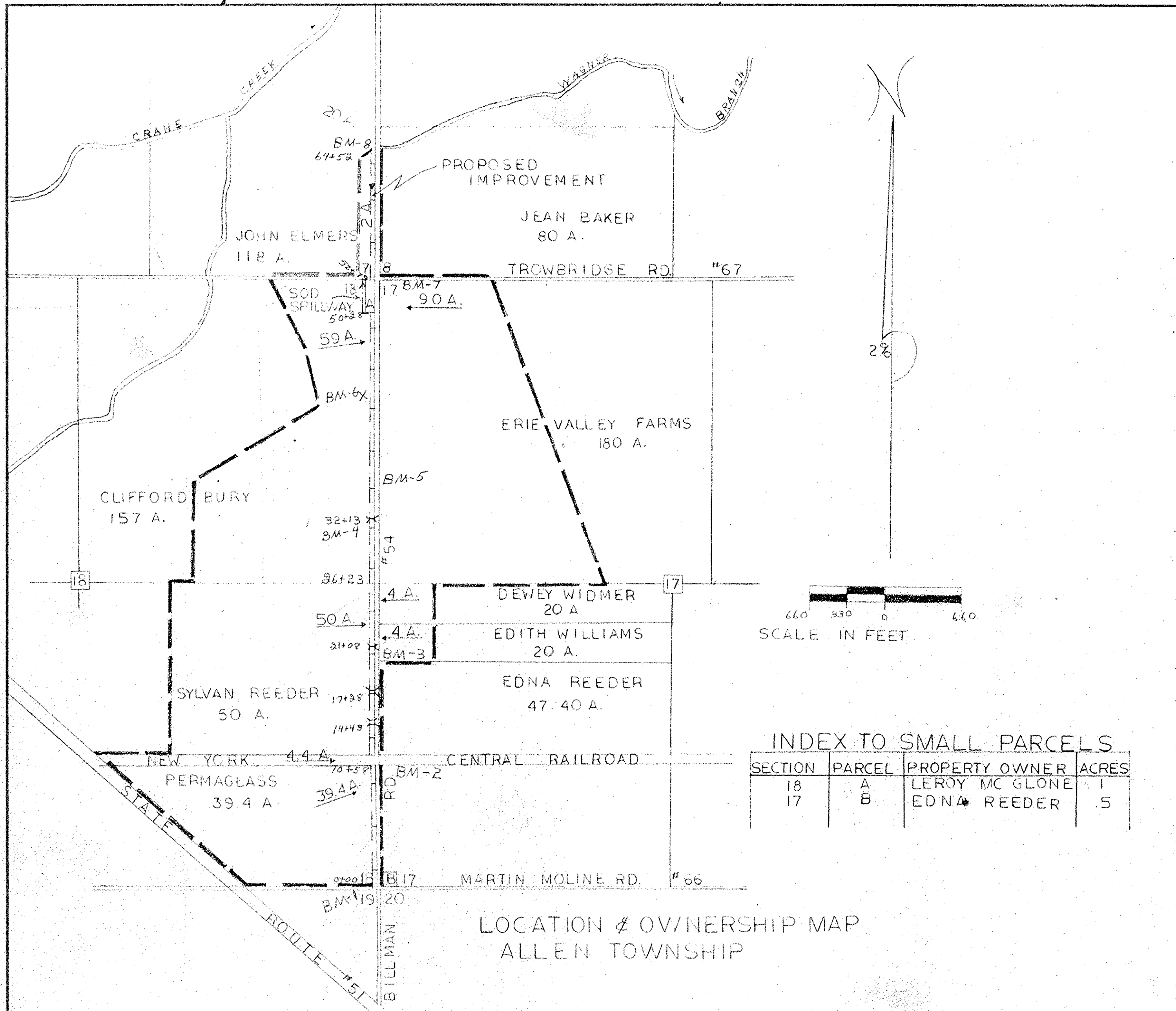


Done



INDEX TO SMALL PARCELS

SECTION	PARCEL	PROPERTY OWNER	ACRES
18	A	LEROY MC GLONE	1
17	B	EDNA REEDER	5

LOCATION & OWNERSHIP MAP ALLEN TOWNSHIP

- I. **PROPOSED IMPROVEMENT**
 1. Bottom width: The bottom width shall be THREE (3) feet between st. 0+00 and st. 64+52.
 2. Bank Slopes: The ditch bank slopes are to be constructed to a 1:1 1/2 foot horizontal to 1 foot vertical.
 3. Alignment: The centerline of the improvement shall be approximately the centerline of the existing ditch unless otherwise indicated on the plan.
 4. Total excavation: The total excavation consists of 2390.50 cubic yards of earth over 6452 linear feet of ditch.
 5. Excess Yardage: An extra compensation will be paid for such excavation in excess of 2390.50 cubic yards. This extra shall be made from cross-sections of the proposed ditch. The contractor should view the proposed work to his own satisfaction.
- II. **UTILITIES**
 All trees and/or brush which would interfere with the excavation operation must be cleared from the ditch right-of-way shown of the construction operations. Stumps on the berm should be removed or cut as low as cutting tools permit. Cleared debris should be disposed of by burning or removed from the right-of-way.
- III. **BERM WIDTH**
 Unless otherwise noted the berms will have the following minimum widths: four (4) feet wide for ditches up to four (4) foot depth; six (6) feet wide for four to six foot depth; and ten (10) feet wide for ditches over six feet in depth.
- IV. **SPILLWAYS**
 Excavated material should be deposited and spread along the field side of the ditch, as determined, except when used for levees, and in overflow areas with timber or brush cover. Slope of the spoil side representing a minimum of 1:1 on the planned side and at least 3:1 on the field side. The height of the spoil should not exceed one foot above average ground level. Spoils shall be provided for surface water to enter the ditch.
- V. **LANDOWNERS**
