

To: Tom Harrigan
Elm Grove Village Manager

From: Richard Klein, PE
Stantec

Date: July 3, 2024

**Reference: Draft Engineer's Opinion of Probable Construction Cost (EOPC)
Underwood Creek Daylighting, Village of Elm Grove, Wisconsin**

This memorandum documents the updated Engineer's Opinion of Probable Construction Cost (EOPC) for the Underwood Creek Daylighting project through downtown Elm Grove and is provided at this time to inform the total project cost required for the planned November 2024 referendum. This July 3, 2024, version of the EOPC should be considered draft since several significant components, including the channel bank elements and soil disposal items, are currently only at a conceptual design stage, and since the total list of project components has not yet been finalized. The items included sum to a total project price of \$6,377,000, as detailed in the attached table. It is anticipated that the Village will apply a contingency multiplier to this number prior to finalizing the referendum language to account for these various uncertainties.

The project components evaluated in developing the EOPC include:

- Clearing, site preparation, demolition and removal of the existing abandoned railroad bridge over Underwood Creek.
- New channel excavation from Watertown Plank Road to the confluence with Underwood Creek approximately 600 south of Wall Street.
- Disposal of excess soil.
- Construction of new channel bed and banks including vegetated banks, toe wood, quarried stone banks, and cast-in-place retaining walls.
- Abandonment of the existing Underwood Creek channel and culvert between Wall Street and just downstream of Watertown Plank Road.
- New storm sewer drainage piping.
- New pipe arch vehicular culvert crossing over the new channel at Wall Street.
- Asphalt path between Watertown Plank Road and Wall Street east of the new channel.
- Pedestrian bridge over the new channel.
- Surface restoration of disturbed areas consisting of seeding, plantings and pavement.

The components considered are most similar to those included in the channel alternative named "Alternative 1" that is being developed and provided as a separate submittal.

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Several notable differences between the components considered in this current EOPC and the 2019 version include:

- A more conservative material disposal approach that anticipates a greater percentage of excess soil being disposed of at a landfill. This approach will be refined after completion of the upcoming subsurface investigation.
- Increased pavement demolition and restoration requirements due to the generally deteriorated existing parking lot pavement quality.
- Removal and disposal of the existing railroad bridge at the downstream end of the project area.
- Additional channel bank revetment required to narrow the channel section without extending the channel footprint further west into the parking lot.
- New asphalt path east of channel between Watertown Plank Road and Wall Street.
- Addition of curbing on west edge of channel top of bank along parking lot.
- New pedestrian bridge over the new channel between asphalt path and parking lot connection near north side of Sendik's building.
- Sidewalk along west edge of channel top of bank between Wall Street and pedestrian bridge.
- Revised unit prices referencing recent similar work in the area that reflect the current bidding environment and economy.

Attached: EOPC tabulation (July 3, 2024)

