC PDM software via HART communication
- PC/laptop and SIMATIC PDM software using PROFIBUS or MODBUS communication



HART communication



PROFIBUS PA communication

# SITRANS F flowmeters

## SITRANS F M

### Transmitter MAGFLO MAG 5000/6000

#### Technical specifications

##### Mode of operation and design

Measuring principle	Electromagnetic with pulsed constant field
Empty pipe	Detection of empty pipe (special cable required in remote mounted installation)
Excitation frequency	Depend on sensor size
Electrode input impedance	$> 1 \times 10^{14} \Omega$

##### Input

Digital input	11 ... 30 V DC, $R_i = 4.4 \text{ K}\Omega$
• Activation time	50 ms
• Current	$I_{DC 11 \text{ V}} = 2.5 \text{ mA}$ , $I_{DC 30 \text{ V}} = 7 \text{ mA}$

##### Output

Current output	
• Signal range	0 ... 20 mA or 4 ... 20 mA
• Load	$< 800 \Omega$
• Time constant	0.1 ... 30 s, adjustable

##### Digital output

Frequency	0 ... 10 kHz, 50% duty cycle (uni/bidirectional)
Pulse (active)	DC 24 V, 30 mA, $1 \text{ K}\Omega \leq R_i \leq 10 \text{ K}\Omega$ , short-circuit-protected (power supplied from flowmeter)
Pulse (passive)	DC 3 ... 30 V, max. 110 mA, $200 \Omega \leq R_i \leq 10 \text{ K}\Omega$ (powered from connected equipment)
Time constant	0.1 ... 30 s, adjustable

##### Relay output

Time constant	Changeover relay, same as current output
Load	42 V AC/2 A, 24 V DC/1 A
Low flow cut off	0 ... 9.9% of maximum flow
Galvanic isolation	All inputs and outputs are galvanically isolated

##### Max. measuring error (incl. sensor and zero point)

MAG 5000	0.5% of rate
MAG 6000	0.25% of rate

##### Rated operation conditions

Ambient temperature	
• Operation	<ul style="list-style-type: none"> <li>• Display version: -20 ... +50 °C (-4 ... +122 °F)</li> <li>• Blind version: -20 ... +60 °C (-4 ... +140 °F)</li> </ul>
• Storage	-40 ... +70 °C (-40 ... +158 °F)

##### Mechanical load

Compact version	18 ... 1000 Hz, 3,17 G rms, sinusoidal in all directions to IEC 68-2-36
19" insert	1 ... 800 Hz, 1 G, sinusoidal in all directions to IEC 68-2-36

##### Degree of protection

Compact version	IP67/NEMA 4X to IEC 529 and DIN 40050 (1 mH <sub>2</sub> O 30 min.)
19" insert	IP20/NEMA 2 to IEC 529 and DIN 40050

##### EMC performance

Emitted interference	To EN 50081-1 (Light industry)
Noise immunity	To EN 50082-1 (Industry)

##### Display and keypad

Totalizer	Two eight-digit counters for forward, net or reverse flow
-----------	-----------------------------------------------------------

##### Display

Background illumination with alphanumeric text, 3 x 20 characters to indicate flow rate, totalized values, settings and faults; Reverse flow indicated by negative sign

Time constant	Time constant as current output time constant
---------------	-----------------------------------------------

##### Design

Enclosure material	
• Compact version	Fiber glass reinforced polyamide; optional (IP67 only): AISI 316 stainless steel
• 19"-insert	Standard 19" insert of aluminium/steel (DIN 41494), width: 21 TE, height: 3 HE
• Back of panel	IP20/NEMA 2; Aluminium
• Panel mounting	IP65/NEMA 4; ABS plastic
• Wall mounting	IP66/NEMA 4; ABS plastic

##### Dimensional drawings

Compact version	See dimensional drawings
19" insert	See dimensional drawings

##### Weight

Compact version	0.75 kg (2 lb)
19" insert	See dimensional drawings

##### Power supply

- 115 ... 230 V AC +10% -15%, 50 ... 60 Hz, 17 VA
- 11 ... 30 V DC or 11 ... 24 V AC

##### Power consumption

- 230 V AC: 17 VA
- 24 V AC : 9 W,  $I_N = 380 \text{ mA}$ ,  $I_{ST} = 8 \text{ A}$  (30 ms)
- 12 V DC : 11 W,  $I_N = 920 \text{ mA}$ ,  $I_{ST} = 4 \text{ A}$  (250 ms)

##### Certificates and approvals

CE, ULc general purpose, C-tick; FM Class 1, div 2	
Custody transfer approval (MAG 5000/6000 CT)	<ul style="list-style-type: none"> <li>• PTB OIML R49 (cold water pattern approval); MI-001</li> <li>• PTB and DANAK OIML R75 (hot water pattern approval) (MAG 6000 CT)</li> <li>• PTB and DANAK OIML R117 (cold water/milk, beer etc. pattern approval) (MAG 6000 CT)</li> </ul>

##### Communication

Standard	
• MAG 5000	Without serial communication or HART as option
• MAG 6000	Prepared for client mounted add-on modules
Optional (MAG 6000 only)	HART, MODBUS RTU/RS485, PROFIBUS PA, PROFIBUS DP as add-on modules
• MAG 5000/6000 CT	no communication moduls approved





# SITRANS F flowmeters

## SITRANS F M



### Transmitter MAGFLO MAG 5000/6000

#### Selection and Ordering Data









##### Transmitter MAG 5000

Description	Order No. <sup>F)</sup>	Symbol
Transmitter MAG 5000 Blind for compact and wall mounting; IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6910-1AA30-0AA0</b>  <b>7ME6910-1AA10-0AA0</b>	
Transmitter MAG 5000 Display for compact and wall mounting; IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> <li>• 115/230 V AC, 50/60 Hz, with HART</li> </ul>	<b>7ME6910-1AA30-1AA0</b> <b>7ME6910-1AA10-1AA0</b> <b>7ME6910-1AA10-1BA0</b>	
Transmitter MAG 5000 CT for compact and wall mounting, approved for custody transfer; IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6910-1AA30-1AB0</b> <b>7ME6910-1AA10-1AB0</b>	
Transmitter MAG 5000 for 19" rack and wall mounting <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6910-2CA30-1AA0</b> <b>7ME6910-2CA10-1AA0</b>	

##### Transmitter MAG 6000

Description	Order No. <sup>F)</sup>	Symbol
Transmitter MAG 6000 Blind for compact and wall mounting; IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-1AA30-0AA0</b> <b>7ME6920-1AA10-0AA0</b>	
Transmitter MAG 6000 for compact and wall mounting; IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-1AA30-1AA0</b> <b>7ME6920-1AA10-1AA0</b>	
IP67/NEMA 4X, AISI 316 stainless steel (only for sensor with SS terminal box) <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-1QA30-1AA0</b> <b>7ME6920-1QA10-1AA0</b>	Picture is still missing

▶ Available ex stock

Description	Order No. <sup>F)</sup>	Symbol
Transmitter MAG 6000 CT for compact and wall mounting, approved for custody transfer (no communication moduls possible); IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-1AA30-1AB0</b> <b>7ME6920-1AA10-1AB0</b>	
Transmitter MAG 6000 SV for compact and wall mounting; special excitation 44 Hz settings for Batch application DN ≤ 25/1" IP67/NEMA 4X, fibre-glass reinforced polyamide <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-1AB30-1AA0</b> <b>7ME6920-1AB10-1AA0</b>	
Transmitter MAG 6000 for 19" rack and wall mounting <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-2CA30-1AA0</b> <b>7ME6920-2CA10-1AA0</b>	
Transmitter MAG 6000 SV for 19" rack and wall mounting; special excitation 44 Hz settings for Batch application DN ≤ 25/1" <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-2CB30-1AA0</b> <b>7ME6920-2CB10-1AA0</b>	
MAG 6000 with IP66/NEMA 4X enclosure; 115/230 V AC, 50/60 Hz	<b>7ME6920-2EA10-1AA0</b>	
MAG 6000 with electrode cleaning unit, complete mounted with IP66/NEMA 4X mounting enclosure <ul style="list-style-type: none"> <li>• 11 ... 30 V DC / 11 ... 24 V AC</li> <li>• 115/230 V AC, 50/60 Hz</li> </ul>	<b>7ME6920-2PA30-1AA0</b> <b>7ME6920-2PA10-1AA0</b>	
MAG 6000 with safety barrier for ATEX 2G D approved sensors, complete mounted with IP66/NEMA 4X wall mounting enclosure, ATEX, 115/230 V AC, 50/60 Hz <ul style="list-style-type: none"> <li>• For ATEX 2G D sensors</li> </ul>	<b>7ME6920-2MA11-1AA0</b>	
MAG 6000 SV, 19" insert, in IP66/NEMA 4X, ABS plastic enclosure, excitation frequency 44 Hz for Batch application DN ≤ 25/1", 11 ... 30 V DC, 11 ... 24 V AC, 50/60 Hz	<b>7ME6920-2EB30-1AA0</b>	

F) All products on this page subject to export regulations AL: 91999, ECCN: N.

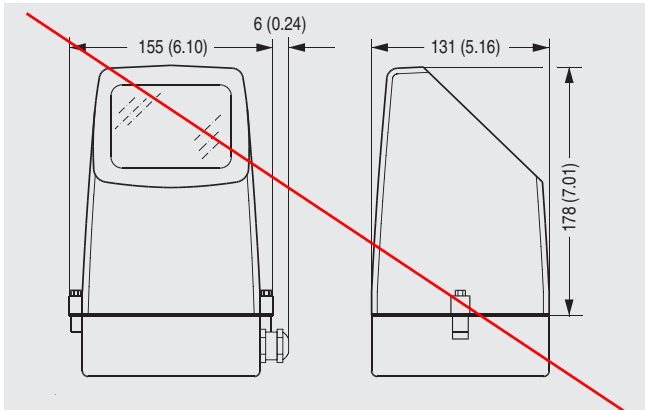
# SITRANS F flowmeters

## SITRANS F M

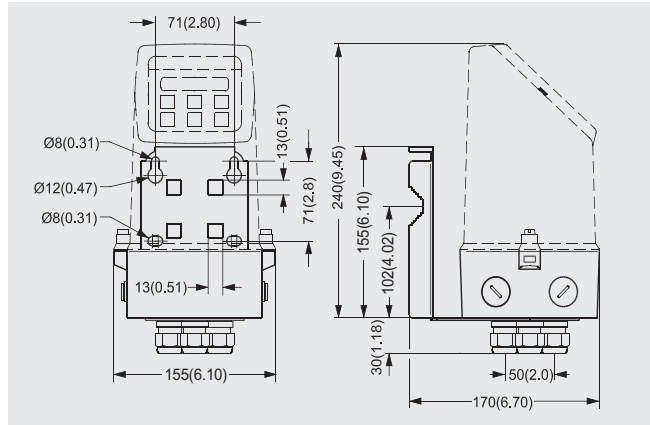
Transmitter MAGFLO MAG 5000/6000

Dimensional drawings

*Transmitter IP67/NEMA 4X compact polyamide*

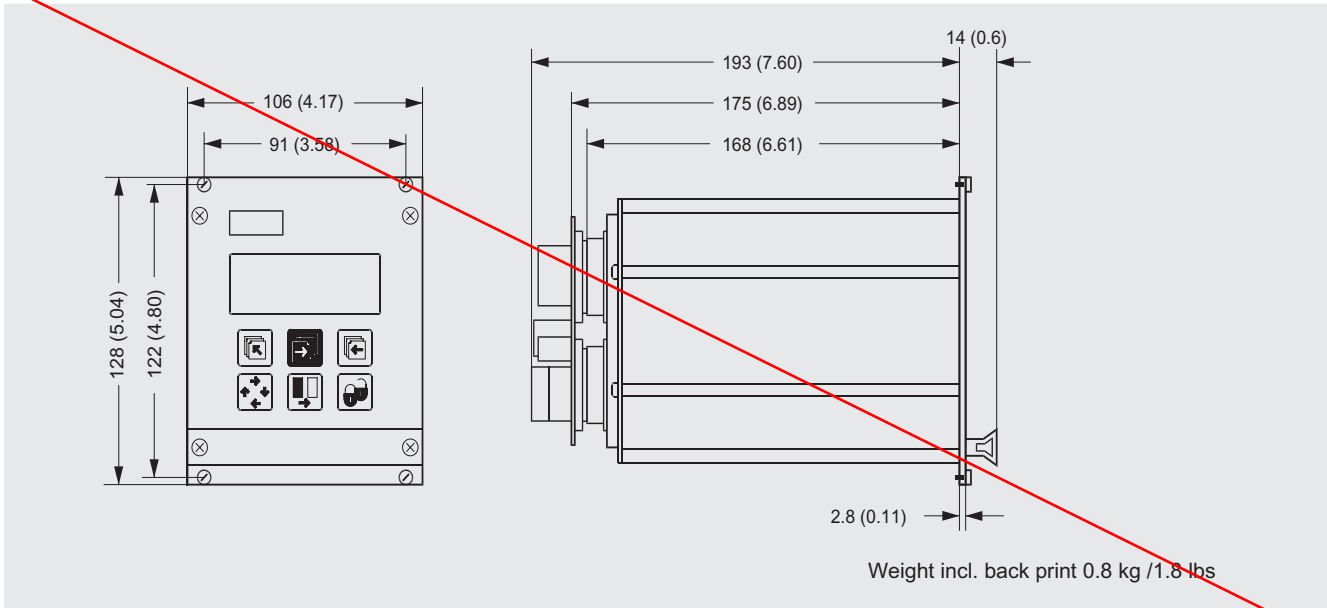


Transmitter compact mounted



Transmitter wall mounted

*Transmitter, 19" IP20/ NEMA 2 standard unit*



Weight incl. back print 0.8 kg / 1.8 lbs

## Schematics

### Electrical connection

#### Grounding

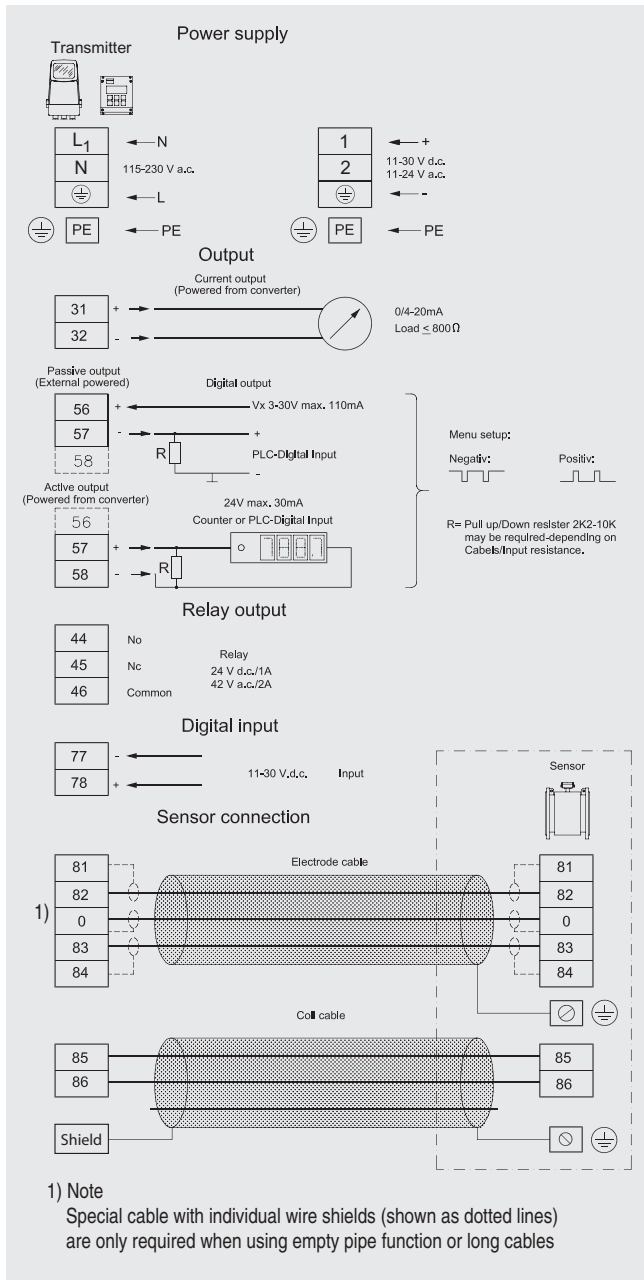
PE must be connected due to safety class 1 power supply.

#### Mechanical counters

When mounting a mechanical counter to terminals 57 and 58 (active output), a 1000 µF capacitor must be connected to the terminals 56 and 58. Capacitor + is connected to terminal 56 and capacitor - to terminal 58.

#### Output cables

If the output cable length is long in noisy environment, we recommend to use screened cable.



SECTION 11350  
SCREW PRESS DEWATERING SYSTEM

PART 1 – GENERAL

1.1 SCOPE OF WORK

- ✓ A. The screw press equipment specified in this section shall be provided by a single supplier to ensure coordination and compatibility of equipment.
- ✓ B. The screw press manufacturer is advised to familiarize themselves with the overall plant process in order to evaluate the compatibility of their equipment to dewater the particular sludge generated.
- ✓ C. The manufacturer shall provide one (1) complete Screw Press dewatering system as specified herein. The system shall include the following: screw press unit, polymer dosing system, and control panel. The screw press dewatering system must be complete and integrated such that it can operate in a fully interlocked manner while achieving the performance requirements as specified in this document.
- ✓ D. The dewatering system shall be designed to concentrate and dewater wastewater sludge by means of a screw press. The connected ancillary equipment as stated within this specification shall be supplied by the Screw Press Manufacturer to ensure system compatibility and system responsibility.

1.2 DESCRIPTION OF SYSTEM AND PERFORMANCE CRITERIA

- ✓ A. Screw Press Operational Requirements: The Screw Press (referred to as “screw press” or “press” in the remainder of this document) shall meet the following operating parameters when processing the sludge specified.

- 1. The screw press unit shall be capable of meeting the performance criteria as set forth below:

- a. Performance:

PARAMETER	REQUIREMENT
Sludge Type	Secondary Waste Activated Sludge
Sludge Feed Solids (% wt)	0.5 – 0.8
Solids Throughput (dry lb/hr)	123
Sludge Flow Rate (gpm)	31 to 49
Maximum Polymer Dosage (act. lb/dry ton)	60
Minimum Discharge Cake Solids (% wt)	14
Minimum Solids Capture (%)	95

- ✓ B. Process Performance Test and Guarantee: Once a representative sludge has been established, the manufacturer shall operate the press at or above the required flow rate and solids loading for a minimum period of 6 hours with samples of feed, discharge cake, and filtrate collected hourly. Samples will be analyzed per ASTM standards for total suspended solids (TSS) and total solids (TS), and the results averaged. The average cake solids and polymer dosage must be better than the above requirements in order to demonstrate compliance. Should the screw press fail to meet the minimum standards specified, the following shall occur:
1. Plant operating procedures shall be reviewed to determine that the sludge is in fact representative of normal operation and within the design specifications.
  2. If it is determined that the sludge is representative and within these specifications, the manufacturer shall make any modifications necessary to accomplish the specified performance levels.
  3. If the sludge can be demonstrated as representative and within specified parameters and if the manufacturer cannot meet the performance, the owner may elect to have the manufacturer remove the unit and refund any monies paid.

### 1.3 QUALIFICATIONS

- ✓ A. The screw press equipment shall be furnished by a single supplier who has a minimum of twenty years' experience in the manufacture of sludge dewatering equipment. The equipment shall be designed, constructed, and installed in accordance with the best practices and methods, and shall be equal to Basis of Design.
- ✓ B. The equipment manufacturer must meet all of the following criteria:
1. Equipment manufacturer shall be a certified UL508 panel shop for the last 10 years.
  2. All buy-out items on the screw press shall be standard off-the-shelf mounts. The screw press manufacturer must also supply all of the original part numbers for all original equipment manufacturers' buy-out items as well as a list of local suppliers located near the installed location.
- ✓ C. These specifications describe equipment of a certain level of quality and process capability. There are specific areas affecting process functions, operation and maintenance, and reliability under which no exceptions shall be allowed. These are as follows:
1. High Strength Tubular Stainless-Steel Frame Construction with Machined Bearing Pads.
  2. 304 Stainless Steel Construction.
- ✓ D. The balance of this specification shall determine the quality level under which equipment shall be reviewed.
- ✓ E. The owner and engineer reserve the right to reject any bid that does not meet all of the machine requirements as detailed in this specification.

## PART 2 - MATERIALS AND EQUIPMENT

### 2.1 GENERAL

- ✓ A. The equipment covered by these specifications is intended to be screw press dewatering equipment of proven ability as manufactured by reputable concerns having long experience in the production of such equipment. The equipment furnished shall be designed and constructed in accordance with the best practice and methods.
- ✓ B. All components of the sludge dewatering equipment shall be engineered for long continuous and uninterrupted service. Provisions shall be made for easy lubrication, adjustment, or replacement of all parts. Corresponding parts of multiple units shall be interchangeable. Except as otherwise specified, steel plates and shapes shall have a minimum thickness of 1/4" and bolts shall have a minimum diameter of 1/2".
- ✓ C. All welding shall be in accordance with the latest acceptable codes of the American Welding Society ANSI/AWS D1.6.
- ✓ D. All material used in the construction of the sludge dewatering equipment shall be of the best quality and entirely suitable in every respect for the service required. All structural steel shall conform to the ASTM standard specification for structural stainless steel, designation A554-MT304. All iron casting shall conform to the ASTM standard specification for gray iron casting, designation A48-76, and shall be of a class suitable for the purpose intended. Other materials shall conform to ASTM specifications where such specifications exist; the use of such material shall be based on continuous and successful use under the similar conditions of service.
- ✓ E. Unless otherwise specified herein, all metal parts in contact with polyelectrolyte or sludge shall be type 304L stainless steel. All fasteners, pins, and anchor bolts shall be type 304L stainless steel.
- ✓ F. All fiberglass-reinforced plastics (FRP) shall be manufactured in conformance with NBS standards PS15-69.

