

TOTAL PRELIMINARY ESTIMATE OF COST
SUMMARY
LITTLE TOBACCO INTERCOUNTY DRAIN

DESCRIPTION	TOTAL
SUB-TOTAL CONSTRUCTION COST.....	\$3,970,000
Engineering Study/Preliminary Design	\$84,000.00
Subcontract Sanitary Sewer Design Support (Gourdie-Fraser)	\$90,000.00
Subcontract Watermain Design Support (Gourdie-Fraser)	\$63,000.00
Final Design, Preparation Plans, Bidding Process	\$88,000.00
Construction Administration and Inspection Services	\$87,500.00
Financing and Administration	\$87,000.00
Subtotal	\$4,469,500.00
Contingencies	\$446,950.00
Total Preliminary Estimate of Cost	\$4,916,450.00

CONSTRUCTION COST ESTIMATE

DESCRIPTION	TOTAL
1. Mobilization.....	\$73,927.00
2. Erosion Control..... Stone check dams, sediment basins (5) silt fence etc.	\$7,500.00
3. Clearing.....	\$170,250.00
Downstream of Westbound US-10 Sta. 0+00-32+36.7	
3.3 acres @\$4,000/ac	\$13,200.00
Between W.B. US-10 and S.B. US-127 Sta. 33+14.3-57+71.2	
1.2 acres @ \$5,500/ac (Chipped)	\$ 6,600.00
3.6 acres @ \$4,000/ac	\$14,400.00
Between S.B. US-127 and Railroad Sta. 58+73.4-157+81.5	
15.7 acres @\$6,500/ac (removed)	\$102,050.00
Between RR and Herrick Rd Sta. 158+23.8-225+90.6	
8.5 acres @ \$4,000/ac	\$34,000.00
Subtotal	\$170,250.00
4. Structure Removal	\$142,000.00
Demolition of 314 E. Fifth St.	
Property Acquisition Price	\$115,000.00
Demolition & Disposal	\$ 25,000.00
Subtotal	\$140,000.00
NOTE: After demolition 240 sq. ft. of Redi-Rock retaining wall and 380 sq. ft. of Armor-Flex toe slope protection are required cost \$19,600.00	
Removal and Disposal of abandoned Third St. Bridge	\$2,000.00
Subtotal	\$142,000.00

<p>5. Sheet Piling Sta. 140+78.4 – 141+34.4 864 sq. ft. sheet piling with cap @ \$50/ft²</p>	<p>\$43,200.00 \$43,200.00</p>
<p>6. Channel Excavation..... Downstream of W.B. US-10 Sta. 0+00-32+36.7 176 Rods @ \$60/Rd \$10,560.00 *Between W.B. US-10 and S.B. US-127 Sta. 33+14.3-57+71.0 32.8 Rods @ \$105/Rd \$ 3,444.00 95.2 Rods @ \$185/Rd \$17,612.00 Between S.B. US-127 and McEwan St. Sta. 58+73.4-124+17.9 396.6 Rods @ \$295/Rd \$16,997.00 Between McEwan St. and Railroad Sta. 125+18.2-157+81.5 197.8 Rds @ \$240/Rd. \$47,472.00 Between RR and Herrick Rd. Sta. 158+18.2-225+90.6 410.1 Rods @ \$145/Rd \$59,465.00 Subtotal \$255,550.00</p>	<p>\$255,550.00</p>
<p>7. Bridge Underpinning Sixth St. 883 sq. ft. @ 20/ft² \$17,660.00 *Fifth St. 2143 sq. ft. @ 20/ft² \$42,860.00 Fourth St. 1588 sq. ft. @ 20/ft² \$31,760.00 Maple St. 1429 sq. ft. @ 20/ft² \$28,580.00 *Railroad 1044 sq. ft. @ 20/ft² \$20,880.00</p>	<p>\$141,740.00</p>
<p>8. Bridge Repairs Maple St. 150 sq. ft. chip & patch @ \$28/ft² \$4,200.00 Removal of existing railings \$2,000.00 Furnish and Install 36 ft. of pedestrian Railing (4 tube) @ \$160/ft \$5,760.00 Subtotal \$11,960.00 Fourth St. 600 sq. ft. chip & patch @ \$28/ft² \$16,800.00 200 sq. yd. 1.5 in. HMA cap 16.5ton @ \$115/t \$ 2,000.00 Subtotal \$18,800.00 *Fifth St. 65 sq. ft. chip & patch @ \$32/ft² \$2,080.00 Sixth St. 60 sq. ft. chip & patch @ \$32/ft² \$1,920.00 Removal of existing railings \$1,620.00 Furnish & install 28 ft. pedestrian Railing (4 tube) @ \$160/ft \$4,480.00 Remove concrete N.E. and S.E. corner and extend PVC pipe 16 ft \$1,500.00 Subtotal \$9,520.00</p>	<p>\$42,360.00</p>
<p>9. MDOT Pipe Outlet Headwall Outfalls 1 each for 36 in. dia. pipe @\$4000 \$4,000.00 1 each for 30 in. dia. pipe incl. 41 ft.-30 in. dia. RCP \$5,575.00 2 each for 24 in. dia. pipe @ \$2000 ea. \$4,000.00</p>	<p>\$23,570.00</p>

