

Memorandum

To: Bassett Creek Watershed Management Commission (BCWMC)
From: Barr Engineering Co. (Josh Phillips, PE)
Subject: Item 5A: Consider Approval of 60% Design Plans for Bassett Creek Double Box Culvert Repair Project (FCP-1) – Minneapolis
BCWMC March 19, 2026 Meeting Agenda
Date: March 12, 2026
Project: 23270051.71 400 002

5A Consider Approval of 60% Design Plans for Bassett Creek Double Box Culvert Repair Project (FCP-1) – Minneapolis

Summary:

Proposed Work: Bassett Creek Double Box Culvert Repair Project (FCP-1), Minneapolis

Basis for Review at Commission Meeting: 60% Design Plans Review

Change Impervious Surface Area: N/A

Recommendations for Commission Action:

- 1) Consider approval of 60% design plans
- 2) Authorize Commission Engineer to continue design and bring 90% design to a future Commission meeting

The Commission Engineer completed the 60% design plans for review and approval by the Commission. The remainder of this memo presents some background on the infrastructure, the feasibility study, work completed since the feasibility study, and the 60% design plans and estimated costs.

Background

The Double Box Culvert is part of a system of storm sewer tunnels that convey Bassett Creek flow through downtown Minneapolis to the Mississippi River, where it discharges downstream of St. Anthony Falls. The tunnel system was constructed in three phases including the I-94/2nd Street tunnel (Phase 1), the 3rd Avenue tunnel (Phase 2), and the Double Box Culvert (Phase 3). The Double Box Culvert was constructed by the USACE in 1992 and it was turned over to the local sponsor (City of Minneapolis) in 2002. Since that time, the City of Minneapolis has owned the system. The Double Box Culvert was constructed by open cut excavation 0–20 feet below ground surface and was designed to convey Bassett Creek flows to the 3rd Avenue tunnel, via a 30-foot drop structure.

The 2019 and 2024 Double Box Culvert inspection reports identified both structural and operation and maintenance defects within the box culvert. In August 2021, the Commission approved including a project to address needed repairs within the Double Box Culvert as part of their capital improvement program (CIP).

The Commission completed a feasibility study in June 2025 (Double Box Culvert Repair Project (FCP-1) Feasibility Report) to perform maintenance and repairs to the Double Box Culvert. The feasibility report and further project information can be found online at: [Bassett Creek Watershed Management Commission - 2025 Feasibility Study - Double Box Culvert Repair Project](#) . At their June 18, 2025

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meeting, the Commission approved proceeding with the necessary repairs to maintain the infrastructure's functionality and prevent further deterioration.

At the September 18, 2025 meeting, the BCWMC held a public hearing and officially ordered the Double Box Culvert Repair Project (FCP-1), at an estimated engineering and construction cost of \$1,410,000 to be funded through CIP levies in the years 2026 and 2027.

At the November 19, 2025 meeting, the Commission approved a scope of work for engineering services to be provided by the Commission Engineer for the final design and construction oversight of the Double Box Culvert Repairs including: stakeholder engagement; design services, including access and easements, construction drawings, specifications, and cost estimates; bidding services; and construction observation and administration.

60% Design

Starting in early 2026, the Commission Engineer began developing design plans for the proposed maintenance and repairs to the Double Box Culvert and on February 19, 2026, the Commission Engineer held a stakeholder kickoff meeting with the BCWMC Administrator, the City of Minneapolis, and the US Army Corps of Engineers. As of the completion of the 60% design plans, the scope and costs (see table below) of the project have not substantively changed from the 30% design plans, which were prepared for the feasibility study. The 60% design Engineer's opinion of probable cost and 60% design plans are attached to this memorandum.

Opinion of Cost

The table below summarizes our Engineer's Opinion of Probable Costs, based on the 60% design plans. The detailed Opinion of Probable Costs is included as an attachment.

Item Description	Estimated Cost
Mobilization	\$106,000
Water Management / Erosion Control / Traffic Control	\$87,000
Removal and Dispose of Debris and Sediment	\$58,000
Tunnel Repairs	\$631,000
Construction Subtotal	\$882,000
Construction Contingency	\$176,000
Engineering Budget	\$326,500
Estimated Total Project Cost	\$1,385,000
Estimated Accuracy Range (-10%)	\$1,247,000
Estimated Accuracy Range (+15%)	\$1,593,000

Schedule

The table below outlines the expected schedule for the Double Box Culvert project.

Task	Estimated Schedule
1) Stakeholder Engagement and BCWMC Meetings	Ongoing
2) Public Engagement	Not Applicable
3) Permitting	Not Applicable
4a) 60% Design	March 2026
4b) 90% Design	May 2026
4c) 100% Design	July 2026
5) Bidding Services	August 2026
6) Construction Services	Fall 2026 – Spring 2028

City of Minneapolis Capital Project Task Force Approval

In addition to Commission approval of the 60% and 90% design plans, review and approval of the project at the 60% and 90% design stages is also required by the City of Minneapolis.