Underwood Creek Daylighting

Village of Elm Grove, Wisconsin

July 3, 2024

Draft - Engineer's Opinion of Probable Construction Cost

No.	Item	Units	Qty	Unit Price	Total
1	Mobilization, Demobilization, And Site Preparation	LS	1	\$ 150,000.00	\$ 150,000
2	Sign Removal and Reinstallation	LS	1	\$ 7,000.00	\$ 7,000
3	Lighting Removal and Reinstallation	LS	1	\$ 15,000.00	\$ 15,000
4	Clearing and Grubbing	LS	1	\$ 30,000.00	\$ 30,000
5	Asphalt Removal	SY	12,200	\$ 6.00	\$ 73,200
6	Concrete Sidewalk Removal	SY	30	\$ 15.00	\$ 450
7	Curb & Gutter Removal	LF	730	\$ 6.00	\$ 4,380
8	Railroad Bridge Removal	LS	1	\$ 76,700.00	\$ 76,700
9	Soil Excavation and Grading	LS	1	\$ 352,000.00	\$ 352,000
10	Off-site Material Disposal - Landfill Daily Cover	TON	27,600	\$ 50.00	\$ 1,380,000
11	Off-site Material Disposal - Landfill Direct	TON	10,600	\$ 70.00	\$ 742,000
12	Off-site Material Disposal - Non-Landfill	TON	8,300	\$ 15.00	\$ 124,500
13	Cast-In-Place Retaining Wall (East)	LS	1	\$ 225,000.00	\$ 225,000
14	Cast-In-Place Retaining Wall (West)	LS	1	\$ 314,000.00	\$ 314,000
15	Pedestrian Bridge - Structure	LS	1	\$ 175,000.00	\$ 175,000
16	Pedestrian Bridge - Abutments	EA	2	\$ 32,000.00	\$ 64,000
17	Quarry Stone Bank	TON	2,779	\$ 430.00	\$ 1,195,153
18	Riprap Quarry Stone Bank Transitions	TON	90	\$ 170.00	\$ 15,300
19	Wall Street Arch Culvert	LS	1	\$ 265,000.00	\$ 265,000
20	Wall Street Roadway	SY	400	\$ 49.00	\$ 19,600
21	Parking Lot Asphalt Paving	SY	7,340	\$ 44.00	\$ 322,979
22	Concrete Curb and Gutter	LF	975	\$ 27.00	\$ 26,325
23	Concrete Sidewalk	SF	2,755	\$ 9.00	\$ 24,795
24	East Asphalt Path	SY	1,008	\$ 36.00	\$ 36,300
25	Subpavement Material (Channel Bed Base)	TON	1,080	\$ 20.00	\$ 21,600
26	Riffle Material	TON	840	\$ 70.00	\$ 58,800
27	Glide Material	TON	170	\$ 40.00	\$ 6,800
28	Run Material	TON	290	\$ 80.00	\$ 23,200
29	Heavy Riprap Energy Dissipation Pool	TON	460	\$ 70.00	\$ 32,200
30	Toewood	LF	350	\$ 150.00	\$ 52,500
31	Landscaping Boulders	EA	20	\$ 300.00	\$ 6,000
32	Topsoil	TON	1,220	\$ 20.00	\$ 24,400
33	Native Seeding – Zones A & B	SY	1,525	\$ 6.00	\$ 9,150
34	Native Seeding – Zone C	SY	5,300	\$ 6.00	\$ 31,800
35	Turf Seeding – Zone D	SY	2,500	\$ 3.00	\$ 7,500
36	Live Stakes (Dormant Woody Cuttings)	EA	1,500	\$ 4.00	\$ 6,000
37	Shrubs	EA	500	\$ 150.00	\$ 75,000
38	Trees	EA	25	\$ 600.00	\$ 15,000
39	Culvert/Channel Removal And Abandonment (W/Pr To Sendiks)	LS	1	\$ 54,600.00	\$ 54,600
40	Culvert Abandonment With Flowable Fill (Beneath Sendiks)	LS	1	\$ 90,000.00	\$ 90,000
41	Stream Channel Abandonment (Downstream Of Sendiks)	LS	1	\$ 45,100.00	\$ 45,100
42	Storm Sewer Pipe Rcp 18-Inch	LF	202	\$ 125.00	\$ 25,250
43	Storm Sewer Pipe Rcp 24-Inch	LF	74	\$ 135.00	\$ 9,990
44	Storm Sewer Pipe Rcp 30-Inch	LF	71	\$ 150.00	\$ 10,650
45	Storm Sewer Pipe Rcp 36-Inch	LF	242	\$ 200.00	\$ 48,400
46	Storm Sewer Pipe Rcp 42-Inch	LF	219	\$ 225.00	\$ 49,275
47	42-Inch Concrete Apron Endwall	EA	1	\$ 3,000.00	\$ 3,000
48	Storm Sewer Manhole 48-Inch	EA	3	\$ 3,300.00	\$ 9,900
49	Storm Sewer Manhole 60-Inch	EA	3	\$ 4,800.00	\$ 14,400
50	Storm Sewer Manhole 72-Inch	EA	1	\$ 7,000.00	\$ 7,000

Contingency 0% \$ -
Total \$ 6,377,000