

WUC FY23 FLEET



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Utility Commission

Inter-Office Correspondence

To: Kim Allen - Director of Finance
From: Tali Soto - Chief Engineer Utility Commission
Date: October 24, 2021

Re: FY2023-27 - Fleet Management Plan (FMP) Review and Update

Dear Ms. Allen.

As per First Selectman Brule's memorandum, dated September 14, 2021, attached please find the spreadsheet with the updated mileage/hours, as well as the revised replacement cost for the vehicles and other equipment assigned to the Utility Commission. The WUC information is under the sheet "WUC FY23".

Considering the volatility and other uncertainties regarding future costs of goods and services, the estimated replacement cost for vehicles C1, C2, and T2 was based on 2021 MSRP, and then adjusted by 2% to the [recommended] replacement year.

Added to the FMP, the procurement and acquisition of equipment intended to enhance and extend our ability to perform in-house minor sewer repairs, brush clearing of cross-country sewer easements, adjustment of manhole frames, and other activities and tasks that our staff will be able to do, at a reduced cost, as compared to private contracting. This equipment consists of: mini-excavator, light dump truck, skid steer, and a large diameter asphalt cutter bore saw. This [\$185K] request labeled as "backhoe", was already incorporated into the FMP during the FY21-25 process, and scheduled for FY 2023.

Respectfully submitted for your consideration,
Thank you.

A handwritten signature in blue ink, appearing to read "Neftali Soto".

Neftali Soto, PE - Chief Engineer - Utility Commission

Cc: Mr. Rob Brule - First Selectman

TOWN OF WATERFORD
FLEET MANAGEMENT PLAN - WUC
FISCAL YEARS 2022 - 2026

													Number Vehicles		22	15	10	17	5		
													Total Budget		2,379,186	1,656,714	1,469,518	505,958	185,431		
Asset ID No.	License Plate No.	Agency Code	Agency Name	Class Code	Repl. Cycle in Years	Class Description	Asset Model Year	In-Service Date	Gross Vehicle Cost	Manuf.	Model	Serial #	2023	2024	2025	2026	2027	Current Mileage / or Usage Hours	Total Repair Costs		
CAR 100	50WFD	31	WUC	9999	0	Do Not Replace	1984	02/08/13	Donated	Humvee	(Military Surplus)	000130	Donated: Not a town asset					Humvee			
C1	53WFD	31	WUC	SUV-DPW	8	SUV	2017	08/30/17	\$26,771	Ford	EXPLORER	1FM5K8B85HGC17124					\$ 37,163	53,656	1378		
C2	116WFD	31	WUC	SUV-DPW	8	SUV	2011	03/29/11	\$26,771	Ford	EXPEDITION XLT 4x4	1FMJU1G51BEF25120		35,020				34,116	3080		
C3	122WFD	31	WUC	240SPC-DPW	20	20-YEAR SPECIALTY UNIT	2012	03/06/12	\$79,819	International	7,500 SBA With Hi-Vac Attach	1HTWNAZB4CJ115205						10,918	11405		
C3-A (Mounted on C-3)	N/A	31	WUC	VAC-Body	10	Vac-All Body	2012	03/06/12	\$163,857	AQUATECH	HI VAC ATTACHMENT	Model B-10			198,600			748.10 hrs			
C4	51WFD	31	WUC	5DMP-DPW	20	5 TON DUMP TRUCK	1991	01/02/91	\$104,011	Ford	L-8000	1FDYR82A6MVA06368						20,027	6565		
C4-A (Mounted on C4)	N/A	31	WUC	240SPC-DPW	20		2012	09/05/12	\$128,697	CUES CCTV	SEWER INSPECTION SYSTEM	N/A						CCTV			
C5	338WFD	31	WUC		8	CRUISER	2010	11/30/09	\$19,701	Ford	Taurus	1FAHP2DW1AG112586						102,740	5705		
PG1	144WFD	31	WUC	GEN-DPW	15	GENERATOR	1982	01/02/82	\$19,125	ONAN	TRAILER	1013131						536 hrs			
PG2	179WFD	31	WUC	GEN-DPW	15	GENERATOR	1991	01/02/91	\$20,000	ONAN	TRAILER	16MG1067LD017031						306.9 hrs			
PG3	332WFD	31	WUC	GEN-DPW	15	GENERATOR (mounted on trailer)	2015	05/15/15	\$60,895	CUMMINGS	C100D6R 100KW Portable Generator w/trlr	G140718616						75.4 hrs			
PP1	145WFD	31	WUC	PMP-DPW	15	PUMP	1985	01/02/85	\$10,909	GORMAN RUPP	PUMP TRAILER	774243						3.41 hrs			
PP2	148WFD	31	WUC	PMP-DPW	15	PUMP	1990	01/02/90	\$12,166	GORMAN RUPP	PUMP TRAILER	968976N						149.0 hrs			
PP3	98WFD	31	WUC	PMP-DPW	15	UTILITY TRAILER	2018	03/08/19	\$68,000	MANSFIELD	UTILITY TRAILER	1M9BU1421JM620572									
PP3 -A (mounted on PP3)		31	WUC	PMP-DPW	15	PUMP	2018	03/08/19	\$68,000	GORMAN RUPP	PUMP	1682771						81.4 hrs			
T1	48WFD	31	WUC	PCK-DPW	14	PICK UP	2020	03/20/20	\$58,085	FORD	F350 4x4	1FD8X3B63LEC31088						13,535	75.00		
T2	49WFD	31	WUC	PCK-DPW	14	PICK UP	2011	07/27/11	\$55,594	GMC	K-3500 SIERRA 4wd	1GD322CL8BF243396					\$ 66,650	94,760	10365		
T3	82WFD	31	WUC	PCK-DPW	14	PICK UP	2018	01/11/18	\$54,843	Chevrolet	Silverado 3500HD	1GB5KYCG3JZ174685						42,258	3,465.00		
T4	52WFD	31	WUC	PCK-DPW	14	PICK UP	2016	09/28/16	\$53,749	Chevrolet	Silverado 3500 w/body & equipment	1GB3KYCG4GZ320205						62,040	2,978.00		
T5 (old)	109WFD	31	WUC	PCK-DPW	14	Do Not Replace	2006	06/20/06	\$20,939	Ford	F-150	1FTPX14546NB57564						106,078	6,804.00		
T5	46WFD	31	WUC	PCK-DPW	14	Pick Up	2020	12/01/20	\$45,130	Ford	F-350 4x4	1FTRF3B69LEE89997						9,334	2,169.00		
T6	128WFD	31	WUC	UTL-F	12	Do Not Replace	2008	01/23/08	\$44,808	Ford	F350	1FDWW31P98EB60911	reassigned from Fire Svcs to WUC (was W46)					75,136	9,201.00		
P50	42WFD	37	WUC	9999	0	Do Not Replace	1980		\$10,400	JOHN DEERE	1050 TRACTOR	1D50S003477	transferred April 2020 to WUC								

C1 - WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
8/17/2021	PM-A	4	95.2	194.97	290.17	51,023.70	PM
	REAR BRAKE PADS &						
7/8/2020	ROTORS	3	103.17	1.52	104.69	37,267.00	PM
10/10/2019	GENERAL CHECK	2	53.9	38.17	92.07	27,263.00	PM
4/3/2019	WIPER BLADE	2	52.72	26.48	79.2	20,546.00	PM
4/3/2019	PM-C	2.5	65.9	15.36	81.26	20,546.00	PM
6/18/2018	PM-B	4	117.32	15.52	132.84	11,010.00	PM
							DRIVER'S
8/29/2017	EQUIPMENT INSTALL	20	586.6	11.91	598.51	217	REPORT
		37.5	1,074.81	303.93	1,378.74		

C2 - WUC

Date	Description	Labor		Parts Cost	Total Cost	Odometer	Reason
		Hours	Labor Cost				
9/29/2021	REPAIRS	2	47.6	47.49	95.09	33,935.00	PM
3/22/2021	PM-A	2	73.84	183.49	257.33	32,306.00	PM
3/7/2020	REPAIRS	1	34.39	0	34.39	29,280.00	PM
12/24/2019	TIRE PLUG	1	39.81	469.44	509.25	29,280.00	PM
10/15/2019	TIRES,TUBES,LINERS	0.5	13.48	20	33.48	28,287.00	PM
8/16/2019	REPAIRS	2	74.2	10	84.2	28,287.00	PM
	PREVENTIVE						
7/31/2019	MAINTENANCE	4	144.44	26.52	170.96	27,914.00	PM
	BULB, REPLACE						
2/13/2019	EXTERIOR	1	32.04	2.29	34.33	26,300.00	PM
9/12/2018	FRONT BRAKE PADS	2	52.72	52.07	104.79	24,548.00	PM
8/22/2018	PM-B	2	52.72	13.61	66.33	24,548.00	PM
8/22/2018	REAR BRAKE PADS	1	26.36	126.74	153.1	24,548.00	PM
3/20/2017	PM-B	8.5	205.02	315.68	520.7	20,251.00	PM
							DRIVER'S
2/22/2017	TIRE PLUG	1	29.33	5	34.33	20,020.00	REPORT
10/28/2015	PM-C	5.5	112.59	515.66	628.25	16,851.00	PM
4/21/2014	TIRES,TUBES,LINERS	0.5	10.24	0	10.24	12,019.00	
7/8/2013	PM-A	3	74.65	0	74.65	9,760.00	
10/29/2012	TIRES,TUBES,LINERS	2	67.32	0	67.32	0	
10/1/2012	PM-A	2	45.56	30.52	76.08	6,490.00	
	ELECTRICAL						
12/8/2011	ACCESSRES	2	67.32	0	67.32	4,000.00	
10/26/2011	PM-A	2	39.64	17.83	57.47	3,551.00	
		45.00	1,243.27	1,836.34	3,079.61		

C3 - WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer
6/22/2021	PM-A	9	242.55	56.52	299.07	19,788.00
5/11/2018	HEATER CONTROL CABLE	4	141.28	27.53	168.81	17,381.00
4/30/2018	PREVENTIVE MAINTENANCE	12	407.4	65.07	472.47	17,379.00
6/27/2017	REPAIRS	40	1,358.00	12.98	1,370.98	16,852.00
6/14/2017	HEAD GASKET, ENG	30	879.9	30.34	910.24	17,106.00
6/8/2016	PM-B	12	343.32	62.29	405.61	16,852.00
	ONSPOTS ONSPOT INSTALL OR					
8/27/2013	REPAIR	6	190.55	98.36	288.91	16,085.00
	ONSPOTS ONSPOT INSTALL OR					
12/31/2012	REPAIR	1	30.53	0	30.53	15,579.00
	ONSPOTS ONSPOT INSTALL OR					
12/5/2012	REPAIR	5	152.65	0	152.65	15,574.00
	ONSPOTS ONSPOT INSTALL OR					
9/7/2012	REPAIR	15	457.95	574.51	1,032.46	15,484.00
	ONSPOTS ONSPOT INSTALL OR					
7/25/2012	REPAIR	3	68.34	0	68.34	0
	ONSPOTS ONSPOT INSTALL OR					
4/24/2012	REPAIR	5	113.9	0	113.9	0
	ONSPOTS ONSPOT INSTALL OR					
4/5/2012	REPAIR	15.5	473.22	84.18	557.4	0
2/10/2012	BRAKES	14	318.92	646.88	965.8	0
2/8/2012	BRAKES	2	37.48	907.94	945.42	0
2/7/2012	PM-A	7	213.71	65.94	279.65	15,130.00
12/3/2010	PM-A	4	96.36	159.44	255.8	14,530.00
	ONSPOTS ONSPOT INSTALL OR					
11/12/2010	REPAIR	4	79.28	0	79.28	14,514.00
11/10/2010	ROAD SERVI	2	48.18	0	48.18	14,508.00
11/10/2010	BRAKES	2	53.14	0	53.14	14,508.00
4/21/2010	TIRES,TUBES,LINERS	2	48.18	0	48.18	14,258.00
	ONSPOTS ONSPOT INSTALL OR					
3/30/2010	REPAIR	0.5	9.91	7.98	17.89	0
	ONSPOTS ONSPOT INSTALL OR					
11/17/2009	REPAIR	7.5	180.68	48.58	229.26	13,989.00
4/29/2009	PM-A	4	96.36	45.33	141.69	0
4/28/2009	PM-A	4	96.36	79	175.36	13,687.00
	ONSPOTS ONSPOT INSTALL OR					
1/6/2009	REPAIR	1	19.82	33.13	52.95	13,509.00
	ONSPOTS ONSPOT INSTALL OR					
11/19/2007	REPAIR	6.5	128.83	67.5	196.33	0
	ONSPOTS ONSPOT INSTALL OR					
11/19/2007	REPAIR	7	138.74	56.1	194.84	13,226.00
	ONSPOTS ONSPOT INSTALL OR					
1/19/2007	REPAIR	1.5	29.73	6.26	35.99	2,400.00

9/22/2006 PM-A	8	192.72	670.72	863.44	12,985.00
ONSPOTS ONSPOT INSTALL OR					
10/3/2005 REPAIR	0.5	9.91	26.39	36.3	12,171.00
ONSPOTS ONSPOT INSTALL OR					
9/1/2005 REPAIR	4.5	89.19	0	89.19	0
5/24/2004 TRANSMISSION MANUAL	4	96.36	0	96.36	12,604.00
5/24/2004 PM-A	4	96.36	164.1	260.46	12,604.00
2/1/2001 PM-A	1.5	33.78	0	33.78	11,377.00
ONSPOTS ONSPOT INSTALL OR					
2/1/2001 REPAIR	4.5	101.34	148.52	249.86	11,377.00
9/15/1998 PM-A	2	2	27.13	29.13	0
ONSPOTS ONSPOT INSTALL OR					
7/21/1998 REPAIR	1	1	153.9	154.9	10,153.00
	256.50	7,077.93	4,326.62	11,404.55	

CAR 4 - WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
5/14/2021	PM ANNUAL INSPECTION	8	190.4	151.93	342.33	9,401.00	PM
6/6/2019	ROAD SERVICE ROAD CALL	16	538.24	164.65	702.89	6,895.00	PM
9/21/2018	DIAGNOSIS	16	512.64	474.52	987.16	6,321.00	PM
2/12/2018	DIAGNOSIS	73	2,196.53	0	2,196.53	5,784.00	PM
4/19/2016	DIAGNOSIS	3	85.83	0	85.83	4,391.00	DRIVER'S REPORT
8/12/2015	MUD FLAP ONSPOTS ONSPOT INSTALL	1	20.47	19.48	39.95	16,221.00	DRIVER'S REPORT
3/18/2014	OR REPAIR ONSPOTS ONSPOT INSTALL	2	70.03	0	70.03	0	
2/25/2014	OR REPAIR ONSPOTS ONSPOT INSTALL	7	174.19	316.09	490.28	2,177.00	
2/18/2014	OR REPAIR ONSPOTS ONSPOT INSTALL	2	49.77	0	49.77	0	
11/6/2013	OR REPAIR	3	74.65	137.37	212.02	16,221.00	
7/3/2013	EXHAUST SYSTEM	1	24.88	0	24.88	2,414.00	
5/7/2013	PM-A ONSPOTS ONSPOT INSTALL	6	136.68	165.51	302.19	2,226.00	
3/22/2013	OR REPAIR ONSPOTS ONSPOT INSTALL	4	122.12	0	122.12	2,030.00	
3/18/2013	OR REPAIR ONSPOTS ONSPOT INSTALL	7	213.71	83.61	297.32	2,028.00	
11/27/2012	OR REPAIR ONSPOTS ONSPOT INSTALL	1	30.53	0	30.53	1,973.00	
3/12/2012	OR REPAIR	4	122.12	489	611.12	1,186.00	
		154.00	4,562.79	2,002.16	6,564.95		

