

Temple Street Dam Removal Opinion of Probable Construction Costs

DESIGN STAGE: 75% Design

Date:	6/30/2022
Revision No.:	2

Category	Item	MassDOT Item No.	Description	Unit	Qty	Unit Cost	Ext. Cost
Mobilization/ Demobilization	Contractor's general requirements	748	15% of remaining costs excluding precast structures	LS	15%	\$352,505	\$52,876
	SUBTOTAL						\$52,876
Access & Erosion Control	Sediment control barriers	761.121	Compost filter socks	LF	900	\$7	\$6,300
	Clearing & grubbing	101	Clear brush and small trees along proposed access routes	AC	0.50	\$47,150	\$23,575
	Swamp mats	-	To access areas in floodplain	LS	1	\$19,000	\$19,000
	Access Ramps/Roads Gravel	402	M2.01.7 dense graded crushed stone for access roads/ramps	CY	250	\$74	\$18,500
	SUBTOTAL						\$67,375
Water Control	Oil containment boom	697.2	Across channel downstream of work area	LF	40	\$49	\$1,960
	Cofferdam & water diversion system	252.3	Bulk sandbags and installation	LS	1	\$24,000	\$24,000
	Dewatering pump system	-	For initial dewatering & seepage/runoff control	DAY	10	\$1,100	\$11,000
	Sediment filter bag	-	For sediment control during dewatering	EA	3	\$100	\$300
	SUBTOTAL						\$37,260
Removals	Dam Demolition and Disposal	-	Partial removal of existing dam structure	LS	1	\$11,000	\$11,000
	Channel/Sediment Excavation	123	Excavation of sediment as needed to facilitate partial dam removal.	CY	54	\$60	\$3,240
	Embankment Excavation	120	To facilitate Dam Removal	CY	40	\$37	\$1,480
	SUBTOTAL						\$15,720
Channel Construction	Muck excavation	123	Excavation of low flow channel	CY	110	\$60	\$6,600
	Channel bed material (sand borrow)	154	Sand borrow for channel construction	CY	70	\$48	\$3,360
	Riffle Features	983.1	Rounded riprap (D50 = 15")	TON	270	\$89	\$24,030
	Filter stone	402	M2.01.7 dense graded crushed stone for subbase	CY	50	\$74	\$3,700
	Channel construction	-	Excavator, operator, and three laborers	DAY	10	\$3,100	\$31,000
	SUBTOTAL						\$68,690
Floodplain Construction	Install Woody Debris/log jams	-	To roughen the floodplain areas	EA	50	\$ 1,500	\$75,000
	Install Boulder Anchors	-	Boulders to ballast 10' long, 12" Dia. Logs	EA	50	\$ 540	\$27,000
	Beaver Dam Analogue Material	-	Beaver Dam Analogue Material	LS	1	\$ 21,700	\$21,700
	Installation of Beaver Dam Analogues	-	Foreman, and three laborers	DAY	10	\$ 2,200	\$22,000
	SUBTOTAL						\$145,700
Restoration	Live stakes	-	Placement in between large woody debris in floodplain	EA	350	\$30	\$10,500
	Seeding	765	For upland disturbed areas only - wetland seeding not included	SY	2420	\$3.00	\$7,260
	Loam (Spread 4" of excavated material)	170	For upland disturbed areas only - wetland seeding not included	SY	2420	\$10.00	\$2,686
	SUBTOTAL						\$17,760
SUBTOTAL Direct Construction Cost							\$405,381
Contingency Allowance (25%)							\$101,345
TOTAL DIRECT CONSTRUCTION COST (2022 \$, rounded to nearest \$1,000)							\$510,000
Engineering Services	Final design & permitting services (FY2023)						\$40,000
	Bid Phase Services (FY2024)						\$10,000
	Construction Phase Services (FY 2024)						\$50,000
	TOTAL OPINION OF PROBABLE CONSTRUCTION COST (2022 \$)						\$610,000