

**Lanesboro Public Utilities Commission**  
**Regular Meeting Agenda**  
**Monday, June 17, 2024 at 5:30 p.m.**  
**Lanesboro Community Center Meeting Room and Zoom**

\*Zoom is provided as a way to offer more accessibility to council and committee meetings.  
However, due to potential technical issues, full functionality is not guaranteed\*

<https://us02web.zoom.us/j/82892168693?pwd=YIBPbEpvU3oxK0lNejFaNldFL3ZSQ09>

Meeting ID: 828 9216 8693 Passcode: 611594

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**Call the Regular Meeting to Order**

- A. Agenda Approval
- B. Public Comments
- C. Consent Agenda
  - a. [Minutes of Regular Meeting, April 15, 2024](#)
  - b. [Financial Summary, May 2024](#)
  - c. [Accounts Payable](#)
- D. Staff Update
- E. City Council Update

**Continued Business**

- A. Lead Service Line Inventory
- B. WWTF - Significant Industrial User Agreement
- C. Capital Projects
- D. [Semcac Conservation Improvement Program Contract](#)

**New Business**

- A. [2024 Case 580SN Backhoe Purchase](#)
- B. Commission Meeting Schedule

**Miscellaneous**

**Next Meeting: Monday, July 15, 2024 at 5:30 p.m.**

**Adjourn Regular Meeting**

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Draft 04/16/2024

Walbridge will verify what is left in the conservation improvement fund balance and will inform members at the next meeting. Member Pieper rescinded his motion and entered a new motion to table the contract consideration; Member Roelofs seconded the motion. Motion carried with all in favor.

**Miscellaneous:**

- Council member Albrecht-Benson asked if the current meeting time worked for members as member Riggott was absent. Administrator Walbridge will ask Member Riggott if the current meeting time is compatible with his schedule or if the meeting time should be rescheduled.

Member Pieper entered a motion to adjourn the meeting; Member Roelofs seconded the motion. Motion carried with all in favor. The meeting was adjourned at 5:55 p.m.

Respectfully submitted,

Mitchell Walbridge  
City Administrator/Clerk

# LANESBORO PUBLIC UTILITIES

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## Payments

Current Period: June 2024

Payments Batch 06152024PAY				\$51,469.34	
Refer <u>425251 WAGNER, JEROD G</u> -					
Cash Payment	E 640-60400-135	Employer Paid Other Invoice			\$25.00
Cash Payment	E 620-60200-135	Employer Paid Other Invoice			\$12.50
Cash Payment	E 610-60100-135	Employer Paid Other Invoice			\$12.50
Transaction Date	5/31/2024	Checking	10101	<b>Total</b>	<b>\$50.00</b>
Refer <u>425252 NORBY, JEFF</u> -					
Cash Payment	E 640-60400-135	Employer Paid Other Invoice			\$25.00
Cash Payment	E 620-60200-135	Employer Paid Other Invoice			\$12.50
Cash Payment	E 610-60100-135	Employer Paid Other Invoice			\$12.50
Transaction Date	5/31/2024	Checking	10101	<b>Total</b>	<b>\$50.00</b>
Refer <u>425253 S &amp; A PETROLEUM</u> -					
Cash Payment	E 640-60400-212	Motor Fuels Invoice			\$210.68
Cash Payment	E 620-60200-212	Motor Fuels Invoice			\$105.35
Cash Payment	E 610-60100-212	Motor Fuels Invoice			\$105.35
Transaction Date	5/31/2024	Checking	10101	<b>Total</b>	<b>\$421.38</b>
Refer <u>425254 VIS PLUMBING &amp; HEATING</u> -					
Cash Payment	E 610-60100-404	Repairs/Maint Machiner Invoice			\$289.78
Transaction Date	5/31/2024	Checking	10101	<b>Total</b>	<b>\$289.78</b>
Refer <u>425255 ACENTEK</u> -					
Cash Payment	E 640-60400-321	Telephone Invoice			\$110.01
Cash Payment	E 620-60200-321	Telephone Invoice			\$112.41
Cash Payment	E 610-60100-321	Telephone Invoice			\$148.07
Transaction Date	5/31/2024	Checking	10101	<b>Total</b>	<b>\$370.49</b>
Refer <u>425256 PRAXAIR</u> -					
Cash Payment	E 610-60100-210	Operating Supplies (GE Invoice 43283041)			\$37.17
Transaction Date	6/4/2024	Checking	10101	<b>Total</b>	<b>\$37.17</b>
Refer <u>425257 MOTOR PARTS &amp; EQUIPMENT INC</u> -					
Cash Payment	E 640-60400-404	Repairs/Maint Machiner Invoice			\$31.25
Cash Payment	E 620-60200-404	Repairs/Maint Machiner Invoice			\$15.63

# LANESBORO PUBLIC UTILITIES

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## Payments

Current Period: June 2024

Cash Payment E 610-60100-404 Repairs/Maint Machiner					\$15.63
Invoice					
Transaction Date	6/4/2024	Checking	10101	<b>Total</b>	\$62.51
Refer 425258 CORE & MAIN					
Cash Payment E 610-60100-402 Repairs/Maint Structure					\$4,648.42
Invoice U955457					
Transaction Date	6/4/2024	Checking	10101	<b>Total</b>	\$4,648.42
Refer 425259 MN DEPT OF REVENUE Ck# 038847E 6/5/2024					
Cash Payment E 640-60400-450 Sales Tax Paid					\$3,512.00
Invoice					
Transaction Date	6/5/2024	Checking	10101	<b>Total</b>	\$3,512.00
Refer 425260 KINGSLEY MERCANTILE					
Cash Payment E 620-60200-210 Operating Supplies (GE					\$36.99
Invoice					
Transaction Date	6/5/2024	Checking	10101	<b>Total</b>	\$36.99
Refer 425261 LANESBORO PUBLIC UTILITIES					
Cash Payment E 610-60100-380 Utility Services (GENER					\$183.91
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$110.24
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$104.49
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$240.41
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$1,456.97
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$198.35
Invoice					
Cash Payment E 640-60400-380 Utility Services (GENER					\$665.85
Invoice					
Cash Payment E 610-60100-380 Utility Services (GENER					\$213.89
Invoice					
Cash Payment E 620-60200-380 Utility Services (GENER					\$2,056.23
Invoice					
Transaction Date	6/5/2024	Checking	10101	<b>Total</b>	\$5,230.34
Refer 425262 BERKLEY RISK ADMINISTRATORS					
Cash Payment E 640-60400-150 Worker s Comp (GENE					\$815.88
Invoice					
Cash Payment E 620-60200-150 Worker s Comp (GENE					\$407.94
Invoice					
Cash Payment E 610-60100-150 Worker s Comp (GENE					\$407.94
Invoice					
Transaction Date	6/5/2024	Checking	10101	<b>Total</b>	\$1,631.76
Refer 425263 BOLTON & MENK					
Cash Payment E 422-60200-303 Engineering Fees					\$3,486.55
Invoice 0337074					
Transaction Date	6/6/2024	Checking	10101	<b>Total</b>	\$3,486.55

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## Payments

Current Period: June 2024

<hr/>					
Refer	425264	MIENERGY COOPERATIVE			
Cash Payment	E 640-60400-260	Meter Hosting & Monitor Invoice			\$280.00
Cash Payment	E 640-60400-218	Purchased Power Invoice			\$21,296.43
Transaction Date	6/6/2024	Checking	10101	<b>Total</b>	<b>\$21,576.43</b>
<hr/>					
Refer	425265	SMITH SCHAFFER & ASSOCIATES, L			
Cash Payment	E 640-60400-301	Auditing and Acct g Ser Invoice 31413			\$250.00
Cash Payment	E 620-60200-301	Auditing and Acct g Ser Invoice 31413			\$125.00
Cash Payment	E 610-60100-301	Auditing and Acct g Ser Invoice 31413			\$125.00
Transaction Date	6/6/2024	Checking	10101	<b>Total</b>	<b>\$500.00</b>
<hr/>					
Refer	425266	GOPHER STATE ONE-CALL			
Cash Payment	E 640-60400-438	Gopher One Locates Invoice 4050533			\$25.65
Transaction Date	6/7/2024	Checking	10101	<b>Total</b>	<b>\$25.65</b>
<hr/>					
Refer	425267	MN PEIP			
Cash Payment	G 640-21708	Health Insurance Invoice			\$1,691.54
Cash Payment	G 620-21708	Health Insurance Invoice			\$845.77
Cash Payment	G 610-21708	Health Insurance Invoice			\$845.77
Transaction Date	6/7/2024	Checking	10101	<b>Total</b>	<b>\$3,383.08</b>
<hr/>					
Refer	425268	ZEP MANUFACTURING COMPANY			
Cash Payment	E 620-60200-210	Operating Supplies (GE Invoice 9009848883			\$445.22
Transaction Date	6/7/2024	Checking	10101	<b>Total</b>	<b>\$445.22</b>
<hr/>					
Refer	425269	UMMEG			
Cash Payment	E 640-60400-218	Purchased Power Invoice 2867			-\$1,983.08
Cash Payment	E 640-60400-218	Purchased Power Invoice 6794			\$6,096.00
Cash Payment	E 640-60400-218	Purchased Power Invoice 6807			\$1,563.56
Transaction Date	6/7/2024	Checking	10101	<b>Total</b>	<b>\$5,676.48</b>
<hr/>					
Refer	425270	MINNESOTA DEPT. OF COMMERC			
Cash Payment	E 640-60400-439	Conservation Improvem Invoice 1000051771			\$35.09
Transaction Date	6/10/2024	Checking	10101	<b>Total</b>	<b>\$35.09</b>
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## Payments

Current Period: June 2024

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### Fund Summary

	10101 Checking
422 WWTF DESIGN	\$3,486.55
610 WATER FUND	\$9,156.39
620 SEWER FUND	\$4,175.54
640 ELECTRIC FUND	\$34,650.86
	<hr/>
	\$51,469.34

Pre-Written Checks	\$3,512.00
Checks to be Generated by the Computer	\$47,957.34
Total	<hr/>
	\$51,469.34