### 2.2 SURFACE PROTECTION

- ✓ A. The main frame and other misc metals, excluding drives, shall be stainless steel per ASTM A554-MT304 specification. Buyout items will be covered with the following paint system:
  1. First coat of Tnemec #66 epoxy of contrasting color to a minimum of four (4) dry mils thickness.
  2. Apply a second coat of Urethane topcoat, finished color, minimum of four (4) mils thickness. Total thickness of the two (2) coats will be a minimum of eight (8) mils dry.
  3. Flame sprayed galvanizing is not acceptable.
- ✓ B. All pre-painted purchased equipment such as electrical motors, gear boxes, etc., are to be painted with a final coat of the above system.
- ✓ C. The control panel enclosure shall be Nema 4 X constructed of type 304 stainless steel. Inside of the box shall be white.



## 2.3 MECHANICAL DETAILS

### A. Main Structural Frame

1. The frame shall be fabricated from stainless steel structural members designed to adequately support all components and accessories. Steel shall meet the requirements of ASTM A554-MT304; all welding shall be performed in accordance with ANSI/AWS D1.6. Where frame components are bolted, stainless steel fasteners shall be used.
2. The fabricated steel frame shall be designed to withstand the maximum stresses imposed on the individual members with a safety factor of 5. Specifically, the maximum actual stress on any member, connection, plate, etc., shall not exceed 1/5 of the yield strength of the frame material used. The deflection ratio of any structural member shall not exceed L/600 where L is the member span.
3. Drip pans shall be fabricated of a minimum 14-gauge type 304L stainless steel and shall collect filtrate.
4. The framework shall be constructed in such a manner that it will insure absolute plane parallelism of all rotating elements by machined bearing pads.
5. The framework shall be of welded and/or bolted construction. No disassembled component shall weigh more than 5,000 lbs. Lifting lugs shall be provided as necessary to afford convenient access to maintenance points throughout the screw filter.

### B. Flocculation/Conditioning System - To achieve rapid contact between sludge particles and a solution of dilute polyelectrolyte, provide:

1. One (1) 316L stainless steel, venturi mixer. The mixer shall be equipped with a Vortex polymer injection ring with four (4) tangentially mounted polymer injectors. The mixer shall be located upstream of the screw presses. The screw press manufacturer shall recommend the proper layout of the system.

### C. Pressure Zone

With 1  
Exception

1. The screw press shall be supplied with a tapered shaft design with a smaller diameter at the inlet and a large diameter at the discharge.
2. Designs that utilize a variable pitch with constant shaft diameter, or designs with two-stage shaft diameters are not allowed.
3. The basket assembly around the screw must be constructed of stainless steel with slotted openings to allow for maximum porosity and avoidance of small diameter holes that tend to plug.
4. Designs that utilize basket assemblies constructed of wedge wire or moving rings will not be allowed.
5. The design of the screw auger shall be a tapered shaft to reduce the volume and therefore provide an increasing pressure profile on the solids. The tapered shaft of the screw is designed to force the sludge closer to the slotted screen, thus reducing the path length for liquid to be expressed from the cake. The tapered shaft reduces the potential of plug formation, where the cake turns with the screw and is not conveyed to the discharge point.

6. The high-pressure section shall consist of a variable pressure cone shaped plate on the discharge opening of the screw press. The cone shall be pneumatically adjustable for automatic operation that avoids binding.
7. Units that do not include a pressure cone will not be considered.
8. The cone shall be actuated pneumatically in both directions.
9. Minimum effective filtration area of the pressure zone of the screw press shall be 56 sq. ft.

12" DSP has an area of 25 sq ft



D. Shower Wash System

1. A wash station shall wash the screw press. The wash system shall use high-pressure water spray nozzles. The spray assembly shall be housed in an enclosure in a manner that contains the spray pattern and mist within the housing assembly. The housing and nozzle assembly shall be readily removable. The housing shall be fabricated from type 304 stainless steel.
2. The screw shower shall be pneumatically actuated with an adjustable timer setting on the OIT.
3. The screw system shower bar shall have nozzles placed to wash both the basket and the inside of the enclosure for simplified operation.
4. Wash water required shall not exceed an average of 4 GPM per unit at 80 psi.
5. The shower system shall include a dual basket strainer.
6. Each screw press shall be provided with a 3 HP wash water booster pump that will be installed as shown on the contract drawings. The wash water booster pump shall be a Goulds model eSV or approved equal.
7. Each shower header shall include a motorized ball valve for remote control of the shower as well as for pre-set timed intervals to wash the equipment.



E. Drives

12" DSP has a 2.0 HP drive

With 2 exceptions

1. The screw press drive shall be a 3.0 HP variable speed with a variable frequency AC drive unit. Multiple belt drives shall not be acceptable.
2. The nominal input horsepower rating of each gear or speed reducer shall be at least equal to the nameplate horsepower of the drive motor. Each drive unit shall be designed for 24-hour continuous service.
3. Each gear reducer shall be totally enclosed, water spray proof, oil lubricated with anti-friction bearings throughout. All motors shall be TEFC.
4. The screw auger drive shall be a 3.0 HP, shaft-mounted motor and gear reducer assembly. The drive must be on the discharged end of the screw shaft to reduce wear on the screen and flights due to deflection of the screw shaft.
5. The drives shall be furnished with provisions for use on 480-volt, 60 hertz, 3-phase power supply.

2.0 HP Drive

✓ F. Safety Guards -All equipment having exposed moving parts such as fans, V-belts, gears, couplings, chains, and including the pressure roll section, shall be provided with safety guards as required by OSHA standards.

✓ G. Bearings

1. The shafts shall be equipped with heavy-duty greaseable type, self-aligning ball or roller bearings in sealed, splash proof housings. The housing shall be sealed to provide adequate protection from moisture and grime.
2. All bearings shall have a minimum B-10 bearing life of 500,000 hours based on ANSI-B13.6-1972. The B-10 bearing life of 500,000 hours shall be based on the maximum summation of all forces applied to the bearing.
3. Bearings and housings shall be US manufactured and shall be manufactured by FMC Corporation, Link-Belt Division, Indianapolis, Indiana; Reliance Electric Industrial Company, Dodge Division, Greenville, South Carolina, or approved equal.

✓ H. Drainage Pans - Drainage pans shall be supplied as necessary to contain all filtrate and wash water within the unit and to reduce rewetting of downstream cake. Filtrate and wash water pans shall be constructed of minimum 14-gauge type 304 stainless steel. All drainage piping shall be furnished adequately sized for the intended service and rigidly attached to the press frame.

## 2.4 POLYMER FEED SYSTEM

✓ A. General Requirements

1. The press manufacturer shall provide as a part of the total dewatering equipment package, One (1) polymer feed system capable of automatically metering, diluting, activating and feeding a liquid polymer with water.

✓ B. Polymer Dosing Unit

1. Polymer and water shall be mixed in a chamber designed to create sufficient mixing energy. This design shall include a progressive cavity metering pump, solenoid valve and pressure regulator.
2. The pumps shall have an adjustable speed with a variable frequency drive. The pumps shall be supplied with a 1/2 hp, 120 volt AC motor.
3. A motor driven impeller mixer shall be provided that will mix the polymer and water into solution.

✓ C. Polymer Feed Pump

1. The polymer system shall be equipped with progressive cavity pump each capable of pumping up to 5 GPH.
2. The pump shall be designed with a high viscosity wet end pump capable of pumping neat polymer solution to the mixing chamber.
3. The pump shall be a Seepex, Netzsch, or approved equal.
4. The drive motor shall be a variable speed, 1/2 horsepower, complete with an SCR control unit. The SCR control unit shall have local speed adjustment, ON-OFF switch and

running indication. The control unit shall provide adjustments of feed rate over a range of 20 to 1.



#### D. Dilution Capability

1. The primary dilution shall feed into the motorized mixing chamber and shall be capable of 1200 GPH.
2. The dilution capability shall be adjustable with a clear rotameter with a stainless steel float.
3. Furnish a solenoid valve or ON-OFF control of dilution water supply



#### E. Emulsion Unit Control Panel

1. Each polymer system shall be supplied with a NEMA 4X control panel that provides an automated mixing system. The controls for the polymer make-down system shall be supplied in the screw press control panel.
2. The control panel shall include all timers and relay for a complete manual and auto system. The polymer mixer chamber and metering pump shall turn on and the water solenoid valve shall open.
3. The polymer feed pump shall include start/stop indicating lights, potentiometer and local remote control.
4. The polymer mixer and polymer metering pump shall be provided with start/stop pushbuttons, indicating lights and motor starters.
5. Single phase, 120 volt, 60 Hertz power shall be supplied to the main control panel.
6. All devices within the panels shall be permanently identified. Nameplates shall be made of laminated phenolic materials with a black face and white core.

### 2.5 ELECTRICAL REQUIREMENTS



#### A. General Requirements

1. Provide one (1) control panel constructed of 304 stainless steel, NEMA 4X construction.
2. The panel shall be a full operating panel complete with all motor control and supervisory devices for press-mounted and ancillary equipment. All electrical work shall be performed in accordance with applicable local and national electric codes. The control panel shall include an Allen Bradley Compact Logix PLC and a 12" color OIT Panel View Plus 7 touch screen. An Ethernet connection shall be provided for communication with plant control system. Allen Bradley AC Power Flex 525 Variable Frequency Drives shall be used for each of the following individual components in the local control panels: Screw Press drive, and the Filtrate Recycle Pump drive.
3. The ancillary equipment to be controlled by this panel includes the sludge feed pumps, polymer blending unit, washwater booster pump, discharge conveyor system. The washwater booster pump will have a motor starter in the control panel. All motor starters and VFDs will be protected by in-line dedicated circuit breakers. The PLC will include logic for all necessary system interlocks and will control process and emergency shutdowns.



4. The controls shall be such that selection of the desired ancillary equipment is easily accomplished at the OIT touchscreen for the Screw Press.
5. Three phase, 460 volt, 60-Hertz power shall be supplied to the control panels. A control transformer will be provided for 120-volt, single phase power source for motor starter coils, lights, relays, timers, controllers, and other related items.
6. The control panel shall be provided with terminal blocks for power wiring to and from the panel. The incoming terminal blocks shall be provided with a single magnetic circuit breaker disconnect switch. Circuit breaker protected motor starters with thermal overloads shall be supplied for each motor furnished with the unit.
7. All electrical equipment controls located on each screw press shall have NEMA 4X enclosures and wired, through PVC conduit, to a single common NEMA 4X terminal box.
8. All devices within the panel shall be permanently identified. Nameplates shall be provided on the face of the panel or on the individual device as required. Nameplates shall be made of laminated phenolic materials with a white face and a black core.
9. The panel shall be designed for manual starting and stopping of all drives. A master manual / auto system switch shall be supplied to override the alarm system and allow operation of any drive through a momentary contact pushbutton. The control panel shall contain start/stop pushbuttons, run lights, and alarm indications for all ancillary equipment.
10. The operator interface terminal (OIT) touchscreen shall be equipped with a start/stop switch and run light for each adjustable piece of equipment. The screw drive, and polymer solution pumps as hereafter specified, shall also incorporate speed control and speed indication. The control panel shall include start/ stop pushbutton, run lights, speed control and 4 to 20 mA signal generators for the polymer solution and sludge pumps controls.
11. Alarm lights, sensors, and related circuitry shall be provided for the following functions: zero speed, emergency stop push button on each side of the press, low water pressure, and low air pressure. In the event of any of the above malfunctions, the machine will shut down and an alarm sound. The alarm system shall include an audible horn rated at 90 DBA at 10'. The system shall include silencing provisions, but the function alarm indicating light shall remain lit until the alarm condition is satisfied. A separate set of alarm contacts shall be provided for remote alarm indication.
12. Arrange control panel to allow either manual or automatic control of screw press equipment. When "MANUAL" operation is selected, all equipment associated with the screw press shall be controlled by "START/STOP" pushbuttons. When "AUTOMATIC" operation is selected, control of equipment shall be "AUTOMATIC/START" and "AUTOMATIC/STOP" pushbuttons, and programmable controller:
  - a. Local screw press control panel shall include OIT touchscreens with the following:
    - 1) One control mode selector switch marked "AUTOMATIC/  
MANUAL." When "MANUAL" operation is selected, all equipment associated



with screw press shall be controlled by “START/STOP” pushbuttons. Provide one “START” and one “STOP” pushbutton for each of the following:

- a) Screw Press Drive.
  - b) Sludge Pump
  - c) Polymer Pump
  - d) Discharge Conveyor.
- 2) One speed potentiometer for manual adjustment of each drive speed.
  - 3) Digital indicators for sludge feed flow rate. Indicators shall accept 4 to 20 mA DC field input and shall be calibrated in gpm.
  - 4) Green indicating lights for “RUNNING” status for each unit operated from panel, including wash water solenoid valve energized indication.
  - 5) Red indicating lights for “OFF” status for each unit operated from panel, including wash water solenoid valve de-energized indication.
  - 6) One each “AUTOMATIC/START” and one “AUTOMATIC/STOP” momentary pushbuttons, for automatically starting and stopping each screw press system. Sludge cake conveyor shall be manually controlled when screw press control mode selector switch is in the “MANUAL” position.
  - 7) One “EMERGENCY STOP” red mushroom pushbutton.

### 13. Automatic Controls and Sequencing:

#### a. General:

- 1) Program the PLC for automatic control of screw press, system sequencing, and interlock functions as specified.
- 2) Configuration and programming of PLC system shall be the responsibility of screw press manufacturer. System documentation including memory loading, I/O configuration and programming shall be provided.
- 3) Provide and install auxiliary relays and wiring for equipment and devices specified in this Section required for implementing functional requirements specified.

#### b. “AUTOMATIC START/AUTOMATIC STOP” Cycle (typical for all screw presses):

- 1) Automatic start cycle request to PLC shall be initiated by “AUTOMATIC/START” pushbutton.
- 2) Control logic for an “AUTOMATIC/START” cycle shall start screw press in the following order after “AUTOMATIC/START” command has been initiated and interlocks are complete.
  - a) Wash water motorized ball valve.
  - b) Screw Shower “Pre-Wash”
  - c) Discharge conveyors.



- d) Screw press drive.
  - e) Polymer solution pump drive.
  - f) Sludge feed pump drive.
- 3) Each drive shall not start until previous drive is running and necessary time delay has elapsed. The screw press manufacturer shall determine where time delays are required and shall program settings to provide smooth start-up of equipment.
  - 4) Once all drives are confirmed running by motor run contacts from their respective starters, PLC shall cause the run indicating light to illuminate. Loss of run status contact for a drive once cycle logic is complete shall shut down screw press and associated equipment.
  - 5) Upon “AUTOMATIC /STOP” command, system shall shut down in order that is reverse of specified start-up order with necessary time delays.
- c. Interlocks: The following interlocks shall be satisfied when control mode selector switch is in either “AUTOMATIC” or “MANUAL” position. Failure of any one signal during start cycle or after cycle is complete shall shut down all associated screw press equipment.
- 1) Sludge cake conveyors servicing the screw press shall be operating and confirmed by conveyor zero speed switches.
  - 2) Washwater must be on and sufficient washwater pressure must be sensed at a specified level.
  - 3) Air pressure must be sensed at a specified level.
  - 4) Polymer activation tank level must be at specified level.
  - 5) Control mode selector switch shall be in “AUTOMATIC” position.
  - 6) “EMERGENCY STOP” pushbutton shall be in operating position.
14. Annunciation and Alarms:
- a. Provide audible alarm and detailed alarm history in screw press control panel for alarming of the following:
    - 1) Screw drive failure.
    - 2) Local emergency stop initiated at either screw press control panel, screw press frame-mounted buttons or conveyor pull cord switches.
    - 3) Pump/VFD fail at sludge feed pump.
    - 4) Low wetwell level for sludge feed.
    - 5) Low washwater pressure.
    - 6) Low air pressure.
    - 7) Discharge conveyors zero speed switches.
    - 8) Polymer pump failure.

- 9) Sludge pump failure.
  - 10) Polymer activation tank low level alarm.
  - b. Wire all alarms to PLC system for relaying to remote location.
15. Additional stations shall be included as hereinafter specified for other ancillary drives or systems.

- ✓ B. Electric Motors furnished with this equipment shall meet the following requirements:
  - 1. Rated for continuous duty at 40°C ambient and insulated with a minimum of Class F insulation, with Class B temperature rise. All motors shall be totally enclosed, fan cooled or non-ventilated. All motors supplied shall be rated at 150% nameplate horsepower of the required horsepower maximum service condition.

#### 2.6 AIR COMPRESSOR

- ✓ A. A complete pneumatic system shall be provided and shall include an air compressor and air drier. This package shall include pump, motor, valves, air tank, all controls and piping as necessary to provide a complete and operating system. The unit shall include a low-pressure switch, system pressure gauge, and pressure relief.
- ✓ B. The air compressor shall be an Ingersoll Rand T30 2 stage compressor with a 5 HP TEFC motor.
- ✓ C. The air drier shall be an Ingersoll Rand D31EC.
- ✓ D. The air compressor unit will be floor mounted away from the press to eliminate wash down spray.
- ✓ E. The installation contractor shall supply air tubing from the air compressor unit to the press. The contractor shall include quick disconnects for air hose connections.

#### 2.7 FLOW METER

- ✓ A. The screw press manufacturer shall supply a totalizing flow meter for the screw press, as supplied by Siemens or approved equal. Each flow meter shall include a 3" ANSI flange connection, a digital display, and 30 feet of display cord.
- ✓ B. The electromagnetic induction flow meter shall generate a voltage linearly proportional to flow for full-scale velocity setting from 2 to 33 feet per second. Standard accuracy of plus output shall be +/- 0.5% of rate for all meters.
- ✓ C. The meter shall incorporate a high impedance amplifier of 1012 ohms or greater, eliminating the need for electrode cleaning systems the meter shall utilize bipolar pulsed DC coil excitation with auto-integrated zeroing each half-cycle. Manual zero adjustments shall not be required – even at start-up. Power consumption shall be no more than 15 VA, independent of meter size. Input power required will be from 85 to 260 VAC, 46-65 Hz, with DC input option available.
- ✓ D. The magnetic flow meter shall be microprocessor based with integral electronics. The electronics shall be interchangeable for all sizes from 1/12" to 78". The housing is to be powder coated cast aluminum with a NEMA 4X rating.



- ✓ E. The meter's analog and pulse outputs shall be independently selected by push buttons. The analog output shall be an isolated 4-20mA DC into 700 ohms load. The pulse output shall be an open collector output with a maximum frequency of 1,000 Hz with configurable pulse width (0.5 to 2 sec). An open collector status output shall indicate either system or process error or flow direction. An auxiliary input shall be available to positive zero return. A low flow cutoff will be standard which can be turned on or off by pushbuttons.
- ✓ F. A 2-line, 16-digit LCD backlit display shall indicate flow rate and/or total flow. The totalizer value is protected by EEPROM during power outages, and utilizes an overflow counter. The display shall also be capable of indicating error messages such as empty pipe condition, error condition and low flow cutoff.

### PART 3 - INSTALLATION

#### 3.1 INSTALLATION SUPERVISION

- ✓ A. The manufacturer shall provide the services of a qualified factory representative to advise the installing contractor on proper installation, setting, piping, and wiring procedures. The installing contractor is responsible for all interconnections between the supplied equipment and plant utilities, including but not limited to, all piping, valves, wiring, conduits, foundation work, building and concrete work. The manufacturer shall provide two (2) days onsite over one (1) trip for installation supervision.

#### 3.2 OPERATION & MAINTENANCE MANUALS


- ✓ A. Two (2) paper copies and an electronic copy (in .pdf format) of operation and maintenance manuals shall be furnished. The manuals shall be prepared specifically for this installation and shall include detailed operating and maintenance instructions and specifications relative to the assembly, alignment, checking, lubrication, placing in operation, adjustment, and maintenance of each unit of equipment and auxiliaries furnished under this contract, together with complete parts lists, copies of dimension drawings, electrical drawings, and a copy of the manufacturer's start-up report.

#### 3.3 START-UP SERVICES

- ✓ A. Before the equipment is started up, the manufacturer shall make a thorough inspection of the installation to make sure the press has been installed properly and that all equipment relating to it has been installed according to the needs of the press. The equipment manufacturer shall provide two (2) days onsite over one (1) trip for mechanical check-out and pre-startup inspection.
- ✓ B. The manufacturer shall provide three (3) days over one (1) trip of onsite services of a qualified factory representative to place the units in operation and conduct performance testing. The owner shall assist the manufacturer by starting up and operating all support systems such as water, sludge feed pumping, polymer mixing, electrical power and instrumentation, and other ancillary equipment as needed. The services provided by the manufacturer shall be as detailed in the O&M manuals and shall include at least the following:
  1. Check equipment alignment and assure that there are no unusual internal stresses.
  2. Calibrate all instrumentation.


3. Check systems to insure proper operation.
4. Check lubrication in all drives.
5. Check Motor rotations, etc.
6. Adjust spray wash angles and discharge cone pressure system.
7. Start the drives and assure they are operating properly with no binding and with correct rotation.
8. Ensure that all ancillary systems have been properly adjusted, including polymer and sludge feed.

### 3.4 TRAINING SUPERVISION

- 
- A. During the start-up procedures, the equipment manufacturer shall provide training to the owner's employees for proper operation and maintenance of the sludge dewatering equipment.
  - B. At a minimum, the manufacturer shall make an additional two (2) follow-up training and inspection trips after the equipment has been in operation at least 90 days at the owner's request.

### PART 4 - MISCELLANEOUS

#### 4.1 SPARE PARTS

- 
- A. The screw press manufacturer shall provide the following spare parts to the Owner.
    1. Ten (10) spare spray nozzles.
    2. Two (2) relays of each type and size.
    3. One (1) full set of screw wipers.

END OF SECTION

# PAST MEETING MINUTES

**DRAFT**

Disclaimer – The following are Draft Minutes, which could include errors and are subject to change upon approval of the Select Board.



**Town of Henniker  
Board of Selectmen Meeting  
Tuesday October 3, 2023 6:15 PM  
Henniker Community Center**

**Members Present:** Vice-Chairman Bill Marko, Selectman Neal Martin, Selectman Jeff Morse  
**Member's Excused:** Chairman Kris Blomback, Selectman Scott Osgood  
**Town Administrator:** Diane Kendall  
**Recording Secretary:** Hank Bernstein  
**Guests:** See attached Sign-In Sheet

**CALL TO ORDER/PLEDGE OF ALLEGIANCE**

Vice-Chairman Bill Marko opened the meeting with recitation of the Pledge of Allegiance and called the meeting to order at 6:15pm.

**ANNOUNCEMENTS**

Vice-Chairman Marko announced that Franky Ramsdell and Cameron Gebo have graduated from the Police Academy. The Board congratulated the new officers.

