

REPAIR METHOD 1A NO DITCHING

Local Road - Asphalt Pavt Reconstruction PASER = 1, 2 (POOR)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 10" aggregate base, and 5" of new asphalt and drainage improvements

100 220 330 5870 5870 5870 NG 3260 130 11700	SY SY SY SY SY LF	\$13.00 \$13.00 \$17.00 \$4.00 \$5.00 \$15.00 \$7.00	\$1,300.00 \$2,860.00 \$5,610.00 \$23,480.00 \$29,350.00 \$62,600 \$0.00 \$0.00	Estimate 18 ea x 50 sft 33 drives x 15' wide x 4' deep 33 drives x 15' wide x 6' deep 5280 ft x 20' wide x 50% 5280 ft x 20' wide x 50%
220 330 5870 5870 5870 NG 3260 130	SY SY SY SY SY LF	\$13.00 \$17.00 \$4.00 \$5.00 \$15.00	\$2,860.00 \$5,610.00 \$23,480.00 \$29,350.00 \$62,600 \$0.00	33 drives x 15' wide x 4' deep 33 drives x 15' wide x 6' deep 5280 ft x 20' wide x 50%
330 5870 5870 870 NG 3260 130	SY SY SY LF	\$17.00 \$4.00 \$5.00 \$15.00	\$5,610.00 \$23,480.00 \$29,350.00 \$62,600 \$0.00	33 drives x 15' wide x 6' deep 5280 ft x 20' wide x 50%
5870 5870 NG 3260 130	SY SY LF	\$4.00 \$5.00 \$15.00	\$23,480.00 \$29,350.00 \$62,600 \$0.00	5280 ft x 20' wide x 50%
5870 NG 3260 130	SYSYLF	\$5.00 \$15.00	\$29,350.00 \$62,600 \$0.00	
NG 3260 130	SY LF	\$15.00	\$62,600 \$0.00	5280 ft x 20' wide x 50%
3260 130	LF		\$0.00	
3260 130	LF			
3260 130	LF			
3260 130		\$7.00	\$0.00	
3260 130	СҮ			
130	СҮ		\$0	
130	CY			
		\$32.00	\$104,320.00	5280 x 20' wide x 10" deep x 1/2
11700	CY	\$40.00	\$5,200.00	estimate 5% of road x 8" deep
	SY	\$2.50	\$29,250.00	5280 x 20' wide x 1/9
	STA	\$600.00	\$0.00	
			\$138,770	
40	EA	\$125.00	\$5,000.00	estimate 40 per mile
			\$5,000	
5	EA	\$650.00	\$3,250.00	estimate 5 per mile
			\$3,250	
5	EA	\$650.00	\$3,250.00	estimate 5 per mile
2	EA	\$400.00	\$800.00	estimate 2 per mile
			\$4,050	
5	EA	\$650.00	\$3,250.00	estimate 5 per mile
			\$3,250	
400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 10)
40	EA	\$200.00	\$8,000.00	
			\$12,800	
900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
90	FT	\$45.00	\$4,050.00	18 ea x 5 ft
			\$14,400	
11700	SY	\$15.00	\$175,500.00	5280 x 20' wide x 1/9
•			\$175.500	
•				
•	TN	\$95.00	\$185,250.00	3" thick
	400 40 900 900 90 90 90	400 LF 40 EA 900 SF 900 SF 900 SF 900 SF 11700 SY	400 LF \$12.00 40 EA \$200.00 900 SF \$6.50 900 SF \$5.00 90 FT \$45.00 11700 SY \$15.00	5 EA \$650.00 \$3,250.00 400 LF \$12.00 \$4,800.00 40 EA \$200.00 \$8,000.00 40 EA \$200.00 \$8,000.00 900 SF \$6.50 \$5,850.00 900 SF \$5.00 \$4,500.00 90 FT \$45.00 \$4,050.00 90 FT \$45.00 \$4,050.00 11700 SY \$15.00 \$175,500.00

TEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
HMA, 5E1	1300	TN	\$100.00	\$130,000.00	2" thick
HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 ea x 15' x 4' x 4" thick
Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00	
SUBTOTAL - HOT MIX ASPHALT				\$322,750	
ONCRETE PAVEMENTS					
6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 ea x 15' x 6' x 1/9
SUBTOTAL - CONCRETE PAVEME	NT			\$16,500	
RAFFIC CONTROL AND STRIPING					
Sign, Type, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	175	EA	\$25.00	\$4,375.00	1 per $50' + 1$ per drive
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted	1	EA	\$1,000.00	\$1,000.00	Budget
SUBTOTAL TRAFFIC CONTROL A	ND STRIPIN	G		\$7,375	
ANDSCAPING					
Topsoil surf., furnish, 2"	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
Class "A" seeding	160	LB	\$20.00	\$3,200.00	220 lbs / acre
Mulch Blanket	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
SUBTOTAL - LANDSCAPING				\$31,360	
OBILIZATION AND MINOR TRAFFIC C	ONTROL				
Mobilization, Max 3%	1	LS	\$23,928	\$23,928	
Minor Traffic Control Devices, Max 3%	1	LS	\$23,928	\$23,928	
SUBTOTAL - MOBILIZATION AND	MINOR TR	AFFIC	CONTROL	\$47,856	
SUBTOTAL CONSTRUCTION COST	[\$845,461	
SUBTOTAL CONSTRUCTION COST	ſ			\$845,461	
CONSTRUCTION CONTINGENCY			15%	\$126,819	
		TION	17%	#1 (F 300	
SUBTOTAL ENGINEERING, BIDDI	NG, INSPEC	HUN	1/70	\$165,288	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100	
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819	
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951	



REPAIR METHOD 1B NO DITCHING

Local Road - Asphalt Pavt Reconstruction PASER = 1, 2 (POOR) MACHINE GRADING WITH EXISTING AGGREGATE BASE GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, machine grading, and 5" of new asphalt

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
DEMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA driveways	220	SY	\$13.00	\$2,860.00	33 drives x 15' wide x 4' deep
Rem concrete driveways	330	SY	\$17.00	\$5,610.00	33 drives x 15' wide x 6' deep
Cold mill HMA surf. (2"-4")	5870	SY	\$4.00	\$23,480.00	5280 ft x 20' wide x 50%
Cold mill HMA surf. (4"-6")	5870	SY	\$5.00	\$29,350.00	5280 ft x 20' wide x 50%
SUBTOTAL - DEMOLITION				\$62,600	
AVEMENT CONDITIONING					
Rem HMA patches		SY	\$15.00	\$0.00	
Longitudinal joint repair, MDOT Det 7		LF	\$7.00	\$0.00	
SUBTOTAL - PAVEMENT CONDITI	ONING			\$0	
ARTHWORK					
Earth excavation	650	_ CY	\$32.00	\$20,800.00	5280 x 20' wide x 2" deep budget
Subgrade undercutting Type II	130	_ CY	\$40.00	\$5,200.00	estimate 5% of road x 8" deep
Stabilizing filter fabric (geoblanket)		SY	\$2.50	\$0.00	
Machine grading	52	STA	\$600.00	\$31,200.00	
SUBTOTAL - EARTHWORK				\$57,200	
OIL EROSION SEDIMENT CONTROL					
Inlet/CB filter	40	EA	\$125.00	\$5,000.00	estimate 40 per mile
SUBTOTAL - EROSION CONTROL				\$5,000	
ANITARY SEWER					
Adjust san structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - SANITARY SEWER				\$3,250	
ATER DISTRIBUTION					
Adjust GV&W structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Adjust water shutoff	2	EA	\$400.00	\$800.00	estimate 2 per mile
SUBTOTAL - WATER DISTRIBUTIO	DN			\$4,050	
TORM SEWER					
Adjust stm structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - STORM SEWER				\$3,250	
NDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 10' per CB (40 x 10)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
URB AND SIDEWALKS					
6" Sidewalk ramp	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
4" Conc. sidewalk	900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
ADA Detectable Warnings	90	FT	\$45.00	\$4,050.00	18 ea x 5 ft
SUBTOTAL - CURBS AND SIDEWA	LKS			\$14,400	

TEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
GGREGATES AND SAND					
Supplemental aggr. Base, 2" average	1200	Ton	\$35.00	\$42,000.00	5280 x 20' wide x 2" average
SUBTOTAL - AGGREGATES AND SA	AND			\$42,000	
OT MIX ASPHALT PAVEMENT					
HMA, 3C (leveling)	1950	TN	\$95.00	\$185,250.00	3" thick
HMA, 5E1	1300	TN	\$100.00	\$130,000.00	2" thick
HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 ea x 15' x 4' x 4" thick
Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00	
SUBTOTAL - HOT MIX ASPHALT				\$322,750	
ONCRETE PAVEMENTS					
6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 ea x 15' x 6' x 1/9
SUBTOTAL - CONCRETE PAVEMEN	NT			\$16,500	
RAFFIC CONTROL AND STRIPING					
Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	175	EA	\$25.00	\$4,375.00	1 per $50' + 1$ per drive
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted	1	EA	\$1,000.00	\$1,000.00	Budget
SUBTOTAL TRAFFIC CONTROL AN	ND STRIPIN	G		\$7,375	
ANDSCAPING					
Topsoil surf., furnish, 2"	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
Class "A" seeding	160	LB	\$20.00	\$3,200.00	220 lbs / acre
Mulch Blanket	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
SUBTOTAL - LANDSCAPING				\$31,360	
IOBILIZATION AND MINOR TRAFFIC CO	ONTROL				
Mobilization, Max 3%	1	LS	\$17,476	\$17,476	
Minor Traffic Control Devices, Max 3%	1	LS	\$17,476	\$17,476	
SUBTOTAL - MOBILIZATION AND N	\$34,952				
SUBTOTAL CONSTRUCTION COST				\$617,487	
SUBTOTAL CONSTRUCTION COST				\$617,487	
CONSTRUCTION CONTINGENCY			15%	\$92,623	
CONSTRUCTION CONTINUENCE					
	G, INSPEC	TION	17%	\$120,719	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951



REPAIR METHOD 1C NO DITCHING

Local Road - Asphalt Pavt Rehabilitation PASER = 3, 4, 5 (POOR - FAIR)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes cold milling 3", patching, and placing 3.5" of new asphalt and drainage improvements.

