

Village of Freeburg

Water Tower Study & Project Plan



Individual opinions on probable project construction costs for these phases are included in the report with a summary provided below.

Summary of Opinion of Probable Project Costs	Table 1-1
Phase 1 Water Main Upgrades – 10” Feed Line and FSH Connection	\$ 1,121,965.52
Ground Storage Tank and Booster Pump Station	\$ 1,383,415.02
Phase 2 Water Main Upgrades - High, White, and Hill Streets	\$ 2,310,674.00
Phase 3 Water Main Upgrades Washington, E. Apple, Emily and S Alton Streets	\$ 1,140,235.31
Phase 4 Water Main Upgrades N State, N Main, N West, N West, W Phillips Streets, Etc.	\$ 2,287,496.51
Save Site Elevated Water Storage Tank	\$ 1,112,740.20
Jefferson Road Watermain Extension	\$ 1,038,877.85
Peabody Road Watermain Extension	\$ 824,594.13
Grand Total	\$11,219,998.54

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Phase 2 Water Main Upgrades - High, White, Hill Streets, and Old Fayetteville Rd					Table 9-3
Item No.	Item Description	Quantity	Unit	Unit Cost	Total Item Cost
Construction Costs					
1	8" C-900 SDR 21 PVC Water Main with Tracer Wire	19,563	LF	\$ 35.00	\$ 684,705.00
2	8" PVC Water Main and 18" Casing (Jack And Bore)	100	LF	\$ 405.00	\$ 40,500.00
3	8" Gate Valve	36	EA	\$ 1,350.00	\$ 48,600.00
4	8" Tapping Saddle and Valve	7	EA	\$ 4,200.00	\$ 29,400.00
5	Hydrant Assembly	41	EA	\$ 4,100.00	\$ 168,100.00
6	Reconnect Service Line	136	EA	\$ 590.00	\$ 80,240.00
7	Granular Backfill	5,349	CY	\$ 36.00	\$ 192,564.00
8	Pavement Removal and Replacement with 3" Hot Mix Asphalt	5,855	SY	\$ 45.00	\$ 263,475.00
Total Construction Cost without Mark-ups or Contingencies					\$ 1,507,584.00
Mark-ups and Contingencies					
	Mobilization, 8% of Sub-Total				\$ 120,606.72
	Bond & Insurance, 3% of Sub-Total				\$ 45,227.52
	Contractor Profit, 10% of Sub-Total				\$ 150,758.40
	Project Contingency, 10% of Sub-Total				\$ 150,758.40
Total Construction Cost					\$ 1,974,935.04
Engineering, Legal, Administrative					
	Surveying & Design Engineering, 10% of Construction Cost				\$ 197,493.50
	Construction Engineering, 5% of Construction Cost				\$ 98,746.75
	Legal & Administrative, 2% of Construction Cost				\$ 39,498.70
Total Capital Cost					\$ 2,310,674.00

Phase 3 Water Main Upgrades Washington, Apple, Emily and S Alton Streets; Demolition of East Tow					Table 9-4
Item No.	Item Description	Quantity	Unit	Unit Cost	Total Item Cost
Construction Costs					
1	8" C-900 SDR 21 PVC Water Main with Tracer Wire	8,985	LF	\$ 35.00	\$ 314,475.00
2	8" Gate Valve	22	LF	\$ 1,350.00	\$ 29,700.00
3	8" Tapping Saddle and Valve	5	EA	\$ 4,200.00	\$ 21,000.00
4	Hydrant Assembly	4	EA	\$ 4,100.00	\$ 16,400.00
5	Reconnect Service Line	87	EA	\$ 590.00	\$ 51,330.00
6	Granular Backfill	3,244	EA	\$ 36.00	\$ 116,784.00
7	Pavement Removal and Replacement with 3" Hot Mix Asphalt	3,650	CY	\$ 45.00	\$ 164,250.00
8	Demolition of East Tower	1	SY	\$ 30,000.00	\$ 30,000.00
Total Construction Cost without Mark-ups or Contingencies					\$ 743,939.00
Mark-ups and Contingencies					
	Mobilization, 8% of Sub-Total				\$ 59,515.12
	Bond & Insurance, 3% of Sub-Total				\$ 22,318.17
	Contractor Profit, 10% of Sub-Total				\$ 74,393.90
	Project Contingency, 10% of Sub-Total				\$ 74,393.90
Total Construction Cost					\$ 974,560.09
Engineering, Legal, Administrative					
	Surveying & Design Engineering, 10% of Construction Cost				\$ 97,456.01
	Construction Engineering, 5% of Construction Cost				\$ 48,728.00
	Legal & Administrative, 2% of Construction Cost				\$ 19,491.20
Total Capital Cost					\$ 1,140,235.31