**CONSENT AGENDA**

***Item #1 - Selectman Morse motioned to approve the Consent Agenda October 3, 2023, seconded by Selectman Martin. The motion passed, unanimously.***

**PUBLIC COMMENT #1**

No Public Comment

**APPOINTMENTS WITH THE BOARD:**

**Item #2 - NH District 8 State Representatives Tony Caplan, Sherry Gould, and Stephanie Payeur**

Tony Caplan, NH District 8 State Representative, updated the Selectboard. He shared highlights on:

- Medicaid expansion
- Municipal Housing Grants
- Cyanobacteria mitigation loans
- State Adequacy Payments
- Expanded funding for childcare
- Lowering electric rates
- Continued work in strengthening public education

Sherry Gould gave further updates to the Board.

Stephanie Payeur gave a summary of the first year of key bills and their status.

**Item #3 - Leo Aucoin, Highway Superintendent – Department Update**

Supt. Aucoin updated the Board on the projects of the Highway Department. Liberty Hill Road and Old Hillsboro Road are prepped and ready for reclaim and asphalt. The Highway Department is currently working on Foster Hill Road. Supt. Aucoin reminded the public to keep an eye out for signs and slow down for the sake of safety.

**Item #4 - Jennifer Lopez – Economic Development Committee Appointment**

Jennifer Lopez, of Foster Hill Road, applied to volunteer on the Economic Development Committee. The Board asked her questions on how she would best serve this committee and the community. **Selectman Martin moved to accept the Volunteer Application of Jennifer Lopez, appointing her as a Volunteer Member of the Economic Development Committee. The term will expire on September 1, 2026, seconded by Selectman Morse. Motion carried unanimously.**

**DRAFT**

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**Item #5 - Susan Fetzter, Historical Society Placement of Historical Marker Paintball**

Ms. Fetzter was approached by a representative from the New Hampshire Division of Historical Resources. This division wants to place a state marker in every town. The State will pay for the marker if it is on a state highway. Discussion ensued. The small strip of land between Park Street and Woodman Park off Route 114 was noted as an ideal location. **Selectman Martin moved to authorize the New Hampshire Division of Historical Resources install a historical roadside marker for "the first game of paintball", seconded by Selectman Morse. Motion carried unanimously.**

Ms. Fetzter noted that the application isn't due until November 1<sup>st</sup> and that there may be no updates until the spring.

**NEW BUSINESS**

**Item #6 - Fund Balance Policy**

Vice-Chairman Marko noted that it would be prudent to have a full Board for discussion on this item. **The Selectboard consensus was to table discussion.**

**Item #7 - Budget Schedule**

TA Kendall shared the draft budget schedule.

DATE	DESCRIPTION
First Week of October	Department Heads receive 2024 budget worksheets
October 3, 2023	Selectboard Meeting - Fund Balance Policy First Reading
October 9th – 19th 2023	Town Administrator meeting with department heads - Budgets
October 17, 2023	Selectboard Meeting
October 20, 2023	Budget worksheets due to Town Administrator
October 23, 2023	Joint Meeting Selectboard/Budget Advisory
November 7, 2023	2024 Draft Budget
November 11, 2023	Selectboard and Budget Advisory Committee – Review of 2024 Operating Budget
November 21, 2023	Selectboard Meeting - Propose/Review any zoning ordinance, historic district ordinance or building code for consideration at the 2024 Town Meeting; Budget edits
December 5, 2023	Warrant Article Review (Any Bond articles over \$100k)
December 19, 2023	Proposed warrant articles by town departments under 100K/warrant articles from town committees
January 2, 2024	Revised budget worksheets provided to Board of Selectmen and Advisory
January 16, 2024	CIP Presentation to Board of Selectmen; Advisory Budget Committee Recommendations; Budget Review
Wednesday January 24 to Friday February 2, 2024	Filing period declaration of candidacy
January 30, 2024	Selectboard Budget Workshop
February 6, 2024	Last day for 25 or more voters or 2% of the total, whichever is less, but in no case fewer than 10 voters, to petition select board to include an article in the warrant
February 6, 2024	Public Hearing on proposed budget and warrant articles; Public Hearing on bond or note issue over \$100,000
February 13, 2024	OPTIONAL - Continued public hearing on proposed budget and warrant articles. Friday Feb. 16 is last day to hold at least one budget hearing
February 20, 2024	Selectboard decides who is speaking to the warrant articles
February 26, 2024	Last day to post Warrant at polling locations, Clerks Office and Town Hall
March 5, 2024	Annual report available to voters
March 12, 2024	Town Meeting voting day
March 16, 2024	Town Meeting - Legislative Body to vote on warrant

*This schedule is subject to change*

**DRAFT**

Disclaimer – The following are Draft Minutes, which could include errors and are subject to change upon approval of the Select Board.

**PAST MEETING MINUTES**

**Item #8 - Acceptance of Board of Selectmen non-public session SEALED minutes September 19, 2023, 5:45 p.m. – Highway Department**  
**Selectman Martin moved to accept these minutes, seconded by Selectman Morse. Motion carried unanimously.**  
**Selectman Martin moved to unseal these minutes, seconded by Selectman Morse. Motion carried unanimously.**

**Item #9 - Acceptance of Board of Selectmen non-public SEALED session minutes September 19, 2023, 6:00 p.m. – Town Clerk/Tax Collector Taxpayer**  
**Selectman Martin moved to accept these minutes, seconded by Selectman Morse. Motion carried unanimously.**

**Item #10 - Acceptance of Board of Selectmen public meeting minutes September 19, 2023, 6:15 p.m.**  
**Selectman Morse moved to accept these minutes, seconded by Selectman Martin. Motion carried unanimously.**

**COMMUNICATIONS**

**Item #11 - Town Administrator report**

TA Kendall reported on:

- A meeting with community civic leaders
- The Food Pantry
- Tax Deeding
- Tower Designs
- Household Hazardous Waste Day
- Mirador IT
- The potential COLA increases
- The increase to health insurance rates
- The crosswalk on Main Street

**Item #12 - Correspondence**

No remarks from the board

**Item #13 - Selectmen Reports**

Vice-Chairman Marko reported on the Road Management Committee. They will be working with the finance department.

Selectman Martin had nothing to report.

Selectman Morse had nothing to report.

**PUBLIC COMMENT #2:**

No public comment.

Motion to adjourn by Vice-Chairman Marko at 7:22 PM, seconded by Selectman Morse. Motion carried unanimously.  
Respectfully submitted,

Hank Bernstein  
Minute Taker

Minutes Approved:



Meeting: BOARD OF SELECTMEN

Date: October 3, 2023

\*PLEASE PRINT\*

Name

Address

Jennifer Woper

488 Foster Hill Rd

Stephanie Payeur

388 Western Ave

Sherry Coeuld

Wyke —

Sue Fitzer

59 Strachan  
Henniker Historical Soc.

Kristin Maclean

209 Rush Rd  
Henn. Hist. Soc.



"The only Henniker on Earth."  
Office of the Town Administrator

To: Board of Selectmen, employees, volunteers, and Town of Henniker  
From: Diane Kendall, Town Administrator  
Date: October 17, 2023  
Ref: **Town Administrator's Report**

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This report includes activity from September 30<sup>th</sup> to October 13<sup>th</sup>.

**2024 Budget:** Budget worksheets and instructions have been provided to department heads and other decision-makers. We are waiting for Health Trust guaranteed maximum rates but have been informed we should expect an increase of around 13% to plan rates. Through Health Trust the town has access to several Anthem plans that offer deductible and rx plan, health savings options. In addition, the board of Selectmen may consider changes to the employee employer cost share allocation.

Chapter 4 Classification Plan of the Personnel Policy indicates the current year September State of NH Labor Scales are to be used for annual cost of living adjustments in the next budget year. The state COLA applied for 2023 was 10%. The Board may choose to waive the policy for a more conservative adjustment. The Social Security COLA 2024 will be 3.2%. In addition, Addendum A Compensation Plan Section 3 Salary Increases allows for an annual merit adjustment up to 4%. It is reasonable to expect an average merit adjustment of at least 3.75%. Some examples of budget impact will be presented at this meeting.

**Craney Hill Communications Tower:** Site plans finalized and test boring to begin next week.

**Transfer Station:** Replaced the oil burner furnace. Submitting a grant request to offset expense.

**Information Technology:** An Acceptable Use Policy will be ready for first reading at the November 7<sup>th</sup> meeting.

**Training:** Attended Primex Governments Are for Everyone: A review of Title II ADA Guidance from the US Department of Justice. The goal of the training is to make public officials aware of the law. It applies to all programs, services, and activities of local government. The training provided guidance on modification for integration not isolation. Key takeaways are:

- All people have a right to participate in civic life.
- Totality of Programs must be accessible
- Demonstrate an ongoing obligation to make programs accessible
- Due to resource limitations, access Improvements can be spread out over time
- Temporary access interruptions may be permitted

**Planning and Zoning:** research and report on status of property building permits

**Broadband:** The Committee met with Comcast Government Relations to discuss Comcast's response to the recent Request for Proposals (RFP). Comcast plans to extend their service to 405 addresses over the next year, combining their original expansion plan with the unserved addresses identified by the committee's RFP. A list of addresses is available at the Town Hall.

**Human Services:** Several families are challenged with limited housing, leaving some homeless and others unable to pay rent. Thank you to the area non-profit organizations that aid.

Warm regards,  
*Diane Kendall*



**Town of Henniker  
Town Administrator**

# Memo

**To:** Department Heads, Committees, Commissions and Boards  
**From:** Diane Kendall, Town Administrator  
**cc:**  
**Date:** 10/12/2023  
**Re:** 2024 Budget

---

The annual budget process has begun. The Board of Selectmen attempts to present a budget to the voters that supports what the town and its citizens want to accomplish – now and in the future. In the weeks ahead they will prioritize the wants and needs while attempting to keep the town tax rate relatively stable.

- Department budget requests should be made to support the current level of service provided by the agency or department.
- The budgets should be built around what is needed to support the level of service for the next fiscal year, regardless of whether each budget is higher or lower than the previous one.
- If you are requesting a budget that represents an increase in level of service (increase to labor hours or other) please explain on your budget narrative sheets.
- Please remember to complete your department performance evaluations and submit merit adjustment worksheets.
- The Board of Selectmen will determine the C.O.L.A rate to be applied to the wage scale.
- The finance department will project gross wages, payroll taxes, NH Retirement System and insurance based on the current staffing, C.O.L.A, merit and insurance elections.

Please compile budget requests using the attached worksheets and forward the completed worksheets to me via email or in person. The attached reports also contain 2023 budget vs. actual detail reports through September 30, 2023.

Be aware we will be updating the chart of accounts (department codes used to classify expenses). This will allow greater transparency and accountability along with better alignment with NH Department of Revenue accounting codes.

The Town Administrator and Finance Director will meet with each department and a preliminary budget will be forwarded to the Board of Selectmen and Budget Advisory Committee (BAC).

The BAC will review draft budgets with department heads. These meetings occur in November. It is likely the Board of Selectmen will hold a joint Selectboard/BAC budget workshop on a Saturday in mid-November. The BAC will report on budget recommendations to the Board of Selectmen. The Board finalizes the budget working with the Town Administrator in December. The budget is then presented for a public hearing alongside any bonding requests in January and February. Town Meeting will be March 16, 2024.

In addition to the annual operating budget, department heads will work on long range planning for equipment replacement, building maintenance and improvement, and other future capital expenditure needs. Department heads will meet with the Capital Improvement Planning Committee to update the plan to determine current and long-range funding needs and mechanisms.

Let me know if you have questions or concerns. We are here to help.

Best regards,

Diane Kendall  
Town Administrator



## DRAFT 2024 Henniker Budget and Town Meeting Schedule

DATE	DAY	TIME	DESCRIPTION
October 9 <sup>th</sup> – 19 <sup>th</sup> 2023	Wednesday – Friday	N/A	Department Heads receive 2024 budget worksheets; Town Administrator meeting with department heads - Budgets
October 17, 2023	Tuesday	6:15	Selectboard Meeting - Fund Balance Policy First Reading
October 20, 2023	Friday	3:00pm	Budget worksheets due to Town Administrator
October 23, 2023	Monday	4:30pm	Joint Meeting Selectboard/Budget Advisory
November 7, 2023	Tuesday	6:15 Selectboard Meeting	2024 Draft Budget
November 11, 2023	Saturday	8:00am – 4:00pm Public Meeting	Selectboard and Budget Advisory Committee – Review of 2024 Operating Budget
November 21, 2023	Tuesday	6:15:00 AM Selectboard	Selectboard Meeting - Propose/Review any zoning ordinance, historic district ordinance or building code for consideration at the 2024 town meeting; Budget edits
December 5, 2023	Tuesday	6:15 Selectboard Meeting	Warrant Article Review (Any Bond articles over \$100k)
December 19, 2023	Tuesday	6:15 Selectboard Meeting	Proposed warrant articles by town departments under 100K/warrant articles from town committees
January 2, 2024	Tuesday	6:15 Selectboard Meeting	Revised budget worksheets provided to Board of Selectmen and Advisory
January 16, 2024	Tuesday	6:15 Selectboard Meeting	CIP Presentation to Board of Selectmen; Advisory Budget Committee Recommendations; Budget Review
Wednesday January 24 to Friday February 2, 2024		Town Clerk	Filing period declaration of candidacy
January 30, 2024	Tuesday	<b>OPTIONAL</b> - Selectboard Workshop	Selectboard Budget Workshop
February 6, 2024	Tuesday	10:00 to 6:00pm Town Clerk	Last day for 25 or more voters or 2% of the total, whichever is less, but in no case fewer than 10 voters, to petition select board to include an article in the warrant
February 6, 2024	Tuesday	6:15 Public Hearing 2024 Budget	Public Hearing on proposed budget and warrant articles; Public Hearing on bond or note issue over \$100,000
February 13, 2024	Tuesday	OPTIONAL - Continued Public Hearing	OPTIONAL - Continued public hearing on proposed budget and warrant articles. Friday Feb. 16 is last day to hold at least one budget hearing
February 20, 2024	Tuesday	Selectboard Meeting	Selectboard decides who is speaking to the warrant articles
February 26, 2024	Monday	8:00am	Last day to post Warrant at polling locations, Clerks Office and Town Hall
March 5, 2024	Tuesday	Town Office	Annual report available to voters
March 12, 2024	Tuesday	7:00am to 7:00pm - Henniker Community	Town Meeting voting day
March 16, 2024	Saturday	1:00pm - Henniker Community School	Town Meeting - Legislative Body to vote on warrant

*This schedule is subject to change.*

**2022 ARPA Funding Request  
Tracking Sheet**

DESCRIPTION	Requesting Dept/Agency/Person	BoS Appropriation Date	Use Total Project Cost	Source			Evaluation Criteria (1 = least; 5 = most)				Other Comments	
				TOTAL ARPA Committed	ARPA Requests Estimates (Uncommitted)	TOTAL ARPA (Committed and Uncommitted)	Other Project Funding	Urgency	Public Safety	Public Benefit		Other Funding Not Available
ARPA Fund Awarded						525,333						
<b>Wastewater</b>												
Wastewater Upgrades	Town Meeting	3/12/2022	3,200,000	100,000		100,000	3,100,000					
<b>Transfer Station - Sanitation</b>												
Main door replace	Transfer Stat.	2022	27,083	27,083		27,083						
Replace Fire / Security System	Fire Dept.										Work Complete used Building Maint. Budget	
<b>OTHER BUILDINGS</b>												
<b>Town Office</b>												
Ductless A/C Minisplits	TA	2022	47,075	47,075		47,075						
<b>Grange</b>												
Fire alarm	TA/Fire Dept		9,186		9,186	9,186						
ADA ramp height and railings	TA/Safety Com.		2,645		2,645	2,645						
Front entry ADA door	TA/Safety Com.		8,950		8,950	8,950						
ADA restroom	TA/Safety Com.		7,480		7,480	7,480						
Rug Replace	TA/Safety Com.		1,200		1,200	1,200						
<b>Community Building</b>												
Fire Safety Updates - Front Doors	Fire Dept.		19,000		19,000	19,000						
<b>Academy Hall</b>												
Electrical Upgrade	Historical Soc.		5,600		5,600	5,600						
<b>Library</b>												
Accessibility & Safety Upgrades	Library Trustee		29,000		29,000	29,000						
<b>PARKS</b>												
Azalea Park - Stabilization	Friends Azalea		75,000		75,000	75,000						
Community Park - Paint Bandstand	Concert Com		1,000			-					Work Complete used Building Maint. Budget funds	
Community Park - Sound System	Concert Com		7,794		7,794	7,794						
Community Park - Signs	Concert Com		1,200		1,200	1,200						
Community Park Irrigation	Concert Com		9,500		9,500	9,500						
<b>PUBLIC SAFETY</b>												
<b>Street Light Rehabilitation</b>	Beautification/Chamber		20,625		20,625	20,625						
<b>Police</b>												
Security System - TBD	Police Dept											
<b>Fire</b>												
Replace Inflatable Rescue	Fire Dept.	10/18/2022	16,803	16,803		16,803						
Fire Pond Old Concord Rd	Fire Dept.	Budget Wkshp	81,000	81,000		81,000						
Replace Fire / Security System	<b>Fire Dept.</b>										Work complete used Fire-Rescue Building ETF	
Public Safety Digital Sign	Highway Super.		18,630		18,630	18,630						
Craney Hill Communications Tower Consulta	Public Safety	1/17/2023	5,000	5,000		5,000						
Craney Hill Communications Tower	Public Safety	10/3/2023	411,372	100,000		100,000	311,372	5	5	5	5	Project over Homeland Security Grant
<b>ECONOMIC DEVELOPMENT</b>												
<b>Broadband Initiative</b>												
NCDE/NHMA Consulting	TA/Plan/EDC	2022	7,500	7,500		7,500						
<b>COMMUNITY SERVICES</b>												
<b>White Birch</b>												
Outdoor Pavilion - Senior Cit. Programs	White Birch		75,000		75,000	75,000						
<b>TOTALS</b>			<b>4,087,643</b>	<b>384,461</b>	<b>290,810</b>	<b>675,271</b>						
<b>ARPA Fund Balance</b>				<b>140,872</b>		<b>(149,938)</b>						

# CERTIFICATE OF COMPLETION



## Primex<sup>3</sup> Education & Training Program

This certificate is hereby presented to:

**Diane Kendall**

For successful completion of:

**WEBINAR: Governments Are for Everyone: A review of Title II ADA Guidance from the US Department of Justice**

October 12, 2023

at Zoom Webinar

and having earned 0.3 CEUs



CEUs are awarded based on successful completion of programs that are Continuing Education designated (1 Contact Hour - .10 CEU)

A handwritten signature in black ink that reads "Elaine St. Jean".

Elaine St. Jean, Education & Training Program Coordinator

# **September 2023 Department Reports**

**Assessing Department**

**Building Department**

**Finance Department**

**Fire Department**

**Human Services Department**

**Police Department**

**Town Clerk/Tax Collector**

**Transfer Station/Parks & Grounds**

**Wastewater Department**

# **MEMORANDUM**

Helga Winn, Assessing Technician  
18 Depot Hill Road  
Henniker, NH 03242  
Phone 603-428-3221 x 101 ≈≈ Fax 603-428-4366  
[helga.winn@hennikernh.gov](mailto:helga.winn@hennikernh.gov)

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TO: Diane Kendall, Town Administrator  
DATE: October 3, 2023  
RE: Monthly Report

## Assessing Report for September 2023

- Monthly maintenance of new deeds, address changes, and GIS updates.
- Permit tracking in Avitar as needed.
- Training received with CSWW from Stiles Co. regarding changing utility (meter reading) software.
- Sewer warrant and second half sewer bills created.
- One Land Use Change Tax warrant & bill prepared.
- One Report of Cut received.
- Two Intents to Cut received and approved.
- Abatement issued for July 2023 tax bill and supplemental tax bill issued for correct owner.
- Annual Application for Reimbursement to Towns with Federal & State Forest Land completed, approved, and sent to DRA for reimbursement.
- One application for Veteran's tax credit received and approved.
- Utility data received from Sansoucy's office and updated in Avitar.
- MS-1 completed, approved by Board of Selectmen, and uploaded to DRA portal.
- Continued review of all current use properties with stewardships.
- Ongoing filing of deed backlog.



## Monthly Building Department Report September 2023

TO: Diane Kendall, Town Administrator

FROM: Hank Bernstein, Land Use Assistant

The following is a record of permits, certificates of occupancy, inspections and revenue collected for the month listed above.