E 620-60200-361 General Liability Ins	\$ 500.00	\$ 155.31	\$ -	\$ -	\$ -	\$ 155.31	31.06%	
E 620-60200-362 Property Ins	\$ 3,415.00	\$ 11,819.00	\$ -	\$ -	\$ -	\$ 11,819.00	346.09%	
E 620-60200-363 Automotive Ins	\$ 1,765.00	\$ 1,916.50	\$ -	\$ -	\$ -	\$ 1,916.50	108.58%	
E 620-60200-380 Utility Services (GENERAL)	\$ 60,000.00	\$ 1,481.43	\$ 2,398.27	\$ 2,003.07	\$ 1,960.57	\$ 2,248.28	\$ 10,091.62	16.82%
E 620-60200-402 Repairs/Maint Structures	\$ 5,358.06	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 620-60200-404 Repairs/Maint Machinery/Equip	\$ 5,358.06	\$ -	\$ 18.10	\$ 650.80	\$ -	\$ -	\$ 668.90	12.48%
E 620-60200-410 Rentals (GENERAL)	\$ 309.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 620-60200-430 Miscellaneous	\$ 206.00	\$ 21.25	\$ -	\$ -	\$ -	\$ -	\$ 21.25	10.32%
E 620-60200-500 Capital Outlay (GENERAL)	\$ 28,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 320-60200-613 Debt Interest	\$ 50,594.32	\$ -	\$ 19,175.36	\$ -	\$ -	\$ -	\$ 19,175.36	37.90%
E 320-60200 Debt Principal	\$ 144,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Transfer to General Fund:								
Wages and Benefits - Administration	\$ 21,256.53	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Auburn/Zenith Road Project	\$ 14,897.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
<b>Subtotal</b>	<b>\$ 457,139.25</b>	<b>\$ 22,562.45</b>	<b>\$ 27,926.57</b>	<b>\$ 10,262.94</b>	<b>\$ 4,738.06</b>	<b>\$ 5,108.58</b>	<b>\$ 70,598.60</b>	<b>15.44%</b>
R 620-60200-36210 Interest Earnings	\$ 3,000.00	\$ 458.17	\$ 459.99	\$ 516.47	\$ 536.47	\$ -	\$ 1,971.10	65.70%
R 320-60200-37212 Usage	\$ 134,597.90	\$ 9,242.20	\$ 5,924.00	\$ 6,828.68	\$ 7,472.11	\$ 8,460.18	\$ 37,927.17	28.18%
R 620-60200-37211 Commercial Sewer	\$ -	\$ 1,441.07	\$ 897.15	\$ 665.54	\$ -	\$ -	\$ 3,003.76	#DIV/0!
R 620-60200-37212 Apartment Base Charge	\$ -	\$ 394.11	\$ 423.80	\$ 354.06	\$ 372.96	\$ 372.94	\$ 1,917.87	#DIV/0!
R 620-60200-37212 Sewer Base Charge	\$ 288,249.43	\$ 24,160.68	\$ 22,325.28	\$ 23,336.49	\$ 22,564.91	\$ 23,710.58	\$ 116,097.94	40.28%
R 620-60200-37260 Sewer Penalty	\$ -	\$ 21.37	\$ 22.58	\$ 198.20	\$ 199.87	\$ 428.99	\$ 871.01	0.00%
R 620-60100-37740 Improvement Fee	\$ 46,195.72	\$ 3,970.35	\$ 3,721.64	\$ 3,814.66	\$ 3,724.84	\$ 3,903.01	\$ 19,134.50	41.42%
<b>Subtotal</b>	<b>\$ 472,043.05</b>	<b>\$ 39,687.95</b>	<b>\$ 33,774.44</b>	<b>\$ 35,714.10</b>	<b>\$ 34,871.16</b>	<b>\$ 36,875.70</b>	<b>\$ 180,923.35</b>	<b>38.33%</b>
<b>Fund 640 ELECTRIC FUND</b>								
E 640-60400-101 Wages and Salaries (GENERAL)	\$ 158,756.73	\$ 17,136.35	\$ 11,074.80	\$ 11,589.66	\$ 11,126.75	\$ 11,656.09	\$ 62,583.65	39.42%
E 640-60400-121 PERA	\$ 11,906.75	\$ 1,285.30	\$ 830.68	\$ 869.25	\$ 834.54	\$ 874.22	\$ 4,693.99	39.42%
E 640-60400-122 FICA	\$ 15,875.67	\$ 1,289.98	\$ 827.77	\$ 867.25	\$ 829.73	\$ 872.29	\$ 4,687.02	29.52%
E 640-60400-131 Employer Paid Health	\$ 18,433.00	\$ 1,689.96	\$ 1,663.96	\$ 1,704.46	\$ 1,769.96	\$ 1,662.74	\$ 8,491.08	46.06%
E 640-60400-134 Employer Paid Life	\$ 1,110.00	\$ -	\$ 110.14	\$ 55.06	\$ -	\$ 165.20	\$ 330.40	29.77%
E 640-60400-135 Cell Phone	\$ 375.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 250.00	66.67%
E 640-60400-150 Worker's Comp (GENERAL)	\$ 1,775.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-208 Training and Instruction	\$ 2,575.00	\$ -	\$ -	\$ -	\$ 315.02	\$ 137.95	\$ 452.97	17.59%
E 640-60400-210 Operating Supplies (GENERAL)	\$ 15,450.00	\$ 35.59	\$ 575.00	\$ 27.98	\$ 3,453.14	\$ 4,396.05	\$ 8,487.76	54.94%
E 640-60400-212 Motor Fuels	\$ 6,429.67	\$ -	\$ 187.16	\$ -	\$ 270.98	\$ -	\$ 458.14	7.13%
E 640-60400-218 Purchased Power	\$ 693,600.00	\$ 46,920.83	\$ 42,219.12	\$ 33,404.48	\$ 34,633.55	\$ 30,552.79	\$ 187,730.77	27.07%
E 640-60400-230 Permit Fees	\$ 515.00	\$ -	\$ -	\$ -	\$ -	\$ 25.00	\$ 25.00	4.85%
E 640-60400-239 Clothing Allowance	\$ 660.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-240 Small Tools and Minor Equip	\$ 3,090.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-260 Meter Hosting & Monitoring	\$ 4,500.00	\$ -	\$ 280.60	\$ 562.20	\$ 282.92	\$ -	\$ 1,125.72	25.02%
E 640-60400-300 Professional Svcs (GENERAL)	\$ 12,000.00	\$ -	\$ 97.50	\$ 97.50	\$ 303.93	\$ -	\$ 498.93	4.16%
E 640-60400-301 Auditing and Acct'g Services	\$ 5,600.00	\$ -	\$ -	\$ -	\$ 3,450.00	\$ 2,800.00	\$ 6,250.00	111.61%
E 640-60400-303 Engineering Fees	\$ 5,253.00	\$ -	\$ -	\$ -	\$ 1,260.00	\$ 2,340.00	\$ 3,600.00	68.53%
E 640-60400-311 Membership Dues	\$ 1,821.74	\$ 25.00	\$ 1,114.00	\$ 1,000.00	\$ -	\$ -	\$ 2,139.00	117.42%
E 640-60400-321 Telephone	\$ 1,545.00	\$ 110.56	\$ 111.06	\$ 112.53	\$ 110.31	\$ 111.27	\$ 555.73	35.97%
E 640-60400-322 Postage	\$ 2,571.87	\$ 150.74	\$ 151.50	\$ 150.74	\$ 166.89	\$ 300.74	\$ 920.61	35.80%
E 640-60400-350 Print/Binding (GENERAL)	\$ 262.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-361 General Liability Ins	\$ 500.00	\$ 310.63	\$ -	\$ -	\$ -	\$ -	\$ 310.63	62.13%
E 640-60400-362 Property Ins	\$ 24,500.00	\$ 23,098.00	\$ -	\$ -	\$ -	\$ -	\$ 23,098.00	94.28%
E 640-60400-363 Automotive Ins	\$ 445.00	\$ 436.00	\$ -	\$ -	\$ -	\$ -	\$ 436.00	97.98%
E 640-60400-380 Utility Services (GENERAL)	\$ 10,400.00	\$ 506.85	\$ 794.45	\$ 611.07	\$ 776.25	\$ 680.05	\$ 3,368.67	32.39%
E 640-60400-402 Repairs/Maint Structures	\$ 4,286.45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-404 Repairs/Maint Machinery/Equip	\$ 7,500.00	\$ -	\$ 36.18	\$ -	\$ -	\$ -	\$ 36.18	0.48%
E 640-60400-410 Rentals (GENERAL)	\$ 250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
E 640-60400-430 Miscellaneous (GENERAL)	\$ 515.00	\$ 42.50	\$ -	\$ -	\$ -	\$ -	\$ 42.50	8.25%
E 640-60400-438 Gopher One Locates	\$ 500.00	\$ 9.45	\$ 50.00	\$ 1.35	\$ 6.75	\$ 18.90	\$ 86.45	17.29%
E 640-60400-439 Conservation Improvement	\$ 6,399.00	\$ 2,018.14	\$ 25.00	\$ 607.27	\$ -	\$ 100.00	\$ 2,750.41	42.98%
E 640-60400-500 Capital Outlay (GENERAL)	\$ 32,500.00	\$ 4,966.87	\$ -	\$ -	\$ -	\$ -	\$ 4,966.87	15.28%
Vehicle Replacement	\$ 86,613.06	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Transfer to General Fund:								
Auburn/Zenith Transfer	\$ 36,600.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Park Road Transfer	\$ 7,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Wages and Benefits Administration	\$ 42,513.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
<b>Subtotal</b>	<b>\$ 1,225,127.66</b>	<b>\$ 100,082.75</b>	<b>\$ 60,198.92</b>	<b>\$ 51,710.80</b>	<b>\$ 59,640.72</b>	<b>\$ 56,743.29</b>	<b>\$ 328,376.48</b>	<b>26.80%</b>
R 640-60400-37426 City Service Charge	\$ 4,800.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 2,000.00	41.67%
R 640-60400-37425 City Street Lights	\$ 5,200.00	\$ 493.54	\$ 454.29	\$ 379.02	\$ 353.52	\$ 303.95	\$ 1,984.32	38.16%
R 640-60400-37420 Security Lights	\$ 1,450.00	\$ 124.00	\$ 124.00	\$ 124.00	\$ 116.25	\$ 124.39	\$ 612.64	42.25%
R 640-60400-37413 Commercial Electric	\$ 363,137.71	\$ 30,411.88	\$ 27,648.00	\$ 22,425.18	\$ 23,567.60	\$ 23,956.72	\$ 128,009.38	35.25%
R 640-60400-37412 Residential Electric	\$ 297,112.68	\$ 25,606.05	\$ 25,527.97	\$ 22,177.44	\$ 20,432.81	\$ 20,518.16	\$ 114,262.43	38.46%
R 640-60400-36210 Interest Earnings	\$ 800.00	\$ 916.34	\$ 920.01	\$ 1,032.93	\$ 1,072.93	\$ -	\$ 3,942.21	492.78%
R 340-60400-37415 Electric Base Charge	\$ 406,702.56	\$ 35,736.37	\$ 33,450.26	\$ 33,662.56	\$ 34,000.54	\$ 34,562.32	\$ 171,412.05	42.15%
R 640-60400-35000 Fines and Forfeits	\$ -	\$ 2.74	\$ 2.98	\$ 52.05	\$ -	\$ -	\$ 57.77	0.00%
R 640-60400-37460 Elec Penalty	\$ -	\$ 214.22	\$ 99.54	\$ 290.65	\$ 363.15	\$ 523.15	\$ 1,490.71	0.00%
R 640-60400-36200 Miscellaneous Revenue	\$ -	\$ 31.91	\$ 156.07	\$ 53.88	\$ 40.06	\$ 9.93	\$ 291.85	0.00%
R 640-60400-37410 Comm Solar Energy	\$ (1,050.00)	\$ -	\$ (4.90)	\$ (31.95)	\$ (37.60)	\$ (60.15)	\$ (134.60)	12.82%
R 640-60400-37411 Res. Solar Energy	\$ (4,500.00)	\$ (70.79)	\$ (85.36)	\$ (325.15)	\$ (303.78)	\$ (326.87)	\$ (1,111.95)	24.71%
<b>Subtotal</b>	<b>\$ 1,079,202.95</b>	<b>\$ 93,937.05</b>	<b>\$ 88,783.12</b>	<b>\$ 80,597.71</b>	<b>\$ 79,943.65</b>	<b>\$ 79,865.54</b>	<b>\$ 423,127.07</b>	<b>39.21%</b>