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
DEMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA driveways	220	SY	\$13.00	\$2,860.00	33 drives x 15' wide x 4' deep
Rem concrete driveways	330	SY	\$17.00	\$5,610.00	33 drives x 15' wide x 6' deep
Cold mill HMA surf. (2"-4")	11700	SY	\$4.00	\$46,800.00	5280 ft x 20' wide
Cold mill HMA surf. (4"-6")		SY	\$5.00		
SUBTOTAL - DEMOLITION				\$56,570	
AVEMENT CONDITIONING	2.50		** *	AF 000 00	
Rem HMA patches	350	SY	\$20.00	\$7,000.00	Estimate 3% of pavt area
SUBTOTAL - PAVEMENT CONDITI	ONING			\$7,000	
ARTHWORK		OV	¢22.00	¢0.00	
Earth excavation	200	CY	\$32.00	\$0.00	
Subgrade undercutting Type II Stabilizing filter fabric (geoblanket)	200	- CY SY	\$40.00 \$2.50	<u>\$8,000.00</u> \$0.00	estimate 5% of road x 12" deep
Machine grading		STA	\$2.50	\$0.00	
5 5		SIA	\$000.00		
SUBTOTAL - EARTHWORK				\$8,000	
OIL EROSION SEDIMENT CONTROL Inlet/CB filter	40	EA	\$125.00	\$5,000.00	estimate 40 per mile
SUBTOTAL - EROSION CONTROL			<i><i><i><i>q</i></i>120100</i></i>	\$5,000	
SANITARY SEWER					
Adjust san structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - SANITARY SEWER				\$3,250	
WATER DISTRIBUTION					
Adjust GV&W structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Adjust water shutoff	2	EA	\$400.00	\$800.00	estimate 2 per mile
SUBTOTAL - WATER DISTRIBUTIO	DN			\$4,050	
TORM SEWER					
Adjust stm structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - STORM SEWER				\$3,250	
JNDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 10' per CB (40 x 10)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
CURB AND SIDEWALKS	000	an.	¢ (50	\$5,050,00	10 50 0
6" Sidewalk ramp	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
4" Conc. sidewalk	<u> </u>	SF	\$5.00	\$4,500.00	18 ea x 50 sft
ADA Detectable Warnings		FT	\$42.00	\$3,780.00	18 ea x 5 ft
SUBTOTAL - CURBS AND SIDEWAI	LKS			\$14,130	
AGGREGATES AND SAND		CN/	¢15.00	¢0.00	
10" aggr. Base		SY	\$15.00	\$0.00	
SUBTOTAL - AGGREGATES AND S	AND			\$0	

M WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
T MIX ASPHALT PAVEMENT					
HMA, 3C (leveling)	1300	ΤN	\$95.00	\$123,500.00	2" thick
HMA, 5E1	965	TN	\$100.00	\$96,500.00	1.5" thick
HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 ea x 15' x 4' x 4" thick
Handpatching, 0 - 20 tons	20	TN	\$175.00	\$3,500.00	Budget
SUBTOTAL - HOT MIX ASPHALT				\$231,000	
NCRETE PAVEMENTS					
6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 ea x 15' x 6' x 1/9
SUBTOTAL - CONCRETE PAVEMEN	NT			\$16,500	
AFFIC CONTROL AND STRIPING					
Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	120	EA	\$25.00	\$3,000.00	1 per 100' + 1 per drive
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted	0	EA	\$1,000.00	\$0.00	
SUBTOTAL TRAFFIC CONTROL AN	ND STRIPIN	G		\$5,000	
NDSCAPING					
Topsoil surf., furnish, 2"	1170	SY	\$4.00	\$4,680.00	1' wide each side of road
Class "A" seeding	50	LB	\$20.00	\$1,000.00	220 lbs / acre
Mulch Blanket	1170	SY	\$4.00	\$4,680.00	1' wide each side of road
SUBTOTAL - LANDSCAPING				\$10,360	
BILIZATION AND MINOR TRAFFIC CO	ONTROL				
Mobilization, Max 3%	1	LS	\$11,307	\$11,307	
Minor Traffic Control Devices, Max 3%	1	LS	\$11,307	\$11,307	
SUBTOTAL - MOBILIZATION AND	MINOR TR.	AFFIC	CONTROL	\$22,615	
SUBTOTAL CONSTRUCTION COST	,			\$399,525	
SUBTOTAL CONSTRUCTION COST				\$399,525	
CONSTRUCTION CONTINGENCY			15%	\$59,929	
SUBTOTAL ENGINEERING, BIDDIN	G, INSPEC	ΓΙΟΝ	15%	\$68,918	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951



REPAIR METHOD 1D WITH NO DITCHING

Local Road - Asphalt Pavt Rehabilitation PASER = 6,7,8 (GOOD)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes cold milling 2", patching, and placing 2" of new asphalt and drainage improvements

TEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
EMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA driveways	220	SY	\$13.00	\$2,860.00	33 drives x 15' wide x 4' deep
Rem concrete driveways	330	SY	\$17.00	\$5,610.00	33 drives x 15' wide x 6' deep
Cold mill HMA surf. (2"-4")	11700	SY	\$4.00	\$46,800.00	5280 ft x 20' wide
Cold mill HMA surf. (4"-6")		SY	\$5.00		
SUBTOTAL - DEMOLITION				\$56,570	
VEMENT CONDITIONING	220		**	* 4 400 00	
Rem HMA patches	220	SY	\$20.00	\$4,400.00	Estimate 2% of pavt area
SUBTOTAL - PAVEMENT CONDITI	ONING			\$4,400	
RTHWORK					
Earth excavation		CY	\$32.00	\$0.00	
Subgrade undercutting Type II	80	CY	\$40.00	\$3,200.00	estimate 2% of road x 12" deep
Stabilizing filter fabric (geoblanket)		SY	\$2.50	\$0.00	
Machine grading		STA	\$600.00	\$0.00	
SUBTOTAL - EARTHWORK				\$3,200	
DIL EROSION SEDIMENT CONTROL	40	F 4	¢105.00	\$5.000.00	
Inlet/CB filter	40	EA	\$125.00	\$5,000.00	estimate 40 per mile
SUBTOTAL - EROSION CONTROL				\$5,000	
NITARY SEWER					
Adjust san structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - SANITARY SEWER				\$3,250	•
ATER DISTRIBUTION					
Adjust GV&W structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Adjust water shutoff	2	EA	\$400.00	\$800.00	estimate 2 per mile
SUBTOTAL - WATER DISTRIBUTIO	N			\$4,050	
ORM SEWER					
Adjust stm structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - STORM SEWER				\$3,250	:
NDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 20)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
JRB AND SIDEWALKS					
6" Sidewalk ramp	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
4" Conc. sidewalk	900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
ADA Detectable Warnings	90	FT	\$42.00	\$3,780.00	18 ea x 5 ft
SUBTOTAL - CURBS AND SIDEWAI	LKS			\$14.130	

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
AGGREGATES AND SAND					
10" aggr. Base		SY	\$15.00	\$0.00	
SUBTOTAL - AGGREGATES AND S	AND			\$0	
HOT MIX ASPHALT PAVEMENT					
HMA, 3C (leveling)		TN	\$95.00	\$0.00	
HMA, 5E1	1355	TN	\$105.00	\$142,275.00	2" thick + 5%
HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 drives x 15' wide x 4' deep
Handpatching, 0 - 20 tons	10	TN	\$175.00	\$1,750.00	Budget
SUBTOTAL - HOT MIX ASPHALT				\$151,525	
CONCRETE PAVEMENTS					
6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 drives x 15' wide x 6' deep
SUBTOTAL - CONCRETE PAVEME	SUBTOTAL - CONCRETE PAVEMENT				
TRAFFIC CONTROL AND STRIPING					
Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	50	EA	\$25.00	\$1,250.00	1 per 100'
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted	0	EA	\$1,000.00	\$0.00	
SUBTOTAL TRAFFIC CONTROL A	ND STRIPIN	G		\$3,250	
LANDSCAPING					
Topsoil surf., furnish, 2"	0	SY	\$4.00	\$0.00	No repairs needed
Class "A" seeding	0	LB	\$20.00	\$0.00	No repairs needed
Mulch Blanket	0	SY	\$4.00	\$0.00	No repairs needed
SUBTOTAL - LANDSCAPING				\$0	
MOBILIZATION AND MINOR TRAFFIC C	ONTROL				
Mobilization, Max 3%	1	LS	\$8,338	\$8,338	
Minor Traffic Control Devices, Max 3%	1	LS	\$8,338	\$8,338	
SUBTOTAL - MOBILIZATION AND	MINOR TR.	AFFIC	CONTROL	\$16,676	
SUBTOTAL CONSTRUCTION COST	-			\$294,601	
SUBTOTAL CONSTRUCTION COST				\$294,601	
CONSTRUCTION CONTINGENCY			15%	\$44,190	
SUBTOTAL ENGINEERING, BIDDIN	NG, INSPEC	ΓΙΟΝ	15%	\$50,819	
TOTAL ESTIMATED COST				\$389,609	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951



REPAIR METHOD 2A WITH NO DITCHING

Local Road - Concrete Pavt Reconstruction PASER = 1, 2, 3 (POOR)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 10" aggregate base, and <u>5"</u> of new asphalt and drainage improvements