Permits /COs/Inspections	Quantity	Revenue
Building Permits - Residential	4	\$1,514.50
Building Permits - Commercial	1	\$172.00
Electrical Permits	5	\$300.00
Plumbing Permits	1	\$100.00
Mechanical Permits	6	\$300.00
Demolition Permits	1	\$100.00
Driveway Permits	4	\$225.00
Trench Permits	0	\$0.00
Sign Permits	0	\$0.00
Assembly Permits	0	\$0.00
Raffle Permits	0	\$0.00
Tent Permits	3	\$225.00
Hawk & Peddler	0	\$0.00
Certificates of Occupancy	1	\$0.00
Inspections Performed	23	\$0.00
<b>Total # of Permits</b>	<b>25</b>	<b>\$2,886.50</b>

Town building rental/use:

Town Buildings	Rented/Reserved	Revenue
Community Center (upstairs)	2	\$225.00
Grange <i>(Does not include Caseworker &amp; CAP)</i>	4 1	N/C for AA \$25.00
	Food Pantry open 2x week	Food Pantry- permanent
Bandstand/Community Park	4	\$100.00
<b>Total:</b>	<b>11</b>	<b>\$350.00</b>

Respectfully submitted,  
*Hank Bernstein*



**Town of Henniker, NH**  
Permits Issued September 2023

Date In	Owner	Address	Map/Lot	Type	Description	Contractor	Estiamted cost	Fees	Issue Date
7/26/2023	Funk, Jochen	61 Athas Way	6-318-T	Building	50 x 48 prefabricated Metal Garage	Best Choice Metal Structures	\$80,000.00	\$650.00	9/11/2023
7/28/2023	Haub, Michael	(454) Gulf Road	8-581-B2	Driveway	New Driveway --- Access to the new lot pending PB Subdivision Apporval	Self		\$75.00	9/8/2023
8/21/2023	Wood Hill Village Mobile Homes	780 Old Concord Rd	6-305-E	Demolition	Demolish Shop Building	Connor Backhoe Service		\$100.00	9/13/2023
8/21/2023	Wood Hill Village Mobile Homes	58 Wood Hill Village	6-305-E8	Commercial Building	Construct 12 x 24 Shop Building	W & W Buildings	\$40,000.00	\$172.00	9/13/2023
8/21/2023	Wood Hill Village Mobile Homes	58 Wood Hill Village	6-305-E8	Electrical	New Service to Shop Building	Marc Aucoin		\$100.00	9/13/2023
8/25/2023	NEC	98 Bridge Street	5D-405-B	Tent	Catering Tent	Lakes Region Rent and Event		\$75.00	9/8/2023
8/25/2023	NEC	98 Bridge Street	5D-418	Tent	Catering Tent	Lakes Region Rent and Event		\$75.00	9/8/2023
9/5/2023	Drouse, Lisa & Edward	355 Plummer	12-701-B3	Mechanical	Install 18kW Generator	Cote Electric		\$50.00	9/6/2023
9/5/2023	Drouse, Lisa & Edward	355 Plummer	12-701-B3	Electrical	Install 18kW Generator	Cote Electric		\$50.00	9/6/2023
9/5/2023	Burritt, Adam & Jen	468 Davison	5C-95-1	Building	Addition	Murdough Home Improvements		\$526.00	9/6/2023
9/6/2023	Woodhill LLC	177 Tanglewood Drive	5B-110-A1	Plumbing	New Construction	Matthew Cruite		\$50.00	9/6/2023
9/6/2023	Woodhill LLC	177 Tanglewood Drive	5B-110-A1	Mechanical	Furance and central air conditioning; gas piping	Matthew Cruite		\$50.00	9/6/2023
9/8/2023	Brophy, Erin & Young, Matt	518 Tanglewood Drive	5B-110-D4	Driveway	Resurface/pave existing driveway	Young's Excavating & Paving		\$0.00	9/8/2023
9/11/2023	Karol E Dermon Living Trust	935 Hemlock Corner Loop	3-52-B	Mechanical	Two Tanks	Ciardelli Fuel		\$50.00	9/11/2023
9/11/2023	Hennigan, Scott & Jennifer	(1246) Bearhill Road	10-559 (B1A & B1B)	Driveway	New Driveway	Uncanoonuc Trucking and Excavating		\$75.00	9/22/2023
9/11/2023	Michie Corporation	413 Flanders Road	8-587-B	Electrical	400a w 3 meters	Irish Electric Corp		\$50.00	9/13/2023
9/12/2023	Finlay, Jim & Lovette, Patricia	4 Prospect Street	5D-198-A	Mechanical	Replace furnace and condenser	Duclair, Samson		\$50.00	9/12/2023
9/18/2023	Cook, Peter & Tracy	1207 Old Hillsboro Road	7-556	Driveway	Driveway Relocation	Marrotte Services		\$75.00	9/20/2023
9/18/2023	McKee, Chester & Ruth	143 Ridgetop Lane	5A-95-A7	Building	Roofmounted solar, 18 panels, 1 inverter	ReVision Energy	\$33,906.00	\$144.50	9/18/2023
9/18/2023	McKee, Chester & Ruth	143 Ridgetop Lane	5A-95-A7	Electrical	Roofmounted solar, 18 panels, 1 inverter	ReVision Energy - William Levay		\$50.00	9/18/2023
9/18/2023	NEC	98 Bridge Street	5D-418	Tent	Catering Tent	Lakes Region Rent and Event		\$75.00	9/28/2023
9/21/2023	Finlay, James & Lovette, Patricia	4 Prospect Street	5D-198-A	Mechanical	Setting of (2) 120's for new heating system	Ayer & Goss		\$50.00	9/22/2023
9/22/2023	Harris, Reid	104 Deer Run	5C-359-H	Electrical	10 kW Generator	Triumph Heating and Cooling LLC		\$50.00	9/25/2023
9/22/2023	Harris, Reid	104 Deer Run	5C-359-H	Mechanical	10 kW Generator	Triumph Heating and Cooling LLC		\$50.00	9/28/2023
9/28/2023	Gail Gaugher Rev. Tst/Plummer Rev. Tst	27 Mathews Road	10-711-B	Building	Construct 24x24 detached garage	Hallmark Home Improvement Inc.	\$42,000.00	\$194.00	9/29/2023

EXPENDITURE BUDGET VS ACTUAL REPORT FOR TOWN OF HENNIKER

Balance As of 09/30/2023

GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4130 EXECUTIVE</b>							
01-4130-4110-000	WAGES	5,000.00	5,000.00	4,642.56	0.00	357.44	7.15
01-4130-4111-000	WAGES BOS CLERK	1,200.00	1,200.00	0.00	0.00	1,200.00	100.00
01-4130-4130-000	SALARIES BOS	7,500.00	7,500.00	750.00	0.00	6,750.00	90.00
01-4130-4131-000	SALARIES TREASURER	1,500.00	1,500.00	0.00	0.00	1,500.00	100.00
01-4130-4132-000	SALARIES DEP TREAS.	100.00	100.00	0.00	0.00	100.00	100.00
01-4130-4133-000	TRUSTEES WAGES	900.00	900.00	0.00	0.00	900.00	100.00
01-4130-4220-000	FICA/MEDICARE	1,186.00	1,186.00	412.67	0.00	773.33	65.20
01-4130-4330-000	TUITUIN REIMBURSE	7,500.00	7,500.00	155.00	0.00	7,345.00	97.93
01-4130-4350-000	DRUG/ALCOHOL TESTING	3,000.00	3,000.00	1,222.00	0.00	1,778.00	59.27
01-4130-4610-000	SELECTMEN EXPENSE	1,500.00	1,500.00	1,922.00	0.00	(422.00)	(28.13)
01-4130-4613-000	HEALTH OFFICER EXP	500.00	500.00	0.00	0.00	500.00	100.00
01-4130-4614-000	LOSS PREVENTION	300.00	300.00	0.00	0.00	300.00	100.00
01-4130-4615-000	HISTORIC DISTRICT	1,250.00	1,250.00	30.00	0.00	1,220.00	97.60
01-4130-4616-000	CRANEY TOWER SITE	250.00	250.00	273.73	0.00	(23.73)	(9.49)
Total Dept 4130 - EXECUTIVE		31,686.00	31,686.00	9,407.96	0.00	22,278.04	70.31
<b>Department: 4140 TOWN CLERK</b>							
01-4140-4111-000	WAGES DEPUTY	23,230.00	23,230.00	17,544.30	0.00	5,685.70	24.48
01-4140-4130-000	WAGES	34,633.00	34,633.00	27,338.14	0.00	7,294.86	21.06
01-4140-4140-000	OVERTIME	1,000.00	1,000.00	622.31	0.00	377.69	37.77
01-4140-4211-000	BENEFIT INSURANCE	14,080.00	14,080.00	10,263.85	0.00	3,816.15	27.10
01-4140-4220-000	FICA/MEDICARE	4,388.00	4,388.00	3,385.07	0.00	1,002.93	22.86
01-4140-4230-000	RETIREMENT	8,214.00	8,214.00	5,176.57	0.00	3,037.43	36.98
01-4140-4240-000	TRAINING/SEMINARS	900.00	900.00	792.24	0.00	107.76	11.97
01-4140-4560-000	DUES/MEMBERSHIPS	40.00	40.00	60.00	0.00	(20.00)	(50.00)
01-4140-4570-000	ADVERTISING	200.00	200.00	262.50	0.00	(62.50)	(31.25)
01-4140-4620-000	OFFICE SUPPLIES	1,400.00	1,400.00	660.89	0.00	739.11	52.79
01-4140-4625-000	POSTAGE	2,400.00	2,400.00	16.72	0.00	2,383.28	99.30
01-4140-4637-000	MILEAGE	550.00	550.00	119.19	0.00	430.81	78.33
01-4140-4805-000	EQUIP MAINT/REPAIR	2,300.00	2,300.00	2,584.42	0.00	(284.42)	(12.37)
01-4140-4814-000	PHOTOCOPY EXPENSE	490.00	490.00	0.00	0.00	490.00	100.00
01-4140-4832-000	ANIMAL LICENSES	450.00	450.00	336.78	0.00	113.22	25.16
Total Dept 4140 - TOWN CLERK		94,275.00	94,275.00	69,162.98	0.00	25,112.02	26.64
<b>Department: 4141 ELECTIONS</b>							
01-4141-4120-000	WAGES	4,000.00	4,000.00	291.50	0.00	3,708.50	92.71
01-4141-4220-000	FICA/MEDICARE	0.00	0.00	14.54	0.00	(14.54)	0.00
01-4141-4570-000	ADVERTISING	200.00	200.00	30.00	0.00	170.00	85.00
01-4141-4620-000	OFFICE SUPPLIES	100.00	100.00	144.99	0.00	(44.99)	(44.99)
01-4141-4625-000	POSTGE	20.00	20.00	11.15	0.00	8.85	44.25
01-4141-4690-000	ELECTION EXPENSE	500.00	500.00	0.00	0.00	500.00	100.00
01-4141-4740-000	EQUIPMENT PURCHASE	100.00	100.00	0.00	0.00	100.00	100.00
01-4141-4802-000	BALLOTS	1,600.00	1,600.00	1,884.64	0.00	(284.64)	(17.79)
01-4141-4803-000	VOTING BOOTH MAINT.	100.00	100.00	0.00	0.00	100.00	100.00
Total Dept 4141 - ELECTIONS		6,620.00	6,620.00	2,376.82	0.00	4,243.18	64.10
<b>Department: 4142 TAX MAP</b>							
01-4142-4312-000	CARTOGRAPHER	2,400.00	2,400.00	2,400.00	0.00	0.00	0.00
01-4142-4400-000	DIGITAL MAPPING	2,300.00	2,300.00	3,225.00	0.00	(925.00)	(40.22)
01-4142-4550-000	PRINTING	250.00	250.00	0.00	0.00	250.00	100.00

EXPENDITURE BUDGET VS ACTUAL REPORT FOR TOWN OF HENNIKER

Balance As of 09/30/2023

GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4142 TAX MAP</b>							
Total Dept 4142 - TAX MAP		4,950.00	4,950.00	5,625.00	0.00	(675.00)	(13.64)
<b>Department: 4150 TOWN OFFICE</b>							
01-4150-4110-000	WAGES FT	361,088.00	361,088.00	263,563.29	0.00	97,524.71	27.01
01-4150-4112-000	WAGES PT	27,476.00	27,476.00	20,734.65	0.00	6,741.35	24.54
01-4150-4211-000	BENEFIT INSURANCES	84,410.00	84,410.00	51,350.23	0.00	33,059.77	39.17
01-4150-4220-000	FICA/MEDICARE	29,276.00	29,276.00	21,273.50	0.00	8,002.50	27.33
01-4150-4230-000	RETIREMENT	50,442.00	50,442.00	34,034.84	0.00	16,407.16	32.53
01-4150-4240-000	TRAINING/SEMINARS	1,225.00	1,225.00	592.27	0.00	632.73	51.65
01-4150-4301-000	CONSULT/AUDITORS	16,000.00	16,000.00	8,300.00	0.00	7,700.00	48.13
01-4150-4312-000	CONSULT/ASSESSOR	40,000.00	40,000.00	34,150.00	0.00	5,850.00	14.63
01-4150-4341-000	TELEPHONE CHGS	6,500.00	6,500.00	4,916.72	0.00	1,583.28	24.36
01-4150-4409-000	CUSTODIAL SERVICE	16,860.00	16,860.00	10,836.67	0.00	6,023.33	35.73
01-4150-4410-000	ELECTRICITY	4,000.00	4,000.00	2,210.47	0.00	1,789.53	44.74
01-4150-4411-000	HEAT	9,597.00	9,597.00	3,278.47	0.00	6,318.53	65.84
01-4150-4412-000	WATER/SEWER	1,136.00	1,136.00	895.20	0.00	240.80	21.20
01-4150-4414-000	ALARM MONITOR	1,775.00	1,775.00	694.00	0.00	1,081.00	60.90
01-4150-4429-000	MEDICAL SUPPLIES	200.00	200.00	0.00	0.00	200.00	100.00
01-4150-4430-000	BLD REPAIR/MAINT	2,900.00	2,900.00	4,229.16	0.00	(1,329.16)	(45.83)
01-4150-4434-000	CUSTODIAL SUPPLIES	1,600.00	1,600.00	134.23	0.00	1,465.77	91.61
01-4150-4450-000	GRANGE ELECTRIC	1,750.00	1,750.00	1,049.18	0.00	700.82	40.05
01-4150-4451-000	COMMUNITY CTR ELEC	5,371.00	5,371.00	3,501.40	0.00	1,869.60	34.81
01-4150-4452-000	GRANGE WATER/SEWER	808.00	808.00	567.60	0.00	240.40	29.75
01-4150-4453-000	COMM CTR WTR/SEWER	1,000.00	1,000.00	567.60	0.00	432.40	43.24
01-4150-4454-000	GRANGE ALARM	10,078.00	10,078.00	250.00	0.00	9,828.00	97.52
01-4150-4455-000	COMM CTR ALARM	575.00	575.00	250.00	0.00	325.00	56.52
01-4150-4456-000	GRANGE HEAT	2,888.00	2,888.00	1,851.05	0.00	1,036.95	35.91
01-4150-4457-000	COMM CTR HEAT	425.00	425.00	898.94	0.00	(473.94)	(111.52)
01-4150-4458-000	GRANGE MAINTENANCE	854.00	854.00	281.00	0.00	573.00	67.10
01-4150-4459-000	COMM CTR MAINTENCE	1,500.00	1,500.00	938.60	0.00	561.40	37.43
01-4150-4460-000	GRANGE TELEPHONE	1,320.00	1,320.00	724.55	0.00	595.45	45.11
01-4150-4461-000	COMM CTR TELEPHONE	1,635.00	1,635.00	945.89	0.00	689.11	42.15
01-4150-4550-000	PRINTING	1,500.00	1,500.00	0.00	0.00	1,500.00	100.00
01-4150-4552-000	TOWN REPORT	2,680.00	2,680.00	2,873.00	0.00	(193.00)	(7.20)
01-4150-4560-000	DUES/MEMBERSHIP	1,200.00	1,200.00	190.00	0.00	1,010.00	84.17
01-4150-4570-000	ADVERTISING	1,800.00	1,800.00	1,107.50	0.00	692.50	38.47
01-4150-4620-000	OFFICE SUPPLIES	5,500.00	5,500.00	2,710.06	0.00	2,789.94	50.73
01-4150-4625-000	POSTAGE	7,200.00	7,200.00	5,703.42	408.09	1,088.49	20.79
01-4150-4637-000	MILEAGE	2,000.00	2,000.00	434.70	0.00	1,565.30	78.27
01-4150-4670-000	BOOKS	1,500.00	1,500.00	0.00	0.00	1,500.00	100.00
01-4150-4740-000	EQUIPMENT PURCHASE	1,000.00	1,000.00	3,855.96	0.00	(2,855.96)	(285.60)
01-4150-4810-000	CMPTR LICENSE MAINT	71,672.00	71,672.00	55,879.52	0.00	15,792.48	22.03
01-4150-4815-000	COPIER LEASE	1,545.00	1,545.00	191.06	0.00	1,353.94	87.63
01-4150-4820-000	COPIER MAINTENANCE	0.00	0.00	1,422.14	0.00	(1,422.14)	0.00
01-4150-4825-000	COUNTY REGISTRY	700.00	700.00	80.13	0.00	619.87	88.55
01-4150-4827-000	LEIN RESEARCH	4,300.00	4,300.00	750.90	0.00	3,549.10	82.54
01-4150-4835-000	WEB SITE EXPENSES	4,887.00	4,887.00	2,195.94	0.00	2,691.06	55.07
Total Dept 4150 - TOWN OFFICE		790,173.00	790,173.00	550,413.84	408.09	239,351.07	30.34
<b>Department: 4151 TAX COLLECTOR</b>							

EXPENDITURE BUDGET VS ACTUAL REPORT FOR TOWN OF HENNIKER

Balance As of 09/30/2023

GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4151 TAX COLLECTOR</b>							
01-4151-4111-000	WAGES DEPUTY	23,230.00	23,230.00	17,544.47	0.00	5,685.53	24.47
01-4151-4130-000	WAGES	34,633.00	34,633.00	27,338.18	0.00	7,294.82	21.06
01-4151-4140-000	OVERTIME	1,000.00	1,000.00	621.62	0.00	378.38	37.84
01-4151-4211-000	BENEFIT INSURANCE	14,080.00	14,080.00	9,307.88	0.00	4,772.12	33.89
01-4151-4220-000	FICA/MEDICARE	4,388.00	4,388.00	3,384.88	0.00	1,003.12	22.86
01-4151-4230-000	RETIREMENT	8,214.00	8,214.00	3,735.97	0.00	4,478.03	54.52
01-4151-4240-000	TRAINING/SEMINAR	900.00	900.00	908.00	0.00	(8.00)	(0.89)
01-4151-4560-000	DUES/MEMBERSHIP	40.00	40.00	60.00	0.00	(20.00)	(50.00)
01-4151-4570-000	ADVERTISING	200.00	200.00	0.00	0.00	200.00	100.00
01-4151-4620-000	OFFICE SUPPLIES	1,300.00	1,300.00	421.43	0.00	878.57	67.58
01-4151-4625-000	POSTAGE	5,000.00	5,000.00	0.00	0.00	5,000.00	100.00
01-4151-4637-000	MILEAGE	350.00	350.00	95.72	0.00	254.28	72.65
01-4151-4814-000	PHOTOCOPY EXP	490.00	490.00	0.00	0.00	490.00	100.00
01-4151-4825-000	COUNTY REGISTRY	700.00	700.00	634.42	0.00	65.58	9.37
Total Dept 4151 - TAX COLLECTOR		94,525.00	94,525.00	64,052.57	0.00	30,472.43	32.24
<b>Department: 4153 LEGAL</b>							
01-4153-4320-000	LEGAL FEES	20,000.00	20,000.00	14,669.88	0.00	5,330.12	26.65
Total Dept 4153 - LEGAL		20,000.00	20,000.00	14,669.88	0.00	5,330.12	26.65
<b>Department: 4191 PLANNING</b>							
01-4191-4110-000	WAGES	1,500.00	1,500.00	193.88	0.00	1,306.12	87.07
01-4191-4220-000	FICA/MEDICARE	115.00	115.00	14.83	0.00	100.17	87.10
01-4191-4240-000	TRAINING/SEMIARS	250.00	250.00	0.00	0.00	250.00	100.00
01-4191-4390-000	CONSULTING FEES	21,450.00	21,450.00	8,194.37	0.00	13,255.63	61.80
01-4191-4560-000	DUES/MEMBERSHIPS	5,964.00	5,964.00	5,670.00	0.00	294.00	4.93
01-4191-4570-000	ADVERTISING	1,000.00	1,000.00	225.37	0.00	774.63	77.46
01-4191-4620-000	OFFICE SUPPLIES	300.00	300.00	0.00	1,004.25	(704.25)	100.00
01-4191-4625-000	POSTAGE	100.00	100.00	0.00	0.00	100.00	100.00
01-4191-4901-000	ESCROW ACCT EXPENSES	0.00	0.00	785.00	0.00	(785.00)	0.00
Total Dept 4191 - PLANNING		30,679.00	30,679.00	15,083.45	1,004.25	14,591.30	50.83
<b>Department: 4192 ZONING</b>							
01-4192-4110-000	WAGES	600.00	600.00	0.00	0.00	600.00	100.00
01-4192-4220-000	FICA/MEDICARE	46.00	46.00	0.00	0.00	46.00	100.00
01-4192-4390-000	CONSULTANT	3,000.00	3,000.00	1,880.63	0.00	1,119.37	37.31
01-4192-4391-000	LEGAL	800.00	800.00	0.00	0.00	800.00	100.00
01-4192-4570-000	ADVERTISING	300.00	300.00	0.00	0.00	300.00	100.00
01-4192-4620-000	OFFICE SUPPLIES	225.00	225.00	0.00	334.75	(109.75)	100.00
01-4192-4625-000	POSTAGE	300.00	300.00	0.00	0.00	300.00	100.00
Total Dept 4192 - ZONING		5,271.00	5,271.00	1,880.63	334.75	3,055.62	64.32
<b>Department: 4195 CEMETERIES</b>							
01-4195-4650-000	GROUND MAINT	11,780.00	11,780.00	11,780.00	0.00	0.00	0.00
01-4195-4655-000	STONE REPAIR	2,750.00	2,750.00	0.00	0.00	2,750.00	100.00
01-4195-4657-000	TREE REMOVAL	6,800.00	6,800.00	7,500.00	0.00	(700.00)	(10.29)
Total Dept 4195 - CEMETERIES		21,330.00	21,330.00	19,280.00	0.00	2,050.00	9.61
<b>Department: 4196 INSURANCE</b>							
01-4196-4520-000	WORKERS COMPENSATION	49,724.00	49,724.00	49,359.00	0.00	365.00	0.73
01-4196-4522-000	GENERAL LIABILITY	103,918.00	103,918.00	103,918.00	0.00	0.00	0.00