**The City of Lanesboro Conservation Improvement Program  
For  
Low-Income Participants**

This Agreement is between SEMCAC, a Community Action Agency and the City of Lanesboro ("THE CITY"), a municipality organized under the laws of the State of Minnesota, including its Utilities Commission.

**WITNESSETH:**

**WHEREAS**, SEMCAC is a non-profit agency in the business of providing energy efficiency services to low-income residents of Minnesota; and the City, through its municipality and utilities commission, provides energy to its customers.

**WHEREAS**, SEMCAC performs Weatherization services for low-income customers in the City's service territory; and replaces existing inefficient room air conditioners, refrigerators, and/or clothes washers with new ENERGY STAR® rated appliances, and/or installs microwave ovens and/or ENERGY STAR LED light bulbs where none already exist.

**WHEREAS**, the City and SEMCAC desire to contract for the performance of certain appliance replacement services in Minnesota by SEMCAC, as specified in Article I set forth below, and upon the terms and conditions of this Agreement (the "Services").

**NOW THEREFORE**, for the mutual covenants contained herein and other good and valuable consideration, the parties agree as follows:

**ARTICLES**

**I. Scope of Work**

A. Introduction

SEMCAC will carry out the work described in Article I.C. Participants in the City's utility Low-Income Program must receive their electric utility service exclusively from the City's Utility and must meet the low-income eligibility as defined in the current Department of Energy State Plan ("State Plan") submitted by the State of Minnesota.

All Services will be in compliance with Federal Regulation 10 CFR 440 and any other applicable local, state and federal laws, rules or regulations. SEMCAC warrants and represents to the City that the Services provided will be performed by qualified and competent personnel in accordance with industry practice and the high standards of care and practice appropriate to the nature of the Services rendered, that the equipment supplied will meet the equipment and other specifications provided herein or by the City, and the Services will be fit for the particular purpose intended by the City, and be free from defects.

SEMCAC will document all Services performed hereunder according to data collection requirements described in Article I.D.

B. Consumer Selection and Participation

1. Qualifying customers:

Qualifying low-income customers must reside in an owner-occupied residence or occupy a rental property and own the appliances.

2. The suggested order of ranking:

- a. Owner-occupied residence
- b. Consumers with highest electrical usage
- c. Senior citizens over the age of 60
- d. Handicapped consumers
- e. Families with children under the age of six
- f. Renters that own the appliances

SEMCAC will use its best efforts to prioritize those homes in the order they appear on the priority list; beginning with the top-ranked home, inasmuch as is feasible and practical in SEMCAC's reasonable judgment.

SEMCAC will also use its best efforts to prioritize by the following rank/order appliances to be replaced within the home when more than one Energy Efficiency Measure (EEM) exists:

- a. LED Light Bulbs (LEDs)
- b. Efficient Furnace Fan Motor
- c. Refrigerator
- d. Microwave oven
- e. Room air conditioners
- f. Clothes washer

**C. Energy Efficiency Measures to be implemented**

SEMCAC will ensure that the following Energy Efficiency Measures ("EEMs") will be added to the Services performed, where applicable, feasible and allowed by the consumer. The City's utilities will fund the cost of performing or installing these EEMs according to Article II of this Agreement.

- a. *LED Light Bulbs (EEM)* LEDs will be given to eligible participants who 1) receive electric City from the City's Utility and 2) agree to have the LEDs installed in high usage areas (minimum average usage of 3 hours/day). SEMCAC will contact the City's Utility or the City to make arrangements for pick-up or delivery of the ENERGY STAR qualified LEDs to be installed at the consumer's residence before purchasing them

from a local distributor. The existing incandescent lights will be removed and properly recycled. This service will be done with the consumer's knowledge.

b. *Natural Gas Furnace Fan Motor Replacement (EEM)* An electronically commutated motor (ECM) or equivalent will be installed in an existing natural gas furnace for eligible participants who 1) receive electric from the City's Utility, 2) agree to have their old, working furnace blower motor replaced by a qualified contractor. SEMCAC will work with an HVAC contractor to obtain the best price for an ECM or equivalent furnace fan motor to be installed in the consumer's residence. The existing blower motor will be removed by the contractor for the agreed purchase price. This service will be done with the consumer's knowledge.

c. *Refrigerator Replacement (EEM)* A refrigerator will be given to eligible participants who 1) receive electricity from the City's Utility, 2) agree to have their old, working refrigerator removed and properly recycled by a contractor, and 3) agree to have the new refrigerator professionally installed by a contractor. SEMCAC will work with a local contractor to obtain the best price for an ENERGY STAR rated refrigerator to be installed at the consumer's residence. The existing unit will be removed and properly recycled by the contractor for the agreed purchase price. This service will be done with the consumer's knowledge.

d. *Microwave Oven (BEM)* A microwave unit will be given to eligible participants who 1) receive electricity from the City's Utility, 2) have an existing electric cooking stove and 3) do not have an existing microwave unit. SEMCAC will work with a local distributor to obtain the best price for an appropriate sized microwave unit to be placed in the consumer's residence. This service would be done with the consumer's knowledge.

e. *Room Air Conditioner (RAC) Replacement (EEM)* A room air conditioner will be given to eligible participants who 1) receive electric from the City's Utility, 2) agree to have their old, working room air conditioner(s) removed and properly recycled by a contractor, and 3) agree to have the equipment professionally installed by a contractor. SEMCAC will work with a local contractor to obtain the best price for an ENERGY STAR room air conditioner to be installed at the consumer's residence. The existing unit will be removed and properly recycled by the contractor for the agreed purchase price. Up to two working room air conditioners will be replaced per household. This service will be done with the consumer's knowledge.

f. *Clothes Washer Replacement (EEM)* A clothes washer will be given to eligible participants who 1) receive electric from the City's Utility, 2) agree to have their old, working clothes washer removed and properly recycled by a contractor, and 3) agree to have the new clothes washer professionally installed by a contractor. SEMCAC will work with a local distributor to obtain the best price for an ENERGY STAR Most Efficient 2016 qualified or Consortium for Energy Efficiency (CEE) Tier 3 model clothes washer to be placed in the consumer's residence. The existing unit will be removed

and properly recycled by the contractor for the agreed purchase price. This service will be done with the consumer's knowledge.

**D. Data Collection**

SEMCAC will provide the data necessary to evaluate the annual energy saved, the peak demand reduced, and the cost to obtain those savings and reductions. This will include all receipts/purchase orders of the measures/equipment paid for by SEMCAC and those paid for by the City. SEMCAC will provide survey data of homes with potential appliances to be replaced in the future. SEMCAC will supply reasonable requests for data from the City in a reasonable time.

**Existing appliances should be a minimum of ten (10) years old and in working condition to qualify for replacement, and be recycled in compliance with all environmental regulations.** SEMCAC will provide replacement appliance age(s) to confirm that old equipment qualifies for replacement. Auditors will have the discretion whether old appliances are to be replaced based on a) visual observation of the particular unit, b) the model number of the appliance, c) use of National Energy Audit Tool (NEAT) software or d) data-logger.

**II. Compensation**

A. The City's Utilities will fund according to Table A below for the period from March 1, 2023 to December 31, 2023. **SEMCAC will verify funds are available prior to proceeding with the project.**

**Table A**

<b>City of Lanesboro</b>	<b>Budget</b>
Lanesboro City Office, PO Box 333, 202 Parkway Ave S, Lanesboro, MN 55949	\$6,423

- a. There is a maximum of five (5) EEM measures per customer.
- b. The City's utility cost to be itemized to show administrative charges, equipment cost, recycling/disposal fee, and other costs.
- c. Administration fees to be a \$50 minimum and not to exceed 15% of the City's utility cost for each customer.
- d. SEMCAC to provide a description of Services performed and measures installed.
- e. Funding not to exceed budgeted amount per utility without prior approval by the City and the City's utility.
- f. SEMCAC to administer all transactions including purchase of appliances.

## B. Energy Efficiency Measure Requirements

### 1. LED Light Bulb Requirements:

- a. ENERGY STAR rated LED bulb to be placed in high usage interior areas of owner-occupied residence (minimum average usage of 3 hours/day).
- b. Replace a minimum of four (4) and maximum of ten (10) 60W minimum incandescent light bulbs with LED bulbs of equivalent light output.
- c. Contact the City's utility or the City to make arrangements for pick-up or delivery of LEDs before purchasing LEDs from local distributors.
- d. Maximum \$7 per LED, not to exceed actual purchase price, up to a maximum amount of \$70 per household (maximum 10 LEDs).

