

TOWNSHIP OF FLOS
CROSSLAND MUNICIPAL DRAIN
JOB NO. 6822
ENGINEER'S REPORT

AINLEY AND ASSOCIATES LIMITED
Consulting Engineers
105 Hurontario Street
Collingwood, Ontario

MAY 1970

AINLEY AND ASSOCIATES LIMITED
CONSULTING ENGINEERS

CIVIL AND MUNICIPAL ENGINEERING
SURVEYS - REPORTS
DESIGN - SUPERVISION

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105 HURONTARIO STREET
COLLINGWOOD
ONTARIO
TELEPHONE 448-3481

May 7th, 1970.

Reeve and Members of Council,
Township of Flos,
Elmvale, Ontario.

Gentlemen:

RE: Township of Flos - Job No. 6822
Crossland Municipal Drain
Engineer's Report

Acting on a valid petition for improved drainage presented to Council on November 8th, 1968, we have carried out an investigation of the above area formerly known as the Locke Award Drain and wish to submit a report at this time.

Those owners petitioning for improved drainage are at the upstream end of the former Locke Award and on the boundary of what is now known as the Phelpston Marsh Drain. The land is flat to gently sloping and the most serious problem appears to be in obtaining proper outlets for farm tile under drainage systems as well as some isolated areas where flooding occurs.

After investigating the area and preparing a plan and profile we recommend the following:

The main drain commencing at the County Road between Lots 15 and 16 is to be deepened as shown on the profile, but generally will be an average of 4 feet below natural ground level to allow for outlet of farm tile. The main drain is to follow its present course up to the point where it meets the road between Concession 6 and 7. At this point it will be diverted across the road between Concession 6 and 7, and proceed Northerly approximately 20 feet West of the Easterly limit of Lot 20, Concession 7 to a point where it meets an existing branch drain, then proceed Westerly along said branch drain to cross the road between Concession 6 and 7 at an existing culvert, and rejoin the present course of the main drain in the North-West corner of Lot 20, Concession 6. From this point it will follow the existing watercourse generally, except that sharp bends and twists will be removed.

We propose to terminate the Work at approximately Station 262+00 or approximately 1,400 feet South of the culvert where the Drain crosses the road between Concession 5 and 6. We propose to make an allowance for "Insufficient Outlet" to the owner downstream from this point rather than excavate the drain through to its outlet at the Nottawasaga River. The ditch bottom downstream from Station 262+00 is confined into a well defined ravine. Thus, any resultant flooding will be confined to a small acreage of non-productive farm land.

Existing Beaver Dams near the Concession 6 culvert are to be removed or destroyed.

The Contractor shall be responsible for repairing and replacing fences to the same condition as he found them.

A new culvert across the road between Concession 6 and 7 at the East limit of Lot 20 will be required. The existing culvert crossing the road in the West 1/2 of Lot 20 will have insufficient capacity and will need to be lowered. The existing culvert is a 7'0" x 5'1" metal pipe arch culvert, and is the correct theoretical size for the new culvert required at the East limit of Lot 20. We recommend that the existing culvert be removed and replaced in the new location at the East limit of Lot 20.

The existing culvert in the West 1/2 of Lot 20 shall be replaced by a metal pipe arch culvert equivalent to the 9'6" x 6'5" pipe arch under the road between Lots 20 and 21. The existing culvert under the 20th Sideroad will have to be lowered to conform to the new ditch grade.

All the above culvert work on Township roads shall be done by the Township at the Township's expense.

Three (3) branch drains will be constructed. Branches "A" and "B" will commence at Station 0+00 on the main drain where it crosses the County Road between Lots 15 and 16.

Branch "A" shall proceed Southerly approximately 20 feet East of the West limit of Lot 15 across the road between Concession 5 and 6, then Easterly approximately 10 feet South of the North limit of Concession 5 to the fence line between Lots 14 and 15, Concession 5. Branch "A" shall also proceed Southerly from the road between Concession 5 and 6 for a distance of approximately 300 feet, offset 10 feet East from the West limit of Lot 15. This branch shall be an open ditch from the main drain to the road allowance between Concession 5 and 6, the balance to be an enclosed 10 inch dia. clay field tile placed by a suitable trenching machine.