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GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4196 INSURANCE</b>							
01-4196-4523-000	UNEMPLOYMENT INS	973.00	973.00	973.00	0.00	0.00	0.00
01-4196-4524-000	DEDUCTIBLE	2,000.00	2,000.00	0.00	0.00	2,000.00	100.00
Total Dept 4196 - INSURANCE		156,615.00	156,615.00	154,250.00	0.00	2,365.00	1.51
<b>Department: 4197 MUNICIPAL DUES</b>							
01-4197-4560-000	MEMBERSHIPS	4,157.00	4,157.00	4,052.00	0.00	105.00	2.53
Total Dept 4197 - MUNICIPAL DUES		4,157.00	4,157.00	4,052.00	0.00	105.00	2.53
<b>Department: 4210 POLICE</b>							
01-4210-4109-000	WAGES CLERICAL	72,812.00	72,812.00	46,412.95	0.00	26,399.05	36.26
01-4210-4110-000	WAGES FT	658,684.00	658,684.00	474,190.32	0.00	184,493.68	28.01
01-4210-4111-000	PART TIME WAGES	40,000.00	40,000.00	5,059.60	0.00	34,940.40	87.35
01-4210-4112-000	DETAIL WAGES (REVENUE)	1.00	1.00	5,308.18	0.00	(5,307.18)	(530,718.00)
01-4210-4120-000	PARKING ENFORCEMENT	9,709.00	9,709.00	0.00	0.00	9,709.00	100.00
01-4210-4121-000	CROSSING GUARDS	7,920.00	7,920.00	5,236.00	0.00	2,684.00	33.89
01-4210-4140-000	WAGES OT	25,000.00	25,000.00	38,597.99	0.00	(13,597.99)	(54.39)
01-4210-4211-000	BENEFIT INSURANCE	196,689.00	196,689.00	102,558.98	0.00	94,130.02	47.86
01-4210-4220-000	FICA/MEDICARE	19,499.00	19,499.00	11,503.54	0.00	7,995.46	41.00
01-4210-4230-000	RETIREMENT	229,826.00	229,826.00	153,589.76	0.00	76,236.24	33.17
01-4210-4240-000	TRAINING/LICENSE	5,000.00	5,000.00	3,111.04	0.00	1,888.96	37.78
01-4210-4241-000	TRAINING/AMMUNITION	4,000.00	4,000.00	3,429.07	634.57	(63.64)	14.27
01-4210-4291-000	UNIFORMS	8,000.00	8,000.00	9,867.57	0.00	(1,867.57)	(23.34)
01-4210-4320-000	PROSECUTING ATTN	12,023.00	12,023.00	11,501.00	0.00	522.00	4.34
01-4210-4341-000	TELEPHONE	10,500.00	10,500.00	6,257.56	0.00	4,242.44	40.40
01-4210-4342-000	DISPATCH TELEPHONE	700.00	700.00	764.51	0.00	(64.51)	(9.22)
01-4210-4391-000	TOWING	500.00	500.00	350.00	0.00	150.00	30.00
01-4210-4392-000	ASSESSMENT CENTER	0.00	0.00	1,950.00	0.00	(1,950.00)	0.00
01-4210-4394-000	MERR COUNTY DISPATCH	43,849.00	43,849.00	23,318.78	0.00	20,530.22	46.82
01-4210-4410-000	ELECTRICITY	6,526.00	6,526.00	3,447.81	0.00	3,078.19	47.17
01-4210-4411-000	HEAT	4,300.00	4,300.00	3,021.29	0.00	1,278.71	29.74
01-4210-4412-000	WATER/SEWER	900.00	900.00	569.73	0.00	330.27	36.70
01-4210-4430-000	BLDING REPAIR/MAINT.	4,000.00	4,000.00	4,570.29	0.00	(570.29)	(14.26)
01-4210-4431-000	CUSTODIAN	8,640.00	8,640.00	5,738.62	0.00	2,901.38	33.58
01-4210-4550-000	PRINTING	500.00	500.00	337.49	0.00	162.51	32.50
01-4210-4560-000	DUES/MEMBERSHIPS	3,500.00	3,500.00	3,300.00	0.00	200.00	5.71
01-4210-4620-000	OFFICE SUPPLIES	4,000.00	4,000.00	3,051.52	0.00	948.48	23.71
01-4210-4625-000	POSTAGE	600.00	600.00	331.00	0.00	269.00	44.83
01-4210-4635-000	VEHICLE FUEL	14,500.00	14,500.00	9,510.98	0.00	4,989.02	34.41
01-4210-4637-000	BLOOD TEST MILEAGE	1,250.00	1,250.00	600.00	0.00	650.00	52.00
01-4210-4660-000	VEHICLE REPAIR/MAINT	7,500.00	7,500.00	4,608.22	0.00	2,891.78	38.56
01-4210-4661-000	VEHICLE TIRES	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4210-4662-000	VEHICLE PARTS/ACCESS	2,500.00	2,500.00	130.94	0.00	2,369.06	94.76
01-4210-4670-000	BOOKS/PERIODICALS	350.00	350.00	0.00	0.00	350.00	100.00
01-4210-4740-000	EQUIPMENT PURCHASE	0.00	127,588.00	79,564.00	48,024.00	0.00	37.64
01-4210-4805-000	EQUIPMENT MAINTENANCE	26,600.00	26,600.00	14,473.58	0.00	12,126.42	45.59
01-4210-4814-000	PHOTOCOPY EXPENSE	1,000.00	1,000.00	785.00	0.00	215.00	21.50
01-4210-4840-000	COMMUNICATON REPAIR	1,500.00	1,500.00	0.00	0.00	1,500.00	100.00
Total Dept 4210 - POLICE		1,435,378.00	1,562,966.00	1,037,047.32	48,658.57	477,260.11	33.65
<b>Department: 4214 FIRE &amp; RESCUE</b>							

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GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4214 FIRE &amp; RESCUE</b>							
01-4214-4110-000	FULL TIME WAGES	130,827.00	130,827.00	102,121.98	0.00	28,705.02	21.94
01-4214-4111-000	PART TIME WAGES	380,227.00	380,227.00	230,741.51	0.00	149,485.49	39.31
01-4214-4140-000	OVER TIME WAGES	15,000.00	15,000.00	17,404.93	0.00	(2,404.93)	(16.03)
01-4214-4211-000	BENEFIT INSURANCE	31,569.00	31,569.00	19,750.59	0.00	11,818.41	37.44
01-4214-4220-000	FICA/MEDICARE	31,147.00	31,147.00	20,098.66	0.00	11,048.34	35.47
01-4214-4230-000	RETIREMENT	46,183.00	46,183.00	29,834.86	0.00	16,348.14	35.40
01-4214-4341-000	TELEPHONE	10,353.00	10,353.00	6,255.48	0.00	4,097.52	39.58
01-4214-4350-000	MEDICAL/HEP B	500.00	500.00	0.00	0.00	500.00	100.00
01-4214-4394-000	DISPATCH FEES	47,259.00	47,259.00	47,259.00	0.00	0.00	0.00
01-4214-4410-000	ELECTRICITY	10,500.00	10,500.00	5,791.05	0.00	4,708.95	44.85
01-4214-4411-000	HEAT	6,000.00	6,000.00	3,408.19	0.00	2,591.81	43.20
01-4214-4412-000	WATER	1,600.00	1,600.00	2,200.97	0.00	(600.97)	(37.56)
01-4214-4430-000	BLDING MAINTENANCE	12,500.00	12,500.00	9,880.21	0.00	2,619.79	20.96
01-4214-4610-000	OFFICE SUPPLIES	6,000.00	6,000.00	4,112.29	0.00	1,887.71	31.46
01-4214-4690-000	SUPPLIES OTHER	2,800.00	2,800.00	759.40	0.00	2,040.60	72.88
Total Dept 4214 - FIRE & RESCUE		732,465.00	732,465.00	499,619.12	0.00	232,845.88	31.79
<b>Department: 4215 RESCUE</b>							
01-4215-4111-000	WAGES	26,500.00	26,500.00	19,196.41	0.00	7,303.59	27.56
01-4215-4220-000	FICA/MEDICARE	2,019.00	2,019.00	1,468.38	0.00	550.62	27.27
01-4215-4240-000	TRAINING/LICENSE	8,750.00	8,750.00	500.49	0.00	8,249.51	94.28
01-4215-4635-000	VEHICLE FUEL	12,000.00	12,000.00	5,769.27	0.00	6,230.73	51.92
01-4215-4660-000	VEHICLE REPAIR/MAINT	14,000.00	14,000.00	5,630.94	0.00	8,369.06	59.78
01-4215-4680-000	MEDICAL SUPPLIES	12,000.00	12,000.00	4,233.16	0.00	7,766.84	64.72
01-4215-4740-000	EQUIPMENT PURCHASE	18,400.00	18,400.00	7,184.25	0.00	11,215.75	60.96
01-4215-4750-000	COMMUNICATION EQUIP	8,490.00	9,893.69	548.27	1,403.69	7,941.73	94.46
01-4215-4887-000	INTERCEPTOR FEES	2,000.00	2,000.00	1,600.00	0.00	400.00	20.00
01-4215-4888-000	CRHS BILLING FEES	20,000.00	20,000.00	13,995.12	0.00	6,004.88	30.02
Total Dept 4215 - RESCUE		124,159.00	125,562.69	60,126.29	1,403.69	64,032.71	52.11
<b>Department: 4220 FIRE</b>							
01-4220-4111-000	WAGES	68,727.00	68,727.00	43,914.16	0.00	24,812.84	36.10
01-4220-4220-000	FICA/MEDICARE	5,258.00	5,258.00	3,362.46	0.00	1,895.54	36.05
01-4220-4240-000	TRAINING/SEMINARS	6,502.00	6,502.00	3,002.92	0.00	3,499.08	53.82
01-4220-4635-000	VEHICLE FUEL	6,500.00	6,500.00	2,174.37	0.00	4,325.63	66.55
01-4220-4660-000	VEHICLE REPAIR/MAINT.	20,000.00	20,000.00	3,938.50	0.00	16,061.50	80.31
01-4220-4690-000	SUPPLIES OTHER	2,125.00	2,125.00	293.53	0.00	1,831.47	86.19
01-4220-4740-000	EQUIPMENT PURCHASES	27,985.00	27,985.00	30,469.87	0.00	(2,484.87)	(8.88)
01-4220-4750-000	COMMUNICATION EQUIPMENT	11,030.00	11,030.00	681.44	0.00	10,348.56	93.82
01-4220-4805-000	EQUIPMENT REPAIR/MAINT.	14,270.00	14,270.00	14,111.88	0.00	158.12	1.11
01-4220-4900-000	CSWW HYDRANT RENTAL	3,950.00	3,950.00	0.00	0.00	3,950.00	100.00
Total Dept 4220 - FIRE		166,347.00	166,347.00	101,949.13	0.00	64,397.87	38.71
<b>Department: 4240 CODE</b>							
01-4240-4110-000	WAGES	23,775.00	23,775.00	18,131.82	0.00	5,643.18	23.74
01-4240-4220-000	FICA/MEDICARE	1,818.00	1,818.00	1,387.08	0.00	430.92	23.70
01-4240-4341-000	TELEPHONE	600.00	600.00	418.41	0.00	181.59	30.27
01-4240-4411-000	CONSULTING FEES/FORESTER	600.00	600.00	0.00	0.00	600.00	100.00
01-4240-4560-000	DUES/MEMBERSHIPS	200.00	200.00	0.00	0.00	200.00	100.00
01-4240-4635-000	VEHICLE FUEL/MILEAGE	2,400.00	2,400.00	1,350.00	0.00	1,050.00	43.75

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<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4240 CODE</b>							
01-4240-4670-000	BOOKS/PERIODICAL	600.00	600.00	101.10	0.00	498.90	83.15
Total Dept 4240 - CODE		29,993.00	29,993.00	21,388.41	0.00	8,604.59	28.69
<b>Department: 4290 EMERGENCY MANAGEMENT</b>							
01-4290-4110-000	WAGES	1,200.00	1,200.00	0.00	0.00	1,200.00	100.00
01-4290-4220-000	FICA	92.00	92.00	0.00	0.00	92.00	100.00
Total Dept 4290 - EMERGENCY MANAGEMENT		1,292.00	1,292.00	0.00	0.00	1,292.00	100.00
<b>Department: 4311 HIGHWAY</b>							
01-4311-4110-000	WAGES FT	338,065.00	338,065.00	220,235.78	0.00	117,829.22	34.85
01-4311-4120-000	WAGES PT	25,000.00	25,000.00	28,202.50	0.00	(3,202.50)	(12.81)
01-4311-4140-000	WAGES OT	56,160.00	56,160.00	43,941.35	0.00	12,218.65	21.76
01-4311-4211-000	BENEFIT INSURANCES	116,278.00	116,278.00	55,015.00	0.00	61,263.00	52.69
01-4311-4220-000	FICA/MEDICARE	31,083.00	31,083.00	21,688.48	0.00	9,394.52	30.22
01-4311-4230-000	RETIREMENT	55,014.00	55,014.00	33,098.54	0.00	21,915.46	39.84
01-4311-4235-000	ADVERTISING	250.00	250.00	50.00	0.00	200.00	80.00
01-4311-4240-000	TRAINING/LICENSE	250.00	250.00	2,216.00	0.00	(1,966.00)	(786.40)
01-4311-4291-000	UNIFORMS	7,000.00	7,000.00	3,646.38	0.00	3,353.62	47.91
01-4311-4341-000	TELEPHONE	4,000.00	4,000.00	2,248.33	0.00	1,751.67	43.79
01-4311-4410-000	ELECTRICITY	4,200.00	4,200.00	3,111.54	0.00	1,088.46	25.92
01-4311-4411-000	HEAT	8,500.00	8,500.00	5,089.39	0.00	3,410.61	40.12
01-4311-4412-000	WATER/SEWER	3,000.00	3,000.00	2,158.11	0.00	841.89	28.06
01-4311-4414-000	ALARM	1,500.00	1,500.00	1,148.00	0.00	352.00	23.47
01-4311-4430-000	BUILDING MAINTENANCE	8,000.00	8,000.00	5,402.00	0.00	2,598.00	32.48
01-4311-4560-000	DUES/MEMBERSHIP	50.00	50.00	0.00	0.00	50.00	100.00
01-4311-4620-000	OFFICE SUPPLIES	1,200.00	1,200.00	530.53	0.00	669.47	55.79
01-4311-4635-000	FUEL GASOLINE	5,000.00	5,000.00	1,919.96	0.00	3,080.04	61.60
01-4311-4636-000	FUEL DIESEL	90,000.00	90,000.00	39,527.43	0.00	50,472.57	56.08
01-4311-4637-000	MILEAGE	4,200.00	4,200.00	2,799.91	0.00	1,400.09	33.34
01-4311-4660-000	VEHICLE REPAIR/MAINT	20,000.00	20,000.00	2,432.97	0.00	17,567.03	87.84
01-4311-4661-000	VEHICLE TIRES	10,000.00	10,000.00	9,237.12	0.00	762.88	7.63
01-4311-4662-000	VEHICLE PARTS/ACCESS	26,000.00	26,000.00	28,430.05	0.00	(2,430.05)	(9.35)
01-4311-4689-000	SUPPLIES OTHER	1,000.00	1,000.00	866.41	0.00	133.59	13.36
01-4311-4740-000	EQUIPMENT	4,000.00	4,000.00	3,353.16	0.00	646.84	16.17
01-4311-4805-000	EQUIP MAINT/REPAIR	40,000.00	40,000.00	24,783.60	0.00	15,216.40	38.04
01-4311-4840-000	COMM EQUIP MAINT.	2,000.00	2,000.00	370.00	0.00	1,630.00	81.50
Total Dept 4311 - HIGHWAY		861,750.00	861,750.00	541,502.54	0.00	320,247.46	37.16
<b>Department: 4312 HIGHWAY &amp; STREETS</b>							
01-4312-4711-000	GRAVEL	25,000.00	25,000.00	24,300.00	0.00	700.00	2.80
01-4312-4712-000	SAND	7,000.00	7,000.00	5,875.00	0.00	1,125.00	16.07
01-4312-4713-000	SALT	158,000.00	158,000.00	122,032.64	0.00	35,967.36	22.76
01-4312-4806-000	BRIDGE REPAIR	3,000.00	3,000.00	2,455.50	0.00	544.50	18.15
01-4312-4884-000	ROADSIDE MAINT.	27,500.00	27,500.00	654.00	0.00	26,846.00	97.62
01-4312-4885-000	ROAD REPAIRS	80,000.00	80,000.00	37,482.56	0.00	42,517.44	53.15
01-4312-4886-000	SIGNS/GUARDRAIL	13,500.00	13,500.00	1,733.04	0.00	11,766.96	87.16
01-4312-4887-000	STRIPE/SWEEP	7,000.00	7,000.00	4,100.00	0.00	2,900.00	41.43
01-4312-4888-000	CULVERTS/DRAINS	24,000.00	24,000.00	0.00	0.00	24,000.00	100.00
01-4312-4889-000	TREES	15,000.00	15,000.00	5,000.00	0.00	10,000.00	66.67
01-4312-4904-000	CHIP SEAL/CRACK SEAL	80,000.00	80,000.00	21,000.00	0.00	59,000.00	73.75

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GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4312 HIGHWAY &amp; STREETS</b>							
01-4312-4905-000	ENGINEER&DESIGN	7,500.00	7,500.00	3,700.00	0.00	3,800.00	50.67
01-4312-4906-000	ROAD CONSTRUCT	250,000.00	250,000.00	250,000.00	0.00	0.00	0.00
Total Dept 4312 - HIGHWAY & STREETS		697,500.00	697,500.00	478,332.74	0.00	219,167.26	31.42
<b>Department: 4316 STREET LIGHTS</b>							
01-4316-4410-000	ELECTRICITY	13,500.00	13,500.00	6,776.52	0.00	6,723.48	49.80
Total Dept 4316 - STREET LIGHTS		13,500.00	13,500.00	6,776.52	0.00	6,723.48	49.80
<b>Department: 4324 SOLID WASTE</b>							
01-4324-4110-000	WAGES FT	146,882.00	146,882.00	113,163.00	0.00	33,719.00	22.96
01-4324-4111-000	PART TIME WAGES	24,450.00	24,450.00	21,108.72	0.00	3,341.28	13.67
01-4324-4140-000	OT	10,000.00	10,000.00	5,597.21	0.00	4,402.79	44.03
01-4324-4211-000	BENEFIT INSURANCES	14,811.00	14,811.00	7,292.75	0.00	7,518.25	50.76
01-4324-4220-000	FICA/MEDICARE	13,796.00	13,796.00	10,637.81	0.00	3,158.19	22.89
01-4324-4230-000	RETIREMENT	14,066.00	14,066.00	9,118.39	0.00	4,947.61	35.17
01-4324-4240-000	TRAINING/LICENSE	900.00	900.00	685.00	0.00	215.00	23.89
01-4324-4291-000	UNIFORMS	3,000.00	3,000.00	1,920.00	0.00	1,080.00	36.00
01-4324-4341-000	TELEPHONE	2,440.00	2,440.00	819.41	0.00	1,620.59	66.42
01-4324-4355-000	HOUSE HAZ WASTE	20,000.00	20,000.00	0.00	20,000.00	0.00	100.00
01-4324-4410-000	ELECTRICITY	9,500.00	9,500.00	5,239.87	0.00	4,260.13	44.84
01-4324-4414-000	ALARM	1,200.00	1,200.00	742.00	0.00	458.00	38.17
01-4324-4430-000	BLD REPAIR	41,805.00	41,805.00	32,568.61	5,716.00	3,520.39	22.09
01-4324-4434-000	RECYCLING BLDING	5,000.00	5,000.00	1,957.61	0.00	3,042.39	60.85
01-4324-4560-000	DUES/MEMBERSHIPS	350.00	350.00	402.88	0.00	(52.88)	(15.11)
01-4324-4620-000	OFFICE SUPPLIES	350.00	350.00	357.47	0.00	(7.47)	(2.13)
01-4324-4635-000	VEHICLE FUEL	7,000.00	7,000.00	3,800.66	0.00	3,199.34	45.70
01-4324-4637-000	MILEAGE	650.00	650.00	762.69	0.00	(112.69)	(17.34)
01-4324-4660-000	VEHICLE REPAIR	9,000.00	9,000.00	666.31	0.00	8,333.69	92.60
01-4324-4689-000	SUPPLIES OTHER	300.00	300.00	1,081.17	0.00	(781.17)	(260.39)
01-4324-4805-000	EQUIP MAINT/REPAIR	21,000.00	21,000.00	7,810.55	0.00	13,189.45	62.81
01-4324-4855-000	SAFETY SUPPLIES	1,500.00	1,500.00	1,141.07	0.00	358.93	23.93
01-4324-4901-000	FREON, GLASS, CMPTR	7,500.00	7,500.00	2,303.00	0.00	5,197.00	69.29
01-4324-4902-000	TRANSPORTATION	22,000.00	22,000.00	12,320.00	0.00	9,680.00	44.00
01-4324-4903-000	TIPPING FEE	140,000.00	140,000.00	75,385.00	0.00	64,615.00	46.15
01-4324-4904-000	LANDSCAPING	8,500.00	8,500.00	2,652.22	0.00	5,847.78	68.80
01-4324-4905-000	MONITORING WELLS	15,000.00	15,000.00	8,727.25	0.00	6,272.75	41.82
01-4324-4906-000	DEMOLITION DISPOSE	43,000.00	43,000.00	19,030.80	0.00	23,969.20	55.74
Total Dept 4324 - SOLID WASTE		584,000.00	584,000.00	347,291.45	25,716.00	210,992.55	40.53
<b>Department: 4414 ANIMAL CONTROL</b>							
01-4414-4111-000	WAGES	5,860.00	5,860.00	360.00	0.00	5,500.00	93.86
01-4414-4220-000	FICA/MEDICARE	448.00	448.00	27.54	0.00	420.46	93.85
01-4414-4240-000	TRAINING	350.00	350.00	0.00	0.00	350.00	100.00
01-4414-4291-000	UNIFORMS	150.00	150.00	0.00	0.00	150.00	100.00
01-4414-4343-000	ANIMAL RESCUE	700.00	700.00	0.00	0.00	700.00	100.00
01-4414-4637-000	MILEAGE	1,200.00	1,200.00	0.00	0.00	1,200.00	100.00
01-4414-4740-000	EQUIPMENT	100.00	100.00	0.00	0.00	100.00	100.00
01-4414-4840-000	RADIO PAGER	600.00	600.00	0.00	0.00	600.00	100.00
Total Dept 4414 - ANIMAL CONTROL		9,408.00	9,408.00	387.54	0.00	9,020.46	95.88



