

FINAL DEVELOPMENT PLAN



OF MI

ENGINEER'S OPINION OF PROBABLE COST

January 23, 2023

	ITEM	QUANTITY	UNIT	1	UNIT PRICE	E	XTENSION	
SITE								
1	COMMON EXCAVATION	87,591	CY	\$	4.00	\$	350,364.00	
2	EMBANKMENT	26,953	CY	\$	3.00	\$	80,859.00	
3	INSTALL 6" AGGREGATE BASE	22,556	SY	\$	7.00	\$	157,892.00	
4	INSTALL 4" AGGREGATE BASE	3,350	SY	\$	5.00	\$	16,750.00	
5	INSTALL 9" SUBGRADE STABILIZATION	22,556	SY	\$	5.00	\$	112,780.00	
SUBTOTAL:								
ASPHALT								
6	INSTALL ACC SURFACE	2,271	TONS	\$	90.00	\$	204,373.13	
7	INSTALL ACC BASE	3,918	TONS	\$	85.00	\$	333,002.38	
					SUBTOTAL:	\$	537,375.50	
CONCRETE								
8	INSTALL CURB & GUTTER	7,235	LF	\$	22.00	\$	159,170.00	
9	INSTALL 7" PCC TRASH PAD	230	SY	\$	70.00	\$	16,100.00	
SUBTOTAL:								
	STORM DRAINAGE							
10	INSTALL 6' x 5' CURB INLET	1	EA	\$	5,800.00	\$	5,800.00	
11	INSTALL 6' x 4' CURB INLET	14	EA	\$	5,200.00	\$	72,800.00	
12	INSTALL 4' x 4' AREA INLET	1	EA	\$	5,800.00	\$	5,800.00	
13	INSTALL 5' x 5' JUNCTION BOX	2	EA	\$	6,000.00	\$	12,000.00	
14	INSTALL 4' DIA. JUNCTION BOX	2	EA	\$	5,500.00	\$	11,000.00	
15	INSTALL 3' x 3' GRATE INLET	1	EA	\$	4,000.00	\$	4,000.00	
16	INSTALL 5' x 5' EWDB OUTLET STRUCTURE	1	EA	\$	6,000.00	\$	6,000.00	
17	INSTALL 36" HDPE	95	LF	\$	100.00	\$	9,500.00	
18	INSTALL 30" RCP	73	LF	\$	100.00	\$	7,300.00	
19	INSTALL 30" HDPE	404	LF	\$	85.00	\$	34,340.00	
20	INSTALL 24" HDPE	903	LF	\$	70.00	\$	63,210.00	
21	INSTALL 18" HDPE	166	LF	\$	50.00	\$	8,300.00	
22	INSTALL 15" HDPE	713	LF	\$	45.00	\$	32,085.00	
23	INSTALL 36" HDPE FLARED END SECTION W/ TOEWALL	1	EA	\$	1,500.00	\$	1,500.00	
24	INSTALL 30" RCP FLARED END SECTION W/ TOEWALL	1	EA	\$	1,500.00	\$	1,500.00	
25	INSTALL 30" HDPE FLARED END SECTION W/ TOEWALL	1	EA	\$	1,100.00	\$	1,100.00	
26	INSTALL 24" HDPE FLARED END SECTION W/ TOEWALL	1	EA	\$	800.00	\$	800.00	
27	INSTALL STONE RIP-RAP	35	CY	\$	95.00	\$	3,325.00	
					SUBTOTAL:	\$	280,360.00	