#### LEDs in Air Conditioned Spaces:

Annual Energy Savings = LED Wattage x 938 hours x 0.003053 Annual Bill Reduction =  
Annual Energy Savings x \$0.10/kWh

#### LEDs in Non-Air Conditioned Spaces:

Annual Energy Savings = LED Wattage x 938 hours x 0.00284 Annual Bill Reduction =  
Annual Energy Savings x \$0.10/kWh

Savings Example (non-air conditioned space):

Annual Energy Savings = 8.5 Watt LED x 938 hours x 0.00284 = 23 kWh Annual Bill Reduction =  
23 kWh x \$0.10/kWh = \$2.30

(Data Source: State of MN — 2015 CIP Technical Reference Manual)

### 2. Efficient Furnace Fan Motor Requirements:

- a. Replacement of furnace fan motor must be for owner-occupied residences.
- b. Existing natural gas furnace must be no more than ten (10) years old and in working condition; and existing motor must not be an electronically commutated motor (ECM) or equivalent.
- c. New furnace fan motor must be an ECM or equivalent, and HVAC contractor must provide manufacturer documentation showing that the new motor is an ECM or equivalent.
- d. \$500 maximum amount for new efficient furnace fan motor including administrative charges, ECM motor and installation costs, and other costs.

Maximum amount may only be exceeded with written approval by the City and the City's utility.

Energy Savings (with existing Central AC) = 732 kWh Annual Bill Reduction = 732 kWh x \$0.10/kWh = \$73.20

Energy Savings (no existing Central AC) = 644 kWh Annual Bill Reduction = 644 kWh x \$0.10/kWh = \$64.40

(Data Source: State of MN — 2015 CIP Technical Reference Manual)

### **3. Refrigerator Requirements:**

- a. Replacement of refrigerator, for owner-occupied residences, that are at least ten (10) years old and in working condition.
- b. New refrigerator must be ENERGY STAR rated of equal or lesser by their City.
- c. Replaced refrigerators must be recycled in compliance with all environmental regulations.
- d. \$1600 maximum amount for refrigerator replacement including administrative charges, appliance cost, recycling fee, and other costs. Maximum amount may only be exceeded with written approval by the City and the City's utility.

Annual Energy Savings: 130 kWh

Annual Bill Reduction: 130 kWh x \$0.10/kWh = \$13.00

(Data Source: State of MN — 2015 CIP Technical Reference Manual)

### **4. Microwave Oven Requirements:**

- a. Microwave to be given only for owner-occupied residences or renters that own the appliances.
- b. \$125 maximum amount for new microwave including administrative charges, equipment cost and other costs. Maximum amount may only be exceeded with written approval by the City and the City's utility.
- c. Customers must own an existing electric cooking stove and not have an existing microwave unit.

Annual Energy Savings = 357 kWh (510 kWh electric stove @ 70%) - 143 kWh microwave = 214 kWh

Annual Bill Reduction = 214 kWh x \$0.10/kWh = \$21.40 (Data Source: ESource)

### **5. Room Air Conditioner (RAC) Requirements:**

- a. Replacement room air conditioners must be for owner-occupied residences or renters that own the appliances.
- b. Old room air conditioner must be at least 10 years old and in working condition.
- c. New room air conditioners must be ENERGY STAR rated.
- d. Limit of two working room air conditioners will be replaced per household.
- e. \$500 maximum amount for each room air conditioner replacement including administrative charges, equipment cost, recycling fee and other costs. Maximum amount may only be exceeded with written approval by the City and the City's utility.
- f. Replaced RAC must be recycled in compliance with all environmental regulations.

Annual Energy Savings will be calculated as specified in the State of MN's 2015 CIP Technical Reference Manual using the style, rated cooling by the City, and rated efficiency of the new unit, along with the deemed cooling hours for the respective utility.

Annual Bill Reduction = Annual Energy Savings x \$0.10/kWh

Savings Example:

New 12,000 BTU ENERGY STAR RAC, louvered sides, 13 EER, located in Preston Annual Energy Savings = 92 kWh

Annual Bill Reduction = 92 kWh x \$0.10/kWh = \$9.20

**6. Clothes Washer Requirements:**

- a. Replacement of clothes washer must be for owner-occupied residences,
- b. Old clothes washer must be at least ten (10) years old and in working condition,
- c. Use Appendix A for referencing serial numbers of major appliance brands to determine ages.
- d. \$1000 maximum amount for a new qualifying clothes washer including administrative charges, appliance cost, recycling/disposal fee and other costs. Maximum amount may only be exceeded with written approval by the City and the City's utility,
- e. New clothes washer must be ENERGY STAR Most Efficient 2016 qualified or a Consortium for Energy Efficiency (CEE) Tier 3 model, Qualifying ENERGY STAR Most Efficient 2016 models can be found at: [https://data.undersly\\_4:41ky/A4.1tiKe-Specifications/ENERGY-STAR-Most-Efficient-Clothes-Washers/d36s-eh9f](https://data.undersly_4:41ky/A4.1tiKe-Specifications/ENERGY-STAR-Most-Efficient-Clothes-Washers/d36s-eh9f) the list of qualifying CEE Tier 3 models is updated monthly and can be found at: [http://library.ceel.org/conicnilifying\\_product-lisis-resideniialekAlies-washers](http://library.ceel.org/conicnilifying_product-lisis-resideniialekAlies-washers).



Annual Energy Savings will be calculated using the savings algorithms specified in the State of MN's 2016 CIP Technical Reference Manual along with the water heater and clothes dryer fuel type (electric, gas, or unknown) of the respective customer.

Savings Example:

Energy Savings (with gas water heater and electric dryer) = 257 kWh Annual Bill  
Reduction = 257 kWh x \$0.10/kWh = \$25.70

Annual Water Savings = 1,044 gallons

(Data Source: State of MN — 2016 CIP Technical Reference Manual)

C. Method of Payment

The City's utility will pay SEMCAC based on monthly invoices itemizing materials, labor and supplies used on the Project. Copies of receipts/purchase orders will also be provided to verify the costs of the Services actually completed. Each invoice will itemize any applicable sales and/or use taxes. Invoices **receipts/purchase orders and data collection reports will be sent to the the City's utility contact person in Table A.**

D. Right to Audit

The City has the right to review, audit and verify any information connected with this Agreement at SEMCAC's regular place of business during normal business hours. The City's utility has the right to conduct on-site inspections to verify Services performed and measures installed.

III. **Termination**

This Agreement will terminate on December 31, 2023; however, all Parties have the right to terminate this Agreement upon thirty (30) days written notice if SEMCAC's performance is not satisfactory to the City, or if the City and SEMCAC are unable to agree on amendments to the Agreement. Upon notice of termination SEMCAC will not begin work on any additional homes and will confer with the City as to the status of homes currently receiving Services. SEMCAC will bill the City's utility after the in-progress Services have been completed.

I. **Indemnification**

SEMCAC, for itself and the parties SEMCAC contracts with, agrees to assume all risk of loss and to defend, indemnify and hold the City, its officers, employees and agents harmless against any and all claims, liabilities, damages, losses, costs or expenses of whatever nature or character for all injuries or damage of any type to any person or property, including injuries or damage of third parties or employees of both parties and employees of or the parties SEMCAC contracts with pursuant to this Agreement, occasioned wholly or in part by any act or omission of SEMCAC, and the parties SEMCAC contracts with pursuant to this Agreement or of anyone directly or indirectly employed by any of them or for whose acts any of them may be

liable, resulting from or arising out of the referred Services, or any of the activities of SEMCAC, and the parties SEMCAC contracts with pursuant to this Agreement, whether or not such injuries or damage are occasioned in part by the City, its officers, employees or agents.

**I. Insurance**

SEMCAC will provide and maintain Public Liability and Property Damage Insurance so as to provide protection and indemnification against any and all such claims or suits in connection with the Services performed pursuant to this Agreement. Upon request, SEMCAC will furnish to the City certificates issued by insurance companies showing policies carried and the coverage limits. Coverage must be in accordance with *Minnesota Statutes* Chapter 466 and to the extent of other statutory law (i.e. Workers' Compensation).

**VI. Independent Contractor**

SEMCAC agrees that it is an independent contractor and will be at all times solely responsible for itself, as well as its employees, agents, and subcontractors as to workmanship, accidents, injuries, wages, supervision and control. The City will exercise only limited supervision of the Services in order to keep itself informed as to the progress thereof. This Agreement may not be altered in any manner so as to change the relationship of SEMCAC from that of independent contractor or to alter SEMCAC's responsibilities, except as required under Article II.F.

**VII. Laws**

This Agreement will be governed by the laws of the State of Minnesota and venues will be in Dodge, Fillmore and Steele County, Minnesota. Contractor's obligation to perform under this Agreement will remain in effect during the resolution of disputes.

**VIII. Amendments**

This Agreement contains the entire understanding between the parties and any amendments / waivers must be in writing and signed by both parties. SEMCAC would like to hold this contract with any/all utilities companies that wish to partner with SEMCAC and amendments can be done per job when needed.

SEMCAC

*Doug Grout*

\_\_\_\_\_  
, Executive Director

CITY OF LANESBORO;

February 21, 2023

Date

BY: *Jon Pieper*

Jon Pieper, LPU President

Attest: *Michele Peterson*

Michele Peterson, City Administrator/Clerk

## APPENDIX A

### General Electric Appliances

This information is provided to assist in finding the *manufacturing date* of GE (USA) built appliances. GE makes Hotpoint, GE, and the American RCA.

The date code is in the letters on your serial number.

Example serial number: **LT221102**

**11'221102** - 1 = month - , June

**LT221102** - 1 = year 1986 or 1998

**L A'** was built June 1998 or June 1986

Date codes - First letter is the month and the second letter is the year.

**A = January D = February F = March G = April H = May L = June M = July R = August S = Sept.  
T = Oct. V = Nov. Z = Dec.**

**F = 1991, 2003 G = 1980, 1992, 2004 H = 1981, 1993, 2005 L = 1982, 1994, 2006 M =**

**1983, 1995, 2007 R = 1984, 1996, 2008 S = 1985, 1997, 2009 T = 1986, 1998, 2010 V =**

**1987, 1999, 2011 Z = 1988, 2000, 2012 A = 1989, 2001, 2013 D = 1990 & 2002**

Visit <http://www.electrical-forensics.com/MajorAppliances/GeDateCodes.html> for more information.