1 each for 12 in. dia. pipe incl. 8.2 ft.-12 in. dia. RCP and one 2 ft. dia. C.B 4 ft. long \$2,150.00 1 each for 18 in. dia. pipe incl. 41 ft.-18 in. dia. RCP \$3,545.00 2 each for 18 in. dia. pipe @ \$1700 ea. \$3,400.00 1 each for 8 in. dia. pipe @ \$900 ea. \$ 900.00 Subtotal \$23,570.00	
10. 24 in. dia. CPeP Pipe Extension Sta. 140+00 West of Water Treatment Facility 62 ft. -24 in. dia. ADS N-12 @ \$30/ft \$1,860.00 24 in. dia. Tee/Riser \$ 540.00 MDOT G cover \$ 350.00 Subtotal \$2,750.00	\$2,750.00
11. Eberhard Rd. Concrete Culvert Original Sta. 51+17.1, New Sta. 52+097 66 ft.-14 ft. x 10 ft. concrete box (80 ft.-H20 load design 44 ft. H80 load) with 1 ft. headwall d.s., 3 ft. 4in. headwall u.s., ballast, traffic control	\$265,000.00
12. Second St. (Sta. 116+67.8) Bike Trail (Sta. 117+03.5) GLC Railroad (117+46.5) Concrete Culvert 124 ft.-16 ft. x 10 ft. concrete box (80 ft.-H@) load, 44 ft.-H80 load) with 1 ft. headwall d.s., 3 ft. 4 in. headwall u.s., 10 ft. long wingwalls, demolition, 10 ft. wide HMA bicycle path, riprap, railroad ballast, traffic control	\$410,000.00
13. *McEwan St. (Sta. 124+67.5) Concrete Culvert 100 ft.-18 ft.x 10 ft. concrete box with 1 ft. headwalls, 10 ft. long Wingwalls, demolition, HMA replacement, pedestrian railing, Riprap, traffic control	\$460,000.00
14. Dunlop Rd. (Sta. 151+70.9) Corrugated Steel Pipe Arch (CSPA) 136 ft.-13 ft. 8 in. x 8 ft. 9 in. polymer coated CSPA, Demolition, HMA replacement, riprap, traffic control	\$140,000.00
15. Herrick Rd. (Sta. 226+11) Corrugated Steel Pipe Arch (CSPA) 80 ft. – 13 ft. 8 in. x 8ft. 9 in. polymer coated CSPA Demolition, HMA replacement, Riprap, Traffic Control	\$82,000.00
16. Side Inlet Erosion Control Structures (ECS) 40 ft. – 15 in. diameter @ \$25/ft \$6,000.00 120 ft. – 18 in. diameter @ \$35/ft \$4,200.00 20 ft. – 24 in. diameter @ \$45/ft \$ 900.00 Subtotal \$11,100.00	\$11,100.00
17. Tile Outlets 2 each 10 in. diameter @ \$375/ft \$ 750.00 2 each 8 in. diameter @ \$300/ft \$ 600.00 4 each 6 in. diameter @ \$275/ft \$ 1100.00 Subtotal \$2,450.00	\$2,450.00
18. Heavy Riprap Bank Slope Protection 4660 ft. @ \$65/ft	\$302,900.00
19. Rock Vanes 9 each cross vanes @ \$900/ea. \$8,100.00 17 each single vanes @ \$550/ea. \$9,350.00 Subtotal \$17,450.00	\$17,450.00

20. Retaining Walls "Redi-Rock" 3734.1 ft ² @ \$50/ ft ²	\$186,705.00
21. Retaining Wall Toe Protection "Contec Armor-flex" 6786.9 ft ² @ \$20/ ft ²	\$135,738.00
22. Sanitary Sewer Relocations 71+52 8 in. dia. Eastwood Dr. \$78,250.00 79+24 8 in. dia. Whites Nursery Sub. \$66,050.00 93+36 18 in. dia. Cleaveland St. North \$90,260.00 99+10 15 in. dia. Sixth St. \$82,950.00 102+60 15 in. dia. Fifth St. \$71,050.00 106+56 6 in. dia. Fourth St. \$18,400.00 Estimated Construction Subtotal Cost \$406,960.00	\$406,960.00
23. Watermain Relocation/Replacement 136+67 12 in. dia. Second & Maple St. \$39,900.00 124+42 8 in. dia. McEwan St. \$43,775.00 118+30 12 in. dia. Pine St. North of the Railroad \$46,200.00 116+54 8 in. dia. Second St. North of the Railroad \$42,050.00 107+68 10 in. dia. Fourth St. \$34,875.00 104+03 8 in. dia. Fifth St. at Jefferson \$43,000.00 99+53 8 in. dia. Sixth St. \$37,500.00 Estimated Construction Subtotal Cost \$287,300.00	\$287,300.00
24. Foot Bridges Sta. 83+00 and 92+00 2 each 48 ft. long x 6 ft. wide metal fabricated arch foot Bridges with railings, treated lumber deck, abutments, approach ramps @ \$9000 ea.	\$18,000.00
25. Reinforce Covered Farm Bridge Sta. 158+91.9 Install steel piling abutments or 3 sided concrete box culvert and reconstruct approaches	\$48,000.00
26. Restoration 2270 Rd ² Idle land @ \$38/sq. rd. 965 Rd ² Lawns @ \$106/sq. rd.	\$188,550.00
27. Erosion Control Blanket 18,000 sq. yd. @ \$2.50/ yd ²	\$45,000.00
CONSTRUCTION SUBTOTAL	\$3,970,000.00

* Costs that are supplemental as provided by rules adopted under ACT51-PA 1951 as amended-Section 14a and pursuant to Section 142 of the Michigan Drain Code Act 40-PA 1956.