 Landowners shall protect their tile outlets with a section of continuous rigid pipe and flanges or grid to secure joints. For details of construction see your Soil Conservation Technician.
- VI. **SURFACE WATER**
 Wherever a lateral or a surface ditch enters the main ditch at a higher elevation protection from erosion should be provided by drop structures, pipe drops, other suitable structure or grassed waterway. For assistance on outlets see your Soil Conservation Technician.
- VII. **DITCH BANK SEEDING**
 The ditch banks will be seeded, immediately after each day's work, to tall fescue (Kentucky 31 or Alta) at the rate of 25 lbs. per acre. A minimum of 500 lbs. of 10-10-10 fertilizer or equivalent will be applied. 2 acres of ditch bank seeding will be required.
- VIII. **CULVERTS**
 Existing culverts will be cleaned and the inverts (flow line) lowered to correspond to the proposed ditch grade as indicated on the plan.

BENCH MARK DESCRIPTION

STATION	DESCRIPTION	INSTALL
10+58.30"	INS TALL	32+13.30"
17+28.24"	INS TALL	52+79.42"
14+43.24"	INS TALL	64+52.60"

OR
SOD SPILLWAY FOR EXCESS FLOW

- BM-1- TOP OF R.R. SPIKE IN POWER POLE IN S.W. CORNER OF INTERSECTION OF MARTIN MOLINE AND BILLMAN ROAD. M.S.L. ELEV. 615.92
- BM-2- (U.S.G.S. BM) TOP OF CHISELED X ON S.W. CORNER OF SIGNAL BASE S. SIDE OF R.R. 50' E. OF BILLMAN RD. M.S.L. ELEV. 616.03
- BM-3- TOP OF SPIKE IN W. SIDE OF POWER POLE E. SIDE OF RD. N. EDGE OF E. WILLIAMS BLDG AREA. M.S.L. ELEV. 613.38
- BM-4- TOP OF S. END OF 24" R/C SEWER USED FOR FARM DRIVE W. SIDE OF BILLMAN RD. 32+13 M.S.L. ELEV. 610.03
- BM-5- TOP OF SPIKE IN N.E. ROOT OF HICKORY TREE 200' N. OF C. BENCH HOUSE E. SIDE OF 36+54 BILLMAN RD. M.S.L. ELEV. 612.79 (SAME AS BM 2 ERIE VALLEY FARMS)
- BM-6- TOP SPIKE IN W. SIDE OF POWER POLE W. SIDE OF RD. 950' S. OF INTERSECTION. 43+08 (SAME AS BM 4 CLIFFORD BURY) M.S.L. ELEV. 612.31
- BM-7- TOP OF E. END OF 24" CMP UNDER BILLMAN RD. IN S.E. CORNER OF INTERSECTION. 52+77 (SAME AS BM 6 ERIE VALLEY FARMS) M.S.L. ELEV. 608.60
- BM-8- TOP OF X ON S.W. WING WALL OF CULVERT UNDER BILLMAN RD. 64+52 M.S.L. ELEV. 609.57