C5 - WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
11/17/2020	PM-A	2	53.9	111.94	165.84	95,110.00	PM
4/15/2020	GENERAL CHECK	0.5	13.48	0	13.48	86,160.00	PM
11/15/2019	GENERAL CHECK	5.5	148.23	544.65	692.88	86,160.00	PM
10/23/2019	TIRE PLUG	2	53.9	10	63.9	86,160.00	PM
4/9/2019	PARTS RUN	0	0	279.58	279.58	82,778.00	PM
4/5/2019	PM-A	13	437.32	14.29	451.61	86,160.00	PM
8/2/2018	REPAIRS	1	32.04	74.04	106.08	82,778.00	PM
6/13/2018	EQUIPMENT INSTALL	14	410.62	269.4	680.02	81,783.00	PM
5/29/2018	PM-C	10	263.6	69.06	332.66	81,783.00	PM
9/6/2017	PM-B	4.5	108.54	317.25	425.79	78,102.00	PM
							DRIVER'S
1/11/2017	TRANSPORT VEHICLES	1.5	36.18	20	56.18	73,315.00	REPORT
10/6/2016	PM-B	4.5	114.35	65.6	179.95	73,315.00	PM
6/2/2016	PM-C	3	67.23	93.53	160.76	70,059.00	PM
2/4/2016	PM-B	5.5	123.26	353.47	476.73	66,217.00	PM
8/4/2015	PM-C	3.5	71.65	349.07	420.72	63,355.00	PM
							DRIVER'S
5/21/2015	LIGHT BULB REPLACE	0.5	10.24	0.9	11.14	60,363.00	REPORT
2/4/2015	PM-C	2	40.94	22.37	63.31	60,363.00	PM
6/12/2014	PM-A	3	74.65	183.76	258.41	55,163.00	
11/13/2013	PM-A	2	40.94	261.18	302.12	48,443.00	
7/3/2013	PM-A	2.5	51.18	9.82	61	44,805.00	
7/12/2012	PM-A	3	56.22	21.01	77.23	31,174.00	
1/30/2012	PM-A	3	100.98	44.97	145.95	23,998.00	
10/4/2011	FRAME	1.5	36.14	24.22	60.36	20,472.00	
6/20/2011	BRAKES	1	24.09	0	24.09	0	
5/31/2011	PM-A	3	59.46	14.29	73.75	16,150.00	
3/7/2011	PM-A	3	79.71	15.15	94.86	12,600.00	
10/1/2010	TIRES,TUBES,LINERS	1	26.57	0	26.57	8,100.00	
		96	2,535.42	3,169.55	5,704.97		

T1-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
2/5/2021	PM-A	1	36.92	38.47	75.39	7,742.00	PM
		1.00	36.92	38.47	75.39		

T2-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
10/20/2021	DIAGNOSIS	16	604.16	428.37	1,032.53	94,830.00	PM
10/19/2021	BATTERY	19	701.48	475.69	1,177.17	94,449.00	PM
10/6/2021	REPAIRS	0	0	0	0	94,097.00	PM
	CATALYTIC						
10/6/2021	CONVERTER	0	0	0	0	94,097.00	PM
10/6/2021	PM-A	0	0	0	0	94,097.00	PM
	AIR CLEANER						
10/6/2021	ASSEMBLY	32	761.6	1,608.65	2,370.25	94,097.00	PM
10/6/2021	TIRE REPLACEMENT	0	0	0	0	94,097.00	PM
10/6/2021	SHOCK ABSORBER	0	0	0	0	94,097.00	PM
	TIE ROD AND/OR						
10/6/2021	ENDS	0	0	0	0	94,097.00	PM
	REAR BRAKE PADS &						
1/6/2021	ROTORS	4	147.68	0	147.68	87,034.00	PM
9/25/2020	PM-A	8	275.12	63.73	338.85	83,600.00	PM
6/15/2020	REPAIRS	2	68.78	0	68.78	79,477.00	PM
3/7/2020	PM-B	4	137.56	54.99	192.55	68,219.00	PM
8/5/2019	RADIATOR	0.3	11.94	12.22	24.16	68,219.00	PM
6/26/2019	DIAGNOSIS	4	141.28	52.56	193.84	68,219.00	PM
4/16/2019	DIAGNOSIS	1	32.04	0	32.04	67,109.00	PM
1/16/2019	TIRES,TUBES,LINERS	0	0	599.52	599.52	61,958.00	PM
8/27/2018	REPAIRS	0	0	819.99	819.99	61,958.00	PM
	TRANSPORT						
8/23/2018	VEHICLES	0.5	13.18	0	13.18	61,958.00	PM
8/22/2018	REPAIRS	4	128.16	0	128.16	61,949.00	PM
8/16/2018	PM-C	2	52.72	38.34	91.06	61,870.00	PM
8/16/2018	REPAIRS	3.5	92.26	0	92.26	61,870.00	PM
6/22/2018	REPAIRS	1.5	36.18	47.83	84.01	55,264.00	PM
6/22/2018	PM-C	1	24.12	5.71	29.83	55,264.00	PM
							DRIVER'S
10/31/2017	BRAKES	8	234.64	228.76	463.4	52,421.00	REPORT
8/17/2017	PM-B	6	175.98	50.57	226.55	49,751.00	PM
							DRIVER'S
8/9/2017	REPAIRS	2	58.66	145.86	204.52	49,572.00	REPORT
							DRIVER'S
7/21/2017	DIAGNOSIS	4	135.8	23.47	159.27	49,153.00	REPORT
							DRIVER'S
4/19/2017	BATTERY	5	146.65	221.65	368.3	47,309.00	REPORT
							DRIVER'S
3/7/2017	REPAIRS	6	175.98	42.16	218.14	46,917.00	REPORT

T2-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
							DRIVER'S
2/16/2017	WIRING / REPAIR	3	87.99	176.89	264.88	46,735.00	REPORT
11/15/2016	PM-B	6	175.98	873.72	1,049.70	44,730.00	PM
7/5/2016	PM-B	9	257.49	117.42	374.91	40,176.00	PM
	ELECTRICAL						DRIVER'S
6/1/2016	ACCESSRES	6	171.66	138.79	310.45	38,880.00	REPORT
1/15/2016	PM-B	4	109	111.81	220.81	37,000.00	PM
	POWER						DRIVER'S
9/29/2015	PLANT/ENGINE	4	99.52	5	104.52	34,145.00	REPORT
9/3/2015	PM-C	2.5	51.18	46.3	97.48	33,340.00	PM
							DRIVER'S
7/29/2015	TIRES,TUBES,LINERS	0.5	10.24	8	18.24	27,665.00	REPORT
2/3/2015	PM-B	3	74.64	32.67	107.31	27,664.00	PM
							DRIVER'S
1/29/2015	DIAGNOSIS	2	49.76	0	49.76	27,665.00	REPORT
4/15/2014	PM-A	3	74.65	82.74	157.39	21,892.00	
9/23/2013	PM-A	6	149.3	72.26	221.56	18,785.00	
	ONSPOTS ONSPOT						
6/21/2013	INSTALL OR REPAIR	3	68.34	20	88.34	15,622.00	
5/22/2013	PM-A	5	113.9	65.43	179.33	15,020.00	
9/7/2012	PM-A	3	68.34	58.37	126.71	9,650.00	
	ONSPOTS ONSPOT						
9/6/2012	INSTALL OR REPAIR	1	33.66	0.68	34.34	0	
3/12/2012	PM-A	3.5	65.59	27.06	92.65	5,087.00	
		198.30	5,817.21	6,757.21	12,574.42		

T3-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
10/19/2021	PM-A	3	113.28	38.22	151.5	42,285.00	PM
1/5/2021	PM-A	3	110.76	44.14	154.9	340,002.00	PM
4/17/2020	PM-A	1.5	51.59	408.18	459.77	26,680.00	PM
10/25/2019	PM-A	4	137.56	13.87	151.43	22,241.00	PM
	TIRES,TUBES,LI						
6/20/2019	NERS	2	77.88	129.68	207.56	177,809.00	PM
6/18/2019	PARTS RUN	2.5	65.9	129.68	195.58	177,809.00	PM
4/4/2019	PM-A	4	141.28	13.89	155.17	16,068.00	PM
11/20/2018	PM-B	4	155.76	22.34	178.1	11,147.00	PM
8/2/2018	PM-C	2.5	65.9	25.89	91.79	177,809.00	PM
	EQUIPMENT						
4/26/2018	INSTALL	23	674.59	13.84	688.43	180	ROUTINE
	EQUIPMENT						
4/24/2018	INSTALL	12	351.96	758.99	1,110.95	2,435.00	PM
1/23/2018	PM-C	2.5	60.3	11.23	71.53	177,809.00	PM
		64.00	2,006.76	1,609.95	3,616.71		

T4-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
10/6/2021	PM-A	0	0	1,246.23	1,246.23	61,612.00	PM
6/28/2021	PM-A	2	47.6	61.02	108.62	56,578.00	PM
6/28/2021	PM-A	2	73.84	38.22	112.06	56,578.00	PM
10/21/2020	BATTERY	1	34.39	184.99	219.38	49,724.00	PM
8/18/2020	PM-A	4	107.8	36.27	144.07	48,136.00	PM
4/9/2020	PM-B	3.5	94.33	21.93	116.26	42,877.00	PM
2/29/2020	PM-B	3	108.33	13.44	121.77	33,146.00	PM
4/17/2019	PM-B	4	155.76	16.1	171.86	33,146.00	PM
11/6/2018	PM-B	4	155.76	13.76	169.52	28,529.00	PM
5/29/2018	PM-B	4	117.32	12.1	129.42	23,565.00	PM
PREVENTIVE MAINTENAN							
2/27/2018	CE	5	169.75	13.3	183.05	20,139.00	PM
10/13/2017	PM-B	4	135.8	14.34	150.14	15,286.00	PM
EQUIPMENT							DRIVER'S
11/1/2016	INSTALL	5	146.65	600.19	746.84	1,070.00	REPORT
EQUIPMENT							DRIVER'S
9/30/2016	INSTALL	18	527.94	77.15	605.09	192	REPORT
		59.50	1,875.27	2,349.04	4,224.31		

T5-WUC

Date	Description	Labor Hours	Labor Cost	Parts Cost	Total Cost	Odometer	Reason
10/1/2021	PM-A EQUIPMENT	32	1,203.20	362.01	1,565.21	8,710.00	PM
2/18/2021	INSTALL HEADLAMP	16	590.72	1,519.56	2,110.28	970	PM
2/1/2021	SEALED	1	36.92	21.91	58.83	970	PM
		49.00	1,830.84	1,903.48	3,734.32		

Asset ID No.	License Plate No.	Agency Code	Agency Name	Class Code	Repl. Cycle in Years	Class Description	Asset Model Year	In-Service Date	Gross Vehicle Cost	Manuf.	Model	2023	2024	2025	2026	2027	Updated Sept. 2021 Mileage/ Use Hrs.	Updated Repair Costs	COMMENTS
CAR 100	50WFD	31	WUC	9999		Do Not Replace	1984	02/08/13	Donated	Humvee	1 1/4-ton Utility Vehicle	Donated: Not a town asset					Humvee		
C1	53WFD	31	WUC	SUV-DPW		SUV	2017	08/30/17	\$26,771	Ford	EXPLORER					37,163	53,656	\$1,378	Move replacement to 2027. Est. cost based on 2021 base model MSRP adjusted 2% per following year. Edmunds.com
C2	116WFD	31	WUC	SUV-DPW		SUV	2011	03/29/11	\$26,771	Ford	EXPEDITION XLT 4x4		35,020				34,116	\$3,080	
C3	122WFD	31	WUC	240SPC-DPW		20-YEAR SPECIALTY UNIT	2012	03/06/12	\$79,819	International	7,500 SBA With Hi-Vac Attach						10,918	\$11,405	Move replacement to 2024. Replace with Ford Explorer. Est. cost based on 2021 base model MSRP adjusted 2% per following year. Edmunds.com
C3-A (Mounted on C-3)	N/A	31	WUC	VAC-Body		Vac-All Body	2012	03/06/12	\$163,857	AQUATECH	III VAC ATTACHMENT			198,600			Vactor equip. - 748.1 hrs.		
C4	51WFD	31	WUC	5DMP-DPW		5 TON DUMP TRUCK	1991	01/02/91	\$104,011	Ford	L-8000						20,027	\$6,565	
C5	338WFD	31	WUC			CRUISER	2010	11/30/09	\$19,701	Ford	Taurus						102,740	\$5,705	
C4-A (Mounted on C4)	N/A	31	WUC	240SPC-DPW			2012	09/05/12	\$128,697	CUES CCTV	SEWER INSPECTION SYSTEM						CCTV		
PG1	144WFD	31	WUC	GEN-DPW		GENERATOR	1982	01/02/82	\$19,125	ONAN	TRAILER						536 hrs.		
PG2	179WFD	31	WUC	GEN-DPW		GENERATOR	1991	01/02/91	\$20,000	ONAN	TRAILER						306.9 hrs.		
PG3	332WFD	31	WUC	GEN-DPW		GENERATOR (mounted on trailer)	2015	05/15/15	\$60,895	CUMMINGS	C100D6R 100KW Portable Generator w/trlr						75.4 hrs.		
PP1	145WFD	31	WUC	PMP-DPW		PUMP	1985	01/02/85	\$10,909	GORMAN RUPP	PUMP TRAILER						3.41 hrs.		
PP2	148WFD	31	WUC	PMP-DPW		PUMP	1990	01/02/90	\$12,166	GORMAN RUPP	PUMP TRAILER						149.0 hrs.		
PP3	98WFD	31	WUC	PMP-DPW		UTILITY TRAILER	2018	03/08/19	\$68,000	MANSFIELD	UTILITY TRAILER								
PP3 -A (mounted on PP3)		31	WUC	PMP-DPW		PUMP	2018	03/08/19	\$68,000	GORMAN RUPP	PUMP						81.4 hrs.		
OLDT1	150wfd	31	WORKS	PCK-DPW		Do Not Replace	2006	06/20/06	\$35,655	Chevrolet	SILVERADO 2500	Reassigned from WUC to DPW 7/7/20							
T1	48WFD	31	WUC	PCK-DPW		PICK UP	2020	03/20/20	\$58,085	FORD	F350 4x4						13,535	\$75	
T2	49WFD	31	WUC	PCK-DPW		PICK UP	2011	07/27/11	\$55,594	GMC	K-3500 SIERRA 4wd					66,650	94,760	\$10,365	Cost adjustment based on 2020 cost of T1 adjusted 2%/yr. to 2027.
T3	82WFD	31	WUC	PCK-DPW		PICK UP	2018	01/11/18	\$54,843	Chevrolet	Silverado 3500HD						42,258	\$3,465	
T4	52WFD	31	WUC	PCK-DPW		PICK UP	2016	09/28/16	\$53,749	Chevrolet	Silverado 3500 w/body & equipment						62,040	\$2,978	

T5 (old)	109WFD	31	WUC	PCK-DPW		Do Not Replace	2006	06/20/06	\$20,939	Ford	F-150						106,078	\$6,804	
T5	46WFD	31	WUC	PCK-DPW		Pick UP	2020	12/01/20	\$45,130	Ford	F-350 4x4						9,334	\$2,169	
T6	126WFD	31	WUC	UTL-F		Do Not Replace	2006	01/23/06	\$44,606	Ford	F350	reassigned from Fire Svcs to WUC (was W46)					75,136	\$9,201	
P50	42WFD	37	WUC	9999		Do Not Replace	1980		\$10,400	JOHN DEERE	1050 TRACTOR	transferred April 2020 to WUC							transferred April 2020 to WUC
NEW		31	WUC								Various	\$185,000							For the acquisition of new equipment intended to enhance the operations of the WUC at a lower cost as compared to the use of contractors. Mini-excavator, skid steer, large diameter asphalt cutting saw, light dump truck. Once acquired, these will have separate asset tags as required.