This project is on the agenda for the March 16, 2026 City of Minneapolis Capital Project Task Force (CPTF) meeting. The Commission Engineer will provide a summary of outcomes from that CPTF meeting at the BCWMC meeting on March 19, 2026.

Recommendation for Commission Action

- 1) Consider approval of 60% design plans
- 2) Authorize Commission Engineer to continue design and bring 90% design plans, costs, and specifications to a future Commission meeting.



CLIENT: Bassett Creek Watershed Management Commission
 PROJECT: Bassett Creek Double Box Culvert Repairs (FCP-1)
 LOCATION: Minneapolis, MN
 PROJECT #: 23270051.71

SHEET:	1	OF	1
PREPARED BY:	HLB	DATE:	3/9/2026
CHECKED BY:	JPP	DATE:	3/11/2026
ISSUED:	60% Design Review	DATE:	3/12/2026
ISSUED:		DATE:	
ISSUED:		DATE:	

Engineer's Opinion of Probable Project Cost
60% Design

ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY	UNIT COST	ITEM COST	NOTES
1	Mobilization	LS	1	\$106,000.00	\$106,000.00	1,2,3,4,5
2	Water Management	LS	1	\$62,000.00	\$62,000.00	1,2,3,4,5
3	Erosion Control	LS	1	\$10,000.00	\$10,000.00	1,2,3,4,5
4	Traffic Control	LS	1	\$15,000.00	\$15,000.00	1,2,3,4,5
5	Remove Debris	LS	1	\$5,000.00	\$5,000.00	1,2,3,4,5
6	Removal Sediment	LF	286	\$168.00	\$48,048.00	1,2,3,4,5
7	Haul and Dispose Sediment	TON	5	\$1,000.00	\$5,000.00	1,2,3,4,5
8	Type 1 - Concrete Surface Repair	SF	79	\$108.00	\$8,532.00	1,2,3,4,5
9	Type 2 - Invert Repair	EA	5	\$5,500.00	\$27,500.00	1,2,3,4,5
10	Type 3 - Crack Repair	LF	3,303	\$74.00	\$244,422.00	1,2,3,4,5
11	Type 4 - Fracture Repair	LF	148	\$112.00	\$16,576.00	1,2,3,4,5
12	Type 5 - Tap Repair	EA	1	\$1,860.00	\$1,860.00	1,2,3,4,5
13	Type 6 - Shear Key Repair	LF	770	\$224.00	\$172,480.00	1,2,3,4,5
14	Hydrophilic Grout	GAL	422	\$160.00	\$67,536.00	1,2,3,4,5
15	Type 7 - Intall Manhole Step	EA	189	\$119.00	\$22,491.00	1,2,3,4,5
16	Type 8 - Reinforcement Spacer Repair	LF	1,200	\$50.00	\$60,000.00	1,2,3,4,5
17	Type 9 - Install Fall Protection Anchorage	LS	1	\$10,000.00	\$10,000.00	1,2,3,4,5
	CONSTRUCTION SUBTOTAL				\$882,000	1,2,3,4,5,6
	CONSTRUCTION CONTINGENCY (20%)				\$176,000	1,6,7
	ENGINEERING BUDGET				\$326,500	6,8
	ESTIMATED TOTAL PROJECT COST				\$1,385,000	1,2,3,4,5,6,7,8
	ESTIMATED ACCURACY RANGE		-10%		\$1,247,000	6,7,8
			15%		\$1,593,000	6,7,8
	TOTAL PROJECT BUDGET				\$1,410,000	

Notes

¹ Limited Design Work Completed (60%). Quantities Based on Design Work Completed.

³ Unit Prices Based on Information Available at This Time.

⁴ Limited Soil Boring and Field Investigation Information Available.

⁵ Estimate assumes that projects will not be located on contaminated soil.

⁶ Estimate costs are reported to nearest thousand dollars.

⁷ This feasibility-level (Class 2, 30-70% design completion per ASTM E 2516-11) cost estimate is based on feasibility-level designs, alignments, quantities and unit prices. Costs will change with further design. Time value-of-money escalation costs are not included. A construction schedule is not available at this time. Contingency is an allowance for the net sum of costs that will be in the Final Total Project Cost at the time of the completion of design, but are not included at this level of project definition. The estimated accuracy range for the Total Project Cost as the project is defined is -10% to +15%. The accuracy range is based on professional judgement considering the level of design completed, the complexity of the project and the uncertainties in the project as scoped. The contingency and the accuracy range are not intended to include costs for future scope changes that are not part of the project as currently scoped or costs for risk contingency. Operation and Maintenance costs are not included.

⁸ Estimate costs are to design, construct, and permit each alternative. The estimated costs do not include maintenance, monitoring or additional tasks following construction.