LEGEND

PROPOSED IMPROVEMENT	=====
HIGHWAYS	=====
PROPERTY LINE	-----
SECTION CENTER	-----
WATER SHED	-----
SECTION CORNER	XXXX
ACRES OWNED	XXA
ACRES BENEFITED	XXA

THIS DITCH PLAN HAS BEEN APPROVED BY:
John G. Papoun 2/29/68
 OTTAWA COUNTY ENGINEER DATE

LOCATION: E 1/2 OF SEC. 18 & E. 1/2 OF S.E. 1/4 OF SEC. 7 ALLEN TWP. OTTAWA COUNTY, OHIO.

SURVEYED: 4-25-67 E. CAMPBELL-D. SOMMER, D. OFFER.

REFERENCE: FIELD NOTES ON FILE IN OTTAWA SOIL & WATER CONSERVATION OFFICE. JOB CLASS IV GROUP #31

SUPPORTING DATA

DRAINAGE AREA	253 ACRES
LAND USE	GENERAL, SPECIAL-FARMING
SOIL TYPE	HOYVILLE
LAND SLOPE	0-2 %
DESIGN COEFFICIENT	0.6 CURVE
TYPE DRAINAGE	SURFACE & TILE

CONSTRUCTION DATA

STATION	BOTTOM WIDTH	SIDE SLOPES	CUBIC YARDS	GRADE	AVERAGE DEPTH
4+58	3'	1 1/2-1	47.50	.30	3.0'
10+58	3'	1 1/2-1	47.50	.05	3.2'
14+43	3'	1 1/2-1	150.00	.20	3.8'
21+08	3'	1 1/2-1	425.00	.10	4.5'
32+13	3'	1 1/2-1	322.00	.05	4.5'
53+16	3'	1 1/2-1	808.50	.07	5.0'
63+02	3'	1 1/2-1	492.50	.15	4.5'
64+52	3'	1 1/2-1	97.50	0.80	3.5'
			2390.50		

DITCH IMPROVEMENT BURY-BILLMAN ROAD DITCH ALLEN TOWNSHIP OTTAWA COUNTY, OHIO.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

Designed	Date	Approved by
Donald Offer	10/67	<i>Richard A. Craft</i>
Drawn		Title
Donald Offer	10/67	
Traced		Title
Checked	No	Sheet
<i>R. J. Craft</i>	10/67	1 of 3

Drawing No. 34-1-83-67-18

HYDRAULIC CALCULATION

CHANNEL FLOW: $V = \frac{1.486}{N} R^{2/3} S^{1/2}$

HEAD LOSS IN CULVERTS: $H = \frac{V^2}{2g} (1 + KE + KPL)$

REACH	STA. TO STA.	0+00	4+58	11+33	14+55	21+37	32+13	53+16	64+52	STATION	10+58	14+43	17+28	21+08	32+13	50+28	52+79	64+52
DRAINAGE AREA		14	45	56	82	110	253	271		DRAINAGE AREA	45	56	66	82	110	140	251	271
Q @ FLOW		3.5	7.5	9.5	14	19	42	49		Q @ FLOW - CFS	7.5	9.5	11.1	14	18.7	23.6	41	44
"N"		.04	.04	.04	.04	.04	.04	.04		DIAMETER - IN.	30"	24"	24"	24"	30"	36"	42"	54"
SLOPE - S		.0020	.0005	.0020	.0010	.0005	.0007	.0015		TYPE	CAST	CAST	R/C	CAST	R/C	R/C	R/C	R/C
S 1/2		.0048	.0034	.0047	.0031	.0034	.0026	.0027		LENGTH - FT.	75'	12'	16'	19'	32'	247'	37'	26'
Q / S 1/2 = KD		46	335	212	443	848	1579	1137		X SECTIONAL	491	3.14	3.14	3.14	4.91	7.07	9.62	17.90
KD VALUE USED		51	360	213	448	854	1617	1158		AREA SQ.FT.	.0107	.014	0.012	0.014	.0092	0.072	0.059	0.042
SIDE SLOPE		15:1	15:1	15:1	15:1	15:1	15:1	15:1		KP	.80	.168	0.19	.27	0.294	1.78	2.18	.11
BOTTOM WIDTH (FT.)		3'	3'	3'	3'	3'	3'	3'		KE	.50	.50	.50	.50	.50	.50	.50	.50
DEPTH (FT.)		0.6	1.7	1.3	1.9	2.6	3.5	3.0		VELOCITY-FPS	1.5	3.0	3.54	4.5	3.81	3.34	4.26	2.77
AREA (SQ. FT.)		2.34	9.45	6.45	11.13	17.94	28.80	22.50		HEADLOSS-FT.	.08	.23	0.33	.55	0.41	0.57	0.49	0.19
VELOCITY = Q/A (FPS)		1.07	.8	1.5	1.2	1.06	1.50	1.96										