TOWN OF WATERFORD
FLEET MANAGEMENT PLAN - BOARD OF FINANCE RECOMMENDED
FISCAL YEARS 2021 - 2025

12 15 16
\$ 0.75 \$ 0.86 \$ 1.63
\$ 746,979 \$ 858,405 \$ 1,628,325

Asset ID No.	License Plate No.	Agency Code	Agency Name	Class Code	Repl. Cycle in Years	Class Description	Asset Model Year	In-Service Date	Gross Vehicle Cost	Manuf.	Model	Serial #	2021	2022	2023	2024	2025	Mileage/ Use Hrs.
CAR 100	50WFD	31	WUC	9999	0	Do Not Replace	1984	02/08/13	Donated	Humvee	Vehicle (Military)	000130						Humvee
C1	53WFD	31	WUC	SUV-DPW	8	SUV	2017	08/30/17	\$26,771	Ford	EXPLORER	1FM5K8B85HGC17124						18,372
C2	116WFD	31	WUC	SUV-DPW	8	SUV	2011	03/29/11	\$27,198	Ford	EXPEDITION XLT 4x4	1FMJU1G51BEF25120		\$ 36,065				
C3	122WFD	31	WUC	DPW	20	UNIT	2012	03/06/12	\$115,979	International	Vac Attach	1HTWNAZB4CJ115205						6,665
Mounted	N/A	31	WUC	VAC-Body	10	Vac-All Body	2012	03/06/12	\$163,857	AQUATECH	ATTACHMENT	Model B-10		\$ 172,960	\$ 178,221	\$ 183,642		Vactor equip.
C4	51WFD	31	WUC	DPW	20	5 TON DUMP TRUCK	1991	01/02/91	\$114,000	Ford	L-8000	1FDYR82A6MVA06368						17,567
C5	338WFD	31	WUC			CRUISER	2010			Ford	Taurus	1FAHP2DW1AG112586						
Mounted	N/A	31	WUC	DPW	20		2012	09/05/12	\$128,697	CUES CCTV	SEWER INSPECTION	N/A						CCTV
PG1	144WFD	31	WUC	GEN-DPW	15	GENERATOR	1982	01/02/82	\$19,125	ONAN	TRAILER	1013131						530 hrs.
PG2	179WFD	31	WUC	GEN-DPW	15	GENERATOR	1991	01/02/91	\$20,000	ONAN	TRAILER	16MG1067LD017031						292 hrs.
PG3	332WFD	31	WUC	GEN-DPW	15	GENERATOR	2015	05/15/15	\$60,895	CUMMINGS	Portable Generator	G140718616						49.9 hrs.
PP1	145WFD	31	WUC	PMP-DPW	15	PUMP	1985	01/02/85	\$21,250	RUPP	PUMP TRAILER	774243						3.31 hrs.
PP2	148WFD	31	WUC	PMP-DPW	15	PUMP	1990	01/02/90	\$21,250	RUPP	PUMP TRAILER	968976N						144.9 hrs.
ASSET		31	WUC	PMP-DPW	15	PUMP												
OLDT1		31	WUC	PCK-DPW	14	PICK UP	2006	06/20/06		Chevrolet	SILVERADO 2500	1GBHK24DX6E251727						
T1	48WFD	31	WUC	PCK-DPW	14	PICK UP	2020	03/20/20	\$58,085	FORD	F350 4x4	1FD8X3B63LEC31088						66,125
T2	49WFD	31	WUC	PCK-DPW	14	PICK UP	2011	07/27/11	\$55,594	GMC	K-3500 SIERRA 4wd	1GD322CL8BF243396						13,363
T3	82WFD	31	WUC	PCK-DPW	14	PICK UP	2018	01/11/18	\$54,843	Chevrolet	Silverado 3500HD	1GB5KYCG3JZ174685						30,724
T4	52WFD	31	WUC	PCK-DPW	14	PICK UP	2016	09/28/16	\$53,749	Chevrolet	& equipment	1GB3KYCG4GZ320205						89,642
T5	46WFD	31	WUC	PCK-DPW	14	PICK UP	2006	06/20/06	\$20,939	Ford	F-150	1FTPX14546NB57564	\$52,000					
NEW Request		31	WUC	Backhoe											\$185,000.00			

Kimberly Allen

From: Neftali Soto
Sent: Tuesday, November 9, 2021 3:43 PM
To: Kimberly Allen
Cc: Robert Brule; Jim Bartelli; Peter Clark; Garon VanOverloop
Subject: RE: Utility Commission - FY2023-27 FMP
Attachments: Garons email re equipment cost.pdf; volvo excavator.pdf; skid steer takeuchi.pdf

Hi, Kim.

I'm attaching copy of Chief Mechanic VanOverloop email regarding the pricing of the equipment that the WUC is pursuing. Based on Garon's evaluation, and after conferring with Assistant Director Bartelli and Foreman Clark, it was our consensus, and therefore recommendation, to pursue the acquisition of:

- the Volvo EC60 (or equivalent) excavator with various attachments (\$101,314)
- the trailer to transport the excavator (\$24,125)

and utilize the remaining \$59,561 of the \$185K towards the acquisition of a skid steer machine.

It was also our consensus that at this time, the acquisition of a large dump truck is not [immediately] necessary. Since DPW already have these trucks, they can help us on the moving and delivery of the excavator to any location where WUC staff needs the machine.

If any questions, please give me a call or send me a note.

Thank you.

Tali

Sent: Thursday, November 4, 2021 2:22 PM
To: Neftali Soto <nsoto@waterfordct.org>
Cc: Robert Brule <rbrule@waterfordct.org>
Subject: RE: Utility Commission - FY2023-27 FMP
Importance: High

Tali,

You'll need to break the new \$185,000 request out by individual equipment (i.e. excavator, dump truck, etc.). A total amount for various equipment would not be approved as is.

Thank you.

Kimberly Allen
Director of Finance
Town of Waterford
15 Rope Ferry Road
Waterford, CT 06385
kallen@waterfordct.org
860.444.5840
860.440.0579 (fax)



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From: Neftali Soto
Sent: Monday, October 25, 2021 10:49 AM
To: Kimberly Allen <kallen@waterfordct.org>
Cc: Robert Brule <rbrule@waterfordct.org>
Subject: RE: Utility Commission - FY2023-27 FMP

Please replace previous attachment with this.
Not sure why I was thinking September on the date.
Tali

From: Neftali Soto
Sent: Sunday, October 24, 2021 6:12 PM
To: Kimberly Allen <kallen@waterfordct.org>
Cc: Robert Brule <rbrule@waterfordct.org>
Subject: Utility Commission - FY2023-27 FMP

For your consideration.
Thank you.
Tali

Neftali Soto, PE
Chief Engineer/Director – Utility Commission
Town of Waterford
Mail - 15 Rope Ferry Road
Waterford, CT 06385
Address – 1000 Hartford Tpke.
Waterford, CT 06385
nsoto@waterfordct.org
860-444-5886
Fax- 860-442-9037

From: [Garon VanOverloop](#)
To: [Neftali Soto](#)
Cc: [Peter Clark](#); [Jim Bartelli](#)
Subject: RE: Utility Commission - FY2023-27 FMP
Date: Monday, November 8, 2021 2:07:53 PM
Attachments: [image001.png](#)

Tali,

Volvo EC60 Excavator with attachments	\$101,314
Tag Trailer, 10ton	\$24,124.37
Dump Truck- Large enough to safely support the trailer, loaded.	\$150k

Total \$275k -without a skid steer. I believe the
manhole saw can be used on this machine but I am waiting on confirmation.

Here are a couple of things to think about:

- The excavator is about 13,000lbs, any smaller and the different attachments, such as the brush cutters would affect the performance & counter balance.
- 10 ton trailer allows for the legal movement of the machine with one or two attachments.
- An adequate sized dump truck would be a Freightliner 114SD, comparable to our H16 & H17
- Keep in mind that a dump truck & trailer of these required sizes would require the driver to have a Class A CDL license. The combined GVWR of the truck and trailer would exceed 26,000lbs.
- The license requirements would also impact the job descriptions, language would have to be changed- FYI

Talk about it with whoever and let me know what you want to do.

Regards

Garon VanOverloop
Fleet Lead Mechanic
Town of Waterford
Landline 860-444-5864 ext.2782
Mobile 860-625-0837

From: Neftali Soto <nsoto@waterfordct.org>
Sent: Thursday, November 4, 2021 2:41 PM
To: Garon VanOverloop <gvancouverloop@waterfordct.org>
Cc: Peter Clark <PClark@waterfordct.org>; Jim Bartelli <jbartelli@waterfordct.org>
Subject: FW: Utility Commission - FY2023-27 FMP
Importance: High

Hi, Garon.

Please see below and attachment.

In order for our request for a mini-excavator, light truck, skid steer, and other associated stock to be considered, the items have to be itemized. If you have the info readily available, it would be appreciated.

Thank you.

Tali

From: Kimberly Allen <kallen@waterfordct.org>

Sent: Thursday, November 4, 2021 2:22 PM

To: Neftali Soto <nsoto@waterfordct.org>

Cc: Robert Brule <rbrule@waterfordct.org>

Subject: RE: Utility Commission - FY2023-27 FMP

Importance: High

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Town of Waterford

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Thank you.

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Neftali Soto, PE

Chief Engineer/Director – Utility Commission

Town of Waterford

Mail - 15 Rope Ferry Road

Waterford, CT 06385

Address – 1000 Hartford Tpke.

Waterford, CT 06385

nsoto@waterfordct.org

860-444-5886

Fax- 860-442-9037

Volvo Construction Equipment
Building Tomorrow



EC60E

Volvo Excavators 5.5-6.8 t / 12,110-14,990 lb 59 hp





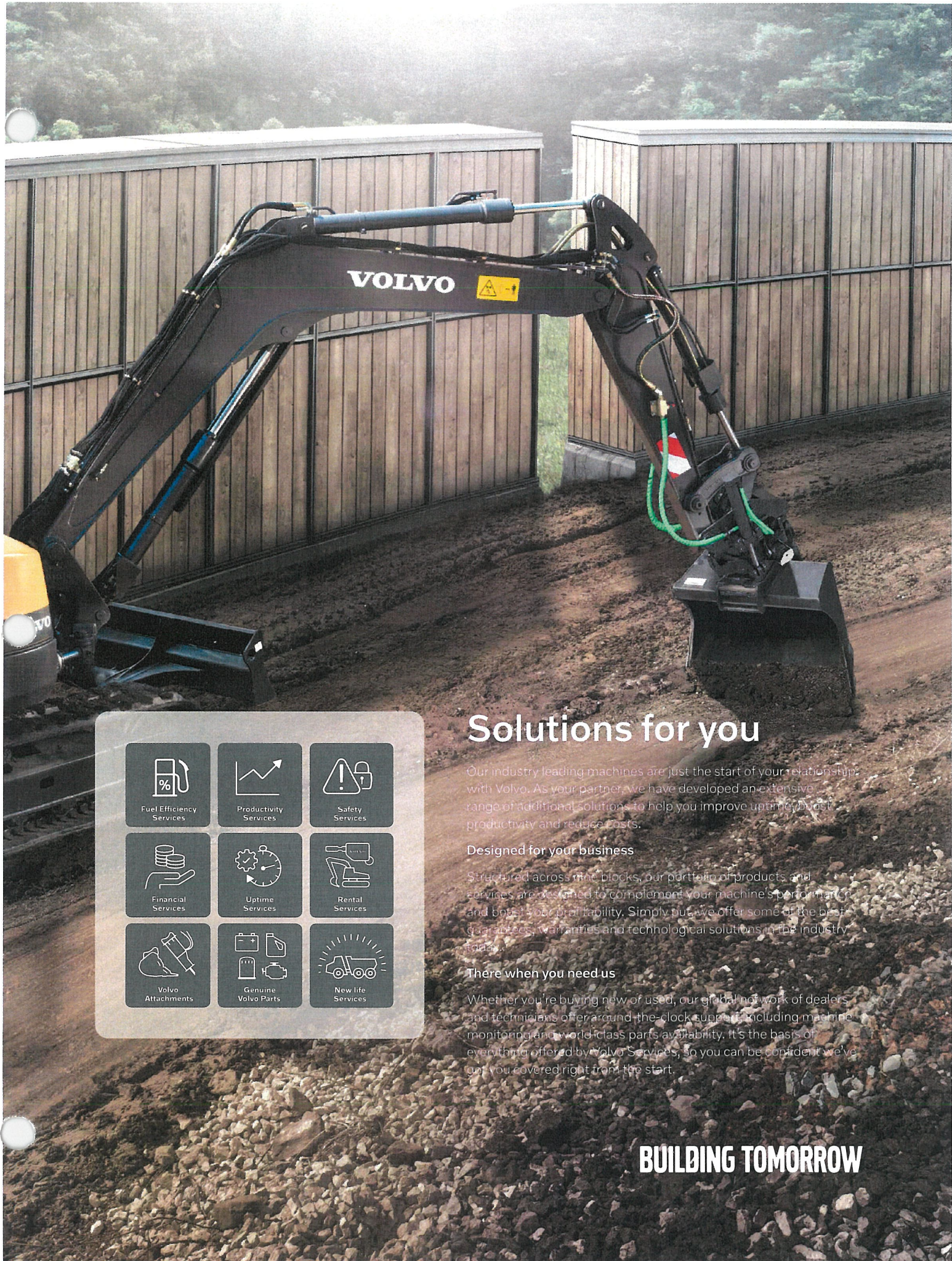
WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Small machines, big results

With decades of experience in the design and manufacture of compact excavators and wheel loaders, our range of compact machinery is designed with customer success in mind. Built from the same DNA as large Volvo machinery, our compact range sets the standard for efficiency performance and uptime – complemented by an extensive range of Volvo attachments for maximum versatility.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts – such as our award-winning electric compact excavator – to ensure we offer our customers machines which deliver big results long into the future.