This information is provided to assist in finding the *manufacturing date* of GE (Canadian - Cameo) built appliance. Cameo makes Hotpoint, GE Moffat and McClary.

The date code is in the letters on your serial number.

Example serial number: **MS731902A**

The first 2 letters show the manufacturing date.

**MS731902A** shows the month made - July

**MS731902A** shows the year made - 1997

The above appliance with serial # **MS731902A** was made in July 1997.

H = 1993 and May L = 1994 and June M = 1995 and July R = 1996 and August S = 1997 and Sept. T = 1998 and Oct. V = 1999 and Nov. Z = 2000 and Dec. A = 2001 and January D = 2002 and February F = 2003 and March G = 2004 and April

### Frigidaire Appliances

This information is provided to assist in finding the *manufacturing date* of Frigidaire. Frigidaire makes White/Westinghouse, Tappan, Frigidaire, and Kelvinator.

Example #1 serial number:

NF11910958 = NF( manufactured location code and product type code)

NF11910958 = I (made in a year ending in 1, such as 2001 or 2011)

NF11910958 = 19 (made in the 19<sup>th</sup> week of that year)

If this range looks 10 years old, it was probably made in April of 2001.

Example #2 serial number: LA84501552

LA84501552 = year, this could be 1998 or 2008. If the appliance looks 10 years old it is probably 1998, otherwise it's probably 2008.

LA84501552 -45 = 45<sup>th</sup> week of either 1998 or 2008

### Kitchen Aid Appliances

This information is provided to assist in finding the *manufacturing date* of Kitchen Aid. The serial numbers and letters from your model/serial tag, are required.

KA date codes only:

Serial example - XL1601009

1st # is factory where the product was made.

2nd # is the year ( J = 1999, K = 2000, L = 2001, M = 2002, N = 2003, etc.) 3rd & 4th #'s = week produced

XL1601009 = 16<sup>th</sup> week of 2001 or 2011

### Maytag Appliances

This information is provided to assist in finding the *manufacturing date* of your Maytag built appliance. Maytag owns Maytag Jenn-Air, MagicChef.

Example serial number: 15114672UY

15114672UY - UY is the date code. The first letter is the year - U = 1998. The second letter is the month - Y = November. This appliance was made November of 1998.

Visit <http://www.electrical-forensics.com/MajorAppliances/MaytagDateCodes.html> for more information.

### Whirlpool Appliances

This information is provided to assist in finding the *manufacturing date* of Whirlpool built appliances.

The date code is in the letter on your model number.

Example model numbers: LRS6233BW1= 1994 or SF367PEYW1.

1992 or LE6685XPW1= 1985 or ET22PKXXWO= 1991 or EV150CXKWO = 1982

K = 1982 or 2001 L = 1983 or 2002 M 19fi4 or 2003 P = 1985 or 2004 R 1986 or

2005 S = 1987 or 2006 T = 1988 or 2007 V = 1989 or 2008 W = 1990 or 2009 X 1991 or

2010 Y = 1992 or 2011 A = 1993 or 2012 B = 1994 or 2013 D = 1995 or 2014 E = 1996

or 2015 F= 1997 or 2016 G= 1998 or 2017 H = 1999 or 2018 J = 2000 or 2019

### Electrolux Appliances

This information is provided to assist in finding the *manufacturing date* of Electrolux built appliances

The date code is in the serial number:

1st and 2nd Alpha Character = Where Manufactured

1st Numeric Character = Last Digit of Year Manufactured

2nd and 3rd Numeric Characters = Week of Year Manufactured

Example: LA81503430 is a refrigerator manufactured in the 15th week (April) of 1

## 2024 CASE 580SN BACKHOE QUOTE

-Quote based off this specific units build sheet

### *OLD BUILD SHEET*

COMMERCIAL MODEL	580SN 4WD T4 FINAL.	-580SN 4WD T4 FINAL.
MODEL	58SNT4F	-58SN T4 FEAT
REGION	WW	-WORLD WIDE
TRACTION	4WD	-MFD
Base machine price		
QUICK PICKS	463757	-NO QUICK PICK
TRANSMISSION	423061	-4WD Powershift S-Type Trans.
FRONT WHEELS	8201110	-12x16.5, 10PR lug tread
REAR WHEELS	8401140	-19.5LX24, 10PR STD
BACKHOE	423076	-Extendahoe (EHOE)
FRONT BALLAST	423047	-Heavy Front CWT, Extnthoe
BACKHOE CONTROLS	423078	-Pilot Controls w/Power Lift
BACKHOE AUXILIARY HYDRAULICS	423084	-1-way/2-way w/ Pilot Controls
BACKHOE COUPLER	442018	-Mechanical Quick Coupler
BACKHOE BUCKET	423072	-24" Hi-Capacity Bucket
STABILIZER PADS	442056	-Flip Over/Stabilizer Pads Comb
THUMB OPTION	745274	-THUMB OPTION
FRONT VALVE FOR LOADER	747864	-Aux. Hyd. loader w/Pilot Cont
LOADER BUCKET	423049	-Hydraulic Ldr quick attach
ROLLOVER PROTECTIVE	747853	-Cab, 2 Door with Heat and AC
<b>STRUCTURES</b>		
CAB INTERIOR PACKAGE	442083	-Deluxe Cab Package
RADIO OPTION	745273	-BLUETOOTH RADIO
OPERATOR'S SEAT	747897	-Deluxe Air Susp, Cloth - Cab
4WD Drive Shaft Guard	745136	-4WD Drive Shaft Guard
FRONT FENDERS	742803	-Front Fenders
LIGHTS	745243	-Standard Lights
LOCKING DEF COVER	745167	-Locking DEF/Fuel Cover
RIDE CONTROL	423090	-Auto Ride Control
ROTATING BEACON	728758	-Rotating beacon
TOOL BOX RH	747875	-Tool box
COLD START/BATTERIES	423093	-Cold Start Dual Battery
TELEMATICS ON BOARD	745121	-CASE SiteWatch Telematics
TELEMATICS SERVICE	745131	-3yr Advanced Tele Subscription
AXLES	745269	-STD 4WD FRONT AXLE

Thank you,  
Zach Wellman  
Equipment Sales Consultant  
Titan Machinery



*NEW BUILD SHEET:*

<b>COMMERCIAL MODEL</b>	<b>580SN 4WD T4 FINAL</b>	<b>580SN 4WD T4 FINAL</b>
<b>MODEL</b>	<b>58SNT4F</b>	<b>58SN T4 FEAT</b>
<b>REGION</b>	<b>WW</b>	<b>WORLD WIDE</b>
<b>TRACTION</b>	<b>4WD</b>	<b>MFD</b>
<b>Base machine price</b>		
<b>QUICK PICKS</b>	<b>463757</b>	<b>NO QUICK PICK</b>
<b>TRANSMISSION</b>	<b>423062</b>	<b>Powershift H-Type Transmission</b>
<b>FRONT WHEELS</b>	<b>8201110</b>	<b>12x16.5, LUG Tread Tires (2)</b>
<b>REAR WHEELS</b>	<b>8401140</b>	<b>19.5LX24, STD Tire Rear Wheels</b>
<b>BHOE PERFORMANCE PKG</b>	<b>464074</b>	<b>1-WAY OR 2-WAY AUX &amp; EHOE PKG</b>
<b>FRONT BALLAST</b>	<b>423047</b>	<b>Heavy Front CWT, Extnhoe</b>
<b>BACKHOE CONTROLS</b>	<b>423078</b>	<b>Pilot Controls w/Power Lift</b>
<b>BACKHOE COUPLER</b>	<b>442018</b>	<b>Mechanical Quick Coupler</b>
<b>BACKHOE BUCKET</b>	<b>423069</b>	<b>24" Universal Bucket</b>
<b>STABILIZER PADS</b>	<b>442056</b>	<b>Flip Over/Stabilizer Pads Comb</b>
<b>THUMB OPTION</b>	<b>745274</b>	<b>THUMB OPTION</b>
<b>LDR PERFORMANCE PKG</b>	<b>464079</b>	<b>RC, CS, 3SPL, HYD CP</b>
<b>LOADER BUCKET</b>	<b>423049</b>	<b>Hydraulic Ldr quick attach</b>
<b>ROLLOVER PROTECTIVE STRUCTURES</b>	<b>747853</b>	<b>Cab, 2 Door with Heat and AC</b>
<b>OPERATOR'S SEAT</b>	<b>745161</b>	<b>Premium Air Susp Heated</b>
<b>RIDE CONTROL</b>	<b>423090</b>	<b>Auto Ride Control</b>
<b>Transport Protection</b>	<b>464957</b>	<b>Transport Protection</b>
<b>FRONT FENDERS</b>	<b>742803</b>	<b>Front Fenders</b>
<b>LIGHTS</b>	<b>745242</b>	<b>LED Light Package</b>
<b>COLD START/BATTERIES</b>	<b>423093</b>	<b>Cold Start Dual Battery</b>
<b>SEVERE COLD WEATHER</b>	<b>745252</b>	<b>Severe Cold Weather</b>
<b>TELEMATICS ON BOARD</b>	<b>480018</b>	<b>CONNECTIVITY 480018</b>
<b>TELEMATICS SERVICE</b>	<b>480026</b>	<b>5YR CUSTOMER 480026</b>
<b>AXLES</b>	<b>745269</b>	<b>STD 4WD FRONT AXLE</b>
<b>ITEM: 0020</b>	<b>QUANTITY: 1</b>	
<b>47959394</b>		<b>DEF Locking Covers</b>

Thank you,  
Zach Wellman  
Equipment Sales Consultant  
Titan Machinery



## BUILD SHEET DESCRIPTIONS:

423062: Powershift H-Type Transmission  
PowerDrive H-Type transmission  
H-Type Auto Shifting with Direct Drive Lock-Up feature standard. Includes automatic 4wd braking.  
Includes additional Forward-Neutral-Reverse switch on loader joystick

423047: Heavy Front CWT. Extnhoe  
900 lb. counterweight - 580N EP  
1100 lb. counterweight - 580N and 580SN

423078: Pilot Controls w/Power Lift  
Includes Power Lift and Power Boost feature on 580SN, 580SNWT and 590SN.

