

PAVEMENT CALCULATIONS

| | | | |
|-------------------|-------|---------|-------------|
| FED. RD. DIVISION | STATE | PROJECT | FISCAL YEAR |
| 2 | OHIO | | 573 |

LAK-84-(0.43-1.44)
LAKE COUNTY

| EARTHWORK | | | | |
|--------------------------------|-----------|---------------|---------------|---------------|
| Stations | | Excavation | Embankment | Embank.+22% |
| From | To | Cu. Yds. | Cu. Yds. | Cu. Yds. |
| WILLOUGHBY HILLS VILLAGE | | | | |
| 0+10 | 10+00 | 236 | 879 | 1072 |
| 10+00 | 19+06.6 | 293 | 782 | 954 |
| Chardon Rd. (S.R.84 & U.S.6) | | 220 | 52 | 63 |
| Intersections | | 61 | - | - |
| Drives | | 29 | - | - |
| TOTAL WILL. HILLS VILL. | | 839 | 1713 | 2089 |
| CITY OF WICKLIFFE | | | | |
| 19+06.6 | 30+00 | 1176 | 2538 | 3096 |
| 30+00 | 40+00 | 1157 | 887 | 1082 |
| 40+00 | 50+00 | 16113 | 664 | 810 |
| 50+00 | 60+00 | 318 | 620 | 756 |
| 60+00 | 70+00 | 308 | 602 | 734 |
| 70+00 | 80+00 | 332 | 548 | 669 |
| 80+00 | 90+00 | 280 | 1008 | 1230 |
| 90+00 | 100+00 | 1625 | 5806 | 7083 |
| 100+00 | 110+00 | 301 | 6059 | 7392 |
| 110+00 | 120+00 | 851 | 564 | 688 |
| 120+00 | 130+00 | 232 | 585 | 714 |
| 130+00 | 140+00 | 369 | 478 | 583 |
| 140+00 | 149+41.11 | 1013 | 436 | 532 |
| Intersections | | 702 | | |
| Drives | | 553 | | |
| TOTAL CITY OF WICKLIFFE | | 25,357 | 20,795 | 25,369 |
| GRAND TOTALS | | 26,196 | 22,508 | 27,458 |

| EARTHWORK RECAP | | |
|---------------------------------------|----------------------|----------------------|
| | Available Embankment | Embank.+22% Required |
| | Cu. Yds. | Cu. Yds. |
| Totals from Earthwork Table | 26,196 | 27,458 |
| Wear Course Removal (6788 x 2.5 ÷ 36) | 471 | |
| Pavement Removal (7912 x 10 ÷ 36) | 2198 | |
| Available from Items 3-22 & 5-24 | 545 | |
| TOTAL AVAILABLE EMBANKMENT | 29,410 | |
| | - 27,458 | |
| TOTAL SURPLUS EXCAVATION | 1952 | |

BITUMINOUS TACK COAT (0.10 GAL PER SQ.YD.) ITEM T-30

WILLOUGHBY HILLS VILLAGE :

Sta 0+60 to Sta.19+06.6
 $1846.6 \times 24 \div 9 = 4924 \text{ Sq.Yds.}$

Extra Areas (From Plan Shts.)

Sta 0+10 to Sta.0+60 = 244 " "
 Eddy Rd. = 66 " "

$5,234 \text{ Sq.Yds.}$

$5,234 \times 0.10 = 523 \text{ Gal.}$

Additional from Plan Shts. = 28 "

TOTAL WILLOUGHBY HILLS VILLAGE = 551 Gal.

CITY OF WICKLIFFE :

Sta.19+06.6 to Sta.149+16
 $13009.4 \times 24 \div 9 = 34,692 \text{ Sq.Yds.}$

Extra Areas (From Plan Shts.):

- Johnson Dr. = 20 " "
- Clark Dr. = 19 " "
- Bishop Rd. = 328 " "
- E. 290th St. = 322 " "
- Lincoln Rd. = 172 " "
- Green Ridge Dr. = 28 " "
- Sunset Rd. = 104 " "
- Rockefeller Dr. = 287 " "
- E. 300th St. = 34 " "
- Garden Dr. = 90 " "
- Rush Rd. = 139 " "
- Country Club Dr. = 94 " "
- Ridgehurst Dr. = 81 " "
- Pine Ridge Dr. = 86 " "
- Sta. 149+16 to Sta. 149+41.11 = 75 " "

$36,571 \text{ Sq.Yds.}$

TOTAL CITY OF WICKLIFFE = 36,571 x 0.10 = 3,657 Gal.

