



Civil Engineers • Land Use Planners

April 21, 2023

Town of Johnson
Brian Story, Town Administrator
Johnson, VT

Subject: Johnson Industrial Park
Vermont Route 15, Johnson, VT

Project 10016.2

Dear Brian,

Ruggiano Engineering and Mumley Engineering, Inc. have been involved with the proposed industrial park on Route 15 for the Town of Johnson since 2010. At that time, we developed a site layout and design according to applicable State of VT regulations. Per recent discussion and request by the Town, we have developed an updated construction cost estimate based on this latest design from 2010 (see attached).

Please note the following to keep this estimate in proper context:

- State of VT regulations across all divisions have undergone changes in the years since this initial design was completed. Updates and re-design will be required to comply with new stormwater, water/wastewater and Act 250 regulations. These design updates will influence project costs.
- Project costs described in this estimate represent only the initial infrastructure cost associated with the main roads and utilities. There is no consideration for the development of individual lots beyond stubbing utilities and driveways.
- Included with this estimate is the latest DRAFT plan set (8 sheets) last revised 11/18/2010. As discussed above, this will require some design revisions and updating to comply with current State of VT rules.
- Unit prices utilized in this cost estimate are taken from the latest VTrans 2-year average construction costs for applicable items. Other items are based on comparable recent projects.

If you have any questions, please do not hesitate to contact us.

Sincerely,
Luke Willey

Senior Engineer
Mumley Engineering, Inc.

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Preliminary Engineer's Project Cost Estimate

Town of Johnson Industrial Park

Prepared by Mumley Engineering, Inc.

Date: 4/21/2023

Last Revised: 4/21/2023

VTrans Item #	Bid Item	Item Description	Unit	Estimated		
				Qty	Unit Price	Amount
635.11	A-1	Mobilization	LS	1.0	\$10,000.00	\$10,000.00
201.11	A-2	Clearing & Grubbing	Arce	4.2	\$2,000.00	\$8,431.99
203.15	A-3	Common excavation	CY	27298.4	\$15.04	\$410,567.83
204.2	A-4	Trench Excavation	CY	8677.0	\$23.00	\$199,571.85
406.35	A-5	Bituminous Concrete Asphalt (3.5")	TN	1074.9	\$90.37	\$97,135.50
301.35	A-6	Crushed Stone Subbase (18")	CY	3176.8	\$39.29	\$124,815.95
203.31	A-7	Sand Cushion (6")	CY	1089.0	\$32.21	\$35,075.41
649.11	A-8	Geotextile Fabric (Mirafi 500)	SY	6533.8	\$1.78	\$11,630.10
629.54	A-9	3/4" Crushed Stone	TON	13.3	\$52.49	\$700.22
203.31	A-10	Clean Sand	CY	425.6	\$32.21	\$13,707.14
601.2610	A-11	15" HPDE Stormwater (pipe & end sections, installed)	LF	222.0	\$61.34	\$13,617.48
601.2615	A-12	18" HPDE Stormwater (pipe & end sections, installed)	LF	409.0	\$84.14	\$34,413.26
605.1	A-13	4" Underdrain Stormwater (pipe & end sections, installed) (used 6" unit price)	LF	155.0	\$24.69	\$3,826.95
604.2	A-14	Stormwater Inlets (catch basins, installed)	EA	1.0	\$6,464.66	\$6,464.66
653.25	A-15	Stormwater check dams	CY	10.7	\$71.58	\$763.52
613.11	A-16	24" Rip-Rap (Stone Fill Type II)	CY	398.4	\$80.03	\$31,881.58
649.31	A-17	Filter fabric (Mirafi 180N)	SY	3179.6	\$2.36	\$7,503.75
628.35	A-18	Sanitary Sewer - 8" Gravity Sewer pipe (including connections)	LF	1667.0	\$65.00	\$108,355.00
	A-19	Sanitary Sewer - 8" Stub caps	EA	1.0	\$50.00	\$50.00
628.35	A-20	Sanitary Sewer - 6" Gravity Sewer pipe (including connections)	LF	577.0	\$65.00	\$37,505.00
	A-21	Sanitary Sewer - 6" Stub caps	EA	10.0	\$15.00	\$150.00
	A-22	Sanitary Sewer - 8" to 6" Wye fittings	EA	4.0	\$15.00	\$60.00
	A-23	Sanitary Sewer - 6" 45 elbows	EA	4.0	\$15.00	\$60.00
604.22	A-24	Sanitary Sewer - Manhole	EA	8.0	\$5,266.66	\$42,133.28
	A-25	Sanitary Sewer - Jack & Bore	LS	1.0	\$10,000.00	\$10,000.00
629.24	A-26	8" DIP Waterline pipe	LF	1408.0	\$100.00	\$140,800.00
629.24	A-27	6" DIP Waterline pipe	LF	414.0	\$100.00	\$41,400.00
629.39	A-28	Water shut offs	EA	19.0	\$242.13	\$4,600.47
629.28	A-29	Fire Hydrants	EA	3.0	\$6,169.23	\$18,507.69
	A-30	Water thrust restraints	EA	4.0	\$1,000.00	\$4,000.00
678.21	A-31	Utility Trench (including conduit and encasement as applicable)	LF	1861.0	\$19.60	\$36,475.60
	A-32	Transformers	EA	7.0	\$10,000.00	\$70,000.00
679.46	A-33	Street Lights	EA	8.0	\$3,628.15	\$29,025.20
651.35	A-34	Seed	LB	546.5	\$10.16	\$5,552.71
653.1	A-35	Mulch	TON	9.1	\$860.80	\$7,840.84
653.475	A-36	Silt Fencing (Type I)	LF	150.0	\$3.67	\$550.50
		Subtotal				\$1,567,173.49
		10% Contingency				\$156,717.35
						\$1,723,890.84