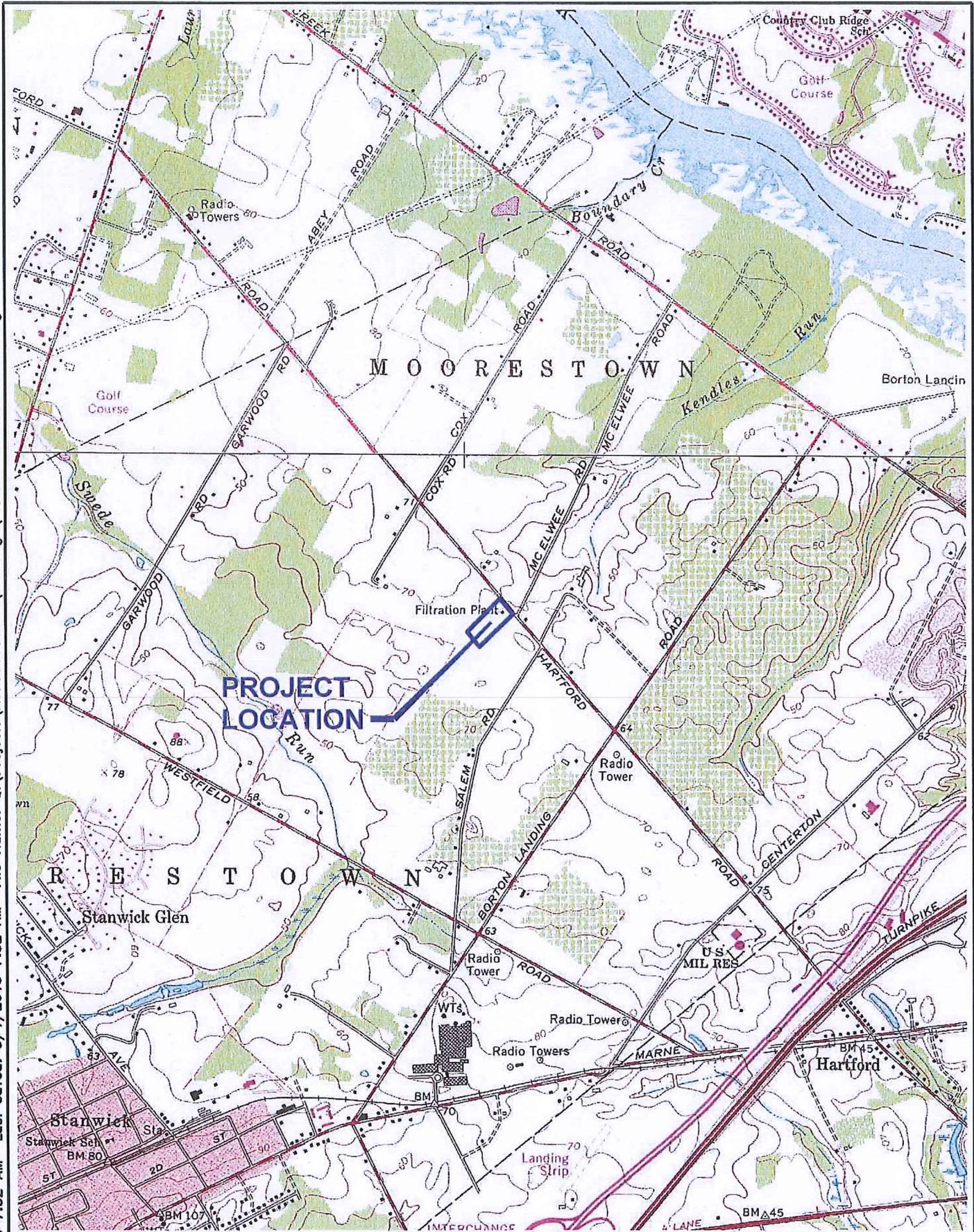


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SOURCE: U.S.G.S. 7.5 MINUTE SERIES QUADRANGLE, MOORESTOWN, NJ & BEVERLY, NJ

B-1

 ALAIMO GROUP Consulting Engineers NJDCA 24GA27988400 200 HIGH STREET 2 MARKET STREET MOUNT HOLLY, N.J. PATERSON, N.J.	CLIENT MOORESTOWN TOWNSHIP	TITLE	FIGURE 2.1 HARTFORD ROAD WTP PROJECT LOCATION MAP	DATE MAY 2015
	PROJECT NAME KINGS HIGHWAY & HARTFORD ROAD WATER TREATMENT PLANT EVALUATION	SCALE	1" = 2000'	DES. Y.S.V.
	PROJ. NO. A-0730-0053-000	CONTR. NO.		DRN. MAC
				CHK. Y.S.V.