Fuel Efficiency
Services



Productivity
Services



Safety
Services



Financial
Services



Uptime
Services



Rental
Services



Volvo
Attachments



Genuine
Volvo Parts



New Life
Services

Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

BUILDING TOMORROW

More space, more comfort, more work

The new EC60E features a larger cab design for a comfortable and more productive operator environment. Improved ergonomics and a modern LCD display give you perfect control in all operations. Plenty of storage has been added for personal belongings.

Operator convenience

Increased storage space is available for operator comfort and convenience. A phone tray, two power sockets, cup holder and three other large storage areas makes the Volvo cab a more convenient working environment.



Operator visibility

All-round visibility is improved by thinner pillars, larger glazed area and enlarged wiper blade. The rear view camera secures a better view for perfect and safe control through the 7" color LCD display. This ensures there are no blind spots even in the most confined working areas.



Work in comfort

The comfortable and adjustable seat makes it easier for the operator to work hard all day and feel less tired by the end of it. The cab's air conditioning is 10% more efficient and in automatic mode, the temperature remains at a set level. Six adjustable vents allow for optimal airflow in the cab.



Ease of control

Control your machine with minimal effort in order to get more done in less time. The keypad groups all controls on the right hand side and the 7" color LCD screen displays all machine information for access to functions through its easy to use menus. Through the hot keys, the operator can directly access pre-set functions for added convenience. The new proportional joystick provides better grip, fits your thumb perfectly and increases ease of control.





LARGER CAB

10% more space results in comfortable and relaxed operation, increasing production and reducing fatigue. The new cab design creates more space behind the seat, allowing the operator to move more freely within the space. The new generation Volvo Cab features more in cab room, increased glazed area and reduced noise levels.



BOOSTED PERFORMANCE

Do more in less time with increased combined digging efforts, a 10% improvement in traction, swing force and lifting capacity. The EC60E has been designed to tackle the most challenging job sites and contracts using the powerful Tier 4 final engine and adjustable hydraulic flow.

Power for performance

Climb quicker, swing smoother, dig harder and load faster with the EC60E. Improved traction, swing force and lifting capacity gets you results, fast. This versatile and powerful machine can be tailored for any job and is suitable for a wide range of applications.

Powerful Volvo Tier 4 final engine

Give your job site a boost and achieve fast results. Increased power to 59.4 hp (44.3 kW) and improved cooling ensure optimized performance in any climate. For the ultimate combination of power and performance, the engine helps to push through challenging conditions.



Smooth operation

Smooth combined operation means you can make very accurate and precise movements. With responsive controls the machine does exactly what the operator intends for less fatigue and fluent movement.



Versatility

Perform on any job site, whether you're working in a confined space or major construction area. The machine's compact design, long arm, optional fixed boom and offset boom, longer dozer blade, auxiliary hydraulic and thumb pipings makes the machine suitable for a wide range of jobs and applications.



Operator performance

The operator can set the machine to their own style and to suit the job at hand for easier control and increased performance. The auxiliary hydraulic flows, electric dozer blade and boom offset speed can be adjusted by the operator and tailored to three different work response modes – 'Active', 'Normal' or 'Soft'.



Profit in your business

The EC60E is designed and built to increase your profitability and keep you working for longer. To reduce your running costs it features excellent service access, convenient maintenance points and Volvo's auto engine shutdown feature. With better fuel efficiency this durable and reliable machine secures your costs and increases your uptime.

Low fuel consumption

The new Volvo engine and improved hydraulics together offer superior fuel efficiency. The standard auto idle feature helps to reduce your fuel consumption even further and increase your profits.



Auto engine shutdown

A unique offering from Volvo, the engine stops automatically after a preselected time, lowering fuel costs and noise. A stopped hour meter reduces maintenance costs and increases the resale value of the machine.



MATRIS and VCADS Pro

By working with your dealer and using Volvo MATRIS software you can analyse operator behaviour to improve efficiency, boost productivity and reduce your fuel and maintenance costs. Volvo also offers the VCADS Pro diagnostic system, making it easy to control your machine.



Durability and reliability

The EC60E is designed with the same high quality as all Volvo machines so you can be assured it's durable and reliable on your job site. You can depend on your machine to perform and work hard for peace of mind.





SERVICEABILITY

Keep your machine up and running with a number of features combined to increase machine availability and reduce downtime. Ground level service access, including new main control valve location, convenient greasing points and an easy to clean cooling unit all reduce service time and maintenance costs. Check service intervals easily through the in-cab screen, which shows reminders when maintenance is needed.



ATTACHMENTS VERSATILITY

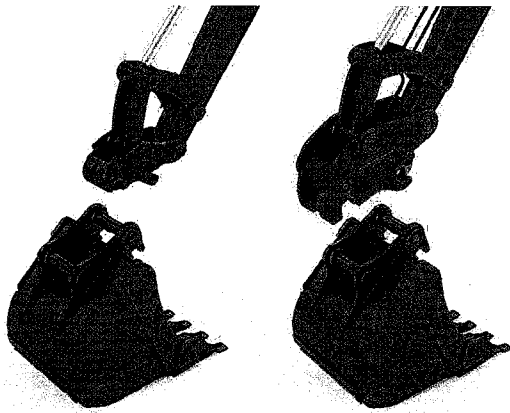
The machine's attachment can be easily changed to save time and costs. Its design, hydraulics, piping and in-cab switches combined with the Volvo attachments range allows the EC60E to take on a variety of tasks. Volvo attachments work in harmony with the machine to deliver maximum productivity.

One machine, many applications

Volvo offers a wide range of durable attachments that are suitable for any job site, including utilities, building, agriculture, landscaping and forestry. Volvo attachments are an integrated part of the excavator for which they're intended –delivering maximum productivity and versatility.

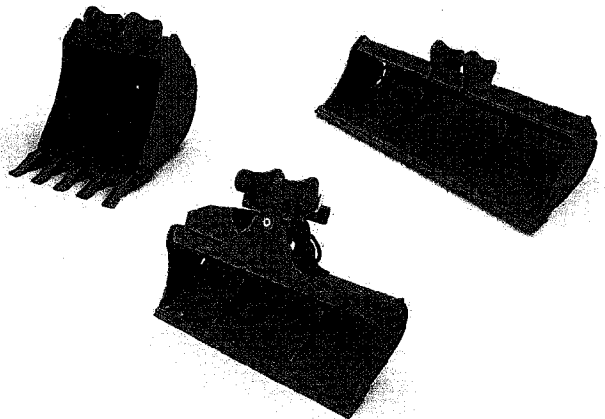
Quick coupler

Both the mechanical and the hydraulic quick couplers allow attachments to be changed quickly and efficiently. Making it easier on site, the quick coupler picks different Volvo buckets and is the perfect match for the breakers and thumb.



Buckets

A complete range of buckets from general purpose reinforced buckets to ditching buckets, allow the machine to work on many job sites for a wide range of applications. The durable buckets can work in loose gravel, crushed rock, dirt and soil.



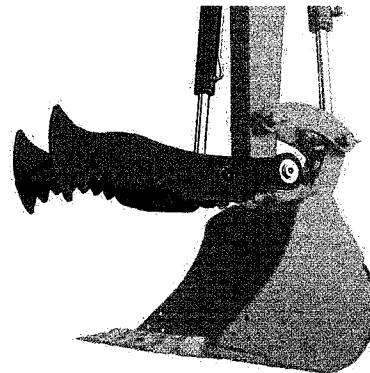
Breaker

Volvo's durable hydraulic breakers have been designed for ultimate compatibility with Volvo excavators. The wide range of breaker tools (or bits) has been built to break all kinds of materials and combines excellent performance with low noise and vibration levels.



Thumb

Designed to work with both Volvo direct fit buckets and quick coupler, the Volvo thumb makes many tasks possible, including piling, placing, loading, lifting and carrying.



A compact machine with big potential

BOOSTED PERFORMANCE

Do more in less time with increased combined digging efforts, a 10% improvement in traction, swing force and lifting capacity.

Smooth operation

Smooth combined operation means you can make very accurate and precise movements.

MATRIS and VCADS Pro

Volvo MATRIS analyses operator behaviour, improving efficiency and productivity. VCADS Pro helps to control your machine.

ATTACHMENTS VERSATILITY

The Volvo attachments range allows the machine to take on a variety of tasks for a wide range of jobs and applications.

Versatility

Perform on any job site, whether you're working in a confined space or major construction area

Auto engine shutdown

The auto engine shutdown provides lower fuel costs, less noise, much lower maintenance costs and a greater resale value.

ECO mode

Volvo's unique ECO mode improves fuel efficiency without any loss of performance in most operating conditions.



LARGER CAB

More space results in comfortable and relaxed operation, increasing production and reducing fatigue.

SERVICEABILITY

Ground level service access, new main control valve location, convenient greasing points and easy to clean cooling unit reduce service time.

Ease of control

The keypad groups all controls on the right hand side and the LCD screen displays all machine information for access to functions.

Operator convenience

Increased storage space in the cab provides for operator comfort and convenience.

Powerful Volvo Tier 4 final engine

For the ultimate combination of power and performance, the powerful engine pushes through challenging conditions.

CUSTOMER SUPPORT AGREEMENTS

Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services.



Adding value to your business

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximising uptime.

Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By

listening to your requirements, we can reduce your total cost of ownership and increase your revenue.



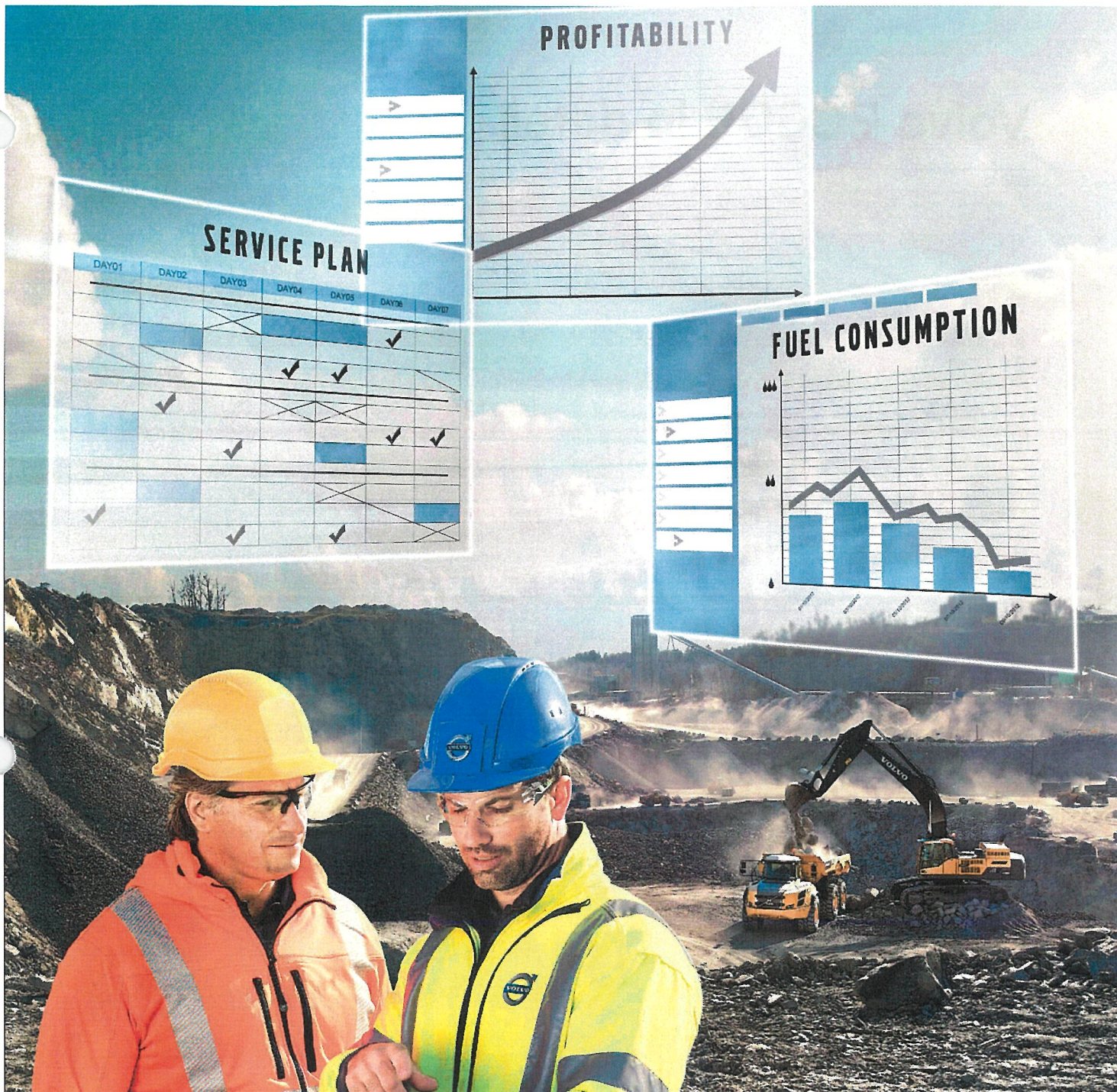
Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.

Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.





CUSTOMER SUPPORT AGREEMENTS

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

Volvo EC60E in detail

Engine

The new engine which provide excellent performance is equipped with a four-cylinder, vertical, electronic controlled high pressure fuel injectors, in-line turbo charger and water cooled diesel engine type. This engine fully meets the demands of the latest Tier 4 final emissions regulations.