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<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4442 WELFARE</b>							
01-4442-4111-000	DIRECTOR WAGES	11,094.00	11,094.00	9,191.61	0.00	1,902.39	17.15
01-4442-4220-000	DIRECTOR FICA/MEDICARE	848.00	848.00	703.16	0.00	144.84	17.08
01-4442-4620-000	OFFICE SUPPLIES	500.00	500.00	0.00	0.00	500.00	100.00
01-4442-4689-000	DIRECTOR EXPENSES	150.00	150.00	179.99	0.00	(29.99)	(19.99)
01-4442-4907-000	GENERAL ASSISTANCE	2,500.00	2,500.00	1,870.39	0.00	629.61	25.18
01-4442-4910-000	ASSIST ELECTRICITY	3,000.00	3,000.00	1,040.86	0.00	1,959.14	65.30
01-4442-4911-000	ASSIST HEAT	10,000.00	10,000.00	4,037.70	0.00	5,962.30	59.62
01-4442-4912-000	ASSIST FOOD	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4442-4913-000	ASSIST RENT	46,408.00	46,408.00	46,027.74	0.00	380.26	0.82
01-4442-4914-000	MEDICAL	3,000.00	3,000.00	0.00	0.00	3,000.00	100.00
Total Dept 4442 - WELFARE		80,000.00	80,000.00	63,051.45	0.00	16,948.55	21.19
<b>Department: 4520 ATHLETIC</b>							
01-4520-4240-000	MINUTE TAKER/WEBSITE	1,225.00	1,225.00	463.85	0.00	761.15	62.13
01-4520-4521-000	SWIMMING	2,450.00	2,450.00	0.00	0.00	2,450.00	100.00
01-4520-4605-000	SOFTBALL	4,050.00	4,050.00	3,245.74	0.00	804.26	19.86
01-4520-4740-000	MEDICAL	620.00	620.00	0.00	0.00	620.00	100.00
01-4520-4741-000	BASEBALL EXP	9,750.00	9,750.00	5,221.30	0.00	4,528.70	46.45
01-4520-4742-000	SOCCER	10,050.00	10,050.00	7,465.69	0.00	2,584.31	25.71
01-4520-4743-000	BASKETBALL	4,500.00	4,500.00	3,175.00	0.00	1,325.00	29.44
Total Dept 4520 - ATHLETIC		32,645.00	32,645.00	19,571.58	0.00	13,073.42	40.05
<b>Department: 4550 LIBRARY</b>							
01-4550-4110-000	WAGES	0.00	0.00	135,697.20	0.00	(135,697.20)	0.00
01-4550-4211-000	BENEFIT INSURANCE	0.00	0.00	13,581.36	0.00	(13,581.36)	0.00
01-4550-4220-000	FICA/MEDICARE	0.00	0.00	10,266.61	0.00	(10,266.61)	0.00
01-4550-4230-000	RETIREMENT	0.00	0.00	7,978.77	0.00	(7,978.77)	0.00
01-4550-4413-000	HEAT FUEL	0.00	0.00	4,218.01	0.00	(4,218.01)	0.00
01-4550-4523-000	WORKERS/UNEMP INS	0.00	0.00	308.00	0.00	(308.00)	0.00
01-4550-4956-000	APPROPRIATION	242,210.00	242,210.00	10,000.00	0.00	232,210.00	95.87
Total Dept 4550 - LIBRARY		242,210.00	242,210.00	182,049.95	0.00	60,160.05	24.84
<b>Department: 4583 PATRIOTIC PURPOSES</b>							
01-4583-4610-000	PATRIOTIC PURPOSES	3,173.00	3,173.00	3,412.18	0.00	(239.18)	(7.54)
Total Dept 4583 - PATRIOTIC PURPOSES		3,173.00	3,173.00	3,412.18	0.00	(239.18)	(7.54)
<b>Department: 4589 BAND</b>							
01-4589-4111-000	CONCERT SERIES	5,500.00	5,500.00	10,075.00	0.00	(4,575.00)	(83.18)
01-4589-4115-000	CONCERT ADVERTISING	875.00	875.00	1,968.14	0.00	(1,093.14)	(124.93)
01-4589-4120-000	CONCERT MUSIC LICENSE'S	725.00	725.00	858.67	0.00	(133.67)	(18.44)
01-4589-4689-000	CONCERT SUPPLIES OTHER	95.00	95.00	187.48	0.00	(92.48)	(97.35)
Total Dept 4589 - BAND		7,195.00	7,195.00	13,089.29	0.00	(5,894.29)	(81.92)
<b>Department: 4611 CONSERVATION</b>							
01-4611-4112-000	MINUTE TAKER	465.00	465.00	234.93	0.00	230.07	49.48
01-4611-4220-000	FICA/MEDICARE	0.00	0.00	17.98	0.00	(17.98)	0.00
01-4611-4240-000	TRAINING	420.00	420.00	0.00	0.00	420.00	100.00
01-4611-4560-000	DUES/MEMBERSHIP	345.00	345.00	0.00	0.00	345.00	100.00
01-4611-4620-000	OFFICE SUPPLIES	25.00	25.00	0.00	0.00	25.00	100.00
01-4611-4951-000	PUBLIC AWARENESS	235.00	235.00	0.00	0.00	235.00	100.00
01-4611-4952-000	LAKE MONITOR	1,400.00	1,400.00	680.00	0.00	720.00	51.43

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<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4611 CONSERVATION</b>							
	Total Dept 4611 - CONSERVATION	2,890.00	2,890.00	932.91	0.00	1,957.09	67.72
<b>Department: 4652 COMMUNITY CAP PROGRAM</b>							
01-4652-4610-000	COMMUNITY CAP PROGRAM	14,000.00	14,000.00	14,000.00	0.00	0.00	0.00
	Total Dept 4652 - COMMUNITY CAP PROGRAM	14,000.00	14,000.00	14,000.00	0.00	0.00	0.00
<b>Department: 4659 WHITE BIRCH CENTER</b>							
01-4659-4612-000	WHITE BIRCH CENTER	65,000.00	65,000.00	48,749.94	0.00	16,250.06	25.00
	Total Dept 4659 - WHITE BIRCH CENTER	65,000.00	65,000.00	48,749.94	0.00	16,250.06	25.00
<b>Department: 4711 DEBT SERICE PRINCIPAL</b>							
01-4711-4940-000	PRINCIPAL	130,163.00	130,163.00	12,000.00	0.00	118,163.00	90.78
	Total Dept 4711 - DEBT SERICE PRINCIPAL	130,163.00	130,163.00	12,000.00	0.00	118,163.00	90.78
<b>Department: 4721 DEBT SERVICE INTEREST</b>							
01-4721-4940-000	INTEREST	19,039.00	19,039.00	11,817.71	0.00	7,221.29	37.93
	Total Dept 4721 - DEBT SERVICE INTEREST	19,039.00	19,039.00	11,817.71	0.00	7,221.29	37.93
<b>Department: 4722 DEBT SERVICE LEASE</b>							
01-4722-4800-000	DEBT SERVICE LEASE	0.00	0.00	37,567.16	0.00	(37,567.16)	0.00
	Total Dept 4722 - DEBT SERVICE LEASE	0.00	0.00	37,567.16	0.00	(37,567.16)	0.00
<b>Department: 4723 DEBT SERVICE TAN</b>							
01-4723-4940-000	TAN INTEREST	13,500.00	13,500.00	5,560.60	0.00	7,939.40	58.81
	Total Dept 4723 - DEBT SERVICE TAN	13,500.00	13,500.00	5,560.60	0.00	7,939.40	58.81
<b>Department: 4900 WARRANT ARTICLES</b>							
01-4900-4005-000	ROAD IMPROVEMENTS	130,000.00	130,000.00	108,505.88	0.00	21,494.12	16.53
	Total Dept 4900 - WARRANT ARTICLES	130,000.00	130,000.00	108,505.88	0.00	21,494.12	16.53
<b>Department: 4902 WARRANT ARTICLES</b>							
01-4902-4015-000	2022 WWTP UPGRADE	0.00	3,094,678.75	51,775.25	0.00	3,042,903.50	98.33
01-4902-4023-011	2023 HIGHWAY BACKHOE	205,000.00	205,000.00	0.00	0.00	205,000.00	100.00
01-4902-4023-013	2023 HIGHWAY EQUIP TRAILER	20,000.00	20,000.00	18,760.69	0.00	1,239.31	6.20
01-4902-4023-014	2023 AMBULANCE CAB/CHASSIS	64,000.00	64,000.00	0.00	0.00	64,000.00	100.00
01-4902-4023-015	2023 TRANSFER TRASH TRUCK	50,000.00	50,000.00	36,235.55	0.00	13,764.45	27.53
	Total Dept 4902 - WARRANT ARTICLES	339,000.00	3,433,678.75	106,771.49	0.00	3,326,907.26	96.89
<b>Department: 4903 WARRANT ARTICLES</b>							
01-4903-4020-000	LIBRARY MASONRY - MOOSE PLATE	20,000.00	20,000.00	0.00	0.00	20,000.00	100.00
01-4903-4037-000	POLICE EQUIPMENT ETF	0.00	0.00	13,856.00	0.00	(13,856.00)	0.00
01-4903-4038-000	ETF TECHNOLOGY	0.00	0.00	2,000.00	0.00	(2,000.00)	0.00
01-4903-4039-000	FIRE-RESCUE BUILDING ETF	0.00	0.00	13,545.00	0.02	(13,545.02)	0.00
01-4903-4040-000	ROAD EXPENDIBLE TRUST	0.00	0.00	54,000.00	0.00	(54,000.00)	0.00
01-4903-4041-000	ARPA MONEY SPENT	0.00	16,803.00	21,803.00	0.00	(5,000.00)	(29.76)
01-4903-4042-000	STATE BRIDGE REPAIR	0.00	0.00	149,288.17	0.00	(149,288.17)	0.00
	Total Dept 4903 - WARRANT ARTICLES	20,000.00	36,803.00	254,492.17	0.02	(217,689.19)	(591.50)
<b>Department: 4915 CAPITAL RESERVE</b>							
01-4915-4003-000	ETF - TOWN OWNED BUILDING	10,000.00	10,000.00	0.00	0.00	10,000.00	100.00
01-4915-4890-000	CRF - AMBULANCE	80,000.00	80,000.00	0.00	0.00	80,000.00	100.00
01-4915-4891-000	CRF - WWTP	75,000.00	75,000.00	0.00	0.00	75,000.00	100.00

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<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4915 CAPITAL RESERVE</b>							
01-4915-4892-000	ETF - POLICE BUILDING	75,000.00	75,000.00	0.00	0.00	75,000.00	100.00
01-4915-4893-000	ETF - FIRE/RESCUE BUILDING	25,000.00	25,000.00	0.00	0.00	25,000.00	100.00
01-4915-4894-000	CRF - TRANSFER STATION	30,000.00	30,000.00	0.00	0.00	30,000.00	100.00
01-4915-4895-000	CRF - FIRE EQUIPMENT	100,000.00	100,000.00	0.00	0.00	100,000.00	100.00
01-4915-4896-000	CRF - REVALUATION	15,000.00	15,000.00	0.00	0.00	15,000.00	100.00
01-4915-4897-000	CRF - HIGHWAY EQUIP	200,000.00	200,000.00	0.00	0.00	200,000.00	100.00
01-4915-4899-000	ETF - LIBRARY ACCESS & SAFETY	53,000.00	53,000.00	0.00	0.00	53,000.00	100.00
01-4915-4901-000	ETF - ROAD MAINTENANCE	700,000.00	700,000.00	0.00	0.00	700,000.00	100.00
01-4915-4902-000	ETF - TOWN TECHNOLOGY	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4915-4903-000	ETF - PARKS	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4915-4904-000	ETF - POLICE EQUIPMENT	10,000.00	10,000.00	0.00	0.00	10,000.00	100.00
01-4915-4990-000	CRF - BRIDGE REPAIR	25,000.00	25,000.00	0.00	0.00	25,000.00	100.00
Total Dept 4915 - CAPITAL RESERVE		1,403,000.00	1,403,000.00	0.00	0.00	1,403,000.00	100.00
Fund 01 - GENERAL FUND:							
TOTAL EXPENDITURES		8,417,888.00	11,658,361.44	4,886,248.50	77,525.37	6,694,587.57	

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<b>Fund: 01 GENERAL FUND</b>							
<b>Department: 4900 WARRANT ARTICLES</b>							
01-4900-4005-000	ROAD IMPROVEMENTS	130,000.00	130,000.00	108,505.88	0.00	21,494.12	16.53
Total Dept 4900 - WARRANT ARTICLES		130,000.00	130,000.00	108,505.88	0.00	21,494.12	16.53
<b>Department: 4902 WARRANT ARTICLES</b>							
01-4902-4015-000	2022 WWTP UPGRADE	0.00	3,094,678.75	51,775.25	0.00	3,042,903.50	98.33
01-4902-4023-011	2023 HIGHWAY BACKHOE	205,000.00	205,000.00	0.00	0.00	205,000.00	100.00
01-4902-4023-013	2023 HIGHWAY EQUIP TRAILER	20,000.00	20,000.00	18,760.69	0.00	1,239.31	6.20
01-4902-4023-014	2023 AMBULANCE CAB/CHASSIS	64,000.00	64,000.00	0.00	0.00	64,000.00	100.00
01-4902-4023-015	2023 TRANSFER TRASH TRUCK	50,000.00	50,000.00	36,235.55	0.00	13,764.45	27.53
Total Dept 4902 - WARRANT ARTICLES		339,000.00	3,433,678.75	106,771.49	0.00	3,326,907.26	96.89
<b>Department: 4903 WARRANT ARTICLES</b>							
01-4903-4020-000	LIBRARY MASONRY - MOOSE PLATE	20,000.00	20,000.00	0.00	0.00	20,000.00	100.00
01-4903-4037-000	POLICE EQUIPMENT ETF	0.00	0.00	13,856.00	0.00	(13,856.00)	0.00
01-4903-4038-000	ETF TECHNOLOGY	0.00	0.00	2,000.00	0.00	(2,000.00)	0.00
01-4903-4039-000	FIRE-RESCUE BUILDING ETF	0.00	0.00	13,545.00	0.02	(13,545.02)	0.00
01-4903-4040-000	ROAD EXPENDIBLE TRUST	0.00	0.00	54,000.00	0.00	(54,000.00)	0.00
01-4903-4041-000	ARPA MONEY SPENT	0.00	16,803.00	21,803.00	0.00	(5,000.00)	(29.76)
01-4903-4042-000	STATE BRIDGE REPAIR	0.00	0.00	149,288.17	0.00	(149,288.17)	0.00
Total Dept 4903 - WARRANT ARTICLES		20,000.00	36,803.00	254,492.17	0.02	(217,689.19)	(591.50)
<b>Department: 4915 CAPITAL RESERVE</b>							
01-4915-4003-000	ETF - TOWN OWNED BUILDING	10,000.00	10,000.00	0.00	0.00	10,000.00	100.00
01-4915-4890-000	CRF - AMBULANCE	80,000.00	80,000.00	0.00	0.00	80,000.00	100.00
01-4915-4891-000	CRF - WWTP	75,000.00	75,000.00	0.00	0.00	75,000.00	100.00
01-4915-4892-000	ETF - POLICE BUILDING	75,000.00	75,000.00	0.00	0.00	75,000.00	100.00
01-4915-4893-000	ETF - FIRE/RESCUE BUILDING	25,000.00	25,000.00	0.00	0.00	25,000.00	100.00
01-4915-4894-000	CRF - TRANSFER STATION	30,000.00	30,000.00	0.00	0.00	30,000.00	100.00
01-4915-4895-000	CRF - FIRE EQUIPMENT	100,000.00	100,000.00	0.00	0.00	100,000.00	100.00
01-4915-4896-000	CRF - REVALUATION	15,000.00	15,000.00	0.00	0.00	15,000.00	100.00
01-4915-4897-000	CRF - HIGHWAY EQUIP	200,000.00	200,000.00	0.00	0.00	200,000.00	100.00
01-4915-4899-000	ETF - LIBRARY ACCESS & SAFETY	53,000.00	53,000.00	0.00	0.00	53,000.00	100.00
01-4915-4901-000	ETF - ROAD MAINTENANCE	700,000.00	700,000.00	0.00	0.00	700,000.00	100.00
01-4915-4902-000	ETF - TOWN TECHNOLOGY	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4915-4903-000	ETF - PARKS	2,500.00	2,500.00	0.00	0.00	2,500.00	100.00
01-4915-4904-000	ETF - POLICE EQUIPMENT	10,000.00	10,000.00	0.00	0.00	10,000.00	100.00
01-4915-4990-000	CRF - BRIDGE REPAIR	25,000.00	25,000.00	0.00	0.00	25,000.00	100.00
Total Dept 4915 - CAPITAL RESERVE		1,403,000.00	1,403,000.00	0.00	0.00	1,403,000.00	100.00
<b>Fund 01 - GENERAL FUND:</b>							
TOTAL EXPENDITURES		1,892,000.00	5,003,481.75	469,769.54	0.02	4,533,712.19	

EXPENDITURE BUDGET VS ACTUAL REPORT FOR TOWN OF HENNIKER

Balance As of 09/30/2023

GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Available Balance 09/30/2023	% Bdgt Remain
<b>Fund: 01 GENERAL FUND</b>							
Total Dept 4130	- EXECUTIVE	31,686.00	31,686.00	9,407.96	0.00	22,278.04	70.31
Total Dept 4140	- TOWN CLERK	94,275.00	94,275.00	69,162.98	0.00	25,112.02	26.64
Total Dept 4141	- ELECTIONS	6,620.00	6,620.00	2,376.82	0.00	4,243.18	64.10
Total Dept 4142	- TAX MAP	4,950.00	4,950.00	5,625.00	0.00	(675.00)	(13.64)
Total Dept 4150	- TOWN OFFICE	790,173.00	790,173.00	550,413.84	408.09	239,351.07	30.34
Total Dept 4151	- TAX COLLECTOR	94,525.00	94,525.00	64,052.57	0.00	30,472.43	32.24
Total Dept 4153	- LEGAL	20,000.00	20,000.00	14,669.88	0.00	5,330.12	26.65
Total Dept 4191	- PLANNING	30,679.00	30,679.00	15,083.45	1,004.25	14,591.30	50.83
Total Dept 4192	- ZONING	5,271.00	5,271.00	1,880.63	334.75	3,055.62	64.32
Total Dept 4195	- CEMETERIES	21,330.00	21,330.00	19,280.00	0.00	2,050.00	9.61
Total Dept 4196	- INSURANCE	156,615.00	156,615.00	154,250.00	0.00	2,365.00	1.51
Total Dept 4197	- MUNICIPAL DUES	4,157.00	4,157.00	4,052.00	0.00	105.00	2.53
Total Dept 4210	- POLICE	1,435,378.00	1,562,966.00	1,037,047.32	48,658.57	477,260.11	33.65
Total Dept 4214	- FIRE & RESCUE	732,465.00	732,465.00	499,619.12	0.00	232,845.88	31.79
Total Dept 4215	- RESCUE	124,159.00	125,562.69	60,126.29	1,403.69	64,032.71	52.11
Total Dept 4220	- FIRE	166,347.00	166,347.00	101,949.13	0.00	64,397.87	38.71
Total Dept 4240	- CODE	29,993.00	29,993.00	21,388.41	0.00	8,604.59	28.69
Total Dept 4290	- EMERGENCY MANAGEMENT	1,292.00	1,292.00	0.00	0.00	1,292.00	100.00
Total Dept 4311	- HIGHWAY	861,750.00	861,750.00	541,502.54	0.00	320,247.46	37.16
Total Dept 4312	- HIGHWAY & STREETS	697,500.00	697,500.00	478,332.74	0.00	219,167.26	31.42
Total Dept 4316	- STREET LIGHTS	13,500.00	13,500.00	6,776.52	0.00	6,723.48	49.80
Total Dept 4414	- ANIMAL CONTROL	9,408.00	9,408.00	387.54	0.00	9,020.46	95.88
Total Dept 4442	- WELFARE	80,000.00	80,000.00	63,051.45	0.00	16,948.55	21.19
Total Dept 4520	- ATHLETIC	32,645.00	32,645.00	19,571.58	0.00	13,073.42	40.05
Total Dept 4550	- LIBRARY	242,210.00	242,210.00	182,049.95	0.00	60,160.05	24.84
Total Dept 4583	- PATRIOTIC PURPOSES	3,173.00	3,173.00	3,412.18	0.00	(239.18)	(7.54)
Total Dept 4589	- BAND	7,195.00	7,195.00	13,089.29	0.00	(5,894.29)	(81.92)
Total Dept 4611	- CONSERVATION	2,890.00	2,890.00	932.91	0.00	1,957.09	67.72
Total Dept 4652	- COMMUNITY CAP PROGRAM	14,000.00	14,000.00	14,000.00	0.00	0.00	0.00
Total Dept 4659	- WHITE BIRCH CENTER	65,000.00	65,000.00	48,749.94	0.00	16,250.06	25.00
Total Dept 4711	- DEBT SERICE PRINCIPAL	130,163.00	130,163.00	12,000.00	0.00	118,163.00	90.78
Total Dept 4721	- DEBT SERVICE INTEREST	19,039.00	19,039.00	11,817.71	0.00	7,221.29	37.93
Total Dept 4722	- DEBT SERVICE LEASE	0.00	0.00	37,567.16	0.00	(37,567.16)	0.00
Total Dept 4723	- DEBT SERVICE TAN	13,500.00	13,500.00	5,560.60	0.00	7,939.40	58.81
<b>Fund 01 - GENERAL FUND:</b>							
<b>TOTAL EXPENDITURES</b>		<b>5,941,888.00</b>	<b>6,070,879.69</b>	<b>4,069,187.51</b>	<b>51,809.35</b>	<b>1,949,882.83</b>	