Existing fences will remain except at points where the Contractor must cross them to lay tile. These crossings will be reinstated to their original condition.

done between Lots

A culvert shall be placed across Concession 5 and 6 and this work shall be done by the Township of Flos.

Branch "B" will commence at the same point as Branch "A", and will proceed Northerly along the West limit of Lot 15 approximately 200 feet to an existing ditch, then follow the existing ditch Easterly to 20 feet East of the East limit of Lot 15, then Northerly approximately 200 feet, then Easterly following an existing ditch across the West 1/2 of Lot 14, Concession 6 to a point some 20 feet East of the present fence line between the East and West halves of Lot 14. An extension of Branch "B" will run Northerly parallel to and 20 feet East of the East limit of Lot 15 to 20 feet South of the South limit of the North 1/2 of Concession 6, thence Northerly approximately 1,000 feet.

Branch "C" will commence near the East limit of Lot 20, Concession 7 where the main drain has been diverted across the road to an existing ditch, as noted earlier. Branch "C" shall proceed through Lots 18 and 19 along an existing watercourse to the concrete culvert across the road between Concession 6 and 7, and shall end 20 feet from the South end of said culvert.

Enclosed tile drains on Branch "A" shall be located within 10 feet of the fence line. Excavated material shall be used as backfill and the surplus material shall be spread over the line of the trench. As in open ditch construction, a 60 foot working width will be allowed for construction and maintenance, although on completion of the work the full 60 foot width will be available to the owner for farming purposes.

No opening will be left in the tile drain to pick up surface run-off. The tile drain will drain low areas where the water tends to pond in a short period of time. At present, there is some problem of surface water crossing the Township road between Concession 5 and 6 and flowing North-Westerly across Lot 15, Concession 6. It is expected that in the near future the road between Concession 5 and 6 will be reconstructed, at which time it will be raised and shallow roadside ditches constructed, draining to the culvert crossing Concession 5 and 6 on Branch "A". This will remedy any problems of water flowing over the road onto Lot 15, Concession 6.

The ditch shall have a minimum bottom width of 2 feet, but the bottom widths shall be as shown on the profile accompanying this report. The ditch shall in all cases have side slopes of 2 feet horizontally to one foot vertically. Where the ditch parallels an existing fence, the ditch bottom shall be a minimum of 20 feet from the fence, but not greater than 40 feet. For purposes of construction, the ditch shall be considered as having a 60 foot working width although the actual finished width will vary with depth, but will be an average of 25 feet wide at the top. Excavated material shall be deposited on one or both sides of the ditch and shall be spread to a minimum depth of 2 feet. Sufficient openings shall be left to allow for drainage from adjacent lands.

Culverts to be installed shall be as noted below and unless otherwise noted will be installed as part of the Drain.

BRANCH "A"

Kloosterman Farm entrances
2 48" dia. pipe arch

Across road between Concession 5 and 6
58" x 36" pipe arch - installed by the Township

BRANCH "B"

Field Crossing
2 18" dia. Corrugated Iron Pipe

BRANCH "C"

Field Crossing
48" dia. Corrugated Iron Pipe - Station 10+19

MAIN DRAIN

Lot 16 - Station 5+00 and Station 10+15	60" dia. C.I.P.
Lot 17 - Station 32+50	Retain Exist. 3' x 6' Concrete
Lot 18 - Station 55+00 and Station 67+85	60" dia. C.I.P.
Lot 19 - Station 88+00	72" dia. C.I.P.
Concession 6 and 7 - Station 102+50	(7'0" x 5'1" metal pipe arch to be installed by Township (use exist. pipe arch from Station 118+00))
East 1/2 Lot 20	7'0" x 5'1" metal pipe arch
Concession 6 and 7 - Station 118+00	9'4" x 6'3" metal pipe arch to be installed by Township
Sideroad 20 - Station 125+00	Exist. 9'4" x 6'3" metal pipe arch to be lowered by Township
Lot 21 - Station 144+00	7'0" x 5'1" metal pipe arch
Lot 21 - Station 156+30	9'4" x 6'3" metal pipe arch
Lot 22 - Station 178+20	9'4" x 6'3" metal pipe arch
East 1/2 Lot 23	9'4" x 6'3" metal pipe arch
East 1/2 Lot 24	9'6" x 6'5" metal pipe arch
West 1/2 Lot 24	9'6" x 6'5" metal pipe arch

Where noted "to be installed by the Township" those culverts shall be installed by the Township of Flos at their expense. The existing concrete culvert across Sideroad 15 and 16 at the beginnings of Branches "A" and "B" and the Main Drain has adequate capacity and need not be lowered. However in the event of any undermining of scouring action as a result of the drainage works, any repair or replacement of the culvert shall be the responsibility of the County of Simcoe Roads Department.