Rem conc, sidewalk100SY $$13.00$ $$1,300.00$ Estimate 18 ea x 50 sftRem HMA surface220SY $$13.00$ $$2,860.00$ 33 drives x 15' wide x 4' deepRem correcte drivways330SY $$11.00$ $$2,860.00$ 33 drives x 15' wide x 4' deepRem correcte drivways11700SY $$12.00$ $$140,400.00$ $$280$ ft x 20' wideSUBTOTAL - DEMOLITION $$150.170$ $$10,400.00$ $$280$ ft x 20' wideAVEMENT CONDITIONING $$150.170$ $$0.00$ $$100.00$ Rem HMA patches $$SY$ $$15.00$ $$0.00$ SUBTOTAL - PAVEMENT CONDITIONING $$000$ $$5200.00$ $$5280 \times 20'$ wide x 10" deep x 1/2'Subgrade undercutting Type II 130 CY $$40.00$ $$52,200.00$ SubtrotAL - EARTHWORK $$11700$ SY $$22.50$ $$229,250.00$ SUBTOTAL - EARTHWORK $$138,770$ $$200.00$ $$52.000.00$ estimate 40 per mileSUBTOTAL - EROSION CONTROL $$52.000.00$ $$31,250.00$ estimate 5 per mileSUBTOTAL - SANITARY SEWER $$32,250.00$ $$32,250.00$ estimate 5 per mileAdjust san structure cover, case 1 $$5$ EA $$650.00$ $$33,250.00$ Adjust water shutoff $$2.80 \times 20'$ wide $$102'$ per mile $$32,250.00$ estimate 5 per mileSUBTOTAL - STORM SEWER $$32,250.00$ $$33,250.00$ estimate 5 per mileAdjust stim structure cover, case 1 $$5$ EA $$650.00$ $$32,250.00$ CRM SEWER $$32,50.00$ $$32,250.00$ <	ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
Rem HMA surface 220 SY $\overline{S13.00}$ $\overline{S2,860.00}$ $33 \text{ drives x 15' wide x 4' deepRem concrete driveways330SY\overline{S17.00}\overline{S5,60.00}33 \text{ drives x 15' wide x 4' deepRem ove Concrete Road11700SY\overline{S12.00}\overline{S140,400.00}5280 \text{ ft x 20' wide x 6' deepSUBTOTAL - DEMOLITIONS150.170\overline{S150.170}\overline{S280 \text{ ft x 20' wide x 10'' deep x 12''}}AVEMENT CONDITIONINGS150.00\overline{S0.00}Rem HMA patchesSY\overline{S15.00}\overline{S0.00}SUBTOTAL - PAVEMENT CONDITIONING\overline{S0}Rath weavarian\overline{3260}CY\overline{532.00}\overline{5104.320.00}Subgrade undercutting Type II\overline{130}CY\overline{540.00}\overline{55,200.00}Subgrade undercutting filter fabric (geoblanket)11700SY\overline{52.50}\overline{5280 \times 20'} wide x 10'' deep x 1/2'Subgrade undercutting Type II\overline{130}CY\overline{540.00}\overline{55,200.00}\overline{5280 \times 20'} wide x 1/9Subgrade undercutting Type II\overline{130}CY\overline{540.00}\overline{55,200.00}\overline{5280 \times 20'} wide x 1/9Subgrade undercutting Type II\overline{130}CY\overline{540.00}\overline{55,000.00}estimate 5% of road x 8'' deepSubgrade undercutting Type II\overline{130}CY\overline{52.00}\overline{52.90.000}\overline{5280 \times 20'} wide x 1/9Subgrade undercutting Type II\overline{130}CY\overline{52.00}\overline{52.90.000}estimate 5% of road x 8'' deepSubgrade undercutting Type II\overline{130}\overline{52.000}$	DEMOLITION					
Rem concrete driveways 330 SY $\overline{S17.00}$ $\overline{S5.610.00}$ $33 \text{ drives x 15' wide x 6' deep}$ Remove Concrete Road 11700 SY $\overline{S12.00}$ $\overline{S140.400.00}$ $5280 \text{ ft x 20' wide}$ SUBTOTAL - DEMOLITION SY $\overline{S12.00}$ $\overline{S140.400.00}$ $5280 \text{ ft x 20' wide}$ AVEMENT CONDITIONING SV $\overline{S12.00}$ $\overline{S0.00}$ $\overline{S0.00}$ Rem HMA patches SY $\overline{S12.00}$ $\overline{S0.00}$ $\overline{S0.00}$ SUBTOTAL - PAVEMENT CONDITIONING S0 $\overline{S0}$ $\overline{S0.00}$ $\overline{S100.00}$ $\overline{S280 \times 20' \text{ wide x 10'' deep x 1/2'}}$ Subgrade undercutting Type II $\overline{130}$ \overline{CY} $\overline{S40.00}$ $\overline{S5.200.00}$ $\overline{s280 \times 20' \text{ wide x 10'' deep x 1/2'}}$ Subgrade undercutting Type II $\overline{130}$ \overline{CY} $\overline{S40.00}$ $\overline{S5.200.00}$ $\overline{s280 \times 20' \text{ wide x 10'' deep x 1/2'}}$ Subgrade undercutting Type II $\overline{130}$ \overline{CY} $\overline{S40.00}$ $\overline{S5.200.00}$ $\overline{S280 \times 20' \text{ wide x 10''}}$ $\overline{S280 \times 20' \text{ wide x 10''}$ </th <th></th> <th></th> <th></th> <th></th> <th></th> <th>Estimate 18 ea x 50 sft</th>						Estimate 18 ea x 50 sft
Remove Concrete Road11700SY $$12,00$ $$140,400,00$ $$5280 \text{ ft x } 20' \text{ wide}$ SUBTOTAL - DEMOLITION AVEMENT CONDITIONING Rem HMA patchesSY $$15,00$ $$0,00$ SUBTOTAL - PAVEMENT CONDITIONING $$50$ ARTHWORKSUBTOTAL - PAVEMENT CONDITIONINGARTHWORKSubSubSub Stabilizing filter fabric (geoblanket)Stabilizing filter fabric (geoblanket)SUBTOTAL - EARTHWORK SUBTOTAL - ERATHWORKSUBTOTAL - SANITARY SEWERAdjust an structure cover, case 15 EA\$650,00\$3,250,00estimate 5 per mileSUBTOTAL - SANITARY SEWER Adjust sub structure cover, case 15 EA\$650,00\$3,250,00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTION S4,050S3,250 estimate 5 per mileSUBTOTAL - WATER D	Rem HMA surface		-			
SUBTOTAL - DEMOLITIONSUBTOTAL - DEMOLITIONAVEMENT CONDITIONINGSY\$15.00\$0.00Longitudinal joint repair, MDOT Det 7ILF\$7.00\$0.00SUBTOTAL - PAVEMENT CONDITIONINGBarth excavation\$3260CY\$32.00\$104,320.00\$280 x 20' wide x 10" deep x 1/2"Subgrade undercuting Type II 130 CY\$40.00\$52,200.00\$280 x 20' wide x 10" deep x 1/2"Subgrade undercuting Type II 130 CY\$52,000.00\$280 x 20' wide x 1/9\$22.50\$29,250.00\$280 x 20' wide x 1/9SUBTOTAL - EARTHWORK SIBNETT CONTROL Inlet/CB filter40EA\$125.00\$5,000.00estimate 5% of road x 8" deepAdjust Stan structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - EROSION CONTROL S5,000 $$3,250.00$ estimate 5 per mileAdjust Stan structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWERS3,250S3,250.00estimate 5 per mileestimate 5 per mileAdjust Stan structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTIONS4,650S0,000.00Estimate 5 per mileS0,000.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTIONS4,650S12.800S8,000.00Estimate 5 per mileS0,000.00estimate 2 per mileSUBTOTAL - STORM SEWERS3,250S4,800.00S8,000	2		-			
AVEMENT CONDITIONINGRem HMA patchesSY\$15.00\$0.00Longitudinal joint repair, MDOT Det 7LF\$7.00\$0.00SUBTOTAL - PAVEMENT CONDITIONING\$0\$0ARTHWORK\$10\$10\$10Earth excavation\$220\$220\$104,320.00Stabilizing filter fabric (geoblanket)11700\$Y\$2.20SUBTOTAL - EARTHWORK\$130CY\$40.00SUBTOTAL - EARTHWORK\$138,770\$22,9250.00SUBTOTAL - EARTHWORK\$138,770OIL EROSION SEDIMENT CONTROL\$138,770Inlet/CB filter40EASUBTOTAL - SANITARY SEWER\$5,000Adjust san structure cover, case I5EA\$650.00\$3,250.00SUBTOTAL - SANITARY SEWER\$32.250Adjust san structure cover, case I5EA\$650.00\$3,250.00Adjust san structure cover, case I5EA\$650.00\$3,250.00SUBTOTAL - WATER DISTRIBUTION\$3,250Adjust stin structure cover, case I5EA\$650.00\$3,250.00SUBTOTAL - WATER DISTRIBUTION\$4,050TORM SEWER\$3,250Adjust stin structure cover, case I5Edgedrain, 6"400LF\$12.00SUBTOTAL - STORM SEWER\$3,250NDERDRAIN\$12,800Edgedrain, 6"400LF\$12.00SUBTOTAL - UNDERDRAIN\$12,800URB AND SIDEWALKS\$5,5006' Side	Remove Concrete Road	11700	SY	\$12.00	\$140,400.00	5280 ft x 20' wide
Rem HMA patchesSY\$15.00\$0.00Longitudinal joint repair, MDOT Det 7LF\$7.00\$0.00SUBTOTAL - PAVEMENT CONDITIONING\$0ARTHWORKEarth excavation 3260 CY\$32.00\$104,320.00Stabilizing filter fabric (geoblanket)130CY\$40.00\$5,200.00Stabilizing filter fabric (geoblanket)11700SY\$2.50\$29,250.00SUBTOTAL - EARTHWORK\$138,770\$280 x 20' wide x 10'' deep x 1/2'Inlet/CB filter40EA\$125.00\$5,000.00SUBTOTAL - EROSION CONTROL\$5,000\$5,000.00estimate 40 per mileAdjust san structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - SANTARY SEWER\$3,250\$3,250.00estimate 5 per mileAdjust san structure cover, case 15EA\$650.00\$3,250.00Adjust san structure cover, case 15EA\$650.00\$3,250.00Adjust san structure cover, case 15EA\$650.00\$3,250.00Adjust san structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - VATER DISTRIBUTION\$3,250\$3,250.00estimate 5 per mileTORM SEWER\$3,250\$3,250.00\$3,250.00estimate 5 per mileAdjust stm structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - STORM SEWER\$3,250\$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWER\$2,000\$3,200.00\$8,000.00SUBTOTAL	SUBTOTAL - DEMOLITION				\$150,170	
Longitudinal joint repair, MDOT Det 7LF $$\overline{$7.00}$$ $$50.00$ SUBTOTAL - PAVEMENT CONDITIONING $$50$ ARTHWORKEarth excavation $$3260$ $$CY$ $$5320.00$ $$5280 \times 20' wide x 10'' deep x 1/2'.Subgrade undercutting Type II130CY$540.00$55,200.00$5280 \times 20' wide x 10'' deep x 1/2'.Subtrade undercutting Type II130CY$540.00$55,200.00$5280 \times 20' wide x 10'' deep x 1/2'.SubTOTAL - EARTHWORK11700Y$52.50$529.250.00$280 \times 20' wide x 1/9SUBTOTAL - EARTHWORK$$138,770$$00.00estimate 5% of road x 8'' deepOIL EROSION SEDIMENT CONTROL$$138,770$$00.00estimate 40 per mileSUBTOTAL - EROSION CONTROL$$5,000$$5,000.00estimate 5 per mileSUBTOTAL - SANITARY SEWER$$3,250.00$$3,250.00estimate 5 per mileAdjust san structure cover, case I$$50.00$$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWER$$3,250.00estimate 5 per mileAdjust stm structure cover, case I$$50.00$$3,250.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTION$$4.050$$3,250.00estimate 2 per mileSUBTOTAL - STORM SEWER$$3,250.00$$$3,250.00estimate 2 per CB (40 x 20)De Structure Tap, 6''$400LF$$12.00$$4,800.00estimate 20' per CB (40 x 20)Or Structure Tap, 6''$400LF$$12.800$$18 ea x 50 sft$	AVEMENT CONDITIONING					
SUBTOTAL - PAVEMENT CONDITIONINGARTHWORKS0Earth excavation 3260 CY 532.00 $5104.320.00$ $5280 \times 20^\circ$ wide $\times 10^\circ$ deep $\times 1/2^\circ$ Subgrade undercutting Type II 130 CY 540.00 $55,200.00$ estimate 5% of road $\times 8^\circ$ deepStabilizing filter fabric (geoblanket) 11700 SY 52.50 $529.220.00$ $5280 \times 20^\circ$ wide $\times 1/9$ SUBTOTAL - EARTHWORKS138,770OIL EROSION SEDIMENT CONTROLS100,000estimate 40 per mileMattrace Stabilizing filter fabric (geoblanket) 400 EA $$125.00$ SUBTOTAL - EROSION CONTROLS5,000estimate 5 per mileANITARY SEWERS132,50.00estimate 5 per mileAdjust san structure cover, case I 5 EA $$650.00$ SUBTOTAL - SANITARY SEWERS3,250.00estimate 5 per mileAdjust san structure cover, case I 5 EA $$650.00$ SUBTOTAL - WATER DISTRIBUTIONS4,050estimate 5 per mileAdjust stm structure cover, case I 5 EA $$650.00$ SUBTOTAL - STORM SEWERS3,250estimate 2 per mileSUBTOTAL - STORM SEWERS3,250 $$3,250.00$ estimate 20° per CB (40 x 20)Dr Structure Tap, 6" 400 LF $$12.00$ $$4,800.00$ SUBTOTAL - UNDERDRAINS12,800 $$18 ea x 50 sft$ URB AND SIDEWALKS 900 SF $$5,50.0$ $$4,500.00$ 6'' Sidewalk ramp 900 SF $$5,00.0$ 18 ea x 50 sftADA Detectable Warnin			-			
ARTHWORKEarth excavation 3260 CY $$32.00$ $$104,320.00$ $$280 \times 20^\circ$ wide $\times 10^\circ$ deep $\times 1/2^\circ$ Subgrade undercuting Type II 130 CY $$40.00$ $$52,200.00$ $$280 \times 20^\circ$ wide $\times 1/9^\circ$ SuBTOTAL - EARTHWORK 11700 SY $$2.50$ $$29,250.00$ $$280 \times 20^\circ$ wide $\times 1/9^\circ$ SUBTOTAL - EARTHWORK $$1138,770$ $$138,770$ $$280 \times 20^\circ$ wide $\times 1/9^\circ$ OIL EROSION SEDIMENT CONTROL $$138,770$ $$138,770$ Inlet/CB filter 40 EA $$125.00$ $$5,000.00$ SUBTOTAL - EROSION CONTROL $$5,000$ $$3,250.00$ estimate 40 per mileSUBTOTAL - SANITARY SEWER $$3,250.00$ $$3,250.00$ estimate 5 per mileAdjust san structure cover, case I 5 EA $$650.00$ $$3,250.00$ SUBTOTAL - SANITARY SEWER $$3,250.00$ estimate 5 per mileAdjust GV&W structure cover, case I 5 EA $$650.00$ $$3,250.00$ SUBTOTAL - SUBTOTAL - STORM SEWER $$3,250.00$ estimate 2 per mileAdjust stm structure cover, case I 5 EA $$650.00$ $$3,250.00$ SUBTOTAL - STORM SEWER $$3,250.00$ estimate 5 per mileSUBTOTAL - STORM SEWER $$3,250.00$ estimate 2 per CB (40 x 20)DeckerRain $$2,250.00$ $$8,00.00$ SUBTOTAL - STORM SEWER $$2,250.00$ SUBTOTAL - STORM SEWER $$3,250.00$ NDERDRAIN $$12,800.00$ URB AND SIDEWALKS $$6^\circ$ Sidewalk ramp6'' Sidewalk ramp $$9$	Longitudinal joint repair, MDOT Det 7		_ LF	\$7.00	\$0.00	
Earth excavation 3260 CY $$32.00$ $$104,320.00$ $5280 \times 20'$ wide $\times 10''$ deep $\times 1/2'$ Subgrade undercutting Type II130CY $$40.00$ $$5,20.00$ $$5280 \times 20'$ wide $\times 1/2'$ Subgrade undercutting filter fabric (geoblanket)11700SY $$2.50$ $$529,250.00$ $$280 \times 20'$ wide $\times 1/9'$ SUBTOTAL - EARTHWORK $$11700$ SY $$2.50$ $$529,250.00$ $$280 \times 20'$ wide $\times 1/9'$ OIL EROSION SEDIMENT CONTROL $$138,770$ $$138,770$ $$138,770$ Inlet/CB filter40EA $$125.00$ $$5,000.00$ estimate 40 per mileSUBTOTAL - EROSION CONTROL $$5,000$ $$5,000$ $$5,000$ estimate 5 per mileAdjust san structure cover, case I 5 EA $$650.00$ $$3,250.00$ estimate 5 per mileSUBTOTAL - SANITARY SEWER $$32.50$ $$3400.00$ $$800.00$ estimate 2 per mileAdjust Water shutoff2EA $$650.00$ $$3,250.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $$3400.00$ $$800.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $$33,250$ estimate 5 per mileSUBTOTAL - STORM SEWER $$33,250$ $$33,250$ estimate 20' per CB (40×20)Deferdrain, 6"400LF $$12,800$ $$12,800$ SUBTOTAL - UNDERDRAIN $$12,800$ $$18 ea \times 50 sft$ UBR AND SUBEWALKS $$67 sidewalk ramp$ $$90$ $$5 $$5,00$ $$4,500.00$ 6" sidewalk ramp $$90$ $$5 $$5,50$ $$5,850.00$ $$18 e$	SUBTOTAL - PAVEMENT CONDIT	IONING			\$0	
Subgrade undercutting Type II130CY\$40.00\$5,200.00estimate 5% of road x 8" deepStabilizing filter fabric (geoblanket)11700SY\$2.50\$29,250.00 $5280 x 20"$ wide x 1/9SUBTOTAL - EARTHWORK\$138,770OIL EROSION SEDIMENT CONTROLInlet/CB filter40EA\$125.00\$5,000.00estimate 40 per mileSUBTOTAL - EROSION CONTROL\$5,000\$5,000estimate 5 per mile\$5,000estimate 5 per mileANITARY SEWER\$3,250.00\$3,250.00estimate 5 per mile\$3,250Adjust san structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWER\$3,250\$3,250.00estimate 5 per mile\$3,250Adjust GV&W structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTION\$4,050\$800.00\$800.00estimate 5 per mileSUBTOTAL - STORM SEWER\$3,250.00\$3,250.00estimate 5 per mileAdjust stim structure cover, case I5EA\$650.00\$3,250.00SUBTOTAL - STORM SEWER\$3,250\$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWER\$3,250\$3,250.00estimate 20" per CB (40 x 20)Dr Structure Tap, 6"400LF\$12,800\$4,800.00SUBTOTAL - UNDERDRAIN\$12,800\$4,800.00\$8,000.00URB AND SIDEWALKS\$5,000\$4,500.0018 ea x 50 sft6" Sidewalk ramp900\$5\$5,00\$4	ARTHWORK					