Model	Volvo	D2.6H
Max. power at	r/min (r/s)	2,200 (36.7)
Net (ISO 9249/SAEJ1349)	kW (hp)	42.7 (57.3)
Gross (SAE J1995)	kW (hp)	44.3 (59.4)
Max. torque	Nm (ft lbf)	221.6 (163)
at engine speed	r/min	1,500
No. of cylinders		4
Displacement	l (in ³)	2.61 (159)
Bore	mm (in)	87 (3.42)
Stroke	mm (in)	110 (4.33)

Electrical system

Voltage	V	12
Batteries	V	1 x 12
Battery capacity	Ah	100
Alternator	V/Ah	12/90
Starter motor output	V - kW	12 - 2.5

Hydraulic system

Open-center, negative hydraulic system providing accurate controllability

Main pump: Variable-displacement pump

Maximum flow	l/min (gal/min)	2 x 60.5 (2 x 16)
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Swing pump: Gear pump

Maximum flow	l/min (gal/min)	1 x 35.2 (1 x 9.3)
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Relief valve setting pressure

Implement	MPa (psi)	22.6 (3,278)
Travel circuit	MPa (psi)	24.5 (3,560)
Swing circuit	MPa (psi)	19.6 (2,843)
Pilot circuit	MPa (psi)	3.2 (464)
Breaker & shear X1 maximum flow	l/min (gal/min)	60.5 (15.9)
Breaker & shear X1 maximum pressure	MPa (psi)	22.5 (3,263)
Slope & rotator X3 maximum flow	l/min (gal/min)	20.2 (5.3)
Slope & rotator X3 maximum pressure	MPa (psi)	14.7 (2,132)

Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected within the track frame.

Travel speed low	km/h (mi/h)	2.4 (1.5)
Travel speed high	km/h (mi/h)	4.4 (2.7)
Max. drawbar pull	kN (lbf)	52.8 (11,870)
Gradeability		35

Service Refill

Fuel tank	l (gal)	105 (27.7)
Hydraulic system, total	l (gal)	120 (31.7)
Hydraulic tank	l (gal)	76 (20.1)
Engine oil	l (gal)	11 (2.9)
Engine coolant	l (gal)	10 (2.6)
Travel reduction unit	l (gal)	2 x 0.8 (2 x 0.2)

Sound Level

Sound pressure level in cab according to ISO 6396		
L _{PA} (standard)	dB	78
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L _{WA} (standard)	dB	97

Swing system

No need for gear oil replacement

The lubricating system uses hydraulic operation oil for the reduction gear, eliminating the need for gear oil replacement.

Built-in parking brake

Parking brake can be built into the hydraulic motor, enabling safer parking on an incline.

Shockless function

Shockless relief is standard equipment to enable smooth traversing.

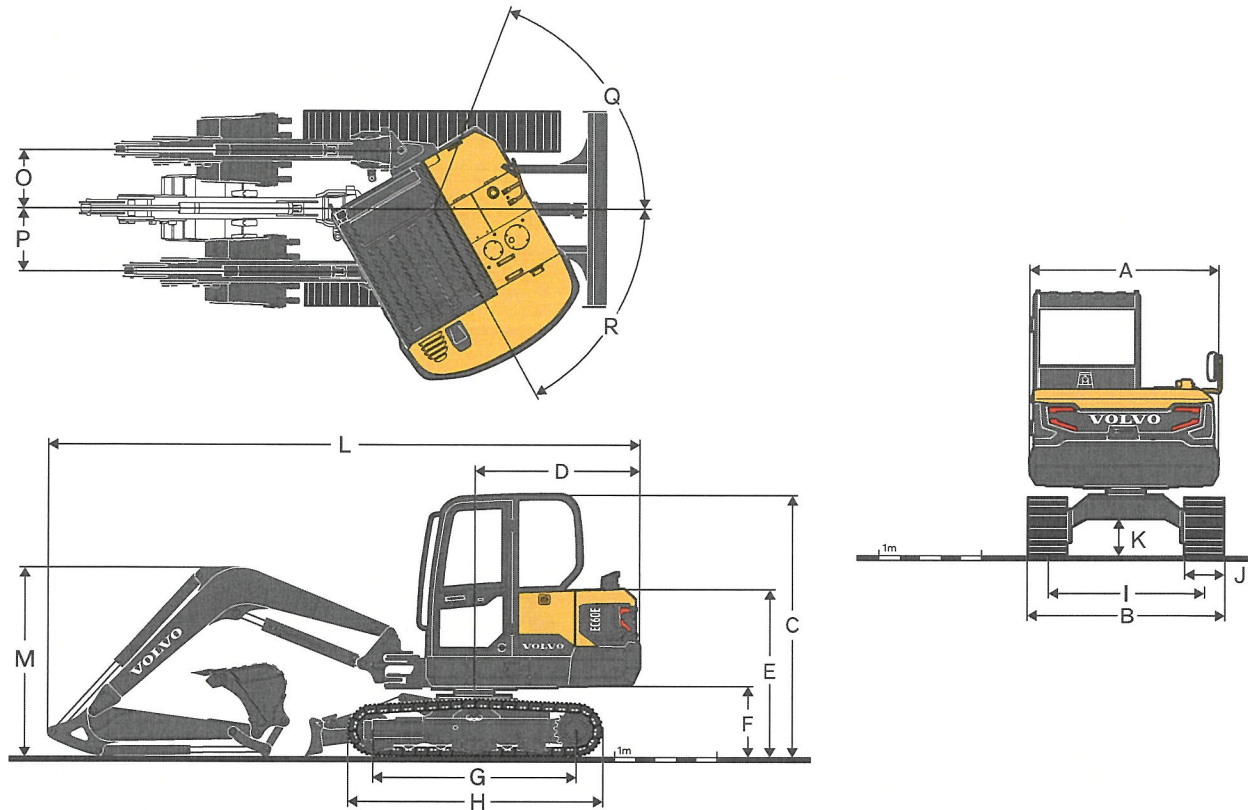
Max. swing speed	r/min	9.2
Max. swing torque	kNm (ft lbf)	12.3 (9,072)

Undercarriage

The undercarriage has a robust X-shaped frame.

Track shoes		2 x 39
Link pitch	mm (in)	135 (5.31)
Shoe width - steel	mm (in)	380 / 500 (15 / 19.7)
Shoe width - rubber	mm (in)	400 (15.7)
Bottom rollers		2 x 5
Top rollers		2 x 1

Specifications

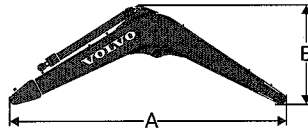


DIMENSIONS			EC60E			
Boom			m	ft in	3.0	9'10"
Arm			m	ft in	1.6	5'3"
A Overall width of upper structure			mm	ft in	1 845	6'1"
B Overall width			mm	ft in	1 920	6'4"
C Overall height of cab			mm	ft in	2 584	8'6"
D Tail swing radius			mm	ft in	1 650	5'5"
E Overall height of engine hood			mm	ft in	1 630	5'4"
F Counterweight clearance *			mm	ft in	671	2'2"
G Tumbler length			mm	ft in	1 990	6'6"
H Track length			mm	ft in	2 500	8'2"
I Track gauge			mm	ft in	1 520	5'0"
J Shoe width			mm	ft in	380	1'3"
K Min. ground clearance *			mm	ft in	350	1'2"
L Overall length			mm	ft in	5 800	19'0"
M Overall height of boom			mm	ft in	1 854	6'1"
O Boom swing distance			mm	ft in	684	2'3"
P Boom swing distance			mm	ft in	755	2'6"
Q Boom swing angle			°		80	80
R Boom swing angle			°		50	50

* Without shoe grouser

** Based on Steel track

Specifications



DIMENSIONS	Unit		Boom		Arm			
	m	ft in	3.0	9'10"	1.6	5'3"	1.9	6'3"
A Length	mm	ft in	3 110	10'2"	2 102	6'11"	2 402	7'11"
B Height	mm	ft in	1 192	3'11"	488	1'7"	497	1'8"
Width	mm	ft in	336	1'1"	300	1'0"	300	1'0"
Weight	kg	lb	378	830	168	370	181	400

Boom * Includes cylinder, piping and pin, excludes boom cyl. Pin

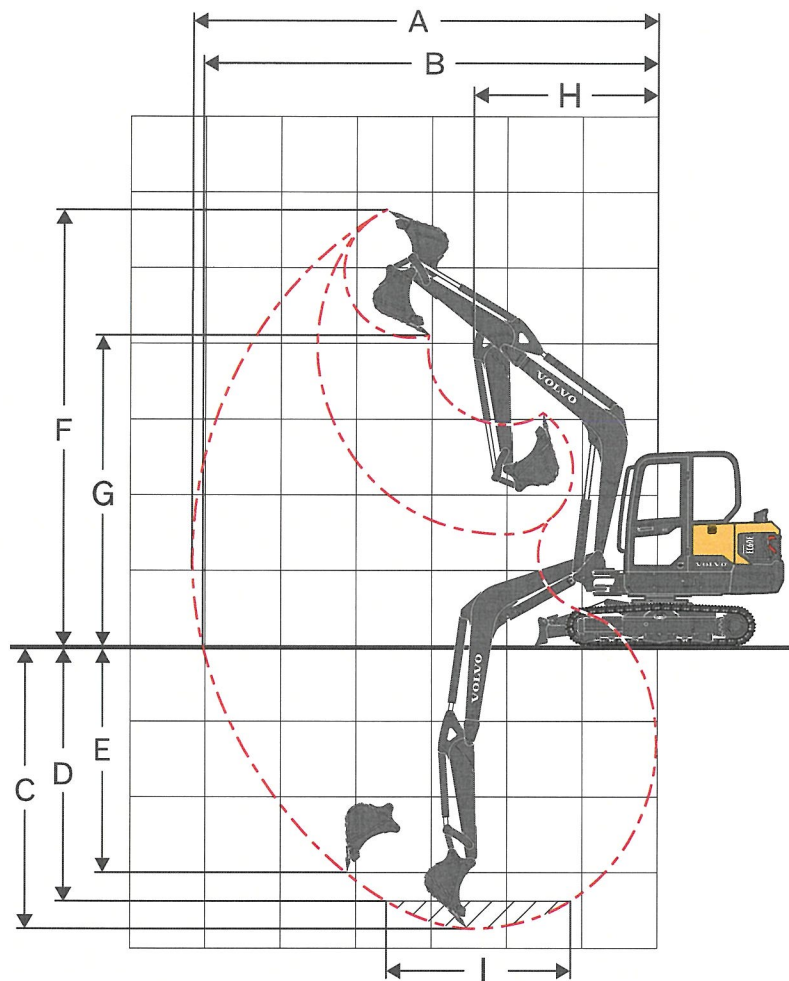
Arm * Includes cylinder, linkage and pin



DIMENSIONS			Dozer blade					
Unit			Standard dozer		Zero-offset (Longer) dozer		Angle dozer	
A Height	mm	ft in	350	1'2"	350	1'2"	397	1'4"
Width	mm	ft in	1 920	6'4"	1 920	6'4"	1 920	6'4"
B Lifting height	mm	ft in	351	1'2"	405	1'4"	399	1'4"
C Digging depth	mm	ft in	446	1'6"	635	2'1"	682	2'3"
Angle (Right)	°						25	
Angle (Left)	°						25	

MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width		Operating weight		Ground pressure	
	mm	in	kg	lb	kPa	psi
Boom 3 m / 9'10", Arm 1.6 m / 5'3", Bucket 129 kg (142 l) / 280 lb, Counterweight 440 kg / 970 lb						
Steel track	380	15"	5 877	12,960	34.9	5
Steel track	500	20"	5 979	13,180	27	4
Rubber track	400	16"	5 730	12,630	32.3	5
Rubber pad	400	16"	6 049	13,340	33.8	5
Boom 3 m / 9'10", Arm 1.9 m / 6'3", Bucket 129 kg (142 l) / 280 lb, Counterweight 440 kg / 970 lb						
Steel track	380	15"	5 927	13,070	35.2	5
Steel track	500	20"	6 029	13,290	27.2	4
Rubber track	400	16"	5 780	12,740	32.6	5
Rubber pad	400	16"	6 099	13,450	34.1	5



WORKING RANGES

Description		Unit					
Boom		m	ft in	3.0	9'10"	3.0	9'10"
Arm		m	ft in	1.6	5'3"	1.9	6'3"
A	Max. digging reach	mm	ft in	6 105	20'0"	6 395	21'0"
B	Max. digging reach on ground	mm	ft in	5 970	19'7"	6 260	20'6"
C	Max. digging depth	mm	ft in	3 695	12'1"	3 995	13'1"
D	Max.digging depth (l=2.44m / 8'0" level)	mm	ft in	3 295	10'10"	3 640	11'11"
E	Max. vertical wall digging depth	mm	ft in	2 625	8'7"	2 900	9'6"
F	Max. cutting height	mm	ft in	5 695	18'8"	5 885	19'4"
G	Max. dumping height	mm	ft in	4 150	13'7"	4 340	14'3"
H	Min. front swing radius	mm	ft in	2 465	8'1"	2 470	8'1"

DIGGING FORCES WITH DIRECT FIT BUCKET

Breakout force (bucket)	SAE J1179	kN	lb	37.7	8,470	37.7	8,470
	ISO 6015	kN	lb	43.3	9,720	43.3	9,720
Tearout force (arm)	SAE J1179	kN	lb	28.2	6,340	25	5,630
	ISO 6015	kN	lb	28.8	6,470	25.4	5,710
Rotation angle, bucket		°		196		196	