Two of the owners, Mr. Kloosterman and Mr. Doane have indicated that if the drainage works are not completed by next Spring, they will suffer damages due to insufficient outlet for their field tile. If such is the case we recommend that these owners hire a backhoe and excavate the ditch as necessary and retain the receipts of their expenses. An allowance will be made to them for the work done on the Drain.

The amount charged to lots where assessment for drainage is less than \$25.00 may be assumed by the Township under Sub-Section 4, section 40 of the Drainage Act. We have estimated such assessment for the hamlet of Crossland to be \$ 200.00 and recommend that the Township of Flos assume this cost.

Allowances under Section 8 of the Drainage Act are made to the respective owners as follows:

BRANCH "A"

<u>Owner</u>	<u>Lot or Part</u>	<u>Land Taken for Drain</u>	<u>Outlet Liability</u>
W. McElwain	Lot 15, Con. 5	150.00	
S. Kloosterman	Lot 15, Con. 6	400.00	

BRANCH "B"

S. Kloosterman	Lot 15, Con. 6	1,350.00	
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BRANCH "C"

G. Conn	Pt. 20, Con. 7	50.00	
F. Baks	Pt. 19, Con. 7	650.00	
C. Johnson	Pt. 18, Con. 7	240.00	

MAIN DRAIN

L. Doan	S1/2 Lot 16, Con. 6	600.00	
L. Ryther	S1/2 Lot 17, "	750.00	
L. Archer	SE1/2 Lot 18, Con. 6	300.00	
	N1/2 Lot 18, Con. 6	160.00	
G. Smith	S1/2 Lot 19, Con. 6	220.00	
F. Baks	N1/2 Lot 19, Con. 6	720.00	
E. Kleingebbinck	N1/2 Lot 20, Con. 6	200.00	
G. Conn	SE1/4 Lot 20, Con. 7	420.00	

Owner	Lot or Part	Land Taken for Drain	Outlet Liability
Simcoe County	SW1/4 Lot 20, Con. 7	300.00	
E. Langman	N1/2 Lot 21, Con. 6	860.00	
E. Edwards	S1/2 22, Con. 6	600.00	
W. Conn	SE1/4 Lot 23, Con. 6	180.00	
Simcoe County	SW1/4 Lot 23 & SE1/4 Lot 24, Con. 6	330.00	
E. Priest	(SW1/4 Lot 24, Con. 6	180.00	
W. Smith	(
C. Alldred	S1/2 Lot 25, Con. 6	150.00	
A. Vahtra	Lot 25, Con. 5	<u>200.00</u>	<u>600.00</u>
	TOTAL	<u>\$9,010.00</u>	<u>\$ 600.00</u>

We estimate the Cost of the Work to be as follows:

ESTIMATE OF COST

1.	Clearing & Grubbing	\$12,500.00
2.	Excavation, incl. spreading of excavated materials	41,115.00
3.	Supply, excavate for, place & backfill 10" dia. clay tile	1,670.00
4.	Supply, place & backfill farm crossings	12,500.00
5.	Remove & replace farm fences	860.00
6.	Allowance for land	9,010.00
7.	Allowance for Insufficient Outlet	600.00
8.	Investigation and Preparing Report	10,000.00
9.	Clerk's Fees	200.00
10.	Court of Revision	100.00
11.	Preparing and Printing By-Law	200.00
12.	Setting out and Supervision of Work	<u>4,900.00</u>
	TOTAL ESTIMATED COST	<u>\$93,655.00</u>

✱

This sum of \$93,655.00 we assess against the lands and roads to be benefitting or using this Drain as an outlet as shown on the attached Schedule of Assessment.