Stabilizing filter fabric (geoblanket)11700SY $\$2.50$ $\$29,250.00$ $5280 \times 20'$ wide x 1/9SUBTOTAL - EARTHWORK\$138,770OIL EROSION SEDIMENT CONTROLInlet/CB filter40EA $\$125.00$ $\$5,000.00$ estimate 40 per mileSUBTOTAL - EROSION CONTROL\$5,000\$5,000estimate 5 per mileANITARY SEWER\$3,250.00\$3,250.00estimate 5 per mileAdjust san structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - SANITARY SEWER\$3,250\$3,250.00estimate 5 per mileAdjust GV&W structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - WATER DISTRIBUTION\$4,050\$800.00estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION\$4,050\$3,250.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTION\$4,050\$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWER\$3,250\$3,250.00estimate 5 per mileMDERDRAIN\$12,00\$4,800.00\$8,000.00SUBTOTAL - UNDERDRAIN\$12,00\$4,800.00estimate 20' per CB (40 x 20)URB AND SIDEWALKS900\$5\$5,00\$4,500.0018 ea x 50 sft"URB AND SIDEWALKS900\$7\$45.00\$4,050.0018 ea x 50 sft"URB AND ADDetectable Warnings90\$7\$45.00\$4,050.0018 ea x 50 sft						
SUBTOTAL - EARTHWORKOIL EROSION SEDIMENT CONTROLS138,770Inlet/CB filter40EA\$125.00\$5,000.00estimate 40 per mileSUBTOTAL - EROSION CONTROLS5,000S3,250.00estimate 5 per mileANITARY SEWERS3,250S3,250.00estimate 5 per mileAdjust san structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - SANITARY SEWERS3,250estimate 5 per mileVATER DISTRIBUTION2EA\$650.00\$3,250.00Adjust GV&W structure cover, case 15EA\$650.00\$3,250.00SUBTOTAL - WATER DISTRIBUTIONS4,050estimate 2 per mileSUBTOTAL - WATER DISTRIBUTIONS4,050S13,250.00estimate 5 per mileSUBTOTAL - STORM SEWERS3,250S3,250.00estimate 5 per mileSUBTOTAL - STORM SEWERS3,250S4,800.00estimate 5 per mileSUBTOTAL - STORM SEWERS3,250S4,800.00estimate 20' per CB (40 x 20)Dr Structure Tap, 6''400LF\$12.00\$4,800.00SUBTOTAL - UNDERDRAINS12.800S12.800S12.800URB AND SIDEWALKS900SF\$5,50.0\$5,50.0018 ea x 50 sft"G" Sidewalk ramp9005\$5.00\$4,050.0018 ea x 50 sftADA Detectable Warnings90FT\$45.00\$4,050.0018 ea x 50 sft						
NOTE CONTROLOIL EROSION SEDIMENT CONTROLIndet/CB filter40EA\$125.00\$5,000.00estimate 40 per mileSUBTOTAL - EROSION CONTROLAdjust san structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWERVATER DISTRIBUTIONAdjust GV&W structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWERAdjust GV&W structure cover, case I5EA\$650.00\$3,250.00estimate 2 per mileSUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - STORM SEWERAdjust stm structure cover, case I5EA\$650.00\$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWERMDERDRAINS12.00\$4,800.00s8,000.00s8,000.00s8,000.00SUBTOTAL - UNDERDRAINS12.800S12.800S12.800S12.800URB AND SIDEWALKS900SF\$6.50\$5,850.0018 ea x 50 sft6" Sidewalk ramp900SF\$6.50\$5,850.0018 ea x 50 sft4" Conc. sidewalk900S\$5,50.00\$4,000.0018 ea x 50 sftAdjust stm structure cover, case I900SF\$6.50\$5,850.0018 ea x 50 sftSUBTOTAL - STORM SEWER <th< td=""><td>Stabilizing filter fabric (geoblanket)</td><td>11700</td><td>SY</td><td>\$2.50</td><td>\$29,250.00</td><td>5280 x 20' wide x 1/9</td></th<>	Stabilizing filter fabric (geoblanket)	11700	SY	\$2.50	\$29,250.00	5280 x 20' wide x 1/9
Inlet/CB filter40EA $\$125.00$ $\$5,000.00$ estimate 40 per mileSUBTOTAL - EROSION CONTROL $\$5.000$ $\$5.000$ estimate 40 per mileAdjust san structure cover, case I5EA $\$650.00$ $\$3,250.00$ estimate 5 per mileSUBTOTAL - SANITARY SEWER $\$3.250$ estimate 5 per mile $\$3.250$ estimate 5 per mileVATER DISTRIBUTION $\$3.250$ estimate 5 per mileestimate 2 per mileAdjust GV&W structure cover, case I5EA $\$650.00$ $\$3,250.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\$4.050$ $\$3.250$ estimate 2 per mileestimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\$4.050$ $\$3.250$ estimate 5 per mileestimate 2 per mileMDERDRAIN $\$400$ LF $\$12.00$ $\$3,250.00$ estimate 5 per mileVURB AND SIDEWALKS 400 LF $\$12.00$ $\$4,800.00$ estimate 20' per CB (40×20)Of Sidewalk ramp 900 SF $\$6.50$ $\$5,850.00$ 18 ea x 50 sft4" Cone. sidewalk 900 SF $\$6.50$ $\$4,500.00$ 18 ea x 50 sftADA Detectable Warnings90FT $\$45.00$ $\$4,050.00$ 18 ea x 50 sft	SUBTOTAL - EARTHWORK				\$138,770	
SUBTOTAL - EROSION CONTROL\$\$5,000ANITARY SEWER\$\$5,000Adjust san structure cover, case I5EA\$\$650.00\$\$3,250.00estimate 5 per mileSUBTOTAL - SANITARY SEWER\$\$3,250\$\$3,250.00estimate 5 per mileAdjust Water shutoff2EA\$\$650.00\$\$3,250.00estimate 5 per mileAdjust water shutoff2EA\$\$650.00\$\$3,250.00estimate 5 per mileSUBTOTAL - WATER DISTRIBUTION\$\$4,050\$\$800.00estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION\$\$4,050\$\$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWER\$\$3,250\$\$3,250.00estimate 5 per mileMDERDRAIN\$\$3,250\$\$3,250.00estimate 5 per mileEdgedrain, 6"400LF\$\$12.00\$\$4,800.00Dr Structure Tap, 6"400LF\$\$12.00\$\$4,800.00SUBTOTAL - UNDERDRAIN\$\$12.800\$\$12.800URB AND SIDEWALKS\$\$12.800\$\$4,500.0018 ea x 50 sft4" Cone. sidewalk ramp900\$\$\$\$5,50.0\$\$4,500.0018 ea x 50 sft4" Cone. sidewalk900\$\$\$\$\$5,00\$\$4,500.0018 ea x 50 sftADA Detectable Warnings90FT\$\$45.00\$\$4,050.0018 ea x 50 sft	OIL EROSION SEDIMENT CONTROL					
ANITARY SEWERAdjust san structure cover, case I5EA $\$650.00$ $\$3.250$ SUBTOTAL - SANITARY SEWERAdjust GV&W structure cover, case I5EA $\$650.00$ $\$3.250$ Adjust GV&W structure cover, case I5EA $\$650.00$ $\$3.250$ SUBTOTAL - WATER DISTRIBUTIONAdjust water shutoff2EA $\$400.00$ $\$800.00$ estimate 5 per mileSUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - STORM SEWERAdjust stm structure cover, case I5EA $\$650.00$ $\$3.250$ NDERDRAINEdgedrain, 6"400LF $\$12.00$ $\$4.800.00$ estimate 5 per mileSUBTOTAL - UNDERDRAINS12.00 $\$4.800.00$ $\$8.000.00$ estimate 20' per CB (40×20)OF STUCTUR Tap, 6"400LF $\$12.00$ $\$4.800.00$ estimate 20' per CB (40×20)SUBTOTAL - UNDERDRAINURB AND SIDEWALKS6" Sidewalk ramp9005 $\$5.00$ $\$4.500.00$ 18 ea x 50 sft4" Conc. sidewalk9005 $\$5.00$ $\$4.050.00$ 18 ea x 50 sft4DA Detectable Warnings90FT $\$45.00$ $\$4.050.00$ 18 ea x 50 sft	Inlet/CB filter	40	EA	\$125.00	\$5,000.00	estimate 40 per mile
Adjust san structure cover, case I5EA $\$650.00$ $\$3,250.00$ estimate 5 per mileSUBTOTAL - SANITARY SEWER $\$3.250$ Adjust GV&W structure cover, case I5EA $\$650.00$ $\$3,250.00$ estimate 5 per mileAdjust Water shutoff2EA $\$650.00$ $\$3,250.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\$400.00$ $\$800.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\$4.050$ TORM SEWER $\$3,250.00$ estimate 5 per mileAdjust stm structure cover, case I5EA $\$650.00$ $\$3,250.00$ SUBTOTAL - STORM SEWER $\$3,250$ estimate 5 per mileSUBTOTAL - STORM SEWER $\$3,250.00$ estimate 5 per mileDERDRAINEdgedrain, 6" 400 LF $\$12.00$ SUBTOTAL - UNDERDRAIN $\$12,800$ estimate 20' per CB (40×20)URB AND SIDEWALKS9005 $\$5.00$ $\$4,500.00$ 6" Sidewalk ramp9005 $\$5.00$ $\$4,500.00$ 4D D Detectable Warnings90FT $\$45.00$ 18 ea x 50 sft	SUBTOTAL - EROSION CONTROL				\$5,000	
SUBTOTAL - SANITARY SEWERSUBTOTAL - SANITARY SEWER\$3.250Adjust GV&W structure cover, case I 5 EA\$650.00\$3,250.00estimate 5 per mileAdjust water shutoff 2 EA\$400.00\$800.00estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION\$4.050\$4050\$3,250.00estimate 5 per mileTORM SEWER $$3,250.00$ \$3,250.00estimate 5 per mileSUBTOTAL - STORM SEWER $$3,250$ \$3,250estimate 5 per mileNDERDRAIN $$3,250$ \$3,250estimate 20' per CB (40 x 20)Dr Structure Tap, 6" 400 LF\$12.00\$4,800.00SUBTOTAL - UNDERDRAIN $$12,800$ \$18 ea x 50 sftURB AND SIDEWALKS 900 5 \$5.00\$4,500.006" Sidewalk ramp 900 5 \$5.00\$4,500.004" Conc. sidewalk 900 5 \$5.00\$4,500.004D Detectable Warnings 90 FT\$45.00\$4,050.00	ANITARY SEWER					
VATER DISTRIBUTIONAdjust GV&W structure cover, case I 5 EA $\$650.00$ $\$3,250.00$ estimate 5 per mileAdjust water shutoff 2 EA $\$400.00$ $\$800.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\$4.050$ $\$4.050$ $\$3,250.00$ estimate 5 per mileTORM SEWER $\$4.050$ $\$3,250.00$ estimate 5 per mileSUBTOTAL - STORM SEWER $\$3,250$ $\$3,250$ estimate 5 per mileNDERDRAIN $\$3,250$ $\$3,250$ estimate 20' per CB (40×20)Dr Structure Tap, 6" 400 LF $\$12.00$ $\$4,800.00$ SUBTOTAL - UNDERDRAIN $\$12,800$ $\$12,800$ estimate 20' per CB (40×20)URB AND SIDEWALKS6" Sidewalk ramp 900 SF $\$6.50$ $\$5,850.00$ 18 ea x 50 sft4" Conc. sidewalk 900 F $\$45.00$ $\$4,500.00$ 18 ea x 50 sftADA Detectable Warnings 90 FT $\$45.00$ $\$4,050.00$ 18 ea x 50 sft	Adjust san structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Adjust GV&W structure cover, case I5EA $\frac{$650.00}{$400.00}$ $\frac{$3,250.00}{$8800.00}$ estimate 5 per mileAdjust water shutoff2EA $\frac{$400.00}{$800.00}$ $\frac{$800.00}{$8800.00}$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION $\frac{$4,050}{$4,050}$ $\frac{$3,250.00}{$3,250.00}$ estimate 5 per mileTORM SEWER $\frac{$3,250}{$3,250}$ estimate 5 per mileAdjust stm structure cover, case I5EA $\frac{$650.00}{$3,250}$ $\frac{$3,250.00}{$3,250.00}$ NDERDRAIN $\frac{$3,250}{$400.00}$ estimate 20' per CB (40 x 20)Dr Structure Tap, 6" $\frac{400}{40}$ LF $\frac{$12.00}{$200.00}$ $\frac{$4,800.00}{$8,000.00}$ SUBTOTAL - UNDERDRAIN $\frac{$12.800}{$40}$ $\frac{$12.800}{$12.800}$ $\frac{$12.800}{$18 ea x 50 sft}$ URB AND SIDEWALKS $\frac{900}{5}$ $\frac{$5,00}{$5.00}$ $\frac{$4,500.00}{$4,500.00}$ $18 ea x 50 sft$ 4" Conc. sidewalk ramp $\frac{900}{90}$ 5 $\frac{$5.00}{$4,500.00}$ $18 ea x 50 sft$ ADA Detectable Warnings 90 FT $\frac{$45.00}{$45.00}$ $\frac{$4,050.00}{$4,050.00}$ $18 ea x 50 sft$	SUBTOTAL - SANITARY SEWER				\$3,250	
Adjust water shutoff2EA $\$400.00$ $\$800.00$ estimate 2 per mileSUBTOTAL - WATER DISTRIBUTION\$4,050TORM SEWERAdjust stm structure cover, case I5EA $\$650.00$ $\$3,250.00$ estimate 5 per mileSUBTOTAL - STORM SEWERSUBTOTAL - STORM SEWERDERDRAIN\$3,250estimate 20' per CB (40 x 20)Dr Structure Tap, 6"400LF $\$12.00$ $\$4,800.00$ estimate 20' per CB (40 x 20)SUBTOTAL - UNDERDRAINURB AND SIDEWALKS6" Sidewalk ramp900SF $\$6.50$ $\$5,850.00$ 18 ea x 50 sft4" Conc. sidewalk9005 $\$5.00$ $\$4,500.00$ 18 ea x 50 sftADA Detectable Warnings90FT $\$45.00$ $\$4,050.00$ 18 ea x 50 sft	VATER DISTRIBUTION					
SUBTOTAL - WATER DISTRIBUTIONSUBTOTAL - WATER DISTRIBUTION $$4,050$ TORM SEWER $$3,250.00$ Adjust stm structure cover, case I5EASUBTOTAL - STORM SEWER $$3,250$ NDERDRAIN $$3,250$ Edgedrain, 6"400LFSUBTOTAL - UNDERDRAIN\$12.00SUBTOTAL - UNDERDRAIN $$12,800$ CURB AND SIDEWALKS6" Sidewalk ramp900SF\$6,50\$5,850.0018 ea x 50 sft40Curr Structure rage900SF\$6,50\$5,850.0018 ea x 50 sft4" Conc. sidewalk900900FT\$45.00\$4,050.0018 ea x 50 sft4DA Detectable Warnings9090FT\$45.00\$4,050.0018 ea x 51 sft			EA	\$650.00	\$3,250.00	
TORM SEWER Adjust stm structure cover, case I 5 EA $\$650.00$ $\$3,250.00$ estimate 5 per mile SUBTOTAL - STORM SEWER $\$3,250$ stimate 5 per mile $\$3,250$ NDERDRAIN Edgedrain, 6" 400 LF $\$12.00$ $\$4,800.00$ estimate 20' per CB (40 x 20) Dr Structure Tap, 6" 40 EA $\$200.00$ $\$8,000.00$ estimate 20' per CB (40 x 20) SUBTOTAL - UNDERDRAIN $\$12.800$ $\$12.800$ $\$12.800$ $\$12.800$ URB AND SIDEWALKS $\$12.800$ $\$12.800$ $\$18 \text{ ea x 50 sft}$ 6" Sidewalk ramp 900 5 $\$5.00$ $\$4,500.00$ 18 ea x 50 sft 4" Conc. sidewalk 900 5 $\$5.00$ $\$4,050.00$ 18 ea x 50 sft ADA Detectable Warnings 90 FT $\$45.00$ $\$4,050.00$ 18 ea x 5 ft	Adjust water shutoff	2	EA	\$400.00	\$800.00	estimate 2 per mile
Adjust stm structure cover, case I 5 EA $\$650.00$ $\$3,250.00$ estimate 5 per mile SUBTOTAL - STORM SEWER $\$3,250$ estimate 5 per mile $\$3,250$ NDERDRAIN Edgedrain, 6" 400 LF $\$12.00$ $\$4,800.00$ estimate 20' per CB ($40 \ge 20$) Dr Structure Tap, 6" 400 LF $\$12.00$ $\$4,800.00$ estimate 20' per CB ($40 \ge 20$) SUBTOTAL - UNDERDRAIN $\$12.800$ $\$8,000.00$ $\$12.800$ $\$12.800$ $\$12.800$ URB AND SIDEWALKS $\$12.800$ $\$12.800$ $\$12.800$ $\$12.800$ $\$18 \ ex \ 50 \ sft$ 4" Conc. sidewalk ramp 900 5 $\$5.00$ $\$4,500.00$ $18 \ ea \ x \ 50 \ sft$ ADA Detectable Warnings 90 FT $\$45.00$ $\$4,050.00$ $18 \ ea \ x \ 51 \ structure \ 5$	SUBTOTAL - WATER DISTRIBUTIO	ON			\$4,050	
SUBTOTAL - STORM SEWER \$3,250 NDERDRAIN Edgedrain, 6" 400 LF \$12.00 \$4,800.00 estimate 20' per CB ($40 \ge 20$) Dr Structure Tap, 6" 400 EA \$200.00 \$8,000.00 estimate 20' per CB ($40 \ge 20$) SUBTOTAL - UNDERDRAIN 512.800 \$12.800 \$12.800 \$12.800 URB AND SIDEWALKS 900 SF \$6.50 \$5,850.00 18 ea x 50 sft 4" Conc. sidewalk 900 5 \$5.00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	TORM SEWER					
MDERDRAIN Image: Construction of the state in the	Adjust stm structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Edgedrain, 6" 400 LF $\$12.00$ $\$4,800.00$ estimate 20' per CB (40×20) Dr Structure Tap, 6" 40 EA $\$200.00$ $\$8,000.00$ estimate 20' per CB (40×20) SUBTOTAL - UNDERDRAIN $\$12,800$ $\$12,800$ IURB AND SIDEWALKS 900 SF $\$6.50$ $\$5,850.00$ $18 \text{ ea } x 50 \text{ sft}$ 4" Conc. sidewalk 900 S $\$5.00$ $\$4,500.00$ $18 \text{ ea } x 50 \text{ sft}$ ADA Detectable Warnings 90 FT $\$45.00$ $\$4,050.00$ $18 \text{ ea } x 51 \text{ sft}$	SUBTOTAL - STORM SEWER				\$3,250	
Dr Structure Tap, 6" 40 EA \$200.00 \$8,000.00 SUBTOTAL - UNDERDRAIN \$12,800 CURB AND SIDEWALKS \$12,800 6" Sidewalk ramp 900 SF \$6,50 \$5,850.00 18 ea x 50 sft 4" Conc. sidewalk 900 5 \$5,00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	JNDERDRAIN					
SUBTOTAL - UNDERDRAIN \$12,800 SUBTOTAL - UNDERDRAIN \$12,800 SURB AND SIDEWALKS 6" Sidewalk ramp 6" Sidewalk ramp 900 SF \$6,50 \$5,850.00 18 ea x 50 sft 4" Conc. sidewalk 900 5 \$5.00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 20)
Sidewalk ramp 900 SF \$6.50 \$5,850.00 18 ea x 50 sft 4" Conc. sidewalk 900 5 \$5.00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
6" Sidewalk ramp 900 SF \$6.50 \$5,850.00 18 ea x 50 sft 4" Conc. sidewalk 900 5 \$5.00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	SUBTOTAL - UNDERDRAIN				\$12,800	
4" Conc. sidewalk 900 5 \$5.00 \$4,500.00 18 ea x 50 sft ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	CURB AND SIDEWALKS					
ADA Detectable Warnings 90 FT \$45.00 \$4,050.00 18 ea x 5 ft	6" Sidewalk ramp	900	SF			18 ea x 50 sft
	4" Conc. sidewalk	900	5	\$5.00	\$4,500.00	18 ea x 50 sft
SUBTOTAL - CURBS AND SIDEWALKS	ADA Detectable Warnings	90	FT	\$45.00	\$4,050.00	18 ea x 5 ft
	SUBTOTAL - CURBS AND SIDEWA	LKS			\$14,400	

