



Tetra Tech

123 Brighton Lake Road, Suite 203, Brighton, MI 48116

**OPINION OF PROBABLE
CONSTRUCTION COST**

Telephone: (810) 220-2112 Fax: (810) 220-0094

PROJECT: Delhi Township, Ingham County - Cedar Street - Holbrook to College

Original: Aug 19, 2009

BASIS FOR ESTIMATE: CONCEPTUAL PRELIMINARY FINAL

Updated: 9/9/2009

WORK: Reconstruction of Cedar Street from Holbrook to College: median
widening, drainage, maintaining traffic, and restoration

ESTIMATOR: A. Flak

Updated: A. Langenderfer

CURRENT ENR: _____

ITEM CODE	DESCRIPTION	PROJ. TOTAL	UNIT	UNIT PRICE	COST
<i>Part 1 - Road</i>					
1000001	Mobilization, Max. \$549000	1	LS	\$ 549,000.00	\$ 549,000.00
2010001	Clearing	1.9	Acre	\$ 7,000.00	\$ 13,300.00
2020002	Tree, Rem, 19 inch to 36 inch	9	Ea	\$ 550.00	\$ 4,950.00
2020004	Tree, Rem, 6 inch to 18 inch	71	Ea	\$ 200.00	\$ 14,200.00
2030001	Culv, Rem, Less than 24 inch	32	Ea	\$ 250.00	\$ 8,000.00
2030002	Culv, Rem, 24 inch to 48 inch	2	Ea	\$ 600.00	\$ 1,200.00
2030003	Culv, Rem, Over 48 inch	16	Ea	\$ 2,000.00	\$ 32,000.00
2030005	Culv End, Rem, Less than 24 inch	1	Ea	\$ 200.00	\$ 200.00
2030011	Dr Structure, Rem	21	Ea	\$ 250.00	\$ 5,250.00
2030015	Sewer, Rem, Less than 24 inch	1811	Ft	\$ 10.00	\$ 18,110.00
2030016	Sewer, Rem, 24 inch to 48 inch	636	Ft	\$ 15.00	\$ 9,540.00
2040006	Curb and Gutter, Rem	554	Ft	\$ 7.00	\$ 3,878.00
2040008	Guardrail, Rem	194	Ft	\$ 3.00	\$ 582.00
2040009	Fence, Rem	2941	Ft	\$ 3.00	\$ 8,823.00
2040011	Pavt, Rem	93912	Syd	\$ 4.00	\$ 375,648.00
2050010	Embankment, CIP	16825	Cyd	\$ 8.00	\$ 134,600.00
2050016	Excavation, Earth	107996	Cyd	\$ 8.00	\$ 863,968.00
2050017	Excavation, Peat	1000	Cyd	\$ 8.00	\$ 8,000.00
2050040	Subgrade Undercutting, Type I	1000	Cyd	\$ 8.00	\$ 8,000.00
2050041	Subgrade Undercutting, Type II	1000	Cyd	\$ 12.00	\$ 12,000.00
2057002	_ Ditching	3	Sta	\$ 200.00	\$ 600.00
2080002	Erosion Control, Check Dam, Stone	300	Ft	\$ 15.00	\$ 4,500.00
2080005	Erosion Control, Inlet Protection, Sediment Trap	5	Ea	\$ 60.00	\$ 300.00
2080006	Erosion Control, Inlet Protection, Fabric Drop	5	Ea	\$ 80.00	\$ 400.00
2080007	Erosion Control, Inlet Protection, Geotextile and Stone	25	Ea	\$ 75.00	\$ 1,875.00
2080022	Erosion Control, Sediment Trap	4	Ea	\$ 85.00	\$ 340.00
2080023	Erosion Control, Maintenance, Sediment Removal	100	Cyd	\$ 12.00	\$ 1,200.00
2080025	Erosion Control, Silt Fence	8000	Ft	\$ 1.50	\$ 12,000.00
3010002	Subbase, CIP	31680	Cyd	\$ 10.00	\$ 316,800.00
3020016	Aggregate Base, 6 inch	14049	Syd	\$ 6.00	\$ 84,294.00
3020020	Aggregate Base, 8 inch	115217	Syd	\$ 8.00	\$ 921,736.00
3030026	Geotextile, Stabilization Sewer, CI IV, 21 inch, Tr Det B	500	Syd	\$ 4.00	\$ 2,000.00
3060015	Maintenance Gravel, LM	1000	Cyd	\$ 15.00	\$ 15,000.00
3070010	Approach, CI I, 8 inch	7508	Syd	\$ 8.00	\$ 60,064.00
3070128	Shoulder, CI II, 6 inch	7244	Syd	\$ 7.00	\$ 50,708.00
4010200	Culv, CI A, Conc, 12 inch	3095	Ft	\$ 35.00	\$ 108,325.00
4010201	Culv, CI A, Conc, 15 inch	84	Ft	\$ 50.00	\$ 4,200.00