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Phase 4 Water Main Upgrades N State, N Main, N West, W Phillips Streets, Etc.					Table 9-5
Item No.	Item Description	Quantity	Unit	Unit Cost	Total Item Cost
Construction Costs					
1	8" C-900 SDR 21 PVC Water Main with Tracer Wire	15295	LF	\$ 35.00	\$ 535,325.00
2	8" PVC Water Main and 18" Casing (Jack And Bore)	51	LF	\$ 405.00	\$ 20,655.00
3	8" Gate Valve	52	EA	\$ 1,350.00	\$ 70,200.00
4	8" Tapping Saddle and Valve	3	EA	\$ 4,200.00	\$ 12,600.00
5	Hydrant Assembly	25	EA	\$ 4,100.00	\$ 102,500.00
6	Reconnect Service Line	138	EA	\$ 590.00	\$ 81,420.00
7	Granular Backfill	7742	CY	\$ 36.00	\$ 278,712.00
8	Pavement Removal and Replacement with 3" Hot Mix Asphalt	8690	SY	\$ 45.00	\$ 391,050.00
Total Construction Cost without Mark-ups or Contingencies					\$ 1,492,462.00
Mark-ups and Contingencies					
	Mobilization, 8% of Sub-Total				\$ 119,396.96
	Bond & Insurance, 3% of Sub-Total				\$ 44,773.86
	Contractor Profit, 10% of Sub-Total				\$ 149,246.20
	Project Contingency, 10% of Sub-Total				\$ 149,246.20
Total Construction Cost					\$ 1,955,125.22
Engineering, Legal, Administrative					
	Surveying & Design Engineering, 10% of Construction Cost				\$ 195,512.52
	Construction Engineering, 5% of Construction Cost				\$ 97,756.26
	Legal & Administrative, 2% of Construction Cost				\$ 39,102.50
Total Capital Cost					\$ 2,287,496.51

Save Site Elevated Water Storage Tank					Table 9-6
Item No.	Item Description	Quantity	Unit	Unit Cost	Total Item Cost
Construction Costs					
1	Demolition of Stand Pipe	1	LS	\$ 20,000.00	\$ 20,000.00
2	Foundation / Piping / Sitework	1	LS	\$ 111,000.00	\$ 111,000.00
3	Water Tower Fabrication & Delivery	1	LS	\$ 235,000.00	\$ 235,000.00
4	Erection	1	LS	\$ 171,000.00	\$ 171,000.00
5	Painting	1	LS	\$ 122,000.00	\$ 122,000.00
6	Electrical	1	LS	\$ 26,000.00	\$ 26,000.00
7	Cathodic Protection	1	LS	\$ 13,000.00	\$ 13,000.00
8	Mixing System	1	LS	\$ 28,000.00	\$ 28,000.00
Total Construction Cost without Mark-ups or Contingencies					\$ 726,000.00
Mark-ups and Contingencies					
	Mobilization, 8% of Sub-Total				\$ 58,080.00
	Bond & Insurance, 3% of Sub-Total				\$ 21,780.00
	Contractor Profit, 10% of Sub-Total				\$ 72,600.00
	Project Contingency, 10% of Sub-Total				\$ 72,600.00
Total Construction Cost					\$ 951,060.00
Engineering, Legal, Administrative					
	Surveying & Design Engineering, 10% of Construction Cost				\$ 95,106.00
	Construction Engineering, 5% of Construction Cost				\$ 47,553.00
	Legal & Administrative, 2% of Construction Cost				\$ 19,021.20
Total Capital Cost					\$ 1,112,740.20