	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
GREGATES AND SAND					
10" aggr. Base	11700	SY	\$15.00	\$175,500.00	5280 x 20' wide x 1/9
SUBTOTAL - AGGREGATES AND S	AND			\$175,500	
T MIX ASPHALT PAVEMENT					
HMA, 3C (leveling)	1950	ΤN	\$95.00	\$185,250.00	3" thick
HMA, 5E1	1300	TN	\$100.00	\$130,000.00	2" thick
HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 ea x 15' x 4' x 4" thick
Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00	
SUBTOTAL - HOT MIX ASPHALT				\$322,750	
NCRETE PAVEMENTS					
6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 ea x 15' x 6' x 1/9
SUBTOTAL - CONCRETE PAVEME	NT			\$16,500	
AFFIC CONTROL AND STRIPING					
Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	175	EA	\$25.00	\$4,375.00	1 per 50' + 1 per drive
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted	1	EA	\$1,000.00	\$1,000.00	Budget
SUBTOTAL TRAFFIC CONTROL A	ND STRIPIN	G		\$7,375	
NDSCAPING					
Topsoil surf., furnish, 2"	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
Class "A" seeding	160	LB	\$20.00	\$3,200.00	220 lbs / acre
Mulch Blanket	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
SUBTOTAL - LANDSCAPING				\$31,360	
BILIZATION AND MINOR TRAFFIC C	ONTROL				
Mobilization, Max 3%	1	LS	\$26,555	\$26,555	
Minor Traffic Control Devices, Max 3%	1	LS	\$26,555	\$26,555	
SUBTOTAL - MOBILIZATION AND	MINOR TR.	AFFIC	CONTROL	\$53,111	
SUBTOTAL CONSTRUCTION COST	ſ			\$938,286	
SUBTOTAL CONSTRUCTION COST	Г			\$938,286	
			15%	\$140,743	
CONSTRUCTION CONTINGENCY					
	NG, INSPEC	ΓΙΟΝ	17%	\$183,435	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100	
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819	
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951	