### BACKHOE COUPLER 20039

442018: Mechanical Quick Coupler

745274: THUMB OPTION  
CASE hydraulic Thumb, factory installed directly to EHOE outer section & direct plumbed. Thumb tucks & locks back against EHOE when not in use. Includes: 2 replaceable, high strength, bolt on tines w/ two positions for Universal or Hi-Cap buckets. Meshes w/ Bucket teeth on 18" & 24" Bucket.  
Requires EXTENDAHOE  
Requires 2 way Aux Hydraulics

464079: RC, CS, 3SPL, HYD CP  
Includes bundle 464078 and:

-Hydraulic Ldr Quick Attach - Engage/release attachment from operators seat. ONLY available on 4WD models  
Comfort Steer(CS) is Not available on EP models. Ride Control (RC) is Not available on EP models. All bundles for EP model showing CS & RC have CS & RC deducted.  
This bundle is not available on 2WD models

747853: Cab, 2 Door with Heat and AC  
Includes two doors, defroster, door activated dome light, four front, four rear, and two adjustable side lights, floor mat, tinted glass, Bluetooth radio, front & rear wiper and fender extensions.

Deluxe Cab Package:  
Deluxe interior, viscous fan (standard on 580SN and larger), visor and 72 dba sound level.

745161: Premium Air Susp Heated  
Premium multi-color, hand stitched cloth, heated air suspension seat. Not for use with ROPS Canopy option 442082.

423090: Auto Ride Control  
For use with 4WD models

745242: LED Light Package  
4 Front, 4 rear and 2 LED side lights

423093: Cold Start Dual Battery  
Cold Start option: Dual 850 CCA Batteries, Engine Block Heater and a heated CCV hose.  
This option is recommended for machine start-up and operation at temperatures below 32° F (0° C). Required when ordering Severe Cold weather option 745252.

745252: Severe Cold Weather  
Includes Hy Tran Ultraction SSL Transmission & Hyd. Fluids, & SAE 0W40 CJ-4 Engine Oil - recommended for machine start-up and operation at temperatures consistently below 0 degrees Fahrenheit.  
If ordered, you MUST also order 423093 Dual Batteries/Grid Heater/Engine Block Heater Option for EP.  
(423093 is standard on N - 590 models)

Thank you,  
Zach Wellman  
Equipment Sales Consultant  
Titan Machinery





# TITAN MACHINERY

N1626 Wuensch Road, La Crosse, WI 54601

Business (608) 788-1025 / Cell (608) 667-0876

Email: zachary.wellman@titanmachinery.com

## CASE CONSTRUCTION



### ENGINE

Model	FPT F5BFL413B
Emissions Certification	Tier 4 Final
Type	Diesel 4-stroke, Turbocharged
Cylinders	4
Bore/Stroke	3.90 x 4.33 in (99 x 110 mm)
Displacement	207 in <sup>3</sup> (3.4 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds*	RPM
Rated speed – full load	2200
Low idle	900 – 1000
High idle – no load	2330 – 2430
Horsepower @ 2200 RPM:	
Gross	97 hp (72 kW)
Net	95 hp (71 kW)
Maximum torque @ 1400 RPM:	
Gross	334 lb-ft (453 N-m)
Net	333 lb-ft (452 N-m)
Torque rise at rated speed	45% +/- 5%
Radiator:	
Core type	Square wave
Core size area	486 in <sup>2</sup> (3 145 cm <sup>2</sup> )
Rows of tubes	4
39° fan:	
Style	9 blade suction
Diameter	19.65 in (499 mm)
Ratio**	1.4:1
Pump operating angle ratings:	
Side to side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow cartridge

NOTE: \*Engine speeds w/ standard transmission.  
Meets federal emission regulations.  
\*\*Viscous fan.

### DRIVETRAIN

Transmission – standard:  
4F-4R Power Shuttle Synchromesh Transmission  
manual gear shift, fully synchronized

Gear ratios - Power Shuttle	Forward/Reverse
1st	5.603/4.643
2nd	3.481/2.884
3rd	1.584/1.313
4th	0.793/0.657

Travel speeds – Standard Power Shuttle

Transmission	Forward mph (kph)	Reverse mph (kph)
1st	3.8 (6.1)	4.5 (7.3)
2nd	6.0 (9.7)	7.2 (11.6)
3rd	13.1 (21.1)	15.7 (25.3)
4th	24.6 (39.6)	29.5 (47.5)

Transmission – optional:

PowerDrive H-Type, 4F-4R hydraulic clutch  
shifting w/ auto shift mode and direct drive

Gear Ratios - H Type	Forward/Reverse
1st	5.533/4.549
2nd	3.359/2.762
3rd	1.533/1.260
4th	0.811/0.667

Travel speeds – Optional H-Type PowerDrive

DD Transmission	Forward mph (kph)	Reverse mph (kph)
1st	3.9 (6.2)	4.6 (7.4)
2nd	6.3 (10.1)	7.5 (12.1)
3rd w/ DD Feature Off	13.6 (21.9)	16.4 (26.3)
3rd w/ DD	14.2 (22.8)	17.0 (27.4)
4th w/ DD Feature Off	24.2 (39.0)	29.0 (46.7)
4th w/ DD	25.0 (40.2)	29.8 (48.0)

Torque converter ratio 2.2

Differential-lock:  
On-the-go push-button activation

Front/Rear axle (w/ 4WD 12x16.5 front tires):

Differential ratio	2.0/2.5
Planetary hub ratio	6.0/6.4
Total reduction ratio	12.0/16.0

Service brakes:

Individually applied, power assisted,  
hydraulically actuated, maintenance-free,  
self-adjusting, outboard mounted, wet disc,  
2 per side.  
Total disc area 384 in<sup>2</sup> (0.25 m<sup>2</sup>)

Parking brakes Trans Mounted  
spring-applied hydraulic release – SAHR

NOTE: Travel speeds at 2312 engine  
RPM specified: w/ 19.5 L x 24.0 tires.

## 580SN

CONSTRUCTION KING BACKHOE LOADER

TIER 4 FINAL CERTIFIED

### ELECTRICAL

Voltage	12 Volts, negative ground
Alternator	160 amp

Dual batteries:  
850 cold-cranking amps each

Power plugs – 2 30 amps total

### OPERATOR ENVIRONMENT

ROPS/FOPS certified protective canopy;  
Anti-vandalism cover for dash – w/ canopy  
only; Rear fenders extensions; Coat hook w/  
garment strap; Interior rearview convex mirror;  
Mechanical suspension seat – 180° swivel – Vinyl;  
3 in (76 mm) retractable seat belt; Cup holder/  
storage tray mounted on left-hand fender;  
Right-hand storage compartment w/ lid,  
tilt-steering wheel on cab models.

Gauges:

Engine water temperature; Converter oil  
temperature; Fuel level; Tachometer/  
hourmeter; DEF level.

Warning lights:

Air cleaner restriction; Alternator; A/C high  
pressure; Cold start; Engine oil pressure;  
Hydraulic oil filter bypass; Parking brake  
engagement; Low fuel; Water in fuel; Low DEF.

Audible alarms w/ diagnostics:

Coolant temperature; Engine oil pressure;  
Parking brake engagement; Converter oil  
temperature; Shuttle engagement/seat  
position; Backup alarm; Low DEF.

Horn Dual switched front and rear

### OPERATING WEIGHT

Configuration 1 – SAE Transport:

No Operator, Loader Bucket, Cab, AC,  
1,100 lb front counter weight, 2WD, Full of  
Fuel, SAE Carry T4 Final Engine, Pilot Controls,  
11 L – 16 @ 52 psi front tires, 19.5 L – 24  
Rear Tires.

17,810 lb (8 078 kg)

Configuration 2 – SAE Transport:

No Operator, 4:1 Loader Bucket, E-hoe, Cab,  
1,100 lb front counter weight, Full of Fuel, SAE  
Carry T4 Final Engine, Pilot Controls, 12 x 16.5  
@ 50 psi front tires, 4WD w/ driveshaft guard,  
19.5 L – 24 @ 30 psi rear tires.

19,750 lb (8 958 kg)

Add-on weights:

Cab-over canopy	309 lb (140 kg)
Fabricated stabilizer pads	141 lb (64 kg)
Extendahoe®	286 lb (130 kg)

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## HYDRAULICS

### Pump:

Bosch Rexroth Series 31 Variable  
Displacement Axial Piston Pump

### Main relief pressure:

Standard 3,450 +/- 50 psi  
(238 +/- 3.5 bar)

### Power Lift

3,625 +/- 50 psi  
(250 +/- 3.5 bar)

### Filtration:

7-micron, full flow replaceable cartridge on  
return line, condition indicator light for filter.

### Oil cooler

Heavy-duty

### Loader flow @ rated engine RPM:

41 gpm @ 2,340 psi  
(156.2 L/min @ 161 bar)

### Loader control valve w/ pilot or manual backhoe controls:

Two or three-spool closed center sectional  
control valve. Single lever manual control for  
lift and tilt functions. The three-spool valve  
uses a proportional Electro-Hydraulic control  
for the auxiliary function. The lift lever has a  
positive hold "Float" position and a "return-  
to-dig" feature.

### Loader auxiliary hydraulics w/ proportional thumb switch w/ detent on loader control handle:

0 - 41 gpm @ 2,340 psi  
(0 - 156.2 L/min @ 161 bar)

### Backhoe flow @ rated engine RPM:

41 gpm @ 3,100 psi  
(156.2 L/min @ 214 bar)

### Manual backhoe control valve:

Six-spool monoblock open center control valve  
w/ seventh and eighth spool bolt-on sections.  
Features "Pro-Control" which includes custom  
designed spools for each individual function  
along w/ "swing cushioning" valve for zero-wag  
swing control. Basic control valve has an open  
center parallel circuit for all functions.

### Pilot backhoe control valve:

Six, seven, or eight spool sectional closed  
center control valve. Features "Pro-Control"  
which includes custom designed spools  
for each individual function along w/ "swing  
cushioning" valve for zero-wag swing control.  
Basic control valve is closed center, w/ circuits  
in parallel w/ a post-compensated, flow sharing  
feature for simultaneous operation of all circuits.

### 1-way flow auxiliary hydraulics:

1-way flow hydraulic valve is equipped w/ an  
adjustable LS relief valve to control attachment  
pressure and a 6 position flow control selector  
for 6 detented, distinct flow settings.

### Actuation:

Manual backhoe controls - cab floor pedal  
Pilot controls - left-hand joystick

### 2-way flow auxiliary hydraulics:

#### Actuation:

Activate the 2-way flow switch located on  
the rear console  
Manual shift - 2-way flow linkage on far right  
of backhoe tower  
Pilot controls - left-hand joystick.