Specifications

LIFTING CAPACITY EC60E

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

		Lifting hook related to ground level		1.0 m, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		Max. Reach			
				Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC		
Boom: 3.0m / 9'10" Arm: 1.6m GP / 5'3" GP Shoe: 400mm / 16" Rubber track CWT: 440 kg / 970lb Dozerblade: Down	4.0 m	kg	-	-	-	-	-	-	-	*1,450	1,150	-	-	*1,420	1,000	4.3 m	
	13.2 ft	lb	-	-	-	-	-	-	-	*3,210	2,510	-	-	*3,140	2,220	14.1 ft	
	3.0 m	kg	-	-	-	-	-	-	-	*1,510	1,130	-	-	*1,320	800	4.9 m	
	9.9 ft	lb	-	-	-	-	-	-	-	*3,310	2,480	-	-	*2,920	1,770	16.1 ft	
	2.0 m	kg	-	-	-	-	-	*2,320	1,670	*1,730	1,080	*1,470	770	*1,330	710	5.2 m	
	6.6 ft	lb	-	-	-	-	-	*5,070	3,670	*3,790	2,380	*3,230	1,680	*2,920	1,570	17.2 ft	
	1.0 m	kg	-	-	-	-	-	*2,910	1,550	*1,960	1,030	*1,540	750	*1,400	680	5.3 m	
	3.3 ft	lb	-	-	-	-	-	*6,360	3,390	*4,300	2,260	*3,370	1,630	*3,090	1,510	17.4 ft	
	0.0 m	kg	-	-	-	*1,360	*1,360	*3,050	1,490	*2,060	990	*1,520	730	*1,450	700	5.1 m	
	0.0 ft	lb	-	-	-	*3,060	*3,060	*6,670	3,270	*4,520	2,180	*3,330	1,600	*3,200	1,550	16.9 ft	
	-1.0 m	kg	*2,430	*2,430	*3,230	2,910	*2,790	1,480	*1,930	980	-	-	-	*1,440	790	4.7 m	
	-3.3 ft	lb	*5,390	*5,390	*7,200	6,340	*6,120	3,250	*4,220	2,160	-	-	-	*3,180	1,750	15.5 ft	
	-2.0 m	kg	-	-	-	*3,140	2,960	*2,130	1,510	-	-	-	-	*1,340	1,030	4.0 m	
	-6.6 ft	lb	-	-	-	*6,860	6,470	*4,650	3,310	-	-	-	-	*2,960	2,280	12.9 ft	
	Boom: 3.0m / 9'10" Arm: 1.6m GP / 5'3" GP Shoe: 400mm / 16" Rubber track CWT: 440 kg / 970lb Dozerblade: Up	4.0 m	kg	-	-	-	-	-	-	-	*1,450	1,070	-	-	1,290	930	4.3 m
13.2 ft		lb	-	-	-	-	-	-	-	*3,210	2,340	-	-	2,860	2,070	14.1 ft	
3.0 m		kg	-	-	-	-	-	-	-	1,460	1,050	-	-	1,030	740	4.9 m	
9.9 ft		lb	-	-	-	-	-	-	-	3,190	2,310	-	-	2,290	1,640	16.1 ft	
2.0 m		kg	-	-	-	-	-	2,210	1,550	1,410	1,010	1,000	710	930	660	5.2 m	
6.6 ft		lb	-	-	-	-	-	4,830	3,390	3,080	2,210	2,190	1,560	2,050	1,460	17.2 ft	
1.0 m		kg	-	-	-	-	-	2,070	1,430	1,350	950	980	690	890	630	5.3 m	
3.3 ft		lb	-	-	-	-	-	4,540	3,130	2,960	2,090	2,140	1,510	1,980	1,400	17.4 ft	
0.0 m		kg	-	-	-	*1,360	*1,360	2,010	1,370	1,310	920	960	670	920	650	5.1 m	
0.0 ft		lb	-	-	-	*3,060	*3,060	4,400	3,000	2,880	2,010	2,100	1,480	2,040	1,440	16.9 ft	
-1.0 m		kg	*2,430	*2,430	*3,230	2,630	2,000	1,360	1,300	910	-	-	-	1,040	730	4.7 m	
-3.3 ft		lb	*5,390	*5,390	*7,200	5,740	4,380	2,990	2,860	1,990	-	-	-	2,300	1,620	15.5 ft	
-2.0 m		kg	-	-	-	*3,140	2,680	2,030	1,390	-	-	-	-	*1,340	950	4.0 m	
-6.6 ft		lb	-	-	-	*6,860	5,860	4,450	3,050	-	-	-	-	*2,960	2,110	12.9 ft	
Boom: 3.0m / 9'10" Arm: 1.6m GP / 5'3" GP Shoe: 380mm / 15" Steel Track CWT: 440 kg / 970lb Dozerblade: Down		4.0 m	kg	-	-	-	-	-	-	-	*1,450	1,180	-	-	*1,420	1,020	4.3 m
	13.2 ft	lb	-	-	-	-	-	-	-	*3,210	2,570	-	-	*3,140	2,280	14.1 ft	
	3.0 m	kg	-	-	-	-	-	-	-	*1,510	1,160	-	-	*1,320	820	4.9 m	
	9.9 ft	lb	-	-	-	-	-	-	-	*3,310	2,540	-	-	*2,920	1,820	16.1 ft	
	2.0 m	kg	-	-	-	-	-	*2,320	1,720	*1,730	1,110	*1,470	790	*1,330	730	5.2 m	
	6.6 ft	lb	-	-	-	-	-	*5,070	3,760	*3,790	2,440	*3,230	1,730	*2,920	1,620	17.2 ft	
	1.0 m	kg	-	-	-	-	-	*2,910	1,590	*1,960	1,060	*1,540	770	*1,400	700	5.3 m	
	3.3 ft	lb	-	-	-	-	-	*6,360	3,490	*4,300	2,320	*3,370	1,680	*3,090	1,560	17.4 ft	
	0.0 m	kg	-	-	-	*1,360	*1,360	*3,050	1,530	*2,060	1,020	*1,520	750	*1,450	720	5.1 m	
	0.0 ft	lb	-	-	-	*3,060	*3,060	*6,670	3,360	*4,520	2,240	*3,330	1,650	*3,200	1,600	16.9 ft	
	-1.0 m	kg	*2,430	*2,430	*3,230	2,990	*2,790	1,530	*1,930	1,010	-	-	-	*1,440	810	4.7 m	
	-3.3 ft	lb	*5,390	*5,390	*7,200	6,520	*6,120	3,340	*4,220	2,220	-	-	-	*3,180	1,800	15.5 ft	
	-2.0 m	kg	-	-	-	*3,140	3,040	*2,130	1,560	-	-	-	-	*1,340	1,060	4.0 m	
	-6.6 ft	lb	-	-	-	*6,860	6,650	*4,650	3,410	-	-	-	-	*2,960	2,350	12.9 ft	
	Boom: 3.0m / 9'10" Arm: 1.6m GP / 5'3" GP Shoe: 380mm / 15" Steel Track CWT: 440 kg / 970lb Dozerblade: Up	4.0 m	kg	-	-	-	-	-	-	-	*1,450	1,100	-	-	1,320	950	4.3 m
13.2 ft		lb	-	-	-	-	-	-	-	*3,210	2,400	-	-	2,950	2,120	14.1 ft	
3.0 m		kg	-	-	-	-	-	-	-	1,500	1,080	-	-	1,070	760	4.9 m	
9.9 ft		lb	-	-	-	-	-	-	-	3,280	2,370	-	-	2,360	1,690	16.1 ft	
2.0 m		kg	-	-	-	-	-	2,270	1,590	1,450	1,030	1,030	730	960	680	5.2 m	
6.6 ft		lb	-	-	-	-	-	4,960	3,480	3,180	2,270	2,250	1,610	2,120	1,500	17.2 ft	
1.0 m		kg	-	-	-	-	-	2,140	1,470	1,390	980	1,010	710	920	650	5.3 m	
3.3 ft		lb	-	-	-	-	-	4,670	3,210	3,050	2,150	2,210	1,560	2,040	1,440	17.4 ft	
0.0 m		kg	-	-	-	*1,360	*1,360	2,070	1,410	1,360	950	990	700	950	670	5.1 m	
0.0 ft		lb	-	-	-	*3,060	*3,060	4,540	3,090	2,970	2,070	2,170	1,530	2,110	1,480	16.9 ft	
-1.0 m		kg	*2,430	*2,430	*3,230	2,700	2,070	1,400	1,340	940	-	-	-	1,070	750	4.7 m	
-3.3 ft		lb	*5,390	*5,390	*7,200	5,900	4,520	3,070	2,950	2,050	-	-	-	2,370	1,660	15.5 ft	
-2.0 m		kg	-	-	-	*3,140	2,760	2,100	1,430	-	-	-	-	*1,340	980	4.0 m	
-6.6 ft		lb	-	-	-	*6,860	6,020	4,580	3,130	-	-	-	-	*2,960	2,170	12.9 ft	
Boom: 3.0m / 9'10" Arm: 1.9m GP / 6'3" GP Shoe: 400mm / 16" Rubber track CWT: 440 kg / 970lb Dozerblade: Down		5.0 m	kg	-	-	-	-	-	-	-	-	-	-	-	*1,380	1,290	3.7 m
	16.5 ft	lb	-	-	-	-	-	-	-	-	-	-	-	-	*3,060	2,890	12.1 ft
	4.0 m	kg	-	-	-	-	-	-	-	*1,280	1,160	-	-	*1,160	880	4.7 m	
	13.2 ft	lb	-	-	-	-	-	-	-	*2,830	2,540	-	-	*2,560	1,950	15.3 ft	
	3.0 m	kg	-	-	-	-	-	-	-	*1,360	1,140	*1,310	780	*1,090	720	5.2 m	
	9.9 ft	lb	-	-	-	-	-	-	-	*3,000	2,490	*2,900	1,720	*2,400	1,590	17.2 ft	
	2.0 m	kg	-	-	-	-	-	*2,070	1,700	*1,600	1,090	*1,380	760	*1,090	650	5.5 m	
	6.6 ft	lb	-	-	-	-	-	*4,530	3,720	*3,510	2,380	*3,040	1,680	*2,400	1,430	18.1 ft	
	1.0 m	kg	-	-	-	-	-	*2,740	1,560	*1,870	1,030	*1,480	740	*1,140	620	5.6 m	
	3.3 ft	lb	-	-	-	-	-	*5,990	3,410	*4,100	2,250	*3,260	1,620	*2,520	1,370	18.3 ft	
	0.0 m	kg	-	-	-	*1,510	*1,510	*3,020	1,480	*2,030	980	*1,530	720	*1,270	630	5.4 m	
	0.0 ft	lb	-	-	-	*3,370	*3,370	*6,610	3,230	*4,440	2,150	*3,340	1,570	*2,800	1,410	17.8 ft	
	-1.0 m	kg	*2,060	*2,060	*2,880	2,840	*2,890	1,450	*1,980	960	*1,380	710	*1,350	700	5.1 m		
	-3.3 ft	lb	*4,560	*4,560	*6,410	6,200	*6,320	3,190	*4,330	2,110	*3,000	1,560	*2,970	1,550	16.6 ft		
	-2.0 m	kg	*3,400	*3,400	*3,700	2,890	*2,370	1,470	*1,590	980	-	-	-	*1,300	870	4.4 m	
-6.6 ft	lb	*7,540	*7,540	*8,080	6,320	*5,170	3,230	*3,450	2,140	-	-	-	*2,860	1,940	14.3 ft		
-3.0 m	kg	-	-	-	*1,690	*1,690	*1,040	*1,040	-	-	-	-	*970	*970	3.1 m		
-9.9 ft	lb	-	-	-	*3,610	*3,610	*2,160	*2,160	-	-	-	-	*2,110	*2,110	10.0 ft		

Notes: 1. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY EC60E

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting hook related to ground level	1.0 m, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		Max. Reach	
		Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC	Along UC	Across UC
Boom: 3.0m / 9'10" Arm: 1.9m GP / 6'3" GP Shoe: 400mm / 16" Rubber track CWI: 440 kg / 970lb Dozerblade: Up	5.0 m kg	-	-	-	-	-	-	-	-	-	-	*1380	1200
	16.5 ft lb	-	-	-	-	-	-	-	-	-	-	*3,060	2,690
	4.0 m kg	-	-	-	-	-	-	*1280	1080	-	-	1130	810
	13.2 ft lb	-	-	-	-	-	-	*2,830	2,370	-	-	2,520	1,810
	3.0 m kg	-	-	-	-	-	-	*1360	1060	1020	730	940	670
	9.9 ft lb	-	-	-	-	-	-	*3,000	2,320	2,220	1,590	2,070	1,480
	2.0 m kg	-	-	-	-	*2070	1570	1410	1010	1000	710	850	600
	6.6 ft lb	-	-	-	-	*4,530	3,440	3,090	2,210	2,180	1,550	1,870	1,320
	1.0 m kg	-	-	-	-	2080	1430	1350	950	970	680	820	570
	3.3 ft lb	-	-	-	-	4,560	3,140	2,960	2,080	2,120	1,500	1,810	1,270
	0.0 m kg	-	-	*1510	*1510	2000	1360	1300	910	940	660	840	590
	0.0 ft lb	-	-	*3,370	*3,370	4,370	2,970	2,850	1,980	2,070	1,450	1,860	1,300
	-1.0 m kg	*2060	*2060	*2880	2560	1970	1330	1280	890	940	660	930	650
	-3.3 ft lb	*4,560	*4,560	*6,410	5,600	4,310	2,920	2,810	1,940	2,060	1,440	2,050	1,430
	-2.0 m kg	*3400	*3400	*3700	2610	1990	1350	1300	900	-	-	1160	810
	-6.6 ft lb	*7,540	*7,540	*8,080	5,710	4,360	2,960	2,840	1,970	-	-	2,560	1,790
	-3.0 m kg	-	-	*1690	*1690	*1040	*1040	-	-	-	-	*970	*970
	-9.9 ft lb	-	-	*3,610	*3,610	*2,160	*2,160	-	-	-	-	*2,110	*2,110
Boom: 3.0m / 9'10" Arm: 1.9m GP / 6'3" GP Shoe: 380mm / 15" Steel track CWT: 440 kg / 970lb Dozerblade: Down	5.0 m kg	-	-	-	-	-	-	-	-	-	-	*1380	1320
	16.5 ft lb	-	-	-	-	-	-	-	-	-	-	*3,060	2,960
	4.0 m kg	-	-	-	-	-	-	*1280	1190	-	-	*1160	900
	13.2 ft lb	-	-	-	-	-	-	*2,830	2,600	-	-	*2,560	2,000
	3.0 m kg	-	-	-	-	-	-	*1360	1170	*1310	800	*1090	740
	9.9 ft lb	-	-	-	-	-	-	*3,000	2,560	*2,900	1,760	*2,400	1,640
	2.0 m kg	-	-	-	-	*2070	1740	*1600	1110	*1380	790	*1090	660
	6.6 ft lb	-	-	-	-	*4,530	3,810	*3,510	2,440	*3,040	1,720	*2,400	1,470
	1.0 m kg	-	-	-	-	*2740	1600	*1870	1050	*1480	760	*1140	640
	3.3 ft lb	-	-	-	-	*5,990	3,500	*4,100	2,310	*3,260	1,660	*2,520	1,410
	0.0 m kg	-	-	*1510	*1510	*3020	1520	*2030	1010	*1530	740	*1270	650
	0.0 ft lb	-	-	*3,370	*3,370	*6,610	3,320	*4,440	2,210	*3,340	1,620	*2,800	1,450
	-1.0 m kg	*2060	*2060	*2880	*2880	*2890	1500	*1980	990	*1380	730	*1350	720
	-3.3 ft lb	*4,560	*4,560	*6,410	6,360	*6,320	3,270	*4,330	2,170	*3,000	1,610	*2,970	1,600
	-2.0 m kg	*3400	*3400	*3700	2970	*2370	1510	*1590	1000	-	-	*1300	900
	-6.6 ft lb	*7,540	*7,540	*8,080	6,480	*5,170	3,310	*3,450	2,200	-	-	*2,860	2,000
	-3.0 m kg	-	-	*1690	*1690	*1040	*1040	-	-	-	-	*970	*970
	-9.9 ft lb	-	-	*3,610	*3,610	*2,160	*2,160	-	-	-	-	*2,110	*2,110
Boom : 3.0m / 9'10" Arm : 1.9m GP / 6'3" GP Shoe : 380mm / 15" Steel track CWT : 440 kg / 970lb Dozerblade: Up	5.0 m kg	-	-	-	-	-	-	-	-	-	-	*1380	1230
	16.5 ft lb	-	-	-	-	-	-	-	-	-	-	*3,060	2,760
	4.0 m kg	-	-	-	-	-	-	*1280	1110	-	-	*1160	840
	13.2 ft lb	-	-	-	-	-	-	*2,830	2,430	-	-	*2,560	1,860
	3.0 m kg	-	-	-	-	-	-	*1360	1090	1050	750	960	690
	9.9 ft lb	-	-	-	-	-	-	*3,000	2,380	2,290	1,640	2,140	1,520
	2.0 m kg	-	-	-	-	*2070	1610	1450	1040	1030	730	870	620
	6.6 ft lb	-	-	-	-	*4,530	3,530	3,180	2,270	2,250	1,600	1,930	1,360
	1.0 m kg	-	-	-	-	2140	1470	1390	980	1000	700	840	590
	3.3 ft lb	-	-	-	-	4,690	3,230	3,050	2,140	2,190	1,540	1,870	1,310
	0.0 m kg	-	-	*1510	*1510	2060	1390	1340	930	980	680	870	600
	0.0 ft lb	-	-	*3,370	*3,370	4,500	3,050	2,940	2,040	2,140	1,490	1,920	1,340
	-1.0 m kg	*2060	*2060	*2880	2640	2040	1370	1320	910	970	680	960	670
	-3.3 ft lb	*4,560	*4,560	*6,410	5,760	4,450	3,010	2,900	2,000	2,130	1,490	2,120	1,480
	-2.0 m kg	*3400	*3400	*3700	2690	2050	1390	1340	930	-	-	1190	830
	-6.6 ft lb	*7,540	*7,540	*8,080	5,870	4,490	3,050	2,930	2,030	-	-	2,650	1,850
	-3.0 m kg	-	-	*1690	*1690	*1040	*1040	-	-	-	-	*970	*970
	-9.9 ft lb	-	-	*3,610	*3,610	*2,160	*2,160	-	-	-	-	*2,110	*2,110