WATER MAIN								
28	INSTALL 8" PVC C900 DR18	60	LF	\$	100.00	\$	6,000.00	
29	INSTALL 4" PVC C900 DR18	35	LF	\$	70.00	\$	2,450.00	
30	INSTALL 8" GATE VALVE	6	EA	\$	1,800.00	\$	10,800.00	
31	INSTALL BACKFLOW PREVENTER VAULT	2	EA	\$	10,000.00	\$	20,000.00	
32	INSTALL FIRE HYDRANT ASSEMBLY	6	EA	\$	5,400.00	\$	32,400.00	
					SUBTOTAL:	\$	71,650.00	
SANITARY SEWER								
33	INSTALL 4' DIA. MANHOLE	8	EA	\$	4,000.00	\$	32,000.00	
34	EXTRA DEPTH IN MANHOLE	26	VF	\$	150.00	\$	3,900.00	
35	INSTALL 8" PVC SDR-26	1545	LF	\$	50.00	\$	77,250.00	
36	INSTALL 6" PVC SDR-26	202	LF	\$	40.00	\$	8,080.00	
					SUBTOTAL:	\$	121,230.00	
	LANDSCAPING							
37	INSTALL HYDROSEED	2.20	AC	\$	3,000.00	\$	6,600.00	
					SUBTOTAL:	\$	6,600.00	
	EROSION CONTROL WO	RK						
38	SILT FENCE	5,450	LF	\$	3.50	\$	19,075.00	
39	INLET PROTECTION (SILT FENCE)	18	EA	\$	100.00	\$	1,800.00	
40	INLET PROTECTION (GRAVEL FILTER BAGS)	15	EA	\$	100.00	\$	1,500.00	
41	CONSTRUCTION ENTRANCE & STAGING AREA	1	EA	\$	1,200.00	\$	1,200.00	
42	CONCRETE WASHOUT	1	EA	\$	1,200.00	\$	1,200.00	
SUBTOTAL:						\$	24,775.00	
GRAND TOTAL: 1								

Disclaimers:

- 1 Since Engineer has no control over the cost of labor, materials, or equipment, or over contractor's(s') methods of determining prices, or over competitive bidding or market conditions, the estimate of construction cost and schedule provided for herein is to be made on the basis of Engineer's experience and qualifications and represents Engineer's best judgment as a professional engineer familiar with the construction industry, but Engineer cannot and does not guarantee that the bids or the Project construction cost or schedule will not vary from the Engineer's Opinion of Probable Cost and schedule prepared by Engineer.
- 2 The Engineer's Opinion of Probable Cost is based upon reasonable assumptions from a conceptual plan.
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PUBLIC STREET & STORM

ENGINEER'S OPINION OF PROBABLE COST

January 23, 2023

	ITEM	QUANTITY	UNIT		UNIT PRICE	Е	XTENSION	
SITE								
1	EARTHWORK	1	LS	\$	50,000.00	\$	50,000.00	
2	INSTALL 6" TYPE 5 BASE	4,973	SY	\$	9.00	\$	44,757.00	
3	INSTALL 9" SUBGRADE STABILIZATION	4,973	SY	\$	5.00	\$	24,865.00	
SUBTOTAL								
ASPHALT								
4	INSTALL 2" TYPE 5 OR 6 ASPHALT PAVEMENT	4,222	SY	\$	10.00	\$	42,220.00	
5	INSTALL 5.5" TYPE 5 ASPHALT BASE	4,222	SY	\$	25.00	\$	105,550.00	
SUBTOTAL								
CONCRETE								
6	INSTALL TYPE CG-1 CURB & GUTTER	1,965	LF	\$	22.00	\$	43,230.00	
7	INSTALL 5' CONCRETE SIDEWALK	1,641	LF	\$	28.00	\$	45,948.00	
8	INSTALL TYPE A ADA RAMP	6	EA	\$	1,500.00	\$	9,000.00	
9	INSTALL TYPE B ADA RAMP	4	EA	\$	1,800.00	\$	7,200.00	
SUBTOTAL:								
	STORM DRAINAGE							
10	INSTALL 6' x 4' CURB INLET	8	EA	\$	5,200.00	\$	41,600.00	
11	INSTALL 15" RCP	129	LF	\$	50.00	\$	6,450.00	
12	INSTALL 15" HDPE	787	LF	\$	45.00	\$	35,415.00	
13	TRENCHING UNDER FUTURE STREET	129	LF	\$	20.00	\$	2,580.00	
					SUBTOTAL:	\$	86,045.00	
	LANDSCAPING							
14	SEEDING & MULCHING	1	LS	\$	3,000.00	\$	3,000.00	
					SUBTOTAL:	\$	3,000.00	
	MISCELLANEOUS WOR	ĸ						
15	SILT FENCE	2,490	LF	\$	3.50	\$	8,715.00	
16	INLET PROTECTION (SILT FENCE)	10	EA	\$	100.00	\$	1,000.00	
17	INLET PROTECTION (GRAVEL FILTER BAGS)	10	EA	\$	100.00	\$	1,000.00	
SUBTOTAL:							10,715.00	
GRAND TOTAL:							472,530.00	