REPAIR METHOD 2B WITH NO DITCHING

Local Road - Concrete Pavt Reconstruction PASER = 1, 2, 3 (POOR) MACHINE GRADING WITH EXISTING AGGREGATE BASE GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, machine grading, and <u>5" of new asphalt</u> and drainage improvements

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
DEMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA surface	220	SY	\$13.00	\$2,860.00	33 drives x 15' wide x 4' deep
Rem concrete driveways	330	SY	\$17.00	\$5,610.00	33 drives x 15' wide x 6' deep
Remove Concrete Road	11700	SY	\$12.00	\$140,400.00	5280 ft x 20' wide
SUBTOTAL - DEMOLITION				\$150,170	
AVEMENT CONDITIONING					
Rem HMA patches		SY	\$15.00	\$0.00	
Longitudinal joint repair, MDOT Det 7		LF	\$7.00	\$0.00	
SUBTOTAL - PAVEMENT CONDITION	ONING			\$0	
ARTHWORK					
Earth excavation	650	CY	\$32.00	\$20,800.00	5280 x 20' wide x 2" average
Subgrade undercutting Type II Stabilizing filter fabric (geoblanket)	<u>130</u> 0	- CY SY	\$40.00 \$2.50	\$5,200.00 \$0.00	estimate 5% of road x 8" deep
Stabilizing filter fabric (geoblanket) Machine grading	52	SY STA	\$2.50 \$600.00	\$31,200.00	
SUBTOTAL - EARTHWORK	52	_ 51A	\$000.00		
				\$57,200	
DIL EROSION SEDIMENT CONTROL Inlet/CB filter	40	EA	\$125.00	\$5,000.00	estimate 40 per mile
SUBTOTAL - EROSION CONTROL				\$5,000	
ANITARY SEWER					
Adjust san structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - SANITARY SEWER				\$3,250	•
VATER DISTRIBUTION					
Adjust GV&W structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
Adjust water shutoff	2	EA	\$400.00	\$800.00	estimate 2 per mile
SUBTOTAL - WATER DISTRIBUTIO	N			\$4,050	
FORM SEWER					
Adjust stm structure cover, case I	5	EA	\$650.00	\$3,250.00	estimate 5 per mile
SUBTOTAL - STORM SEWER				\$3,250	
NDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 20)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
URB AND SIDEWALKS					
6" Sidewalk ramp	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
4" Conc. sidewalk	900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
ADA Detectable Warnings	90	FT	\$45.00	\$4,050.00	18 ea x 5 ft
CUDEOTAL CUDECAND CIDEWAL	LKS			\$14,400	
SUBTOTAL - CURBS AND SIDEWAI					
GGREGATES AND SAND	1010		***	* 12 100 0°	70 00 0 00 11 0 0
GGREGATES AND SAND Supplemental aggr. Base, 2"	1240	Ton	\$35.00	\$43,400.00	5280 x 20' wide x 2" average