Notes: 1. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards. 2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD EQUIPMENT

Engine

Low-emission Volvo T4t diesel engine
Standard cooling system
Two-stage air filter
Fuel filter and water separator
Alternator, 90 A

Electric / Electronic control system

Safe engine start function
Automatic idling system
Halogen working lights;
1ea on Cab front top LH / 1ea on the upper frame front bottom LH / 1ea boom LH
Battery, 12 V / 100 Ah
Start motor, 12 V / 2.5 kW
Monitor and keypad
Master electrical disconnect switch
Travel alarm
Electric pilot control change

Frame

Rearview mirror
440kg (970 lb) counterweight
Under cover
Dozer blade

Undercarriage

400mm (16") rubber track

Hydraulic system

Automatic two speed travel motors
Cylinder cushioning
Hydraulic fluid mineral 47

Cab and interior

Fabric operator seat with suspension
Seat belt, 2 inch retractable
Control joystick
Radio with MP3/AUX
Canopy
Master key
Hour meter (non analog)

Digging equipment

Boom: 3.0m (9'10"), Arm: 1.6m (5'3")
Linkage

Service

Tool kit-daily maintenance

OPTIONAL EQUIPMENT

Engine

Water separator (With heater)
Engine auto shut down

Electric / Electronic control system

Fuel filler pump: 35 l/min (9.3 gpm), with automatic shut-off
Halogen extra working lights;
Cab-mounted 1 (Rear)
Boom-mounted 1(RH)
Caretack
Rotating warning beacon
Rearview Camera
Electric dozerblade switch on joystick
LED Light

Undercarriage / Superstructure

380mm (15"), 500mm (20") steel track
400mm (16") rubber pad
400mm (16") Add on rubber pad

Frame

Dozer blade with floating function
Angle dozer blade

Hydraulic system

Breaker & shear X1
- Max. flow: 60.5 l/min (15.9 gal/min)
- Pressure: 22.5 MPa (3,263 psi)
Slope & rotator X3
- Max. flow: 20.2 l/min (5.3 gal/min)
- Pressure: 14.7 Mpa (2,132 psi)

Grapple

Thumb (with three way valve)

Quick coupler

Hose rupture valve for boom, arm
Overload warning device
Hydraulic oil, ISO VG 32, 68
Hydraulic oil, biodegradable 46
Hydraulic oil, longlife oil 32, 46, 68

Cab and interior

Cab
Heater and air-conditioner
Fabric operator seat with suspension with heater
PVC operator seat with suspension
Control joystick, X3 proportional
Seat belt, 3 inch retractable
Radio with MP3/AUX/Bluetooth
Mechanical hour meter
Cab mounted FOG (Falling Object Guard)
FOPS (Falling Object Protection Structure)
Sun screen, front/roof
Safety net

Digging equipment

Arm: 1.9m (6'3")

Service

Tool kit, full scale
Spare parts

SELECTION OF VOLVO OPTIONAL EQUIPMENT

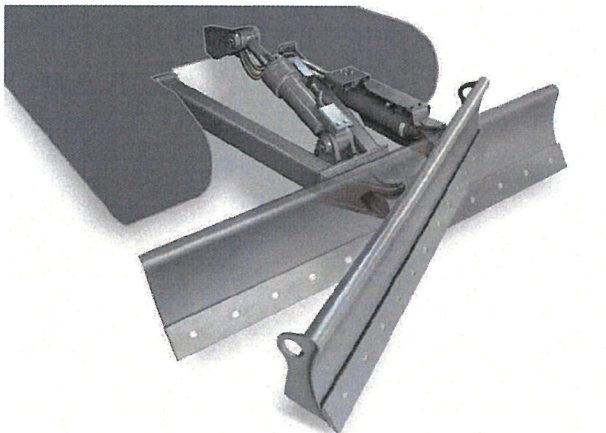
Electric dozer blade switch on joystick



Rear view camera



Angle dozer blade



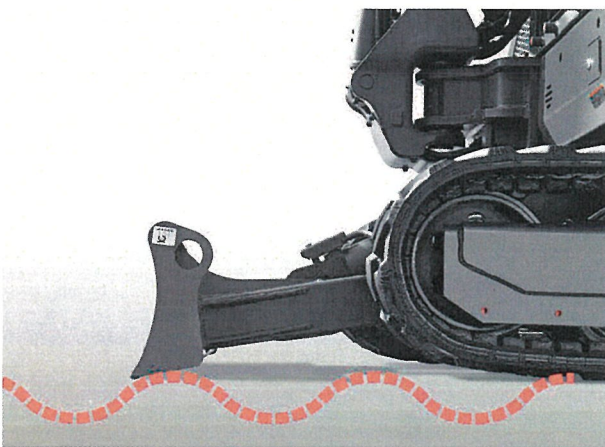
LED Light



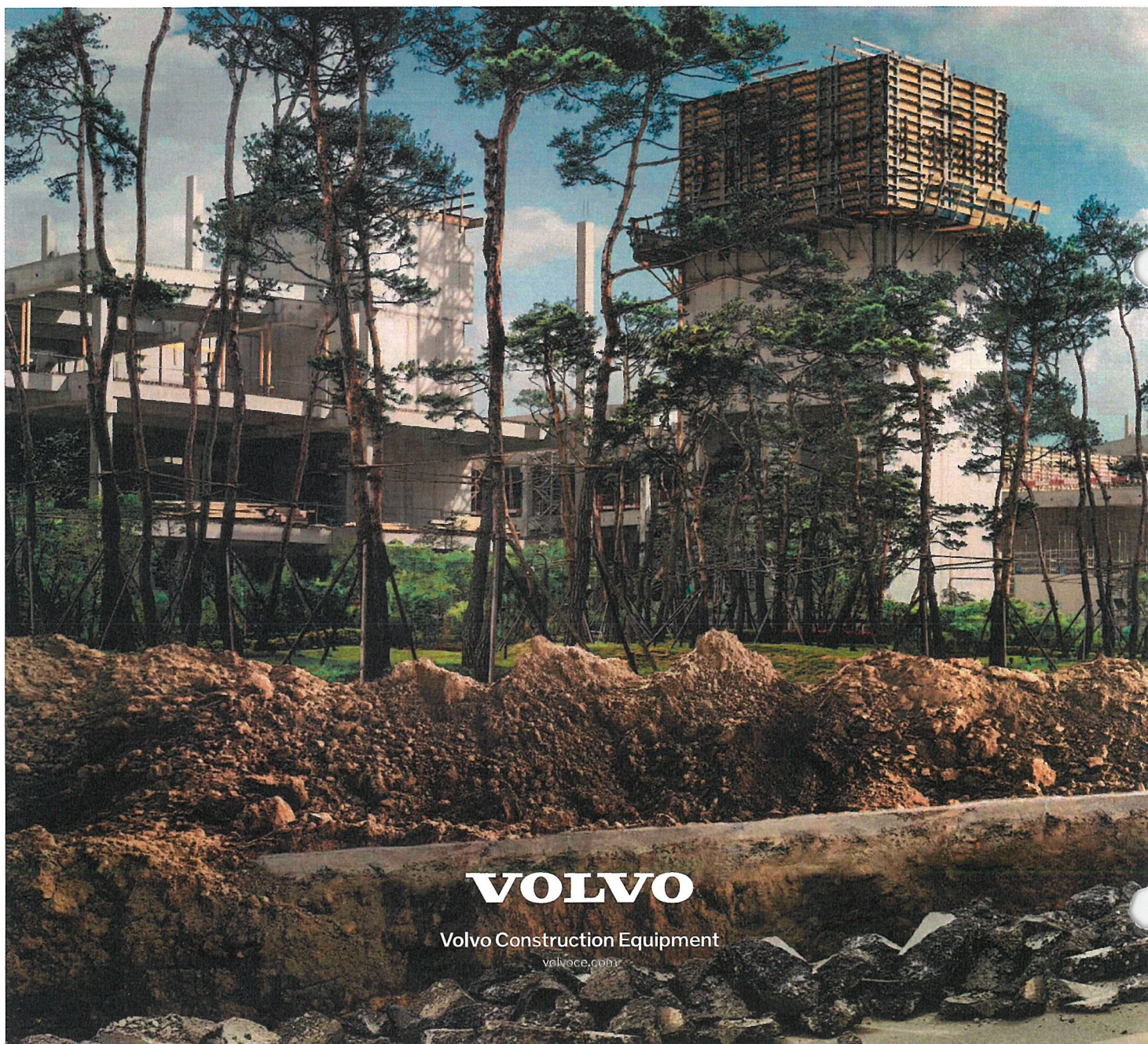
Long arm



Floating dozer blade



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.



VOLVO

Volvo Construction Equipment

volvoce.com

COMPACT TRACK LOADER

takeuchi

From World First to World Leader

TL8R2



Product Features & Specifications

ENGINE

- EPA Final Tier 4 Emission Compliant
- Turbocharged
- High Pressure Common Rail Fuel Injection System
- DOC+DPF Exhaust After Treatment
- Automatic Fuel Priming System
- Active Power Control, Power Management System
- Working Modes - Standard and ECO Mode
- Dual Element Air Cleaner
- Hand and Foot Throttle Control
- High Capacity Radiator and Hydraulic Oil Cooler Mounted Side-by-Side on Swing Out Frame

ELECTRICAL

- 5.7" Multi-Informational Color Display
- Sealed Rocker Switches
- 12 volt System with 60 amp Alternator
- LED Work Lights: Two Front and Two Rear
- Heavy Duty, Easy Access Battery
- Engine Preheat System
- Hour Meter
- Back-up Alarm
- Horn
- Takeuchi Fleet Management - Telematics System

UNDERCARRIAGE AND FRAME

- Double Reduction Planetary Drives
- Permanently Sealed Track Rollers with Metal Face Seals
- Fully Welded Frame with Integrated Cross Members
- Two-Speed Travel
- 15.7" Rubber Track
- Grease Type Track Adjuster
- Front and Rear Tie-Down Points
- Rear Bumper Integrated into Frame
- Creep Mode and Two-Speed Travel with Automatic Shift (optional - HF Only)

OPERATOR'S STATION

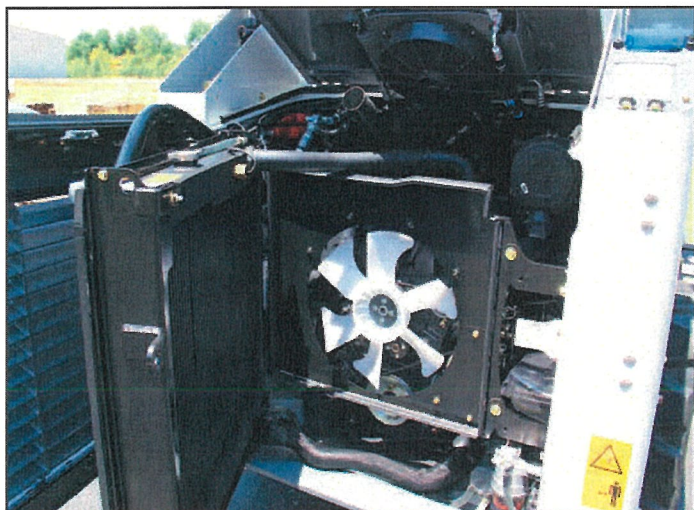
- Tilt-up Operator's Station
- Deluxe High Back Suspension Seat
- Rear View Camera
- Rear Pivoting Lap Bar with Arm Rest
- ROPS / FOPS Level 1 Structure
- Retractable 2" Seat Belt
- Pressurized Cab with Roll-up Door, A/C, Heat, Defrost and Front Wiper, and AM / FM / MP3 Radio with NOAA Weatherband (Cab Only)
- Retractable 3" Seat Belt (optional)
- 3 Point Retractable Seat Belt (optional)
- Polycarbonate Door (High Flow Only)
- FOPS Level II Roof Guard Kit (optional)

HYDRAULIC & WORKING EQUIPMENT

- Radial Lift Design
- Hydraulic Pilot Controls
- Arm Float
- Cushioned Arm Cylinders
- Hydraulic Self Leveling System (Lift Only)
- Proportional Auxiliary Hydraulic Controls with Detent
- Pressure Relieving Flat Faced Coupler Body
- 14-Pin Connector with Push Button Control
- High Capacity Steel Hydraulic Tank
- Mechanical Quick Hitch
- Hydraulic Quick Coupler
 - Cab - Standard Equipment
 - Canopy - Field Kit Available
- High Flow Auxiliary Hydraulics 33.8 gpm (optional)
- Manual Parking Brake (optional)

TAKEUCHI FLEET MANAGEMENT

- 2 Year Standard Service
- Minimize Downtime
- Remote Diagnostics
- Utilization Tracking
- Proactive Maintenance
- Control Costs



Convenient Service and Maintenance Access

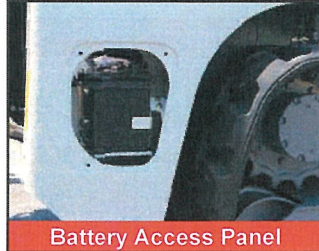


Greater Bucket Breakout and Lift Arm Forces

TOUGH, RUGGED, EFFICIENT



Pilot Operated Controls



Battery Access Panel



Lower Cross Member & Step



Creep Mode

The completely redesigned TL8R2 is powerful and efficient and engineered to provide excellent performance, durability, and value. Standard features include two-speed travel, pilot operated joystick controls, a large color multi-informational display, and quiet ride track system. The TL8R2 has a spacious operator's station with an automotive styled interior that includes a deluxe high back suspension seat, electronic throttle control, rocker switches for a wide variety of machine functions, 12 volt outlet, and cup holder.