CONCRETE CURB, TYPE 3-B ITEM I-12

WILLOUGHBY HILLS VILLAGE :

Sta. 0+60 to Sta. 19+06.6
 $1,846.6 \times 2 = 3,693 \text{ Lin.Ft.}$

Additional for Intersections = 233 " "

Gross Length = 3,926 Lin.Ft.

Deduction for Intersections = -102 " "

TOTAL WILLOUGHBY HILLS VILL. = 3,824 Lin. Ft.

CITY OF WICKLIFFE :

Sta. 19+06.6 to Sta. 149+16
 $13,009.4 \times 2 = 26,019 \text{ Lin. Ft.}$

Net Addition for Equations = 6 " "

Additional for Intersections = 1,450 " "

Additional from Detail Sht.# 67 = 33 " "

Gross Length = 27,508 Lin. Ft.

Deduction for Intersections = -1,647 " "

TOTAL CITY OF WICKLIFFE = 25,861 Lin. Ft.

SUBGRADE COMPACTION ITEM E-1

WILLOUGHBY HILLS VILLAGE :

Passing Lane (U.S.#6 & S.R.#84) = 190 Sq.Yds.

TOTAL WILLOUGHBY HILLS VILL. = 190 Sq.Yds.

CITY OF WICKLIFFE :

Sta. 37+50 to Sta. 52+50 = 1,500 Lin. Ft.

Sta. 93+50 to Sta. 108+00 = 1,450 " "

$2,950 \text{ Lin. Ft.}$

$2,950 \times 26 \div 9 = 8,522 \text{ Sq.Yds.}$

Bishop Rd. = 328 Sq.Yds.

TOTAL CITY OF WICKLIFFE = 8,850 Sq.Yds.

WATER ITEM E-11

WILLOUGHBY HILLS VILLAGE :

Item I-22 = 238 Cu.Yds.

Item B-119 = 59 " "

Embankment = 2,089 " "

$2,386 \text{ Cu.Yds.}$

$2,386 \times 5 \div 1000 = 12 \text{ M.Gal.}$

TOTAL WILLOUGHBY HILLS VILL. = 12 M. Gal.

CITY OF WICKLIFFE :

Item I-22 = 30 Cu.Yds.

Item B-119 = 311 " "

Embankment = 25,369 " "

$27,810 \text{ Cu.Yds.}$

$27,810 \times 5 \div 1000 = 139 \text{ M.Gal.}$

TOTAL CITY OF WICKLIFFE = 139 M. Gal.

COMMERCIAL FERTILIZER (10-6-4) ITEM L-9

WILLOUGHBY HILLS VILLAGE :

Seeding Area from X-Sections = 7,795 Sq.Yds.

$7,795 \times 9 \times 20 \div 1000 = 1,403 \text{ Lbs.}$

TOTAL WILLOUGHBY HILLS VILLAGE = 1,403 ÷ 2000 = 0.70 Ton

CITY OF WICKLIFFE :

Seeding Area from X-Sections = 71,410 Sq. Yds.

$71,410 \times 9 \times 20 \div 1000 = 12,854 \text{ Lbs.}$

TOTAL CITY OF WICKLIFFE = 12,854 ÷ 2000 = 6.43 Tons

ITEM T-70 7" PORTLAND CEMENT CONC. PAVEMENT

CITY OF WICKLIFFE

97 Cu.Yds = $97 \times 36 \div 7 = 514$ 514 Sq.Yds.

ITEM T-70 8" PORTLAND CEMENT CONC. PAVEMENT

CITY OF WICKLIFFE

Estimated (As directed by the Engineer) 100 Sq.Yds.