ITEM CODE	DESCRIPTION	PROJ. TOTAL	UNIT	UNIT PRICE	COST
4010202	Culv, CI A, Conc, 18 inch	70	Ft	\$ 55.00	\$ 3,850.00
4010203	Culv, CI A, Conc, 24 inch	86	Ft	\$ 60.00	\$ 5,160.00
4010650	Culv, Slp End Sect, 1 on 4, 15 inch, Longit	2	Ea	\$ 350.00	\$ 700.00
4010651	Culv, Slp End Sect, 1 on 4, 18 inch, Longit	2	Ea	\$ 500.00	\$ 1,000.00
4010653	Culv, Slp End Sect, 1 on 4, 24 inch, Longit	2	Ea	\$ 650.00	\$ 1,300.00
4010840	Culv End Sect, Conc, 12 inch	104	Ea	\$ 450.00	\$ 46,800.00
4010886	Dr Marker Post	50	Ea	\$ 30.00	\$ 1,500.00
4017001	_ Culv, CI A, Conc, 21 inch	89	Ft	\$ 60.00	\$ 5,340.00
4021275	Video Taping Sewer and Culv Pipe	3650	Ft	\$ 1.20	\$ 4,380.00
4030052	Dr Structure Cover, Adj, Case 1	6	Ea	\$ 350.00	\$ 2,100.00
4030053	Dr Structure Cover, Adj, Case 2	34	Ea	\$ 240.00	\$ 8,160.00
4030061	Dr Structure, Tap, 6 inch	10	Ea	\$ 125.00	\$ 1,250.00
4040073	Underdrain, Subgrade, 6 inch	44375	Ft	\$ 5.00	\$ 221,875.00
4040093	Underdrain Outlet, 6 inch	4025	Ft	\$ 9.00	\$ 36,225.00
4040113	Underdrain, Outlet Ending, 6 inch	167	Ea	\$ 120.00	\$ 20,040.00
5020030	HMA, 2C	22700	Ton	\$ 85.00	\$ 1,929,500.00
5020031	HMA, 3C	1067	Ton	\$ 85.00	\$ 90,695.00
5020035	HMA, 36A	1368	Ton	\$ 90.00	\$ 123,120.00
5020051	HMA, 4E3	11277	Ton	\$ 95.00	\$ 1,071,315.00
5020057	HMA, 5E3	9831	Ton	\$ 95.00	\$ 933,945.00
5020061	HMA Approach	1484	Ton	\$ 150.00	\$ 222,600.00
5020509	HMA, 4E3, High Stress	73	Ton	\$ 105.00	\$ 7,665.00
5020515	HMA, 5E3, High Stress	1533	Ton	\$ 105.00	\$ 160,965.00
8010006	Driveway, Nonreinf Conc, 8 inch	68	Syd	\$ 50.00	\$ 3,400.00
8020016	Curb and Gutter, Conc, Det B2	8434	Ft	\$ 15.00	\$ 126,510.00
8020038	Curb and Gutter, Conc, Det F4	1794	Ft	\$ 15.00	\$ 26,910.00
8070095	Post, Mailbox	25	Ea	\$ 50.00	\$ 1,250.00
8110039	Pavt Mrkg, Ovly Cold Plastic, 18 inch, Stop Bar Pavt M	542	Ft	\$ 7.00	\$ 3,794.00
8110045	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	28	Ea	\$ 90.00	\$ 2,520.00
8110050	Pavt Mrkg, Ovly Cold Plastic, Only	33	Ea	\$ 100.00	\$ 3,300.00
8110052	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym	5	Ea	\$ 100.00	\$ 500.00
8110059	Pavt Mrkg, Ovly Cold Plastic, Thru and Rt Turn Arrow S	3	Ea	\$ 150.00	\$ 450.00
8110110	Pavt Mrkg, Waterborne, 4 inch, White	8802	Ft	\$ 0.06	\$ 528.12
8110111	Pavt Mrkg, Waterborne, 4 inch, Yellow	684	Ft	\$ 0.06	\$ 41.04
8110112	Pavt Mrkg, Waterborne, 6 inch, White	20927	Ft	\$ 0.10	\$ 2,092.70
8110113	Pavt Mrkg, Waterborne, 6 inch, Yellow	17579	Ft	\$ 0.10	\$ 1,757.90
8120005	Barricade, Type III, High Intensity, Lighted, Furn	38	Ea	\$ 130.00	\$ 4,940.00
8120006	Barricade, Type III, High Intensity, Lighted, Oper	33	Ea	\$ 15.00	\$ 495.00
8120020	Culv, Temp	1	Ea	\$ 600.00	\$ 600.00
8120025	Dust Palliative, Applied	15	Ton	\$ 200.00	\$ 3,000.00
8120030	Flag Control	1	LS	\$ 25,000.00	\$ 25,000.00
8120042	Lighted Arrow, Type C, Furn	2	Ea	\$ 550.00	\$ 1,100.00
8120043	Lighted Arrow, Type C, Oper	2	Ea	\$ 120.00	\$ 240.00
8120050	Minor Traf Devices	1	LS	\$ 50,000.00	\$ 50,000.00
8120077	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	55023	Ft	\$ 0.30	\$ 16,506.90
8120080	Pavt Mrkg, Type NR, Paint, 4 inch, White, Temp	16175	Ft	\$ 0.25	\$ 4,043.75
8120081	Pavt Mrkg, Type NR, Paint, 4 inch, Yellow, Temp	20360	Ft	\$ 0.25	\$ 5,090.00
8120090	Pavt Mrkg, Type R, 4 inch, White, Temp	28635	Ft	\$ 1.10	\$ 31,498.50
8120091	Pavt Mrkg, Type R, 4 inch, Yellow, Temp	29717	Ft	\$ 1.10	\$ 32,688.70
8120102	Plastic Drum, High Intensity, Lighted, Furn	252	Ea	\$ 40.00	\$ 10,080.00
8120103	Plastic Drum, High Intensity, Lighted, Oper	247	Ea	\$ 5.00	\$ 1,235.00