NOTE: \*Available w/ 1-way/2-way Aux. Hyd. option.

## SERVICE CAPACITIES

Fuel tank	35.0 gal (132.0 L)
DEF tank	3.6 gal (13.5 L)

Hydraulic system:	
Total	125 qt (118.0 L)
w/ Extendahoe®	131 qt (123.6 L)
Reservoir w/ filter	53 qt (50.5 L)
Reservoir w/o filter	56 qt (52.4 L)

Transmission - total system:	
2WD Standard	18 qt (17.0 L)
4WD Standard	21 qt (19.4 L)
4WD PowerDrive H-Type	19 qt (18.0 L)

### Standard front axle:

4WD Differential	8.1 qt (7.7 L)
4WD Planetaries - each	0.5 qt (0.5 L)

### Rear axle:

Differential and planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	8.5 qt (8.0 L)

### Cooling system:

w/ heater	19.0 qt (18.0 L)
w/o heater	18.3 qt (17.3 L)

### Window washer reservoir

3.0 qt (2.8 L)

## OTHER SPECIFICATIONS

### Front tires:

2WD	11.0 L x 16.0, 10-ply rating
4WD	12.0 L x 16.5, 10-ply rating
4WD	12.5/80 x 18.0 10-ply rating

### Rear tires:

2/4WD	19.5 L x 24.0, 10-ply rating
2/4WD	500/70 R24, 10-ply rating

### Turning radius: Curb to Curb:

2WD:	
Brakes on	10 ft 8 in (3.24 m)
Brakes off	12 ft 4 in (3.76 m)

### 4WD - engaged:

Brakes on	11 ft 4 in (3.45 m)
Brakes off	13 ft 10 in (4.21 m)

### 4WD - disengaged:

Brakes on	11 ft 0 in (3.36 m)
Brakes off	12 ft 3 in (3.72 m)

NOTE: \*Turning radius dimensions curb to curb  
w/ 12.0 x 16.5 front tires and 19.5 L x 24.0  
rear tires.

## LOADER BUCKET SIZES

Type	Width	Weight	Struck	Heaped Capacity
Long Lip Bucket:				
without bolt-on edge	82 in (2.08 m)	864 lb (392 kg)	0.88 yd <sup>3</sup> (0.67 m <sup>3</sup> )	1.0 yd <sup>3</sup> (0.79 m <sup>3</sup> )
with bolt-on edge	93 in (2.36 m)	1,188 lb* (539 kg)	1.10 yd <sup>3</sup> (0.89 m <sup>3</sup> )	1.3 yd <sup>3</sup> (0.99 m <sup>3</sup> )
4 IN 1 <sup>st</sup> Bucket with bolt-on edge	82 in (2.08 m)	1,572 lb* (713 kg)	0.85 yd <sup>3</sup> (0.65 m <sup>3</sup> )	1.0 yd <sup>3</sup> (0.80 m <sup>3</sup> )

NOTE: \*Weight of 4 IN 1<sup>st</sup> bucket includes edges, cylinders and tube lines.

## BACKHOE BUCKET SIZES

Type	Width	Weight	Heaped Capacity
Universal Buckets			
	12 in (305 mm)	295 lb (134 kg)	3.40 ft <sup>3</sup> (0.10 m <sup>3</sup> )
	18 in (457 mm)	356 lb (162 kg)	5.30 ft <sup>3</sup> (0.15 m <sup>3</sup> )
	24 in (610 mm)	427 lb (194 kg)	7.70 ft <sup>3</sup> (0.22 m <sup>3</sup> )
	30 in (762 mm)	489 lb (222 kg)	10.20 ft <sup>3</sup> (0.29 m <sup>3</sup> )
	36 in (914 mm)	552 lb (251 kg)	12.70 ft <sup>3</sup> (0.36 m <sup>3</sup> )
High Capacity Buckets			
	24 in (610 mm)	447 lb (203 kg)	8.50 ft <sup>3</sup> (0.24 m <sup>3</sup> )
	36 in (762 mm)	502 lb (228 kg)	10.60 ft <sup>3</sup> (0.30 m <sup>3</sup> )

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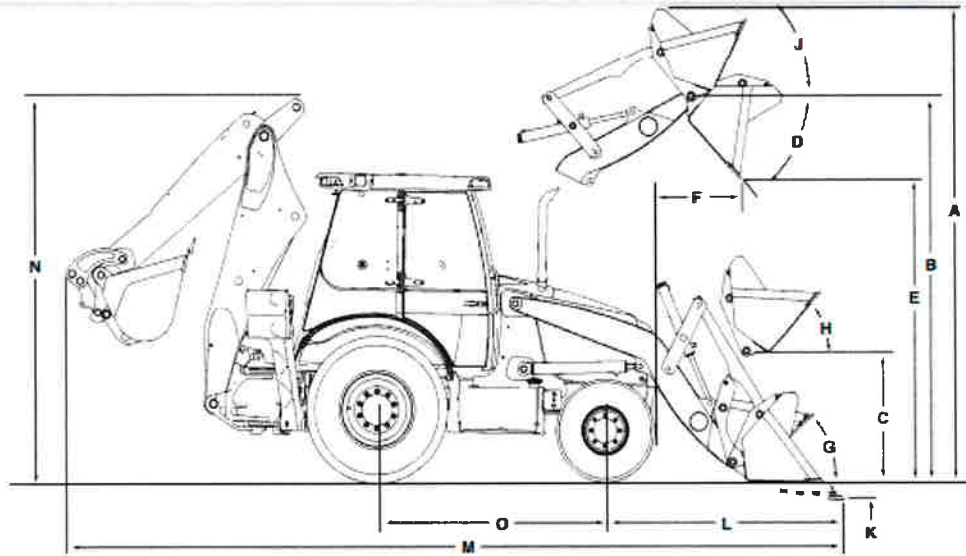


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Line drawings are for illustrative purpose only and may not be exact representation of unit.

## LOADER DIMENSIONS

	Long Lip Bucket	4 IN 1 <sup>st</sup> Bucket
<b>A.</b> Overall operating height – fully raised	13 ft 9 in (4.18 m)	13 ft 8 in (4.16 m)
Height to:		
<b>B.</b> Bucket hinge pin fully raised	11 ft 3 in (3.42 m)	11 ft 3 in (3.42 m)
<b>C.</b> Bucket hinge pin at SAE carry	13.6 in (345 mm)	13.6 in (345 mm)
<b>D.</b> Dump angle at full height	47°	47°
<b>E.</b> Dump clearance at full height, 45° dump:		
Bucket	8 ft 10 in (2.89 m)	8 ft 11 in (2.71 m)
Clam open	–	9 ft 8 in (2.96 m)
<b>F.</b> Dump reach at full height, 45° dump – from bumper:		
Bucket	31.5 in (801 mm)	29.1 in (738 mm)
Clam open	–	15.3 in (388 mm)
Bucket rollback:		
<b>G.</b> @ Groundline	42°	42°
<b>H.</b> @ SAE carry	42°	42°
<b>J.</b> @ Full height	Adjustable	Adjustable
<b>K.</b> Digging depth below grade:		
Bucket flat	6.1 in (155 mm)	4.8 in (122 mm)
Clam open – dozing	–	4.1 in (103 mm)
<b>L.</b> Reach from front axle centerline – bucket on ground	6 ft 10 in (2.07 m)	6 ft 8 in (2.03 m)
Lift capacity to full height – calculated values	7,044 lb (3 195 kg)	6,703 lb (3 040 kg)
Breakout force:		
Lift cylinders	9,833 lb (4 460 daN)	9,610 lb (4 359 daN)
Dump cylinders	10,947 lb (4 965 daN)	11,658 lb (5 288 daN)
Bucket cutting edge width	82.5 in (2.09 m)	82.0 in (2.08 m)
Maximum grading angle	114°	114°
Maximum clam opening	–	38.3 in (972 mm)
Moldboard height	–	36.8 in (934 mm)
Raising time to full height – manual/pilot controls	2.6/3.2 sec	2.6/3.2 sec
Bucket dumping time	0.8/1.2 sec	0.8/1.2 sec
Lowering time:		
Power down	1.9/2.1 sec	1.9/2.1 sec
Return-to-dig	2.5/2.2 sec	2.5/2.2 sec
Clam:		
Open time	–	1.1 sec
Close time	–	1.1 sec

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## DIMENSIONS

	ZWD with 17.5 L x 24.0 rear tires	4WD with 19.5 L x 24.0 tires
<b>M. Overall transport length:</b>		
Long Lip bucket with Quick Coupler	23 ft 5 in (7.14 m)	23 ft 4 in (7.10 m)
4 IN 1" bucket with Quick Coupler	23 ft 3 in (7.07 m)	23 ft 1 in (7.04 m)
Long Lip bucket with Straight Links	23 ft 6 in (7.15 m)	23 ft 4 in (7.12 m)
4 IN 1" bucket with Straight Links	23 ft 3 in (7.09 m)	23 ft 2 in (7.06 m)
Overall transport width	7 ft 2 in (2.17 m)	7 ft 2 in (2.17 m)
<b>Height:</b>		
To top of canopy	8 ft 8 in (2.64 m)	8 ft 9 in (2.66 m)
To top of cab	8 ft 9 in (2.66 m)	8 ft 11 in (2.72 m)
To top of exhaust stack	8 ft 5 in (2.58 m)	8 ft 7 in (2.62 m)
<b>N. Transport</b>		
Ground clearance at backhoe frame	12 in (304 mm)	15.0 in (381 mm)
Angle of departure	15.3°	19.0°
<b>Front wheel tread:</b>		
11.0 L x 16.0	67.5 in (1.72 m)	67.5 in (1.72 m)
12.0 L x 16.5	67.7 in (1.72 m)	67.7 in (1.72 m)
12.5/80 x 18.0	70.3 in (1.79 m)	70.3 in (1.79 m)
19.5 L x 24.0	61.2 in (1.55 m)	61.2 in (1.55 m)
17.5 L x 24.0	63.1 in (1.60 m)	63.1 in (1.60 m)
<b>Width over tires:</b>		
11.0 L x 16.0	79.3 in (2.02 m)	79.3 in (2.02 m)
12.0 L x 16.5	81.1 in (2.06 m)	81.1 in (2.06 m)
12.5/80 x 18.0	82.9 in (2.10 m)	82.9 in (2.10 m)
19.5 L x 24.0	81.4 in (2.07 m)	81.4 in (2.07 m)
17.5 L x 24.0	81.7 in (2.07 m)	81.7 in (2.07 m)
<b>O. Wheelbase:</b>		
19.5 L x 24.0	84.0 in (2.13 m)	84.5 in (2.15 m)
17.5 L x 24.0	84.0 in (2.13 m)	84.5 in (2.15 m)