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PUBLIC SANITARY

ENGINEER'S OPINION OF PROBABLE COST

January 23, 2023

	ITEM	QUANTITY	UNIT		UNIT PRICE	E	XTENSION
SANITARY SEWER							
1	INSTALL 24" PVC SDR-26	120	LF	\$	120.00	\$	14,400.00
2	INSTALL 12" DIP W/ RESTRAINED JOINTS	319	LF	\$	90.00	\$	28,710.00
3	INSTALL 12" PVC SDR-26	909	LF	\$	75.00	\$	68,175.00
4	INSTALL 8" PVC SDR-26	1050	LF	\$	55.00	\$	57,750.00
5	INSTALL 4' DIA. MANHOLE	13	EA	\$	4,000.00	\$	52,000.00
6	INSTALL 4' DIA. OUTSIDE DROP MANHOLE	1	EA	\$	4,500.00	\$	4,500.00
7	EXTRA DEPTH IN MANHOLES	155	VF	\$	150.00	\$	23,250.00
8	TRENCHING UNDER FUTURE STREET	762	LF	\$	20.00	\$	15,240.00
9	POST-CONSTRUCTION MANHOLE BARREL ADJUSTMENTS (EST)	4	EA	\$	800.00	\$	3,200.00
10	POST-CONSTRUCTION MANHOLE RING (3"-12") ADJUSTMENTS (EST)	4	EA	\$	400.00	\$	1,600.00
SUBTOTAL:							
	LANDSCAPING						
11 INSTALL HYDROSEED 0.50 AC \$ 3,000.00							
SUBTOTAL:							
	MISCELLANEOUS WOR	ĸ					
12	SILT FENCE	5,290	LF	\$	3.50	\$	18,515.00
13	CONSTRUCTION ENTRANCE & STAGING AREA	1	EA	\$	1,200.00	\$	1,200.00
14	CONCRETE WASHOUT	1	EA	\$	1,200.00	\$	1,200.00
SUBTOTAL:							20,915.00
GRAND TOTAL:							291,240.00

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PUBLIC WATERLINE ENGINEER'S OPINION OF PROBABLE COST

January 23, 2023

	ITEM	QUANTITY	UNIT	UNIT PRICE	E	EXTENSION	
WATER MAIN							
1	CONNECT TO EXISTING WATER MAIN	2	EA	\$ 4,000.00	\$	8,000.00	
2	INSTALL 12" PVC C900 DR18	1,704	LF	\$ 90.00	\$	153,360.00	
3	INSTALL 8" PVC C900 DR18	1,137	LF	\$ 70.00	\$	79,590.00	
4	INSTALL 12" GATE VALVE	9	EA	\$ 2,600.00	\$	23,400.00	
5	INSTALL 8" GATE VALVE	14	EA	\$ 1,800.00	\$	25,200.00	
6	INSTALL 12" AIR RELEASE ASSEMBLY	1	EA	\$ 6,000.00	\$	6,000.00	
7	INSTALL 5-1/4" FIRE HYDRANT ASSEMBLY	5	EA	\$ 5,400.00	\$	27,000.00	
8	INSTALL TEMP. FIRE HYDRANT ASSEMBLY	1	EA	\$ 5,600.00	\$	5,600.00	
	SUBTOTAL:						
GRAND TOTAL:						328,150.00	

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