Table 1.1
Moorestown Township
Kings Highway WTP Alternative 1
Project Cost Estimate

Item	Description	Qty.	Unit Cost.	Cost	
1	Mobilization	1	LS	\$120,000.00	\$120,000.00
2	Temporary Soil Erosion & Sediment Control	1	LS	\$10,000.00	\$10,000.00
3	Demolition - Control House, Selected Existing Piping	1	LS	\$80,000.00	\$80,000.00
4	Induced Draft Aerators (2)	1	LS	\$172,000.00	\$172,000.00
5	Chemical Feed System (Sodium Hypochlorite)	1	LS	\$66,000.00	\$66,000.00
6	Solids Contact Clarifiers (2)	1	LS	\$1,050,000.00	\$1,050,000.00
7	Filtration System Rehabilitation	1	LS	\$495,000.00	\$495,000.00
8	Backwash Water Supply Tank Upgrade	1	LS	\$20,000.00	\$20,000.00
9	Backwash Water Holding Tank Upgrade	1	LS	\$107,000.00	\$107,000.00
10	Clearwell Rehabilitation	1	LS	\$10,000.00	\$10,000.00
11	Misc. Piping & Valves	1	LS	\$278,000.00	\$278,000.00
12	Electrical Work	1	LS	\$418,000.00	\$418,000.00
13	Instrumentation and Controls	1	LS	\$88,000.00	\$88,000.00
14	350 kW Diesel Generator & ATS	1	LS	\$175,000.00	\$175,000.00
15	Misc. Site Work & Restoration	1	LS	\$70,000.00	\$70,000.00
16	Pre-Design Unknown/Unidentified Plant Upgrades- 20%	1	LS	\$631,800.00	\$631,800.00
	Estimated Construction Cost				\$3,800,000.00
	Construction Contingencies - 20%				\$760,000.00
	Total Estimated Construction Cost				\$4,600,000.00
	Design, Permitting, Bid Documents				\$690,000.00
	Construction Administration				\$460,000.00
	Total Estimated Project Cost				\$5,750,000.00

Table 1.2
Moorestown Township
Kings Highway WTP Alternative 2
Project Cost Estimate

Item	Description	Qty.		Unit Cost.	Cost
1	Mobilization	1	LS	\$120,000.00	\$120,000.00
2	Temporary Soil Erosion & Sediment Control	1	LS	\$10,000.00	\$10,000.00
3	Demolition - Control House, Selected Existing Piping	1	LS	\$43,000.00	\$43,000.00
4	Induced Draft Aerators (2), Clearwell & Clearwell Pumps	1	LS	\$300,000.00	\$300,000.00
5	Chemical Feed System (Sodium Hypochlorite)	1	LS	\$66,000.00	\$66,000.00
6	Horizontal Pressure Filters, Face Piping, & Controls	1	LS	\$1,704,000.00	\$1,704,000.00
7	Backwash Water Holding Tank Upgrade	1	LS	\$107,000.00	\$107,000.00
8	Vertical Turbine Pump for Backwash System	1	LS	\$90,000.00	\$90,000.00
9	Filter Building Installation	1500	SF	\$350.00	\$525,000.00
10	Clearwell Rehabilitation	1	LS	\$10,000.00	\$10,000.00
11	Misc. Piping & Valves	1	LS	\$213,000.00	\$213,000.00
12	Electrical Work	1	LS	\$455,000.00	\$455,000.00
13	Instrumentation and Controls	1	LS	\$54,000.00	\$54,000.00
14	350 kW Diesel Generator & ATS	1	LS	\$175,000.00	\$175,000.00
15	Misc. Site Work & Restoration	1	LS	\$36,000.00	\$36,000.00
16	Pre-Design Unknown/Unidentified Plant Upgrades- 20%	1	LS	\$781,600.00	\$781,600.00
	Estimated Construction Cost				\$4,690,000.00
	Construction Contingencies - 20%				\$940,000.00
	Total Estimated Construction Cost				\$5,630,000.00
	Design, Permitting, Bid Documents				\$850,000.00
	Construction Administration				\$563,000.00
	Total Estimated Project Cost				\$7,043,000.00

Table 1.3
Moorestown Township
Kings Highway WTP Alternative 3
Project Cost Estimate

Item	Description	Qty.	Unit Cost.	Cost	
1	Mobilization	1	LS	\$120,000.00	\$120,000.00
2	Temporary Soil Erosion & Sediment Control	1	LS	\$10,000.00	\$10,000.00
3	Demolition - Control House, Selected Existing Piping	1	LS	\$43,000.00	\$43,000.00
4	Chemical Feed System (Sodium Hypochlorite)	1	LS	\$66,000.00	\$66,000.00
5	Package Treatment Units and Controls	1	LS	\$2,285,000.00	\$2,285,000.00
6	Backwash Water Holding Tank Upgrade	1	LS	\$107,000.00	\$107,000.00
7	Backwash Water Supply Tank Upgrade	1	LS	\$68,000.00	\$68,000.00
8	Pre-engineered Steel Building	5500	SF	\$150.00	\$825,000.00
9	Clearwell Rehabilitation	1	LS	\$10,000.00	\$10,000.00
10	Misc. Piping & Valves	1	LS	\$173,000.00	\$173,000.00
11	Electrical Work	1	LS	\$445,000.00	\$445,000.00
12	Instrumentation and Controls	1	LS	\$51,000.00	\$51,000.00
13	350 kW Diesel Generator & ATS	1	LS	\$175,000.00	\$175,000.00
14	Misc. Site Work & Restoration	1	LS	\$36,000.00	\$36,000.00
15	Pre-Design Unknown/Unidentified Plant Upgrades- 20%	1	LS	\$882,800.00	\$882,800.00
	Estimated Construction Cost				\$5,300,000.00
	Construction Contingencies - 20%				\$1,100,000.00
	Total Estimated Construction Cost				\$6,400,000.00
	Design, Permitting, Bid Documents				\$960,000.00
	Construction Administration				\$640,000.00
	Total Estimated Project Cost				\$8,000,000.00