DEPARTMENTAL HOURS AND GROSS SUMMARY REPORT FOR TOWN OF HENNIKER

For 09/01/2023 to 09/30/2023

Pay Code	Regular Hours	Suppl. Hours	Regular Gross	OT Hours	OT Gross
<b>Department: CODE CODE</b>					
<b>Department Totals For: CODE</b>					
GASOLINE	0.00	0.00	200.00	0.00	0.00
SALARY	72.00	0.00	1,942.28	0.00	0.00
Totals:	72.00	0.00	2,142.28	0.00	0.00
<b>Department: CSWW CSWW</b>					
<b>Department Totals For: CSWW</b>					
HOLIDAY	8.00	0.00	559.44	0.00	0.00
REGULAR	213.00	0.00	9,410.47	0.00	0.00
SICK	1.00	0.00	69.93	0.00	0.00
Totals:	222.00	0.00	10,039.84	0.00	0.00
<b>Department: FIRE FIRE</b>					
<b>Department Totals For: FIRE</b>					
FIRE MEETING	7.00	0.00	1.75	0.00	0.00
REGULAR	107.00	0.00	1,570.00	0.00	0.00
STIPEND	5.00	0.00	2,083.33	0.00	0.00
Totals:	119.00	0.00	3,655.08	0.00	0.00
<b>Department: FIRE/RESCUE FIRE/RESCUE</b>					
<b>Department Totals For: FIRE/RESCUE</b>					
FIRE MEETING	5.00	0.00	1.25	0.00	0.00
OVERTIME	0.00	0.00	0.00	26.00	724.92
REGULAR	267.00	0.00	5,929.10	0.00	0.00
STIPEND	2.00	0.00	2,672.58	0.00	0.00
Totals:	274.00	0.00	8,602.93	26.00	724.92
<b>Department: HIGHWAY HIGHWAY</b>					
<b>Department Totals For: HIGHWAY</b>					
CELL PHONE	0.00	0.00	75.00	0.00	0.00
HOLIDAY	60.00	0.00	1,613.40	0.00	0.00
MILEAGE	0.00	0.00	340.00	0.00	0.00
OVERTIME	0.00	0.00	0.00	7.75	358.03
REGULAR	781.00	0.00	21,390.36	0.00	0.00
SICK BUYOUT	2.50	0.00	74.60	0.00	0.00
TRANSFER OT	0.00	0.00	0.00	1.50	67.14
VACA BUY NONHRS	6.67	0.00	128.60	0.00	0.00
VACATION	42.50	0.00	1,642.60	0.00	0.00
Totals:	892.67	0.00	25,264.56	9.25	425.17
<b>Department: LIBRARY LIBRARY</b>					
<b>Department Totals For: LIBRARY</b>					
REGULAR	406.75	0.00	10,161.42	0.00	0.00
SALARY	84.00	0.00	3,216.80	0.00	0.00
Totals:	490.75	0.00	13,378.22	0.00	0.00
<b>Department: POLICE POLICE</b>					
<b>Department Totals For: POLICE</b>					
EVENING	288.00	0.00	216.00	0.00	0.00
HOLIDAY	8.00	0.00	197.28	0.00	0.00
INS BUYOUT	0.00	0.00	2,916.67	0.00	0.00
MIDNIGHT	288.00	0.00	288.00	0.00	0.00
OUTSIDE DETAIL	8.00	0.00	361.04	0.00	0.00
OVERTIME	0.00	0.00	0.00	80.00	3,991.04
PD BONUS	0.00	0.00	5,000.00	0.00	0.00
REGULAR	1,632.00	0.00	47,386.76	0.00	0.00
SICK	2.00	0.00	49.32	0.00	0.00

DEPARTMENTAL HOURS AND GROSS SUMMARY REPORT FOR TOWN OF HENNIKER

For 09/01/2023 to 09/30/2023

Pay Code	Regular Hours	Suppl. Hours	Regular Gross	OT Hours	OT Gross
SICK BUYOUT	8.00	0.00	333.60	0.00	0.00
USECOMP	2.00	0.00	50.72	0.00	0.00
VACATION	37.00	0.00	1,104.24	0.00	0.00
Totals:	2,273.00	0.00	57,903.63	80.00	3,991.04

**Department: RESCUE RESCUE**

**Department Totals For: RESCUE**

COMP OVER BASE	12.00	0.00	321.16	0.00	0.00
HALFTIME - FIRE	24.00	0.00	327.00	0.00	0.00
HOLIDAY	31.50	0.00	859.34	0.00	0.00
INS BUYOUT	0.00	0.00	1,666.67	0.00	0.00
OVERTIME	0.00	0.00	0.00	40.00	1,534.41
REGULAR	1,019.50	0.00	26,150.66	0.00	0.00
SICK	10.00	0.00	243.30	0.00	0.00
USECOMP	24.00	0.00	654.00	0.00	0.00
VACATION	8.33	0.00	202.67	0.00	0.00
Totals:	1,129.33	0.00	30,424.80	40.00	1,534.41

**Department: SELECTMAN SELECTMAN**

**Department Totals For: SELECTMAN**

CELL PHONE	0.00	0.00	75.00	0.00	0.00
HOLIDAY	40.00	0.00	1,264.51	0.00	0.00
INS BUYOUT	0.00	0.00	1,250.00	0.00	0.00
REGULAR	396.50	0.00	8,937.86	0.00	0.00
SALARY	259.25	0.00	11,810.06	0.00	0.00
SICK	19.75	0.00	665.80	0.00	0.00
USECOMP	0.75	0.00	17.18	0.00	0.00
VACATION	47.00	0.00	1,883.44	0.00	0.00
Totals:	763.25	0.00	25,903.85	0.00	0.00

**Department: TC/TX TOWN CLERK / TAX COLLECTOR**

**Department Totals For: TC/TX**

HOLIDAY	16.00	0.00	412.02	0.00	0.00
OVERTIME	0.00	0.00	0.00	2.25	64.73
REGULAR	152.00	0.00	2,915.36	0.00	0.00
SALARY	173.25	0.00	4,913.10	0.00	0.00
Totals:	341.25	0.00	8,240.48	2.25	64.73

**Department: TRANSFER TRANSFER**

**Department Totals For: TRANSFER**

HOLIDAY	40.00	0.00	934.90	0.00	0.00
INS BUYOUT	0.00	0.00	1,250.00	0.00	0.00
OVERTIME	0.00	0.00	0.00	8.00	225.24
REGULAR	405.50	0.00	9,483.97	0.00	0.00
SICK	30.00	0.00	473.40	0.00	0.00
USECOMP	20.00	0.00	505.80	0.00	0.00
VACATION	70.00	0.00	1,670.60	0.00	0.00
Totals:	565.50	0.00	14,318.67	8.00	225.24

**Department: WELFARE WELFARE**

**Department Totals For: WELFARE**

REGULAR	30.50	0.00	647.82	0.00	0.00
VACATION	13.50	0.00	286.74	0.00	0.00
Totals:	44.00	0.00	934.56	0.00	0.00

**Department: WWTP WASTE WATER TREATMENT PLANT**

**Department Totals For: WWTP**

HOLIDAY	24.00	0.00	685.44	0.00	0.00
OVERTIME	0.00	0.00	0.00	14.00	596.73

## DEPARTMENTAL HOURS AND GROSS SUMMARY REPORT FOR TOWN OF HENNIKER

For 09/01/2023 to 09/30/2023

Pay Code	Regular Hours	Suppl. Hours	Regular Gross	OT Hours	OT Gross
REGULAR	417.00	0.00	11,789.16	0.00	0.00
SICK	5.00	0.00	177.90	0.00	0.00
USECOMP	14.00	0.00	344.70	0.00	0.00
VACATION	20.00	0.00	711.60	0.00	0.00
Totals:	480.00	0.00	13,708.80	14.00	596.73
Grand Totals:					
CELL PHONE	0.00	0.00	150.00	0.00	0.00
COMP OVER BASE	12.00	0.00	321.16	0.00	0.00
EVENING	288.00	0.00	216.00	0.00	0.00
FIRE MEETING	12.00	0.00	3.00	0.00	0.00
GASOLINE	0.00	0.00	200.00	0.00	0.00
HALFTIME - FIRE	24.00	0.00	327.00	0.00	0.00
HOLIDAY	227.50	0.00	6,526.33	0.00	0.00
INS BUYOUT	0.00	0.00	7,083.34	0.00	0.00
MIDNIGHT	288.00	0.00	288.00	0.00	0.00
MILEAGE	0.00	0.00	340.00	0.00	0.00
OUTSIDE DETAIL	8.00	0.00	361.04	0.00	0.00
OVERTIME	0.00	0.00	0.00	178.00	7,495.10
PD BONUS	0.00	0.00	5,000.00	0.00	0.00
REGULAR	5,827.75	0.00	155,772.94	0.00	0.00
SALARY	588.50	0.00	21,882.24	0.00	0.00
SICK	67.75	0.00	1,679.65	0.00	0.00
SICK BUYOUT	10.50	0.00	408.20	0.00	0.00
STIPEND	7.00	0.00	4,755.91	0.00	0.00
TRANSFER OT	0.00	0.00	0.00	1.50	67.14
USECOMP	60.75	0.00	1,572.40	0.00	0.00
VACA BUY NONHRS	6.67	0.00	128.60	0.00	0.00
VACATION	238.33	0.00	7,501.89	0.00	0.00
Totals:	7,666.75	0.00	214,517.70	179.50	7,562.24



EXPENDITURE BUDGET VS ACTUAL REPORT FOR TOWN OF HENNIKER

Balance As of 09/30/2023

GL Number	Description	2023 Original Budget	2023 Amended Budget	YTD ACTIVITY	Encumbrance 09/30/2023	Availible Balance 09/30/2023	% Bdgt Remain
<b>Fund: 03 WASTEWATER TREATMENT PLANT</b>							
03-4326-4110-000	WAGES FT	218,360.00	218,360.00	120,032.48	0.00	98,327.52	45.03
03-4326-4130-000	COMM/TREAS/ACCTNG	2,435.00	2,435.00	0.00	0.00	2,435.00	100.00
03-4326-4140-000	WAGES OT	7,249.00	7,249.00	6,908.88	0.00	340.12	4.69
03-4326-4210-000	BENEFIT INSURANCES	60,073.00	60,073.00	45,494.03	0.00	14,578.97	24.27
03-4326-4220-000	FICA/MEDICARE	16,920.00	16,920.00	8,836.63	0.00	8,083.37	47.77
03-4326-4230-000	RETIREMENT	31,484.00	31,484.00	14,649.85	0.00	16,834.15	53.47
03-4326-4240-000	TRAINING/LICENSE	1,200.00	1,200.00	215.00	0.00	985.00	82.08
03-4326-4291-000	UNIFORMS	1,071.00	1,071.00	156.97	0.00	914.03	85.34
03-4326-4301-000	ACCOUNTING	990.00	990.00	0.00	0.00	990.00	100.00
03-4326-4341-000	TELEPHONE	4,536.00	4,536.00	1,724.29	0.00	2,811.71	61.99
03-4326-4408-000	ELECTRICITY PUMP STATION	3,640.00	3,640.00	2,953.93	0.00	686.07	18.85
03-4326-4409-000	ELECTRICITY	51,674.00	51,674.00	35,699.67	0.00	15,974.33	30.91
03-4326-4410-000	ELEC MAPLE STREET	1,357.00	1,357.00	1,127.69	0.00	229.31	16.90
03-4326-4411-000	HEAT BELT PRESS BLDING	6,910.00	6,910.00	3,875.09	0.00	3,034.91	43.92
03-4326-4412-000	WATER	24,170.00	24,170.00	27,363.47	0.00	(3,193.47)	(13.21)
03-4326-4413-000	HEAT PLANT	10,056.00	10,056.00	5,402.75	0.00	4,653.25	46.27
03-4326-4414-000	ALARM SERVICE	812.00	812.00	621.40	0.00	190.60	23.47
03-4326-4415-000	PROPANE	1,699.00	1,699.00	1,134.93	0.00	564.07	33.20
03-4326-4430-000	BUILDING REPAIR/MAINT	2,040.00	2,040.00	750.00	0.00	1,290.00	63.24
03-4326-4520-000	WORKERS COMP INSURANCE	2,869.00	2,869.00	2,869.00	0.00	0.00	0.00
03-4326-4521-000	GENERAL LIAB INS.	11,610.00	11,610.00	11,710.00	0.00	(100.00)	(0.86)
03-4326-4550-000	PRINTING	200.00	200.00	343.62	0.00	(143.62)	(71.81)
03-4326-4560-000	DUES/MEMBERSHIPS	215.00	215.00	0.00	0.00	215.00	100.00
03-4326-4620-000	OFFICE SUPPLIES	885.00	885.00	421.26	0.00	463.74	52.40
03-4326-4625-000	POSTAGE	585.00	585.00	165.07	0.00	419.93	71.78
03-4326-4635-000	VEHICLE FUEL	1,300.00	1,300.00	837.33	0.00	462.67	35.59
03-4326-4650-000	LAWN TRACTOR REPAIR	600.00	600.00	0.00	0.00	600.00	100.00
03-4326-4660-000	VEHICLE REPAIR	200.00	200.00	133.03	0.00	66.97	33.49
03-4326-4662-000	VEHICLE PARTS/ACCESSORIES	200.00	200.00	1,236.00	0.00	(1,036.00)	(518.00)
03-4326-4689-000	SUPPLIES OTHER	2,780.00	2,780.00	644.57	0.00	2,135.43	76.81
03-4326-4741-000	TOOL PURCHASES	400.00	400.00	137.37	0.00	262.63	65.66
03-4326-4805-000	EQUIPMENT REPAIR/MAINT.	34,390.00	34,390.00	36,445.93	0.00	(2,055.93)	(5.98)
03-4326-4810-000	COMPUTER REPAIR/MAINT.	300.00	300.00	0.00	0.00	300.00	100.00
03-4326-4855-000	SAFETY SUPPLIES	2,046.00	2,046.00	900.76	0.00	1,145.24	55.97
03-4326-4860-000	LAB REPAIR/MAINTENANCE	4,055.00	4,055.00	1,903.00	0.00	2,152.00	53.07
03-4326-4862-000	IN HOUSE LAB	6,764.00	6,764.00	6,226.97	0.00	537.03	7.94
03-4326-4864-000	OUTSIDE LAB	5,328.00	5,328.00	3,906.61	0.00	1,421.39	26.68
03-4326-4869-000	SLUDGE PROCESSING	11,167.00	11,167.00	3,204.00	0.00	7,963.00	71.31
03-4326-4870-000	SLUDGE DISPOSAL EXPENSE	40,060.00	40,060.00	26,956.16	0.00	13,103.84	32.71
03-4326-4871-000	GRIT DISPOSAL	2,700.00	2,700.00	0.00	0.00	2,700.00	100.00
03-4326-4875-000	COLLECTION SYSTEM	28,864.00	28,864.00	3,356.00	0.00	25,508.00	88.37
03-4326-4940-000	DEBT SERVICE	38,240.00	38,240.00	37,803.53	0.00	436.47	1.14
03-4326-4988-000	PH ADJUSTMENT	30,624.00	30,624.00	40,995.00	0.00	(10,371.00)	(33.87)
03-4326-4990-000	CAPITAL RESERVE	50,000.00	50,000.00	0.00	0.00	50,000.00	100.00
<b>Fund 03 - WASTEWATER TREATMENT PLANT:</b>							
<b>TOTAL EXPENDITURES</b>		<b>723,058.00</b>	<b>723,058.00</b>	<b>457,142.27</b>	<b>0.00</b>	<b>265,915.73</b>	



The month of September 2023 consisted of 25 calls for Henniker Fire Department. The calls ranged from the following :

- 8 Fire Alarm Activations
- 4 EMS Assists
- 5 Motor Vehicle Accidents
- 5 Power lines down
- 1 Building Fires
- 1 Co Call
- 1 Mutual Aid

This month's training consisted of Initial attack and search. Harassment Education training.



Thank you,  
Chief Morse

Henniker Human Service Department – Monthly Report  
September 2023  
Total encounters 18 (number of meetings with a clients)

- Categories of requests for assistance
  - 8 Housing issues
  - 5 Rent request
  - 0 Utilities
  - 0 NH department of Health and Human Services
    - Sign up all DHHS services / redetermination.
  - 0 SSA assistance with client
  - 5 Assistance with outside agency applications
  - 6 Budgeting sessions
  - Homelessness cases
  - Domestic violence new very involved ongoing
  - 5 household Information and referral
  - 6 Vouchers approved. 5 rents

Multiple individuals and families still financially experiencing difficulty.

Submitted Carol Conforti-Adams

# HENNIKER POLICE DEPARTMENT

## Memo

**To: Diane Kendall**

**From: Chief Matthew French**

**Date: October 12, 2023**

---

September 2023 summary.

There were 19 arrests which include, Domestic Violence related assault, DUI, driving with a suspended license, cruelty to animals, disorderly conduct, unlawful possession of alcohol, criminal threatening, noise ordinance, subject wanted on a bench warrant.

We had 674 Calls for Service (777 in 2022, 1115 in 2021) which include:

14 MV Crashes	3 Welfare Check
1 Hit and Run	2 Psychological Problem
1 Stolen Vehicle	11 Assist Other agencies
20 Motor vehicle complaints	34 Assist Rescue/Fire
225 MV stops	30 Suspicious person/vehicles
5 Directed Patrols	1 Explosion
12 Disabled MV/ Assist Motorist	10 Animal Complaints
4 Road Hazard	24 Alarm Calls/911 Hangup
2 Noise Complaint	124 Building/Business checks
6 Domestic Disturbance	6 Juvenile matter
1 Child Abuse/Neglect	1 Walk and Talk
1 Assault	1 Found Property
15 Follow ups	4 Civil Matter
13 Return/Police information call	3 Civil Standby
6 Assist Citizen	2 OHRV Complaints
2 VIN Checks	4 OHRV stops
19 Subpoena/Paperwork Service	

**MEMORANDUM**

To: Diane Kendall, Town Administrator  
From: Jean Scott – Deputy Town Clerk/Tax Collector  
Date: October 5, 2023  
Subject: Town Clerk/Tax Collector Report as of 09/30/2023

**PROPERTY TAXES**

Total Committed 2023	\$7,847,172.00
Uncollected	\$285,682.16

**TAX LIENS**

	<u>2022 LIENS</u>	<u>2021 LIENS</u>	<u>2020/PRIOR LIENS</u>
Liened Amount	\$177,560.95	\$208,703.03	
Uncollected	\$123,445.94	\$70,289.18	\$168,781.81

**WATER & SEWER -**

**2023**

Water Billed	\$550,267.04
Sewer Billed	\$562,919.64
Uncollected	\$347,214.15

**TOWN CLERK REVENUE**

	<u>2023</u>	<u>2022</u>
MV	\$80,289.28	\$133,873.82
non-MV	\$560.59	\$ 1,372.16

## Marc Boisvert

Transfer Station Superintendent  
1393 Weare Rd.  
Henniker, NH.  
(603)428-7604  
<http://www.henniker.org/>  
HennikerTransfer@tds.net

### Monthly Report – September 2023

9/2. Closed for Labor Day weekend

9/3. Closed for Labor Day weekend

9/5. Marc on Vacation. Starr worked regular hrs. Matt came in at 9 am and worked until 7 pm due to the holiday weekend. Grumpy Old Man came in and installed new 4x4 timbers for new siding on hopper building. Opened for business 12 pm-7 pm.

9/6. Did dump run. Zach mowed parks around town. Matt worked with Grumpy Old Man and installed new metal siding on hopper building.

9/7. Starr out until 9/28. Zach mowed soccer fields. Matt cleaned up around yard. Opened for business as usual.

9/9. Colin in for Marc. Opened for business as usual.

9/10. Marc worked half-day. Opened for business as usual.

9/12. Marc out. Zach worked. Cleaned up around yard, opened for business at noon.

9/13. Matt worked with Grumpy old Man installing new door on hopper building. Zach serviced skidsteer and brought a load of scrap aluminum to Schnitzer.

9/14. Called to have glass picked up. Did fire extinguisher check at Comm. Ctr. And Grange. Matt picked up Cat backhoe from highway garage and brought it down to the transfer station. Opened for business at noon.

9/16. Opened for business as usual. Checked Comm. Ctr. for private birthday party.

9/17. Opened for business as usual.

9/19. Set up chairs at Community Center. Matt and Marc met with volunteers to address placement of veteran banners in Woodman Park. Matt worked on repairing leaf vac for upcoming leaf season. Opened for business at noon.

9/20. Matt out. Zach mowed around town and the soccer fields.

9/21. Matt out. Did dump run, finished mowing and cleaned up dead branch at Comm. Ctr. Opened for business at noon.

9/23. Did dump run. Opened for business as usual. Had community service worker for 8 Hrs.

9/24. Matt out. Colin in for Matt. Opened for business as usual.

9/26. Matt and Marc loaded 32 Tons of glass for 2M Logistics. Removed old dirty glass and brought it to the pit. Layered new gravel in glass storage area. Opened for business at noon.

9/27. Did dump/recycling run. Matt worked with Grumpy Old Man installing new sheet metal on hopper office. Added new insulation due to rats removing old stuff. Zach worked on cleaning the yard and starting on new rubber window flaps for recycling windows.

9/28. Starr back to work. Zach and Starr did dump run then cut trees and brush at Police Station. Picked up old paint at Community Center. Matt fixed sink at Town Hall and two lights at Comm. Ctr., then mowed the soccer fields. Marc went and picked up new blades for Ferris mower. Opened for business at noon.

9/30. Did dump run. Set flag at half-staff. Opened for business as usual.

# Wastewater Treatment Plant

## Monthly Report

September 2023

The lawns were mowed.

Effluent samples and lab water samples were taken to the State lab for testing.

Press repairs were completed and ran the press for a trial run.

All manholes on Western Ave were checked. Fifteen manholes are marked for replacing.

The incubator stopped working properly. Took it offline to let the ice melt. Set up our old one.

Raynor repaired our broken garage door.

Ran the press 6 days for the month.

August DMR was submitted to Department of Environmental Services.

Richard Slager

Wastewater Superintendent



# CORRESPONDENCE



Revised Estimated Revenues

**Henniker**

(RSA 21-J:34)

For the period beginning January 1, 2023 and ending December 31, 2023

**PREPARER'S CERTIFICATION**

Under penalties of perjury, I declare that I have examined the information contained in this form and to the best of my belief it is true, correct and complete.