All calculations based on "B" coefficient. Culvert at Sta 50+28 will carry "C" coefficient which meets min. SCS Criteria. Notes: All velocities shown assume free flow condition. Controlling HW = 2.70' (inlet control) Ref: U.S.B.P.R.

PAULINE YOUNG - 1/2 INT
265-289

CHRISTINA HAFZIGER - 1/8 INT
LINDA YOUNG - 1/8 INT
MARY LOU PASKOWSKI - 1/8 INT
SOSAN YOUNG - 1/8 INT
21.77-Ac 322-411

James W. & BEADA J. ELMERS
38.35-Ac. 362-521, 523
408-421
412-450

JOE P. ELMERS
64.9319-Ac 408-424
362-521

EARLY & Debra Cheney
1.97-Ac
601-00260-00403-000

James W. & BEADA J. ELMERS
12.5682 AC 408-421
412-450 Sec 7

James & Carolyn Puehler
14.72-Ac 227-986
337-370

Table:
Puehler Terrace
1 2 3 4 5 6

CENTERLINE OF 8' EASEMENT TOLEDO Edison COMPANY 341-655

37-93 - Columbia Gas Co. Easement.

RITA A. & LEONARD BUCK, M.D.
65.379-A. 326-846

LEONARD & RITA A. BUCK
4.621-Ac 377-424

JAMES B. & LAURIE M. REYNOLDS
9.0013 Ac 299-895

JAMES B. REYNOLDS
3.7574-Ac. 394-854

PEGGY A. ESTES
JACQUELIN S. BAKER
RALPH A. BAKER, III
80.0-Ac. 355-257
Jean E. Baker LIFE ESTATE

Branch Turtle Creek

North

Billman Road T.R. #54 60' R/W

Trowbridge Road T.R. #67 60' R/W

DOUGLAS & LILLIAN MARTIN | 1.00-A | Sec 18

CLIFFORD C. & MODONNA A. BURY, TRUSTEES
157.0-A. 227-138 385-817

M. & SANDRA M. PEETNER | 0.51-A |

59.45 Ac 60%

59.45 Ac 65%

Allen 18

ROSEMARIE E. BENCH
40-A. 297-378
Parcel I

ROSEMARIE E. BENCH
80-A. 297-378
Parcel III

ROSEMARIE E. BENCH
40-A. 297-378
Parcel II

39.4 Ac 60%

40 Ac 60%

15.6 Ac 60%

Billman Road T.R. #54 60' R/W

The Toledo Trust Company
Trustee of the Trust
38.25-A. 235-955

Joe P. & Janet L. Elmers
51.75-A. 387-743

DANIEL E. WIDMER | 0.255 |

51.75 Ac 80%

68 Rds.

92 Rds.

90 Rds.

Joe & Janet Elmers
19.235-A. 307-13

Janet L. Elmers
20.00-A. 307-281
407-263

Edna Reeder
48.086-A 215-313
Misc. 11-461

39.109 ch.

39.067 ch.

3.285 Ac 75%

4 Ac 75%

Billman Road T.R. #54 60' R/W

Permaglass Inc.
6.71-A. 206-4501

Permaglass Inc.
26.78-A. 207-65

Donald M. Reeder & int.
Cliffon D. Reeder & int.
14.94-A. 316-39

DOUBLE SEAL GLASS CO., INC.
7.56-A. 321-275

7.56 Ac 100%

7.56 Ac 100%

Moline-Martin Road C.R. #66 60' R/W

Reeder Farms, Inc.
38.00-A. 286-621

Reeder Farms, Inc.
22.62-A. 287-611

Joseph P. & Anne L. Zielinski | 2.00-A |

14.005 ch.

100 Rds

14.062 ch.

16.1656 ch.

16.25 ch.

12.292 ch.

Conrail 270

Moline Martin Road C.R. #66 60' R/W

Clav To