HOT MIX ASPHALT PAVEMENT HMA, 3C (leveling) 1950 TN \$95.00 \$185,250.00 3" thick HMA, SE1 1300 TN \$100.00 \$130,000.00 2" thick HMA, SE1 0 TN \$150.00 \$130,000.00 33 ca x 15' x 4' x 4" thick HMA, S61 (driveways, approaches) 50 TN \$157.00 \$27,500.00 33 ca x 15' x 4' x 4" thick SUBTOTAL - HOT MIX ASPHALT \$322,750 \$322,750 \$300 \$16,500.00 33 ca x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT \$16500 33 ca x 15' x 6' x 1/9 \$16,500 \$31 ca x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT \$16,500 \$31 ca x 15' x 6' x 1/9 \$16,500 \$16,500.00 \$18,502.00 \$16,500.00 \$100 co x 15' x 6' x 1/9 SubTOTAL - CONCRETE PAVEMENT \$16,500 \$14,080.00 \$12,500.00 \$100 co x 15' x 6' x 1/9 \$16,500 \$16,500.00 \$100 co x 15' x 6' x 1/9 SubTOTAL - CONCRETE PAVEMENT \$16,500 \$14,080.00 \$100 co x 15' x 6' x 1/9 \$16,500 \$16,500.00 \$100 co x 15' x 6' x 1/9 SubTOTAL - MADSTRIPING \$20 co x 15' x 6' x 1/9 \$16,500 \$1,500	FEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
HMA, SE1 1300 TN \$100.00 \$130,000.00 2" thick HMA, 36A (driveways, approaches) 50 TN \$100.00 \$7,500.00 33 ea x 15' x 4' x 4" thick Handpatching, 0 - 20 tons 0 TN \$175.00 \$30.00 33 ea x 15' x 4' x 4" thick SUBTOTAL - HOT MIX ASPHALT $$322,750$ \$322,750 33 ea x 15' x 6' x 1/9 CONCRETE PAVEMENTS $$50.00$ \$16,500.00 33 ea x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT $$165.00$ $$16,500.00$ 32 ea x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT $$165.00$ $$16,500.00$ $$100.00$ $$100.00$ Sign, Type , temp 100 SFT $$52.00$ $$54,375.00$ $$1000.00$ Drum barel, Lighted 175 EA $$25.00$ $$4,375.00$ $$1000.00$ SUBTOTAL TRAFFIC CONTROL AND STRIPING $$7.375$ $$1000.00$ $$1,000.00$ $$1000.00$ SUBTOTAL - LANDSCAPING $$7.375$ $$14,080.00$ $$3'$ wide each side of road $$20 \text{ lbs / acre}$ Topsoil surf., furnish, 2" $$3520$ SY $$4.00$ $$14,080.00$ $$3' wide each side of road$	OT MIX ASPHALT PAVEMENT					
HMA, 36A (driveways, approaches) 50 TN $\$150.00$ $\$7,500.00$ $\$3$ ea x 15' x 4' x 4" thick Handpatching, 0 - 20 tons 0 TN $\$150.00$ $\$7,500.00$ $\$3$ ea x 15' x 4' x 4" thick SUBTOTAL - HOT MIX ASPHALT $\$322,750$ $\$322,750$ $\$322,750$ $\$322,750$ CONCRETE PAVEMENTS $\$322,750$ $\$322,750$ $\$322,750$ $\$33$ ea x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT $\$16,500.00$ $\$16,500.00$ $\$16,500.00$ $\$3$ ea x 15' x 6' x 1/9 SuBTOTAL - CONCRETE PAVEMENT $\$165,500$ $\$16,500.00$	HMA, 3C (leveling)	1950	ΤN	\$95.00	\$185,250.00	3" thick
Handpatching, 0 - 20 tons0TN $$175.00$ $$0.00$ SUBTOTAL - HOT MIX ASPHALT $$322,750$ CONCRETE PAVEMENTS6" nonreinf Cone. driveway330SY $$50.00$ $$16,500.00$ 33 ea x 15' x 6' x 1/9SUBTOTAL - CONCRETE PAVEMENTSUBTOTAL - CONCRETE PAVEMENTSubtrot and STRIPINGSign, Type, tempDrum barel, Lighted100SFT $$5.00$ $$500.00$ BudgetDrum barel, Lighted100EA $$150.00$ $$1,500.00$ BudgetArrow Board, Lighted10EA $$1000.00$ $$1,000.00$ BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING $$7.375$ Subtot and transition of the state of the sta	HMA, 5E1	1300	TN	\$100.00	\$130,000.00	2" thick
SUBTOTAL - HOT MIX ASPHALT \$\$322,750 CONCRETE PAVEMENTS 6" nonreinf Cone. driveway 330 SY \$50.00 \$\$16,500.00 33 ea x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT \$\$16,500 33 a x 15' x 6' x 1/9 SUBTOTAL - CONCRETE PAVEMENT \$\$16,500 \$\$16,500 \$\$15,00 \$\$16,500 Budget TRAFFIC CONTROL AND STRIPING \$\$50.00 \$\$1,000.00 Budget SUBTOTAL TRAFFIC CONTROL AND STRIPING \$\$7,375 ANDSCAPING \$\$322,00 \$\$14,080.00 \$\$14,080.00 \$\$14,080.00 \$\$20,00 \$\$14,080.00 \$\$20,00 \$\$214,00 \$\$14,080.00 \$\$20,00 \$\$220,00 \$\$220,00 \$\$214,00 \$\$14,080.00 \$\$220,00 \$\$220,00 \$\$214,00 \$\$14,080.00 \$\$20,00 \$\$220,00 \$\$220,00 \$\$220,00 \$\$220,00 \$\$220,00 \$\$220,00 </td <td>HMA, 36A (driveways, approaches)</td> <td>50</td> <td>TN</td> <td>\$150.00</td> <td>\$7,500.00</td> <td>33 ea x 15' x 4' x 4" thick</td>	HMA, 36A (driveways, approaches)	50	TN	\$150.00	\$7,500.00	33 ea x 15' x 4' x 4" thick
CONCRETE PAVEMENTS6" nonreinf Conc. driveway330SY\$50.00 $$16,500.00$ 33 ea x 15' x 6' x 1/9SUBTOTAL - CONCRETE PAVEMENTSign, Type., temp100SFT\$5.00\$500.00BudgetDrum barrel, Lighted175EA\$25.00\$4,375.001 per 50' + 1 per driveBarricade, type III, Lighted10EA\$150.00\$1,500.002 per block, estimate 10Barricade, type III, Lighted1EA\$100.00\$1,000.00BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPINGST.375ANDSCAPINGTopsoil surf, furnish, 2"3520SY\$4.00\$3,200.003' wide each side of roadClass "A" seeding160LB\$20.00\$3,200.00220 lbs / acreMulch Blanket3520SY\$4.00\$14,080.003' wide each side of roadSUBTOTAL - LANDSCAPINGSUBTOTAL - LANDSCAPINGMobilization, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00	
6" nonreinf Conc. driveway330SY\$50.00\$16,500.0033 ea x 15' x 6' x 1/9SUBTOTAL - CONCRETE PAVEMENTSIG.500SIG.500SIG.500SIG.500BudgetPAFFIC CONTROL AND STRIPINGDrum barrel, Lighted175EA\$25.00\$4,375.00BudgetDrum barrel, Lighted10EA\$1500.00\$1,500.00BudgetArrow Board, Lighted10EA\$1000.00\$1,000.00BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING\$7,375ANDSCAPING\$73,75Class "A" seeding160LB\$20,00\$3,200.003' wide each side of roadMulch Blanket3520SY\$4.00\$14,080.003' wide each side of roadSUBTOTAL - LANDSCAPINGMobilization, Max 3%1LS\$20,145\$20,145Minor Traffic Control Devices, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	SUBTOTAL - HOT MIX ASPHALT				\$322,750	
SUBTOTAL - CONCRETE PAVEMENTSI6.500RAFFIC CONTROL AND STRIPINGSign, Type_, temp100SFT\$5.00\$500.00BudgetDrum barrel, Lighted175EA\$25.00\$4,375.002 per block, estimate 10Barricade, type III, Lighted10EA\$150.00\$1,000.00BudgetArrow Board, Lighted1EA\$1000.00\$1,000.00BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPINGST375ANDSCAPING\$7.375Class "A" seeding160LB\$20.00\$3,200.003' wide each side of roadClass "A" seeding160LB\$20.00\$3,200.003' wide each side of roadSUBTOTAL - LANDSCAPING\$31.3603' wide each side of road3' wide each side of roadMolbilization, Max 3%1LS\$20,145\$20,145Mobilization, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290Mobilization, Max 3%1LS\$20,145SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	ONCRETE PAVEMENTS					
RAFFIC CONTROL AND STRIPINGSign, Type _, temp100SFT\$5.00\$500.00BudgetDrum barrel, Lighted175EA\$25.00\$4,375.001 per 50' + 1 per driveBarricade, type III, Lighted10EA\$150.00\$1,500.002 per block, estimate 10Arrow Board, Lighted1EA\$1,000.00\$1,000.00BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING\$7.375ANDSCAPING\$14,080.00\$1,000.00220 lbs / acreTopsoil surf, furnish, 2"3520SY\$4.00\$14,080.00Class "A" seeding160LB\$20.00\$3,200.00Mulch Blanket3520SY\$4.00\$14,080.00SUBTOTAL - LANDSCAPING\$31,3603' wide each side of roadIOBILIZATION AND MINOR TRAFFIC CONTROL\$31,360Mobilization, Max 3%1LS\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	6" nonreinf Conc. driveway	330	SY	\$50.00	\$16,500.00	33 ea x 15' x 6' x 1/9
Sign, Type , temp100SFT $\$5.00$ $\$500.00$ BudgetDrum barrel, Lighted175EA $\$25.00$ $\$4,375.00$ 1 per 50' + 1 per driveBarricade, type III, Lighted10EA $\$150.00$ $\$1,500.00$ 2 per block, estimate 10Arrow Board, Lighted1EA $\$100.00$ $\$1,000.00$ BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING $\$7.375$ ANDSCAPING $\$7.375$ Topsoil surf., furnish, 2" 3520 SY $\$4.00$ $\$14.080.00$ 3' wide each side of roadClass "A" seeding160LB $\$20.00$ $\$3.200.00$ 3' wide each side of roadMulch Blanket 3520 SY $\$4.00$ $\$14.080.00$ 3' wide each side of roadSUBTOTAL - LANDSCAPING $\$31.360$ $\$31.360$ 3' wide each side of roadMobilization, Max 3%1LS $\$20.145$ $\$20.145$ SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL $\$40.290$ SUBTOTAL CONSTRUCTION COST $\$711.795$ SUBTOTAL CONSTRUCTION COST $\$711.795$ SUBTOTAL CONSTRUCTION COST $\$711.795$ SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139.156	SUBTOTAL - CONCRETE PAVEMEN	NT			\$16,500	
Drum barrel, Lighted175EA $$25.00$ $$4,375.00$ 1 per 50' + 1 per driveBarricade, type III, Lighted10EA $$150.00$ $$1,500.00$ 2 per block, estimate 10Arrow Board, Lighted1EA $$100.00$ $$1,000.00$ BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING $$7,375$ ANDSCAPING $$7,375$ Class "A" seeding160LB $$20.00$ $$3,200.00$ 3' wide each side of roadMulch Blanket3520SY $$4.00$ $$14,080.00$ 3' wide each side of roadSUBTOTAL - LANDSCAPING $$31,360$ 3' wide each side of road3' wide each side of roadOBILIZATION AND MINOR TRAFFIC CONTROL $$320,145$ \$20,145Mobilization, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL $$40,290$ SUBTOTAL CONSTRUCTION COST $$711,795$ SUBTOTAL CONSTRUCTION COST $$711,795$ SUBTOTAL CONSTRUCTION COST $$711,795$ SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156	RAFFIC CONTROL AND STRIPING					
Barricade, type III, Lighted10EA $$150.00$ $$1,500.00$ 2 per block, estimate 10Arrow Board, Lighted1EA $$1,000.00$ $$1,000.00$ BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING $$7.375$ ANDSCAPINGTopsoil surf., furnish, 2" 3520 SY $$4.00$ $$14,080.00$ $$3'$ wide each side of roadClass "A" seeding160LB $$20.00$ $$3,200.00$ $$20$ lbs / acreMulch Blanket 3520 SY $$4.00$ $$14,080.00$ $$3'$ wide each side of roadSUBTOTAL - LANDSCAPINGSUBTOTAL - LANDSCAPINGMobilization, Max 3%1LS $$20,145$ $$20,145$ Minor Traffic ControlMax 3%1LS $$20,145$ $$20,145$ SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROLMobilization, Max 3%1LS $$20,145$ $$20,145$ SUBTOTAL CONSTRUCTION COST $$711,795$ SUBTOTAL CONSTRUCTION COST $$711,795$ SUBTOTAL CONSTRUCTION COST $$106,769$ SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% $$139,156$	Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Arrow Board, Lighted1EA\$1,000.00\$1,000.00BudgetSUBTOTAL TRAFFIC CONTROL AND STRIPING\$7.375ANDSCAPINGTopsoil surf., furnish, 2"3520SY\$4.00\$14,080.003' wide each side of roadClass "A" seeding160LB\$20.00\$3,200.00220 lbs / acreMulch Blanket3520SY\$4.00\$14,080.00220 lbs / acreSUBTOTAL - LANDSCAPING\$31,360\$31,3603' wide each side of roadIOBILIZATION AND MINOR TRAFFIC CONTROLMobilization, Max 3%1LS\$20,145Minor Traffic Control Devices, Max 3%1LS\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	Drum barrel, Lighted	175	EA	\$25.00	\$4,375.00	1 per 50' + 1 per drive
SUBTOTAL TRAFFIC CONTROL AND STRIPING \$7.375 ANDSCAPING 3' wide each side of road Class "A" seeding 160 LB \$20.00 \$3,200.00 220 lbs / acre Mulch Blanket 3520 SY \$4.00 \$14,080.00 3' wide each side of road SUBTOTAL - LANDSCAPING \$20.00 \$3,200.00 \$3,200.00 3' wide each side of road BUBILIZATION AND MINOR TRAFFIC CONTROL \$31,360 3' wide each side of road Mobilization, Max 3% 1 LS \$20,145 \$20,145 SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL \$40,290 \$40,290 SUBTOTAL CONSTRUCTION COST \$711,795 \$20,145 \$20,145 SUBTOTAL CONSTRUCTION COST \$711,795 \$106,769 \$106,769 SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156	Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
ANDSCAPINGTopsoil surf., furnish, 2"3520SY\$4.00\$14,080.003' wide each side of roadClass "A" seeding160LB\$20.00\$3,200.00220 lbs / acreMulch Blanket3520SY\$4.00\$14,080.003' wide each side of roadSUBTOTAL - LANDSCAPINGSUBTOTAL - LANDSCAPINGMobilization, Max 3%1LS\$20,145\$20,145Minor Traffic Control Devices, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	Arrow Board, Lighted	1	EA	\$1,000.00	\$1,000.00	Budget
Topsoil surf., furnish, 2"3520SY\$4.00\$14,080.003' wide each side of roadClass "A" seeding160LB\$20.00\$3,200.00\$20 lbs / acreMulch Blanket3520SY\$4.00\$14,080.003' wide each side of roadSUBTOTAL - LANDSCAPING\$31,360IOBILIZATION AND MINOR TRAFFIC CONTROLMobilization, Max 3%1LS\$20,145\$20,145Minor Traffic Control Devices, Max 3%1LS\$20,145\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290\$311,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	SUBTOTAL TRAFFIC CONTROL AN	ND STRIPIN	G		\$7,375	
Class "A" seeding Mulch Blanket160 3520LB \$20.00\$20.00 \$14,080.00220 lbs / acre 3' wide each side of roadSUBTOTAL - LANDSCAPING\$31,360IOBILIZATION AND MINOR TRAFFIC CONTROLMobilization, Max 3% Minor Traffic Control Devices, Max 3%1 1 LSLS \$20,145\$20,145 \$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROLSUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$139,156	ANDSCAPING					
Mulch Blanket 3520 SY \$4.00 \$14,080.00 3' wide each side of road SUBTOTAL - LANDSCAPING \$31,360 3' wide each side of road IOBILIZATION AND MINOR TRAFFIC CONTROL Mobilization, Max 3% 1 LS \$20,145 Minor Traffic Control Devices, Max 3% 1 LS \$20,145 \$20,145 SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL \$40,290 \$20,145 \$20,145 SUBTOTAL CONSTRUCTION COST \$711,795 \$200 \$711,795 SUBTOTAL CONSTRUCTION COST \$711,795 \$106,769 SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156	Topsoil surf., furnish, 2"	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
SUBTOTAL - LANDSCAPING \$31,360 IOBILIZATION AND MINOR TRAFFIC CONTROL Mobilization, Max 3% 1 LS \$20,145 \$20,145 Minor Traffic Control Devices, Max 3% 1 LS \$20,145 \$20,145 SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL \$40,290 SUBTOTAL CONSTRUCTION COST \$711,795 SUBTOTAL CONSTRUCTION COST \$711,795 SUBTOTAL CONSTRUCTION COST \$711,795 SUBTOTAL CONSTRUCTION COST \$106,769 SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156 \$139,156	Class "A" seeding		LB	\$20.00	\$3,200.00	220 lbs / acre
IOBILIZATION AND MINOR TRAFFIC CONTROL Mobilization, Max 3% 1 LS \$20,145 \$20,145 Minor Traffic Control Devices, Max 3% 1 LS \$20,145 \$20,145 SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL \$40,290 SUBTOTAL CONSTRUCTION COST \$711,795 SUBTOTAL CONSTRUCTION COST \$711,795 CONSTRUCTION CONTINGENCY 15% \$106,769 SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156	Mulch Blanket	3520	SY	\$4.00	\$14,080.00	3' wide each side of road
Mobilization, Max 3%1LS\$20,145Minor Traffic Control Devices, Max 3%1LS\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795CONSTRUCTION CONTINGENCY15%\$106,769SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	SUBTOTAL - LANDSCAPING				\$31,360	
Minor Traffic Control Devices, Max 3%1LS\$20,145SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795CONSTRUCTION CONTINGENCY15%\$106,769SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	IOBILIZATION AND MINOR TRAFFIC CO	ONTROL				
SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL\$40,290SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795CONSTRUCTION CONTINGENCY15%SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	Mobilization, Max 3%	1	LS	\$20,145	\$20,145	
SUBTOTAL CONSTRUCTION COST\$711,795SUBTOTAL CONSTRUCTION COST\$711,795CONSTRUCTION CONTINGENCY15%SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	Minor Traffic Control Devices, Max 3%	1	LS	\$20,145	\$20,145	
SUBTOTAL CONSTRUCTION COST\$711,795CONSTRUCTION CONTINGENCY15%\$106,769SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	SUBTOTAL - MOBILIZATION AND	MINOR TR	AFFIC	CONTROL	\$40,290	
CONSTRUCTION CONTINGENCY15%\$106,769SUBTOTAL ENGINEERING, BIDDING, INSPECTION17%\$139,156	SUBTOTAL CONSTRUCTION COST				\$711,795	
SUBTOTAL ENGINEERING, BIDDING, INSPECTION 17% \$139,156	SUBTOTAL CONSTRUCTION COST				\$711,795	
	CONSTRUCTION CONTINGENCY			15%	\$106,769	
TOTAL ESTIMATED COST \$057.721	SUBTOTAL ENGINEERING, BIDDIN	G, INSPEC	TION	17%	\$139,156	
	TOTAL ESTIMATED COST				\$957,721	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951