The whole of the work lies in the Township of Flos. The Drain and Branches shall be maintained by the Township of Flos and the costs of such maintenance is to be assessed pro-rata against the lands and roads as set out in the Schedule of Assessment.

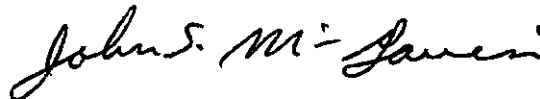
Of the lands assessed 3,419 Acres are assessed as Agricultural Land.

The elevations of the proposed works are related to an assumed elevation of 200.00 for top of the North-West corner of the existing concrete culvert on the County Road at Station 0+00 of the Main Drain. The elevations of the Work shall be controlled by further benchmarks as described on the profile.

The Work shall be known as the Crossland Drain and shall be located as shown on the plan and profile and as subsequently staked out on the ground. The accompanying plan, profile, specifications and Schedule of Assessment shall be considered as part of this Report.

All of which is respectfully submitted.

AINLEY AND ASSOCIATES LIMITED



J. S. McGavin, P. Eng.

JSM/gl

SCHEDULE OF ASSESSMENT FOR THE
CONSTRUCTION AND MAINTENANCE OF THE
CROSSLAND DRAIN - TOWNSHIP OF FLOS

BRANCH "A"

Owner	Lot No.	Con. No.	Acres Affected	Assessment For		Total
				Outlet	Benefit	
D. Robertson	N1/2 14	5	15	150.00	300.00	450.00
W. McElwain	N1/2 15		68	680.00	1,660.00	2,340.00
T. Murphy	Pt. SW1/4 14	6	10	100.00		100.00
S. Kloosterman	Pt. SW1/4 14 & S1/2 15		40	400.00	2,250.00	2,650.00
Flos Twp. Roads		6	5.3	106.00	194.00	300.00
Simcoe County Roads		6	10	400.00	360.00	760.00

BRANCH "B"

D. Agar	SE1/4 14	6	41	287.00	360.00	947.00
	<i>W</i> SW1/4 14		20	140.00	220.00	360.00
S. Kloosterman	SW1/4 14 & S1/2 15		100	700.00	1,980.00	2,680.00
C. Langman	N1/2 15		88	616.00		616.00

BRANCH "C"

J. Kleingebbinck	N1/2 16	6	24	120.00		120.00
	N1/2 17		67	335.00		335.00
L. Archer	N1/2 18		33	165.00	400.00	565.00
D. Bell	S1/2 16	7	36	180.00		180.00
F. Kleingebbinck	S1/2 17		71	355.00		355.00

Owner	Lot No.	Con. No.	Acres Affected	Assessment For		Total
				Outlet	Benefit	
C. Johnson	S1/2 18	7	82	410.00	400.00	810.00
F. Baks	S1/2 19		90	450.00	2,200.00	2,650.00
G. Conn	SE1/4 20		10	50.00	200.00	250.00
Flos Township Crossland				100.00		100.00
Flos Twp. Roads		7	10	50.00	40.00	90.00

MAIN DRAIN - Station 0+00 to Branch "C"

D. Robertson	N1/2 14	5	15	120.00		120.00
W. McElwain	N1/2 15		68	544.00		544.00
J. Cowan	N1/2 16		86	688.00		688.00
L. Ryther	NE1/4 17		32	256.00		256.00
L. Handy	NW1/4 17 & N1/2 18		16	128.00		128.00
D. Agar	SE1/4 14 & NW1/4 14		61	488.00		488.00
S. Kloosterman	SW1/4 14 & S1/2 15		140	1,120.00		1,120.00
T. Murphy	Pt. SW1/4 14		10	80.00		80.00
C. Langman	N1/2 15		88	704.00		704.00
L. Doan	S1/2 16		100	800.00	3,600.00	4,400.00
J. Kleingebbinck	N1/2 16 N1/2 17		76 33	608.00 264.00		608.00 264.00