A heavy duty rear door protects vital engine components and swings out to provide access to the high capacity, side-by-side cooling module with coolant sight glass, engine oil filter, engine oil fill and dipstick, fuel/water separator, and dual element air cleaner.

The left rear tower contains the hydraulic tank and filter, and the right rear tower contains the wiper fluid reservoir (cab models) and battery. Convenient service access to the primary and secondary fuel filters, DPF, pilot filter, pump group, and control valve is provided via the tilt-up operator's station.

Creep mode is a standard feature on the TL8R2 models equipped with high flow auxiliary hydraulics. This feature will enable operators to precisely match the forward speed of the track loader to a particular attachment without having to constantly meter the travel lever. Creep mode is ideal for attachments that require a consistent, repeatable travel speed, such as a cold planer and trencher.



Spacious operator's platform with easy to reach controls and switches.

OPERATING PERFORMANCE

Operating Weight - Canopy	8,807 lb	(3,995 kg)
Cab	9,182 lb	(4,165 kg)
Tipping Load	6,041 lb	(2,740 kg)
Rated Operating Capacity, SAE J818*	2,116 lb	(960 kg)
Operating Load at 50% of Tipping Load	3,020 lb	(1,370 kg)
Bucket Breakout Force	6,204 lb	(2,814 kg)
Lift Arm Breakout Force	5,957 lb	(2,702 kg)
Traction Force	9,733 lb	(4,415 kg)
Ground Pressure - Canopy	4.5 psi	(31.0 kPa)
Ground Pressure - Cab	4.6 psi	(32.0 kPa)
Travel speed -		
Low Range	4.7 mph	(7.5 km/hr)
High Range	7.0 mph	(11.2 km/hr)
Creep Mode Speed - (High Flow Only)		
Low Range	.09 mph	(0.15 km/hr)
High Range	3.1 mph	(5.0 km/hr)

* Operating capacity of compact track loaders is rated according to SAE J818 at no more than 35% of the tipping load

HYDRAULIC SYSTEM

Auxiliary Flow - Primary Circuit	19.1 gpm	(72.3 Lpm)
Auxiliary Flow - High Flow (optional)	33.8 gpm	(128.0 Lpm)
Hydraulic System Pressure	3,045 psi	(21.0 MPa)

ENGINE

Make / Model	Kubota V3307-CR-TE5B	
Engine Displacement	203.2 cu in	(3331 cc)
Horsepower @ 2,600 rpm	74.3 hp	(54.6 kW)
Maximum Torque @ 1,500 rpm	192.6 ft-lb	(261.1 Nm)

FLUID CAPACITIES

Engine Lubrication	11.8 qt	(11.2 L)
Cooling System	15.9 qt	(15.0 L)
Fuel Tank Capacity	28.3 gal	(107.0 L)
Fuel Consumption (65% of Full Load)	2.8 gal/hr	(10.6 L/hr)
Hydraulic Reservoir Capacity	9.6 gal	(36.5 L)
Hydraulic System Capacity	15.9 gal	(60 .0 L)



LCD Display



Rear View Camera



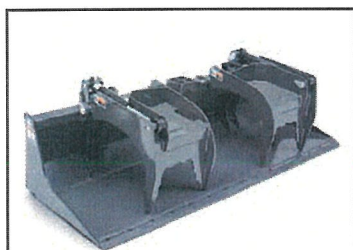
LED Work Lights



Hydraulic Safety Lock

ATTACHMENTS

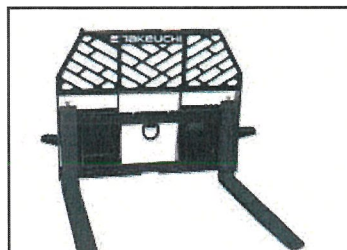
Takeuchi now offers attachments for all of your Takeuchi equipment. See your authorized Takeuchi dealer for additional information and attachment options.



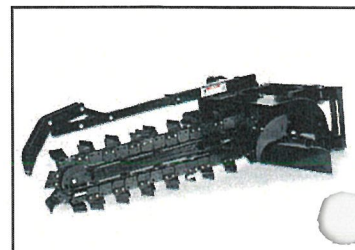
Grapple - Scrap



Dozer Blades

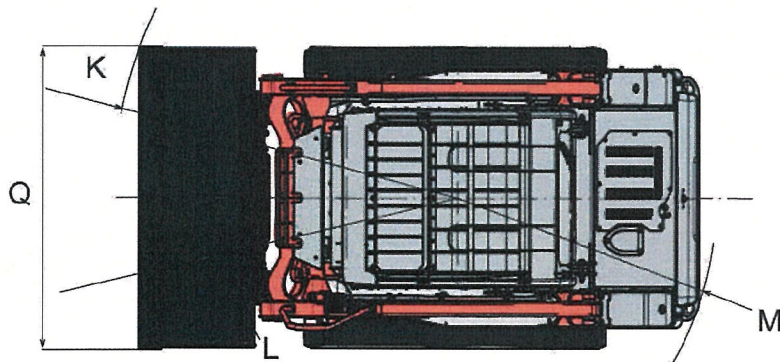
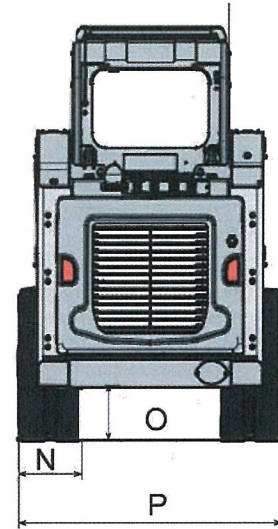
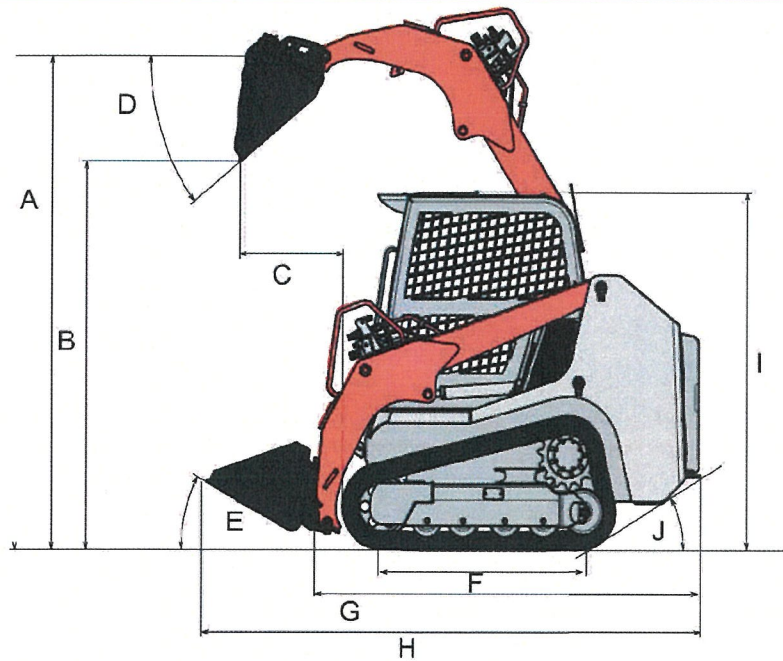


Pallet Forks



Trenchers

TL8R2 Track Loader



MACHINE DIMENSIONS

A	Maximum Lift Height to Bucket Pin	10 ft 1.2 in	(3,080 mm)
B	Dump Height Fully Raised	7 ft 11.3 in	(2,420 mm)
C	Dump Reach Fully Raised	2 ft 4.3 in	(720 mm)
D	Dump Angle	38°	
E	Rollback Angle	28°	
F	Track Ground Contact Length	4 ft 7.9 in	(1,420 mm)
G	Machine Length	9 ft 1.8 in	(2,790 mm)
H	Transport Length	11 ft 5.2 in	(3,485 mm)
I	Transport Height	7 ft 3.8 in	(2,230 mm)
I'	Transport Height with Top Guard	7 ft 6.1 in	(2,290 mm)
J	Departure Angle	30°	
K	Clearance Circle with Bucket	7 ft 2.3 in	(2,190 mm)
L	Clearance Circle without Bucket	4 ft 10.4 in	(1,485 mm)
M	Clearance Circle Rear	5 ft 4.8 in	(1,645 mm)
N	Track Width	15.7 in	(400 mm)
O	Ground Clearance	11.4 in	(290 mm)
P	Overall Width without Bucket	5 ft 5.4 in	(1,660 mm)
Q	Bucket Width	5 ft 6.0 in	(1675 mm)



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In accordance with our established policy of continued improvement, specifications and
features are subject to change without notice. Pictures may show options other than
standard equipment.

FORM: TL8R2 Compact Track Loader Spec Sheet April 2020

Takeuchi
From World First to World Leader

Waterford Utility Commission (WUC)

Justification for the field equipment requested under the FY23-27 Capital Improvements Program (Fleet Management)

Nov. 18, 2021

Introduction

Our wastewater infrastructure is aging. Besides our 28 pumping stations, we have 145 miles of pipes, and over 3,500 manholes that need maintenance, repairs, and, at some point, may need replacement. We have an obligation and have no other alternative that to make sure our critical mission responsibilities are carried on a timely manner. The demand for preventive and remedial maintenance on the field has increased. Emergency repairs are more frequent. We are considering a number of projects that can be done by our own staff without the need of outside contracting. For various of our past projects, one being the in-house construction of a grit station and most recently the work done at the town beach, we experienced the benefits of having the work done in-house. Although renting offers a mechanism to have equipment at our disposal, it does not insure that equipment will be available when needed.

Under the FY23-27 Fleet Management Plan, the Utility Commission requested for the acquisition of various pieces of equipment associated with field operations. We made this initial request under the FY21 CIP, for appropriations under FY23 CIP. Chief Mechanic VanOverloop provided the cost estimates. The WUC appreciates his help.

Equipment requested

1. The acquisition of a mini-excavator (\$65,460) with accessory options estimated at \$23,296.

Among many, and within the capabilities and limitations of a mini-excavator, uses for this machine will be the following activities: the repair of gravity sewer mains, repair of force mains, repair of lateral services, repair of low-pressure mains, maintenance of cross-country easements, repair of manholes, any activity that requires excavation, grading, grubbing, debris removal, demolition, trenching, backfilling, etc.

2. The acquisition of a skid steer machine (\$65,460) with circular manhole saw (\$29,575), lifting forks (\$1,122)

Among many, the uses for this machine will be the following activities: the adjustment of manhole frames and water gate valve covers at town and state roads, the clearing of vegetation and maintenance of cross-country easements, the repair of gravity sewer mains, repair of force mains, repair of lateral services, repair of low-pressure mains, repair of manholes, any activity that requires, grading, grubbing, debris removal, demolition, backfilling, distribution of materials, etc.

Justification for this procurement recommendation

Various metrics have to be considered when evaluating and justifying the acquisition of the equipment above listed. Although, in general, financial return on investment (ROI) is one of such metrics, for our mission critical responsibilities it should not be the main consideration. Factors associated with our type of operations, such as protection of the environment, the absolute need to have a continuous/uninterrupted operation of our wastewater system, the need to have clear accessibility to all our wastewater collection system, the avoidance of sewer backups into buildings and the health hazards associated with such backups and, liability exposure, are more pressing considerations than just ROI and justify the need to have this equipment readily available for use under our control. We have a 24/7 dynamic operation, and on any moment we have to be prepared and ready to act. The ROI associated with the acquisition of this equipment is the immediate access to this equipment by having it in our continuous procession and control.

In the past, we have used outside contractors to do needed as well as emergency work. Depending on the complexity of the work, we have also rented equipment to do the work in-house with our own staff. It is our departments' goal, as conditions and complexity of the work merits, to have as much as possible for the work to be done in-house.

Just going back two years, and only for work that would include the use of the same equipment herein requested, we had over \$150,000 of work done. The work associated with this cost included the use of both a mini-excavator and skid steer machines. Because of the many items on a given construction project, to do a side-by-side comparison between outside contracting, renting equipment, and having our own staff/equipment to do the work do not necessarily represent the whole picture of the benefits between each alternative. Obviously, contracting is the most expensive alternative.

When comparing renting equipment vs. purchasing equipment, the argument can be made that by renting we only pay for the time that is rented, or used. For purchasing, we pay up front and ROI depends on the usage. True.

For consideration, these are just two tasks that need to be done on the short and long terms that by themselves justify the acquisition of this equipment.

1. The clearing and vegetation removal, repair and stabilization of the [30 ft. wide] easement where the 48-inch concrete pipe interceptor that transport Waterford and East Lyme wastewater to the Evergreen pumping station is located needs to be done for the purpose of cleaning and inspection of the pipe. From the station to the Waterford High School (see attached map) is about 6,200 feet. Estimated contracted cost - \$6,200 ft. @ \$35/ft = \$271,000. The same kind of work is needed at other reaches of the interceptor. All this work can be done in-house.

2. The clearing and vegetation removal of 13 miles of cross- country sewer and water easements throughout town.
3. The WUC has over 3,500 manholes. Without having to go into a deep investigation regarding their location, in a conservative assumption, if 2/3 (say 2,400 of them) are located in town roads, then to raise frames and covers of these manholes – 2,400 @ \$1,200 ea. = \$2,880,000.

Just these two projects justify acquisition of the equipment; however, the most accurate justification for this equipment is the fact that it will be readily available for our staff to use at any time of the day, minimizing dependence on contractors and/or availability of equipment at rental places. At a critical moment the equipment will be available.

For your consideration,

Tali

48-inch interceptor

6,200 ft.

Legend

-  48-inch interceptor (+/-) Approx. 6,200 ft.
-  ALDI
-  Cumberland Farms
-  Evergreen Ave. PS
-  Hospital
-  Planet Fitness
-  School
-  Secchiaroli Piggery

48-inch interceptor

Evergreen Ave. PS

Google Earth

2000 ft