Local Road - Heavy Concrete Pavt Patching PASER = 4,5, (FAIR)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 4" aggregate base, and <u>8"</u> <u>thick concrete patch</u> and drainage improvements

TEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
EMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA surface	0	SY	\$13.00	\$0.00	
Rem concrete driveways	0	SY	\$17.00	\$0.00	
Remove Concrete Road	2925	SY	\$25.00	\$73,125.00	Estimate 25% of road (5280 x 20°
SUBTOTAL - DEMOLITION				\$74,425	
ARTHWORK					
Earth excavation	325	CY	\$40.00	\$13,000.00	25% of road x 4" deep x 1/27
Subgrade undercutting Type II	0	CY	\$40.00	\$0.00	
Stabilizing filter fabric (geoblanket)	0	SY	\$2.50	\$0.00	
SUBTOTAL - EARTHWORK				\$13,000	
OIL EROSION SEDIMENT CONTROL					
Inlet/CB filter	0	EA	\$125.00	\$0.00	Not Required
SUBTOTAL - EROSION CONTROL				\$0	
ANITARY SEWER					
Adjust san structure cover, case I	0	EA	\$650.00	\$0.00	Not Required
SUBTOTAL - SANITARY SEWER				\$0	
VATER DISTRIBUTION					
Adjust GV&W structure cover, case I	0	EA	\$650.00	\$0.00	Not required
Adjust water shutoff	0	EA	\$400.00	\$0.00	Not required
SUBTOTAL - WATER DISTRIBUTIO	ON			\$0	
TORM SEWER					
Adjust stm structure cover, case I	0	EA	\$650.00	\$0.00	Not required
SUBTOTAL - STORM SEWER				\$0	
NDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 20)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
URB AND SIDEWALKS					
	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
6" Sidewalk ramp	-				
4" Conc. sidewalk	900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
	-		\$5.00 \$45.00	\$4,500.00 \$4,050.00	18 ea x 50 sft 18 ea x 5 ft

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS	
AGGREGATES AND SAND						
4" aggr. Base	2925	SY	\$12.00	\$35,100.00	25% of road	
SUBTOTAL - AGGREGATES AND S	AND			\$35,100		
HOT MIX ASPHALT PAVEMENT						
HMA, 3C (leveling)	0	TN	\$100.00	\$0.00		
HMA, 5E1	0	TN	\$105.00	\$0.00		
HMA, 36A (driveways, approaches)	0	TN	\$150.00	\$0.00		
Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00		
SUBTOTAL - HOT MIX ASPHALT				\$0		
CONCRETE PAVEMENTS						
Pavt Repr, Conc, 8" non-reinforced	2925	SY	\$75.00	\$219,375.00	25% of road	
6" nonreinf Conc. driveway		SY	\$56.00	\$0.00		
Lane Ties, Epoxy Coated	1000	EA	\$6.00	\$6,000.00	24" on-center	
SUBTOTAL - CONCRETE PAVEME	NT			\$225,375		
TRAFFIC CONTROL AND STRIPING						
Sign, Type, temp	100	SFT	\$5.00	\$500.00	Budget	
Drum barrel, Lighted	200	EA	\$25.00	\$5,000.00	Estimated 4 to 6 per patch	
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10	
Arrow Board, Lighted		EA	\$1,000.00	\$0.00		
SUBTOTAL TRAFFIC CONTROL A	ND STRIPI	NG		\$7,000		
LANDSCAPING						
Topsoil surf., furnish, 2"	300	SY	\$4.00	\$1,200.00	1' wide adjacent to patch	
Class "A" seeding	15	LB	\$20.00	\$300.00	220 lbs / acre	
Mulch Blanket	300	SY	\$4.00	\$1,200.00	1' wide each side of road	
SUBTOTAL - LANDSCAPING				\$2,700		
MOBILIZATION AND MINOR TRAFFIC O	ONTROL					
Mobilization, Max 3%	1	LS	\$11,544	\$11,544		
Minor Traffic Control Devices, Max 3%	1	LS	\$11,544	\$11,544		
SUBTOTAL - MOBILIZATION AND	\$23,088					
SUBTOTAL CONSTRUCTION COST	SUBTOTAL CONSTRUCTION COST					
SUBTOTAL CONSTRUCTION COST	Г			\$407,888		
CONSTRUCTION CONTINGENCY			15%	\$61,183		
SUBTOTAL ENGINEERING, BIDDI	NG, INSPE	CTION	15%	\$70,361		
TOTAL ESTIMATED COST				\$539,432		

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100	
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819	
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951	



REPAIR METHOD 2D WITH NO DITCHING

Local Road - Light Concrete Pavt Patching PASER = 6,7 (GOOD)

GW NO.: Promotional DATE: June 20, 2020

PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 4" aggregate base, and <u>8"</u> <u>thick concrete patch</u> and drainage improvements

TEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
DEMOLITION					
Rem conc. sidewalk	100	SY	\$13.00	\$1,300.00	Estimate 18 ea x 50 sft
Rem HMA surface	0	SY	\$13.00	\$0.00	
Rem concrete driveways	0	SY	\$17.00	\$0.00	
Remove Concrete Road	1760	SY	\$30.00	\$52,800.00	Estimate 15% of road (5280 x 20)
SUBTOTAL - DEMOLITION				\$54,100	
AVEMENT CONDITIONING					
Rem HMA patches		SY	\$15.00	\$0.00	
Longitudinal joint repair, MDOT Det 7		LF	\$7.00	\$0.00	
SUBTOTAL - PAVEMENT CONDIT	IONING			\$0	
CARTHWORK					
Earth excavation	200	CY	\$45.00	\$9,000.00	15% of road x 4" deep x 1/27
Subgrade undercutting Type II	0	CY	\$40.00	\$0.00	
Stabilizing filter fabric (geoblanket)	0	SY	\$2.50	\$0.00	
SUBTOTAL - EARTHWORK				\$9,000	
OIL EROSION SEDIMENT CONTROL					
Inlet/CB filter	0	EA	\$125.00	\$0.00	Not Required
SUBTOTAL - EROSION CONTROL				\$0	
ANITARY SEWER					
Adjust san structure cover, case I	0	EA	\$650.00	\$0.00	Not Required
SUBTOTAL - SANITARY SEWER				\$0	
WATER DISTRIBUTION					
Adjust GV&W structure cover, case I	0	EA	\$650.00	\$0.00	Not required
Adjust water shutoff	0	EA	\$400.00	\$0.00	Not required
SUBTOTAL - WATER DISTRIBUTI	ON			\$0	
TORM SEWER					
Adjust stm structure cover, case I	0	EA	\$650.00	\$0.00	Not required
SUBTOTAL - STORM SEWER				\$0	
JNDERDRAIN					
Edgedrain, 6"	400	LF	\$12.00	\$4,800.00	estimate 20' per CB (40 x 20)
Dr Structure Tap, 6"	40	EA	\$200.00	\$8,000.00	
SUBTOTAL - UNDERDRAIN				\$12,800	
CURB AND SIDEWALKS					
6" Sidewalk ramp	900	SF	\$6.50	\$5,850.00	18 ea x 50 sft
4" Conc. sidewalk	900	SF	\$5.00	\$4,500.00	18 ea x 50 sft
ADA Datastahla Waminas	90	FT	\$45.00	\$4,050.00	18 ea x 5 ft
ADA Detectable Warnings		• • • •	\$ 12100	\$ 1,020100	

ITEM WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
AGGREGATES AND SAND					
4" aggr. Base	1760	SY	\$15.00	\$26,400.00	15% of road
SUBTOTAL - AGGREGATES AND S	AND			\$26,400	
HOT MIX ASPHALT PAVEMENT					
HMA, 3C (leveling)	0	TN	\$100.00	\$0.00	
HMA,5E1	0	TN	\$105.00	\$0.00	
HMA, 36A (driveways, approaches)	0	TN	\$150.00	\$0.00	
Handpatching, 0 - 20 tons	0	TN	\$175.00	\$0.00	
SUBTOTAL - HOT MIX ASPHALT				\$0	
CONCRETE PAVEMENTS					
Pavt Repr, Conc, 8" non-reinforced	1760	SY	\$80.00	\$140,800.00	15% of road
6" nonreinf Conc. driveway		SY	\$56.00	\$0.00	
Lane Ties, Epoxy Coated	700	EA	\$6.00	\$4,200.00	24" on-center
SUBTOTAL - CONCRETE PAVEME	NT			\$145,000	
TRAFFIC CONTROL AND STRIPING					
Sign, Type_, temp	100	SFT	\$5.00	\$500.00	Budget
Drum barrel, Lighted	150	EA	\$25.00	\$3,750.00	Estimated 4 to 6 per patch
Barricade, type III, Lighted	10	EA	\$150.00	\$1,500.00	2 per block, estimate 10
Arrow Board, Lighted		EA	\$1,000.00	\$0.00	
SUBTOTAL TRAFFIC CONTROL A	ND STRIPI	NG		\$5,750	
LANDSCAPING					
Topsoil surf., furnish, 2"	200	SY	\$4.00	\$800.00	1' wide adjacent to patch
Class "A" seeding	15	LB	\$20.00	\$300.00	220 lbs / acre
Mulch Blanket	200	SY	\$4.00	\$800.00	1' wide each side of road
SUBTOTAL - LANDSCAPING				\$1,900	
MOBILIZATION AND MINOR TRAFFIC C	ONTROL				
Mobilization, Max 3%	1	LS	\$8,081	\$8,081	
Minor Traffic Control Devices, Max 3%	1	LS	\$8,081	\$8,081	
SUBTOTAL - MOBILIZATION AND	MINOR TH	RAFFIC	CONTROL	\$16,161	
SUBTOTAL CONSTRUCTION COST	Г			\$285,511	
SUBTOTAL CONSTRUCTION COST	Г			\$285,511	
CONSTRUCTION CONTINGENCY			15%	\$42,827	
SUBTOTAL ENGINEERING, BIDDI	NG, INSPEO	CTION	15%	\$49,251	
TOTAL ESTIMATED COST				\$377,588	

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully, GIFFELS-WEBSTER ENGINEERS, INC.

1025 E Maple, Suite 1200	28 W. Adams, Suite 1200	6303 26 Mile Road, Suite 100	
Birmingham, MI 48009-6426	Detroit, MI 48226-1609	Washington Twp, MI 48094-3819	
(248) 852-3100 Fax: (248) 852-6372	(313) 962-4442 Fax: (313) 962-5068	(586) 781-8950 Fax: (586) 781-8951	