Name	Position	Signature
Sherry Bradstreet	Finance Director	[Redacted Signature]

This form must be signed, scanned, and uploaded to the Municipal Tax Rate Setting Portal:  
<https://www.proptax.org/>

**For assistance please contact:**  
NH DRA Municipal and Property Division  
(603) 230-5090  
<http://www.revenue.nh.gov/mun-prop/>



Revised Estimated Revenues

Account	Source	Article	Estimated Revenue
<b>Taxes</b>			
3120	Land Use Change Tax - General Fund	07	\$11,570
3180	Resident Tax		\$0
3185	Yield Tax	07	\$32,517
3186	Payment in Lieu of Taxes	07	\$511
3187	Excavation Tax	07	\$4,762
3189	Other Taxes		\$0
3190	Interest and Penalties on Delinquent Taxes	07	\$45,000
9991	Inventory Penalties		\$0
<b>Taxes Subtotal</b>			<b>\$94,360</b>
<b>Licenses, Permits, and Fees</b>			
3210	Business Licenses and Permits	07	\$990
3220	Motor Vehicle Permit Fees	07	\$1,115,000
3230	Building Permits	07	\$30,000
3290	Other Licenses, Permits, and Fees	07	\$4,314
3311-3319	From Federal Government		\$5,398
<b>Licenses, Permits, and Fees Subtotal</b>			<b>\$1,155,702</b>
<b>State Sources</b>			
3351	Municipal Aid/Shared Revenues		\$0
3352	Meals and Rooms Tax Distribution	07	\$300,000
3353	Highway Block Grant	,12	\$169,405
3354	Water Pollution Grant	,20	\$6,525
3355	Housing and Community Development		\$0
3356	State and Federal Forest Land Reimbursement	07	\$81
3357	Flood Control Reimbursement	07	\$76,245
3359	Other (Including Railroad Tax)	,17	\$22,110
3379	From Other Governments	07,09	\$96,219
<b>State Sources Subtotal</b>			<b>\$670,585</b>
<b>Charges for Services</b>			
3401-3406	Income from Departments	07	\$520,000
3409	Other Charges		\$51
<b>Charges for Services Subtotal</b>			<b>\$520,051</b>
<b>Miscellaneous Revenues</b>			
3501	Sale of Municipal Property		\$8,933
3502	Interest on Investments		\$70,000
3503-3509	Other	07	\$14,665
<b>Miscellaneous Revenues Subtotal</b>			<b>\$93,598</b>



**Revised Estimated Revenues**

Account	Source	Article	Estimated Revenue
<b>Interfund Operating Transfers In</b>			
3912	From Special Revenue Funds		\$0
3913	From Capital Projects Funds		\$0
3914A	From Enterprise Funds: Airport (Offset)		\$0
3914E	From Enterprise Funds: Electric (Offset)		\$0
3914O	From Enterprise Funds: Other (Offset)		\$0
3914S	From Enterprise Funds: Sewer (Offset)	,20	\$716,275
3914W	From Enterprise Funds: Water (Offset)	,21	\$497,655
3915	From Capital Reserve Funds	,14,13,15,11	\$355,000
3916	From Trust and Fiduciary Funds	07	\$14,100
3917	From Conservation Funds		\$0
<b>Interfund Operating Transfers In Subtotal</b>			<b>\$1,583,030</b>
<b>Other Financing Sources</b>			
3934	Proceeds from Long Term Bonds and Notes		\$0
<b>Other Financing Sources Subtotal</b>			<b>\$0</b>
<b>Total Revised Estimated Revenues and Credits</b>			<b>\$4,117,326</b>



Revised Estimated Revenues Summary

<b>Subtotal of Revenues</b>		<b>\$4,117,326</b>
Unassigned Fund Balance (Unreserved)	\$2,126,373	
(Less) Emergency Appropriations (RSA 32:11)	\$0	
(Less) Voted from Fund Balance	\$53,000	
(Less) Fund Balance to Reduce Taxes	\$400,000	
Fund Balance Retained	\$1,673,373	
<b>Total Revenues and Credits</b>		<b>\$4,570,326</b>
<b>Requested Overlay</b>	<b>\$50,000</b>	



## HIGHWAY BLOCK GRANT AID

By law, all municipalities in the State having Class IV and V mileage are entitled to Highway Block Grant Aid. RSA 235:23 stipulates the funding apportionments. Highway Block Grant Aid is distributed to municipalities by the State of New Hampshire on a yearly basis with partial disbursements made four times a year. Sixty percent (60%) of the funds are distributed in the first two payments (30% in July and October) and the other 40% in the final two payments (20% in January and April). **The funds can only be used for construction, reconstruction and maintenance of each municipality's Class IV and V highways.** It can, therefore, be used to be part of the match for a project in the bridge aid program. It also can be used towards equipment to maintain the local roads. The intent here is that it be used towards the local roads; i.e., not used to build a new library or school or buy a fire truck.

Highway Block Grant Aid funds represent a portion of the State's highway revenues received in the preceding fiscal year including revenues resulting from SB 367. There are two "pots" of money from which allotments are made. The first, identified as Apportionment A, represents 12% of the State's highway revenues. One-half of that "pot" is distributed among the municipalities based on their population in proportion to the entire State's population and the other half is disbursed based on a municipality's Class IV and V road mileage in proportion to the total statewide Class IV and V mileage. In general, the allocation of these funds represents a disbursement of approximately \$1,463 for each mile of Class IV and Class V highway inventoried by each municipality and approximately \$13 for each person residing in a municipality based on the state planning estimate of population.

The formula for dispensing funds from the second "pot" of money (a set sum of \$400,000) is less straightforward. It was established to assist those municipalities having high roadway mileage to maintain and whose overall value of property (on an equalized basis) is very low in relationship to other communities. In FY 2024, 14 municipalities received funds from this "pot".

As the New Hampshire Department of Transportation (NHDOT) is responsible for determining the actual disbursements of funds, it is important that they be provided accurate and current information regarding each municipality's Class IV and V mileage. This is typically accomplished by filling out the "Information Report" sent to municipalities each year by the Bureau of Planning and Community Assistance. At the conclusion of each municipality's yearly legislative meeting (i.e. Town Meeting), the NHDOT should be notified of all changes to the community's roadway system. The information should include the length and location of all Class IV and V highways reclassified, accepted, and/or discontinued by the municipality that year.

The total amount of funding distributed statewide annually over the last five state fiscal years is:

FY 2020 \$36,911,575  
FY 2021 \$35,009,311  
FY 2022 \$34,877,596  
FY 2023 \$36,074,084  
FY 2024 \$35,822,813

**For more information contact: Bureau of Planning and Community Assistance,  
NHDOT, PO Box 483, Concord, NH 03302-0483. Telephone: 603.271.3344**

# TES Environmental Consultants, LLC

September 29, 2023

Ms. Jen Drociak, Compliance Specialist  
Land Resources Management Program  
Department of Environmental Services  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095

Received by  
TOWN OF HENNIKER

OCT 04 2023

SELECTMEN'S OFFICE

Re: Restoration Monitoring Report for Documented Violation  
Land Resources Management File Number 2022-02864  
1464 Western Avenue, Henniker; Tax Map 1, Lots 763-C and 763-A

Dear Ms. Drociak:

TES Environmental Consultants, L.L.C. (TES) has prepared this Restoration Monitoring Report to document the conditions at the above-referenced wetland restoration area where a wetland had received sediment resulting from a discharge from a drinking water well drilling effort in December 2021 and afterwards. This work was completed in accordance with the Restoration Plan Approval letter from you dated November 16, 2022 and the Restoration Plan that I prepared and submitted to you on November 11, 2022.

The Wetland Restoration was performed on December 2, 2022, and that effort was documented in a letter report with photographs dated December 15, 2022 that I prepared and submitted to you. The purpose of the present report is to document the condition of the restoration area following the winter and following spring, and the field assessment for this was originally intended to be conducted following the usual drop in water levels (in the Contoocook River) that was expected to occur during the late spring or early summer. However, most of this past summer has had significantly above-normal rainfall, and the field assessment was therefore not performed until August 24, 2023 at a time when river levels in the region has mostly fallen below their banks.

During the field visit, the Contoocook River water level was below the river bank, although still higher than normal for late summer. No new clay sedimentation was observed in the wetland restoration area (Figures 1 and 2), and the ongoing water flow from the well discharge was no longer reaching that area, but had diverted naturally approximately 35 feet upstream from the wetland restoration area to a point on the river bank where no wetland is present above the bank. The bank at this current discharge location is heavily vegetated and has a dense, stony structure that is holding in place well (Figure 3), and the discharge water was almost clear.

The wetland restoration area was observed to be stable, and two separate debris lines evidenced overbank flooding that had occurred since the restoration was completed, likely during the spring to mid-summer timeframe when heavy rains caused flooding across much of the region. The higher debris line (Figure 1) extended along the upper line of restoration that was marked with blue and white striped flagging, and consisted mostly of leaves and small sticks. The lower flood debris line consisted mostly of sand and gravel particles, which were also thinly spread over the entire flooded area (Figure 2). You may recall from the December 14, 2022 wetland restoration report that scattered lenses of sand and

1494 Route 3A, Unit 1, Bow, New Hampshire 03304  
Phone: 603-856-8925 E-Mail: tom@tesenviro.comcastbiz.net

9/29/2023

# TES Environmental Consultants, LLC

gravel were found underneath the clay deposition in the restoration area, and had apparently been deposited during prior river flooding.

The silt soxx sediment barrier that was set at the lower edge of the restoration prior to site work in December was largely still in place, except at the northern end where floodwaters had pushed the barrier off two of its stakes (Figure 4) but still anchored at the ends of that segment. Herbaceous vegetation was re-establishing over much of the restoration area, although this cover had been sparse over most of the area prior to the restoration, likely a result of the dense shade of the closed hemlock overstory.

The natural soil in the restoration area, although having been flooded at least twice since the restoration, was intact and stable, with a thin layer of white pine needles and sparse sand and gravel overlying the forest duff (Figures 5 and 6). Given that the site was stable despite at least two flood events since the restoration, I determined that the silt soxx sediment barrier was no longer necessary. I therefore pulled up the silt soxx, opened the mesh cover with a knife and spread the wood mulch filler in a thin layer near where the sediment barrier had been, taking care not to cover any emerging herbaceous vegetation. I left the small wood stakes used to anchor the silt soxx sediment barrier in place, and I disposed of the synthetic silt soxx mesh in the trash at my place of business.

No mortality of the shrub/sapling or tree cover was observed at the restoration site or the current discharge location. In my professional opinion, the wetland restoration area is stable and will remain so, requiring no further efforts to improve conditions.

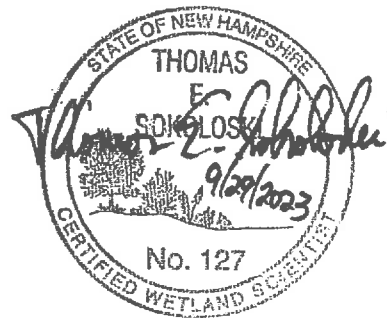
I trust that this restoration report will meet with your approval, and if there are any questions regarding this work, please feel free to contact me directly.

Sincerely,



Thomas E. Sokoloski  
New Hampshire Certified Wetland Scientist #127

cc: Henniker Conservation Commission  
**Henniker Board of Selectmen**  
Demoura Living Trust (Keith and Nancy Demoura)  
Mary Shea  
Jon Swain, Capital Well





# TES

**TES ENVIRONMENTAL CONSULTANTS, L.L.C.**



FIGURE 1

Wetland Restoration Area, Below Blue and White Flags, Showing Stick/Leaf Debris Line Marking an Earlier Overbank Flood Event (8/24/2023)



FIGURE 2

View North Towards Restoration Area, To Right of Silt Soxx, Showing Light Sand Coating from Past and Recent Overbank Flooding (8/24/2023)

*Environmental Planning & Permitting*

*Soil & Wetland Investigations*

---

1494 Route 3A, Unit 1 Bow, NH 03304 Phone 856-8925  
Email: tom@tesenviro.comcastbiz.net

# TES

**TES ENVIRONMENTAL CONSULTANTS, L.L.C.**



FIGURE 3

Current Well Water Discharge to Contoocook River Bank Upstream of Restoration Area Showing Dense Vegetation and Bank Rock ((8/24/2023)



FIGURE 4

Northern Edge of Wetland Restoration Area, Showing Silt Soxx Dislodged by Floodwaters, Natural Herbaceous Growth Returning (8/24/2023)

*Environmental Planning & Permitting*

*Soil & Wetland Investigations*

1494 Route 3A, Unit 1 Bow, NH 03304 Phone 856-8925  
Email: tom@tesenviro.comcastbiz.net



FIGURE 5

Wetland Restoration Area Following Removal of Silt Soxx, with Wood Mulch Spread Thinly in Vicinity of Former Sediment Barrier (8/24/2023)



FIGURE 6

Overall View of Wetland Restoration Area Following Removal of Silt Soxx, View to South Across Site with Contoocook River in Background (8/24/2023)

August 24, 2023

Ms. Diane Kendall  
Town Administrator  
Town Hall  
18 Depot Hill Road  
Henniker, NH 03242

**RE: Comcast Response to Town of Henniker Request for Proposal Broadband Improvement Implementation**

Dear Ms. Kendall:

Comcast Cable Communications, LLC (“Comcast”<sup>1</sup>) has reviewed the Request for Proposals for Improvement of Broadband Services (the “RFP”) issued by the Town of Henniker (the “Town”) with respect to deploying broadband infrastructure to unserved locations identified in the RFP. Comcast is pleased to inform the Town that its ongoing network investments within the Town will include broadband serviceable locations as provided through the RFP. After further analysis and review of the locations, Comcast was able to identify 106 unserved locations that will be included in its current broadband deployment project. Comcast plans to submit pole permit applications within the next two weeks. The locations will be serviceable within 6-12 months, pending there are no make-ready delays, thus, achieving near universal broadband coverage in the Town.

Comcast is committed to investing in the communities in which we live and serve. Comcast has served Town residents and businesses for over 20 years, providing them with state-of-the-art broadband service. As previously discussed with Town officials, our current broadband deployment project is extending infrastructure to 246 locations within the Town. This project will continue without seeking a contribution from the Town or its residents and includes broadband serviceable locations identified in the RFP. The locations in the RFP have become more economical to build because our current broadband deployment project will extend our infrastructure closer to other unserved locations within the Town. Additionally, the availability of our construction contractors allows us to complete the unserved locations in a timely manner.

---

<sup>1</sup> **Note:** Comcast Cable Communications, LLC is a wholly owned indirect subsidiary of Comcast Corporation. Comcast Corporation is a publicly traded company that through its cable division subsidiaries, including, but not limited to Comcast Cable Communications, LLC, provides cable television, voice and internet services. For the purposes of this response, the term “Comcast” throughout this response may refer to Comcast Corporation, Comcast Cable Communications, LLC, or the Comcast Corporation cable division operating Comcast subsidiaries or affiliates holding cable television franchises in the relevant jurisdictions. In the event of a grant award, for the avoidance of any doubt, the contracting entity for Comcast will be Comcast Cable Communications, LLC and all grant obligations binding upon Comcast Cable Communications, LLC must be agreed to in a separate writing between the parties.

For a brief overview of Comcast network performance and ongoing investments that directly impact the Town of Henniker and its residents, please find below the highlights of our network capacity, resiliency, and scalability; services provided; and broadband adoption efforts.

### **Comcast's Network Performance and Ongoing Investments**

Over the past three years, Comcast has invested nearly \$278 million in private, at-risk capital in New Hampshire, building, maintaining, and operating one of the most extensive fiber-based networks in the country. This investment enables Comcast to stay ahead of consumer demand, which was especially important in 2020 when Internet traffic spiked more than 30% as people transitioned to working and learning from home, and our network continued to deliver fast speeds, even under the heaviest usage.

In addition to an all-fiber backbone that connects communities coast-to-coast, Comcast has consistently added and expanded fiber throughout the portion of its network that serves customers directly (called the "access" network). Comcast has extended its fiber network closer to customers' homes, including numerous fiber-to-the-home ("FTTH") and fiber-to-the-premise ("FTTP") deployments delivering Comcast's full range of services to both commercial and residential customers. Comcast's fiber network is continuously monitored and protected by proprietary, internally developed artificial intelligence ("AI") and machine learning technologies that can automatically detect issues like fiber tears, and dramatically reduce the estimated time to repair. In a world where fiber cuts and tears are a daily experience across the country, smart AI that detects and mitigates such incidents can mean the difference between customers being offline for a few minutes or several hours.

Comcast's significant ongoing network and technology investments enable us to continually deliver innovative products and services that keep residents and businesses on the cutting edge. In fact, we are currently rolling out the nation's largest and fastest multi-gig network deployment, reaching more than 50 million homes and business before end of 2025. The Xfinity 10G Network is next-generation broadband for our residential customers and provides a combination of reliability, security, power, resilience and innovation, and will provide even faster multi-gig symmetrical speeds.

For additional information on Comcast's Network Performance, please see Comcast's Network Performance Report at [https://update.comcast.com/wp-content/uploads/sites/33/dlm\\_uploads/2022/02/0222\\_2021NetworkReport\\_V19.pdf](https://update.comcast.com/wp-content/uploads/sites/33/dlm_uploads/2022/02/0222_2021NetworkReport_V19.pdf)

### **Xfinity 10G Network - Background**

Recently, Comcast announced its launch of even faster, 10G-enabled multi-gig symmetrical speeds that begin this year. In addition to the immediate performance boost, this work also accelerates the transition to DOCSIS 4.0 and 10G. 10G is a technology platform that Comcast is using to digitize and virtualize much of the physical device technology and to move many of those activities into the cloud, allowing Comcast to innovate at the speed of software and to

deliver multigigabit upload and download speeds to tens millions of Americans over the connections they already have in their homes.

Comcast has been deploying similar technologies for years as part of this evolution – in the industry it is known as Distributed Access Architecture (DAA) and “virtualized” Cable Modem Termination Systems (vCMTS). By leveraging full duplex and extended spectrum capabilities, Comcast will be able to deliver those multi-gigabit speeds over its existing hybrid fiber coaxial network. In preparation for faster network speeds, earlier this year, Comcast launched its latest Wi-Fi 6E Gateway, one of the first in the world to support multi-gigabit symmetrical Wi-Fi.

Because Comcast is evolving its entire network architecture, equipment, and customer devices, we are uniquely positioned to deliver these advancements in speed, reliability, and performance to everyone we serve, not just a select few. And because much of this work is powered by software, these changes can be made with far less disruption to customers than other technologies. For more information on Comcast’s multi-gig network deployment, see <https://corporate.comcast.com/press/releases/comcast-expand-evolve-wifi-largest-multi-gigabit-network>.

### **Xfinity 10G Network - Customer Impact**

Comcast’s next-generation network and Internet experience are powering homes today and into the future:

- **Ultimate Capacity:** Xfinity customers connect nearly 1 billion devices across the Company’s network annually. The Xfinity 10G Network with the next-generation Xfinity gateways deliver the most advanced WiFi technology carrying three times more bandwidth to power streaming, gaming, videoconferencing, and more, simultaneously.
- **Fastest Internet:** Approximately one third of Xfinity Internet customers subscribe to gigabit speed products, and Ookla rated Xfinity the fastest Internet provider at the end of 2022\*. Symmetrical gig speeds to the first homes are planned for later this year.
- **Unprecedented Coverage:** The latest Xfinity Gateway provides a more reliable connection throughout the home. Customers can get wall-to-wall WiFi coverage with a powerful xFi Pod that extends coverage to hard-to-reach areas, with plans for an offering of increased support for in-home WiFi through a “boost guarantee” later this year.
- **Most Reliable Connection:** Comcast is scaling the nation’s largest and most reliable network – the Xfinity 10G Network – that passes 61 million homes and business and counting. The Company plans to launch a new device that is “storm-ready” with cellular and battery backup to help keep customers connected even when the power goes out.
- **Ultra-Low Latency:** The Xfinity 10G Network and the latest xFi Gateway are a powerful combination that deliver ultra-low latency for those moments when response times matter most like video games, a fast-growing category with Xfinity households averaging more than one gaming console per home.

For more information, visit <https://www.xfinity.com/10G>.

### **Xfinity Services**

Comcast offers customers multiple choices of residential and commercial broadband services, depending on the customers' specific needs. Attachment A to this letter outlines the service tiers, speeds and pricing currently available in the Town, and is provided for informational purposes only. We have also introduced xFi, the ultimate in-home WiFi experience powered by our xFi Gateway. xFi features in the Xfinity app enable customers with an xFi Gateway to monitor, control and pause their network and devices, giving them total control over all their devices, all in one place. In addition to our Xfinity Internet service, Comcast also offers a full suite of products and services, including voice, video, mobile and home security services. For more information on these services, please visit [www.Comcast.com](http://www.Comcast.com).

### **Broadband Adoption Efforts – Comcast Internet Essentials and ACP**

Comcast has long been committed to addressing the broadband adoption issue through [Comcast Internet Essentials](#), the most comprehensive and successful low-income broadband adoption program in the nation. Since its introduction in 2011, Internet Essentials has connected 64,000 low-income New Hampshire residents in 16,000 homes. The program provides qualifying households with broadband service at speeds of up to 50 Mbps/10 Mbps for \$9.95 a month or speeds of up to 100Mbps/20Mbps for \$29.95/month as well as free digital skills training in person and online. Customers have the option to purchase a low-cost Internet-ready computer.

Comcast is also proud to be a participating provider in the federal government's Affordable Connectivity Program ("ACP"). Under ACP, qualifying households may receive a credit of up to \$30/month (\$75/month in Tribal lands) toward any Xfinity Internet service tier, including Internet Essentials and Internet Essentials Plus, and/or Xfinity Mobile service. If customers have both Xfinity Internet and Xfinity Mobile, the ACP credit will first be applied toward Internet and any remaining credit will be automatically applied to their Xfinity Mobile data usage and/or services fees.

As of August 21, 2023, ACP has helped to connect more than 20 million households to broadband access. At a May 2022 White House event, Comcast was recognized for stepping up with innovative offerings like Internet Essentials Plus to help eligible households take full advantage of the ACP credit.

Internet Essentials and Internet Essentials Plus are each fully covered by the ACP credit. In addition, an Internet Essentials customer (paying \$9.95/month) who is enrolled in ACP can have the remaining ACP credit applied to their Xfinity Mobile service. For example, an Internet Essentials participant (paying \$9.95/month) who adds one line of Unlimited on Xfinity Mobile (\$45/month) will only pay \$24.95/month after applying the remainder of the ACP credit. For more information, see <https://corporate.comcast.com/press/releases/comcast-affordable-connectivity-program-internet-essentials-service-xfinity-mobile>.

Comcast's outreach efforts to increase ACP awareness and participation include leveraging numerous marketing channels (such as radio, TV, print, social media, in-person events and online ads) to reach eligible households. Furthermore, the Company works closely with government officials and our community partners to bring awareness to the community. These partners include the Falmouth Public Schools, the Falmouth Housing Authority, and the Falmouth Senior Center.

I hope this information is useful in providing an overview of the power, speed and resiliency of Comcast's network, as well as our broadband adoption efforts. As you can see, Comcast is well positioned to meet the needs of residents and businesses in the Town now and into the future.

Please contact me at [bryan\\_christiansen@comcast.com](mailto:bryan_christiansen@comcast.com) or 617-279-6956 if you would like to set up a meeting or if you have any questions related to the contents of this letter or our current network investments in the Town.

Sincerely,

A handwritten signature in black ink that reads "Bryan Christiansen". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Bryan Christiansen  
Director, Government & Regulatory Affairs  
Comcast Greater Boston Region

C.c Monica Thibault, Comcast Manager of Government & Regulatory Affairs



# NONPUBLIC #2