Table 2.1
Moorestown Township
Hartford Road WTP Alternative 1
Project Cost Estimate

Item	Description	Qty.	Unit Cost.	Cost
1	Mobilization	1	LS \$120,000.00	\$120,000.00
2	Temporary Soil Erosion & Sediment Control	1	LS \$10,000.00	\$10,000.00
3	Demolition, Pipe Abandonment & Lagoon Closure	1	LS \$198,000.00	\$198,000.00
4	Induced Draft Aerators (2)	1	LS \$160,000.00	\$160,000.00
5	Chemical Feed Systems (Lime & Sodium Hypochlorite)	1	LS \$139,000.00	\$139,000.00
6	Horizontal Pressure Filters, Face Piping, & Controls	1	LS \$1,090,000.00	\$1,090,000.00
7	Backwash Supply Tank	1	LS \$297,000.00	\$297,000.00
8	Backwash Reclamation Tank	1	LS \$324,000.00	\$324,000.00
9	Well and High Service Pumps	1	LS \$180,000.00	\$180,000.00
10	Building Modifications and Repairs	1	LS \$187,000.00	\$187,000.00
11	Misc. Piping & Valves	1	LS \$235,000.00	\$235,000.00
12	Electrical Work	1	LS \$480,000.00	\$480,000.00
13	Instrumentation and Controls	1	LS \$66,000.00	\$66,000.00
14	350 kW Diesel Generator & ATS	1	LS \$175,000.00	\$175,000.00
15	Misc. Site Work & Restoration	1	LS \$86,000.00	\$86,000.00
16	Pre-Design Unknown/Unidentified Plant Upgrades - 10%	1	LS \$375,000.00	\$375,000.00
	Estimated Construction Cost			\$4,130,000.00
	Construction Contingencies - 20%			\$826,000.00
	Total Estimated Construction Cost			\$4,960,000.00
	Design, Permitting, Bid Documents			\$744,000.00
	Construction Administration			\$496,000.00
	Total Estimated Project Cost			\$6,200,000.00

Table 2.2
Moorestown Township
Hartford Road WTP Alternative 2
Project Cost Estimate

Item	Description	Qty.		Unit Cost.	Cost
1	Mobilization	1	LS	\$120,000.00	\$120,000.00
2	Temporary Soil Erosion & Sediment Control	1	LS	\$10,000.00	\$10,000.00
3	Demolition, Pipe Abandonment & Lagoon Closure	1	LS	\$263,000.00	\$263,000.00
4	Chemical Feed Systems (Lime & Sodium Hypochlorite)	1	LS	\$135,000.00	\$135,000.00
5	Packaged Treatment Units and Controls	1	LS	\$2,270,000.00	\$2,270,000.00
6	Backwash Equalization Tank	1	LS	\$173,000.00	\$173,000.00
7	Well and High Service Pump Replacement	1	LS	\$180,000.00	\$180,000.00
8	Pre-Engineered Steel Building	5500	SF	\$125.00	\$687,500.00
9	Clearwell Rehabilitation	1	LS	\$10,000.00	\$10,000.00
10	Misc. Piping & Valves	1	LS	\$193,000.00	\$193,000.00
11	Electrical Work	1	LS	\$425,000.00	\$425,000.00
12	Instrumentation and Controls	1	LS	\$51,000.00	\$51,000.00
13	350 kW Diesel Generator & ATS	1	LS	\$175,000.00	\$175,000.00
14	Misc. Site Work & Restoration	1	LS	\$141,000.00	\$141,000.00
15	Pre-Design Unknown/Unidentified Plant Upgrades - 10%	1	LS	\$483,000.00	\$483,000.00
	Estimated Construction Cost				\$5,320,000.00
	Construction Contingencies - 20%				\$1,060,000.00
	Total Estimated Construction Cost				\$6,380,000.00
	Design, Permitting, Bid Documents				\$870,000.00
	Construction Administration				\$638,000.00
	Total Estimated Project Cost				\$7,888,000.00

Table 3.1
Moorestown Township
Hartford Road & Kings Highway Water Treatment Plants
Project Schedule

Item	Start	End	Duration (Days)
Design, Permitting, Bid Documents	7/1/2015	3/1/2016	244
Bid Advertisement, Bid Receipt, Award, and Notice to Proceed	3/1/2016	5/1/2016	61
Construction	5/1/2016	5/1/2017	365
Plant Startup & Construction Closeout	5/1/2017	6/1/2017	31
Total Project Duration			701
			(Approximately 23 months)