## CYLINDERS

	Bore Diameter	Rod Diameter	Stroke	Closed Length
<b>Loader:</b>				
Lift - 2	3.25 in (82.6 mm)	1.75 in (44.5 mm)	28.86 in (733.0 mm)	42.95 in (1 062.0 mm)
Dump - 2	3.00 in (76.2 mm)	1.50 in (38.1 mm)	20.33 in (516.5 mm)	29.90 in (759.5 mm)
4 IN 1" clam - 2	3.00 in (76.2 mm)	1.75 in (44.5 mm)	9.08 in (230.6 mm)	19.62 in (498.3 mm)
<b>Backhoe:</b>				
Boom	5.00 in (127.0 mm)	2.50 in (63.5 mm)	38.25 in (971.6 mm)	52.82 in (1 341.6 mm)
Dipperstick	4.75 in (120.7 mm)	2.50 in (63.5 mm)	25.14 in (628.5 mm)	39.65 in (1 007.0 mm)
Bucket	3.50 in (88.9 mm)	2.50 in (63.5 mm)	35.35 in (897.9 mm)	48.17 in (1 223.6 mm)
Extendahoe*	3.00 in (76.2 mm)	1.75 in (44.5 mm)	42.05 in (1 068.0 mm)	56.22 in (1 428.0 mm)
Swing - 2	4.00 in (101.6 mm)	2.00 in (50.8 mm)	11.50 in (292.0 mm)	24.44 in (620.8 mm)
Stabilizer - 2	4.50 in (114.3 mm)	2.25 in (57.2 mm)	21.37 in (542.9 mm)	33.87 in (860.2 mm)

## AXLE RATINGS

	Front - ZWD	Rear	Front - 4WD
Maximum static	70,821 lb (32 124 kg)	90,145 lb (40 889 kg)	64,613 lb (29 308 kg)
Dynamic operating	44,261 lb (20 076 kg)	56,200 lb (25 492 kg)	39,328 lb (17 838 kg)
Static operating	17,704 lb (8 030 kg)	22,480 lb (10 197 kg)	15,732 lb (7 136 kg)
Oscillation - front axle	22" total - 11" side to side	-	22" total - 11" side to side

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## BACKHOE LIFT CAPACITIES

Boom Lift	Standard Backhoe		Extendahoe®			
	Standard Lift Capacity lb (kg)	Power Lift Lift Capacity lb (kg)	Retracted Standard Lift Capacity lb (kg)	Retracted Power Lift Lift Capacity lb (kg)	Extended Standard Lift Capacity lb (kg)	Extended Power Lift Lift Capacity lb (kg)
+16 ft (4.87 m)	—	—	—	—	2,115 (959)	2,298 (1,043)
+14 ft (4.27 m)	3,039 (1,378)	3,285 (1,490)	2,837 (1,287)	3,063 (1,398)	2,395 (1,088)	2,603 (1,181)
+12 ft (3.66 m)	3,413 (1,548)	3,691 (1,674)	3,201 (1,452)	3,479 (1,578)	2,536 (1,151)	2,757 (1,250)
+10 ft (3.05 m)	3,499 (1,587)	3,784 (1,716)	3,281 (1,488)	3,566 (1,618)	2,593 (1,176)	2,818 (1,278)
+8 ft (2.44 m)	3,485 (1,581)	3,768 (1,709)	3,263 (1,480)	3,546 (1,608)	2,564 (1,163)	2,786 (1,264)
+6 ft (1.83 m)	3,438 (1,559)	3,717 (1,686)	3,213 (1,457)	3,492 (1,584)	2,549 (1,156)	2,770 (1,257)
+4 ft (1.22 m)	3,374 (1,530)	3,648 (1,655)	3,146 (1,427)	3,420 (1,551)	2,521 (1,144)	2,741 (1,243)
+2 ft (0.61 m)	3,307 (1,500)	3,575 (1,622)	3,077 (1,396)	3,345 (1,517)	2,489 (1,129)	2,708 (1,227)
Ground Level	3,251 (1,475)	3,513 (1,594)	3,018 (1,389)	3,280 (1,488)	2,489 (1,129)	2,708 (1,227)
-2 ft (0.61 m)	3,201 (1,452)	3,459 (1,569)	2,965 (1,345)	3,223 (1,462)	2,466 (1,118)	2,680 (1,215)
-4 ft (1.22 m)	3,175 (1,440)	3,430 (1,556)	2,935 (1,331)	3,190 (1,447)	2,446 (1,109)	2,659 (1,206)
-6 ft (1.83 m)	3,182 (1,443)	3,437 (1,559)	2,938 (1,333)	3,193 (1,448)	2,443 (1,108)	2,656 (1,205)
-8 ft (2.44 m)	3,258 (1,478)	3,520 (1,597)	3,007 (1,364)	3,269 (1,483)	2,465 (1,118)	2,679 (1,215)
-10 ft (3.05 m)	3,441 (1,581)	3,717 (1,686)	3,175 (1,440)	3,451 (1,565)	2,530 (1,148)	2,750 (1,248)
-12 ft (3.66 m)	—	—	—	—	2,707 (1,228)	2,943 (1,335)
-14 ft (4.27 m)	—	—	—	—	3,239 (1,469)	3,521 (1,597)
<b>Dipper Lift</b>						
+14 ft (4.27 m)	—	—	—	—	4,281 (1,942)	4,281 (1,942)
+12 ft (3.66 m)	5,822 (2,641)	5,822 (2,641)	5,818 (2,548)	5,818 (2,548)	4,046 (1,835)	4,046 (1,835)
+10 ft (3.05 m)	5,600 (2,540)	5,600 (2,540)	5,399 (2,449)	5,399 (2,449)	3,984 (1,807)	3,984 (1,807)
+8 ft (2.44 m)	5,562 (2,523)	5,562 (2,523)	5,360 (2,431)	5,360 (2,431)	3,913 (1,775)	3,913 (1,775)
+6 ft (1.83 m)	6,236 (2,829)	6,236 (2,829)	6,030 (2,735)	6,030 (2,735)	4,166 (1,889)	4,166 (1,889)
+4 ft (1.22 m)	7,424 (3,368)	7,424 (3,368)	7,203 (3,267)	7,203 (3,267)	4,102 (1,861)	4,102 (1,861)
+2 ft (0.61 m)	—	—	—	—	4,850 (2,200)	4,850 (2,200)

NOTE: Boom and Dipper Lift Capacities are rated per SAE J31 and are 87% of the maximum hydraulic lift force available with the specified options.

## BACKHOE OPERATIONAL DATA

	Standard Backhoe	Extendahoe®	
		Retracted	Extended
Digging depth:			
Maximum	14 ft 6 in (4.41 m)	14 ft 6 in (4.41 m)	17 ft 11 in (5.47 m)
Maximum with hi-capacity bucket	15 ft 0 in (4.51 m)	15 ft 0 in (4.51 m)	18 ft 6 in (5.63 m)
2 ft (610 mm) flat bottom	14 ft 4 in (4.37 m)	14 ft 4 in (4.37 m)	17 ft 10 in (5.43 m)
8 ft (2.44 m) flat bottom	13 ft 4 in (4.06 m)	13 ft 4 in (4.06 m)	17 ft 1 in (5.19 m)
Overall reach from:			
Rear axle centerline	21 ft 10 in (6.66 m)	21 ft 10 in (6.66 m)	25 ft 3 in (7.69 m)
Swing pivot	18 ft 2 in (5.55 m)	18 ft 2 in (5.55 m)	21 ft 7 in (6.58 m)
Loading height	12 ft 1 in (3.67 m)	12 ft 1 in (3.67 m)	14 ft 5 in (4.38 m)
Loading reach	4 ft 7 in (1.41 m)	4 ft 7 in (1.41 m)	7 ft 3 in (2.20 m)
Swing arc	180°	180°	180°
Bucket rotation:			
Straight links	175.6°	175.6°	175.8°
Mechanical coupler	198.0°	198.0°	198.0°
Hydraulic coupler - Extendahoe® dipper	194.8°	194.8°	194.8°
Hydraulic coupler - standard dipper	198.0°	198.0°	198.0°
Stabilizer spread - operating:			
Flip pad	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)
Cast pad	9 ft 7 in (2.93 m)	9 ft 7 in (2.93 m)	9 ft 7 in (2.93 m)
Digging force:			
Bucket cylinder - SAE rated 3,460 psi	13,975 lb (61,363 N)	13,975 lb (61,363 N)	13,975 lb (61,363 N)
Bucket cylinder - Power Lift	14,452 lb (64,240 N)	14,452 lb (64,240 N)	14,452 lb (64,240 N)
Dipper cylinder - SAE rated 3,460 psi	8,657 lb (38,508 N)	8,657 lb (38,508 N)	6,305 lb (28,045 N)
Dipper cylinder - Power Lift	9,070 lb (40,345 N)	9,070 lb (40,345 N)	6,606 lb (29,382.7 N)
Leveling angle:			
Flip pad	11.8°	11.8°	11.8°
Cast pad	12.8°	12.8°	12.8°

Thank you,  
Zach Wellman  
Equipment Sales Consultant  
Titan Machinery



**Total CASH Price for 2024 CASE 580SN w/o Trade Including Delivery:**

**\$135,500.00**

*\*Price does not include tax (unless tax exempt)\**

*\*Quote based off MNContract pricing\**

*\*This is a NEW unit with full factory warranty\**

*\*1year/Unlimited hours, 2 year/2,000hour full factory warranty\**

**Total Trade-In Price for 2019 CASE 580SN: \$72,000.00**

**Total CASH Price for 2024 CASE 580SN w/ Trade Including Delivery:**

**\$63,500.00**

*\*Price does not include tax (unless tax exempt)\**

*\*Quote based off MNContract pricing and an extra \$1,507 discount\**

*\*This is a NEW unit with full factory warranty\**

*\*1year/Unlimited hours, 2 year/2,000hour full factory warranty\**

Thank you,  
Zach Wellman  
Equipment Sales Consultant  
Titan Machinery



# **TITAN**

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# **MACHINERY**

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Thank you,  
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