ITEM CODE	DESCRIPTION	PROJ. TOTAL	UNIT	UNIT PRICE	COST
8120105	Sign Cover	30	Ea	\$ 45.00	\$ 1,350.00
8120120	Sign, Type B, Temp, Furn	427	Sft	\$ 5.00	\$ 2,135.00
8120121	Sign, Type B, Temp, Oper	427	Sft	\$ 1.00	\$ 427.00
8120135	Sign, Type B, Temp, Prismatic, Furn	408	Sft	\$ 6.50	\$ 2,652.00
8120136	Sign, Type B, Temp, Prismatic, Oper	408	Sft	\$ 1.00	\$ 408.00
8127010	_ Sign, Type B, Temp, Furn - Special	50	Sft	\$ 8.00	\$ 400.00
8127010	_ Sign, Type B, Temp, Oper - Special	50	Sft	\$ 1.00	\$ 50.00
8130010	Riprap, Plain	20	Syd	\$ 40.00	\$ 800.00
8160050	Slope Restoration	119791	Syd	\$ 2.00	\$ 239,582.00
8210001	Monument Box	10	Ea	\$ 500.00	\$ 5,000.00
8250085	Gate Well Cover, Adj, Case 1	1	Ea	\$ 470.00	\$ 470.00
8250086	Gate Well Cover, Adj, Case 2	5	Ea	\$ 200.00	\$ 1,000.00
8250250	Water Shutoff, Adj	12	Ea	\$ 225.00	\$ 2,700.00
spec	_Hancock Drain Enclosure (72" RCP with appurtenances and integral manholes)	3225	LF	\$ 890.00	\$ 2,870,250.00
	Contingency 15%				\$ 1,813,000.00
	R/W Acquisition				\$ 1,000,000.00
TOTAL OPINION OF PROBABLE COST =					\$ 14,850,000.00