MAIN DRAIN - Station 0+00 to Station 101+40

Owner	Lot No.	Con. No.	Acres Affected	Assessment For		Total
				Outlet	Benefit	
<i>Star</i> L. Ryther	S1/2 17	6	100	800.00	3,375.00	4,175.00
L. Archer	SE1/4 18 & N1/2 18		117	936.00	1,530.00	2,466.00
G. Smith	SW1/4 18 & S1/2 19		68	544.00	450.00	994.00
E. Baks	N1/2 19		100	800.00	1,260.00	2,060.00
Flos Twp. Roads			12.5	200.00		200.00
Simcoe County Roads			10	320.00		320.00

MAIN DRAIN - Branch "C" to End (Station 262+00)

D. Robertson	N1/2 14	5	15	195.00		195.00
W. McElwain	N1/2 15		68	884.00		884.00
J. Cowan	N1/2 16		86	1,118.00		1,118.00
L. Ryther	NE1/4 17		32	416.00		416.00
L. Handy	NW1/4 17 & N1/2 18		150	1,950.00		1,950.00
T. Loftus	S1/2 18		78	1,014.00		1,014.00
J. Milligan	E1/2 19		86	1,118.00		1,118.00
H. Beecroft	NW1/4 19		50	650.00		650.00
A. Debacker	SW1/4 19 & S1/2 20		112	1,456.00		1,456.00
R. Huth	N1/2 20 & S1/2 N1/2 21		150	1,950.00		1,950.00
J. R. Michie	N1/2 N1/2 21		50	650.00		650.00
L. Nelson	S1/2 21		43	559.00		559.00
C. Parker	S1/2 22		19	247.00		247.00

Schedule of Assessment - Cont'd.

Page 11.

Owner	Lot No.	Con. No.	Acres Affected	Assessment For		Total
				Outlet	Benefit	
J. Bloxom	N1/2 22 & E1/2 23	5	148	1,924.00		1,924.00
R.S. Pearce	Pt. NE1/4 23			30.00		30.00
J. Kenny	NW1/4 23		40	520.00		520.00
N. Train	N1/2 24		70	910.00		910.00
A. Vahtra	N1/2 25		20	260.00		260.00
D. Agar	NW1/4 14 & SE 1/4 14	6	61	793.00		793.00
T. Murphy	Pt. SW1/4 14		10	130.00		130.00
S. Kloosterman	SW1/4 14 & S1/2 15		140	1,820.00		1,820.00
C. Langman	N1/2 15		88	1,140.00		1,140.00
L. Doan	S1/2 16		100	1,300.00		1,300.00
J. Kleingebbinck	N1/2 16 & N1/2 17		200	2,600.00		2,600.00
L. Ryther	S1/2 17		100	1,300.00		1,300.00
L. Archer	N1/2 18 & SE1/4 18		150	1,950.00		1,950.00
G. Smith	SW1/4 18 & S1/2 19		150	1,950.00		1,950.00
F. Baks	N1/2 19		100	1,300.00		1,300.00
J. Busch	S1/2 20		100	1,300.00		1,300.00
H.T. Howe	Pt. S1/2 20			26.00		26.00
F. Kleingebbinck	N1/2 20		100	1,300.00	1,350.00	2,650.00
E. Langman	N1/2 21		88	1,144.00	3,690.00	4,834.00
H. Train	S1/2 21		100	1,300.00	450.00	1,750.00
	N1/2 22		33	429.00	450.00	879.00
E. Edwards	S1/2 22		100	1,300.00	1,530.00	2,830.00
W. Conn	E1/2 23		50	650.00		650.00

Owner	Lot No.	Con. No.	Acres Affected	Assessment For		Total
				Outlet	Benefit	
Simcoe County	W1/2 23 & SE1/4 24	6	100	1,300.00		1,300.00
Mrs. Effie Priest	(
Winston Smith	(SW1/4 24		46	598.00		598.00
H. Britton	Pt. SW1/4 24		2	26.00		26.00
C. Alldred	S1/2 25		40	520.00	900.00	1,420.00
D. Bell	S1/2 16	7	36	468.00		468.00
F. Kleingebbinck	S1/2 17		71	923.00		923.00
C. Johnson	S1/2 18		82	1,066.00		1,066.00
F. Baks	S1/2 19		90	1,170.00		1,170.00
J. Lougheed	S1/2 19		3	30.00		30.00
G. Conn	SE1/4 20		38	494.00	1,440.00	1,934.00
Simcoe County	SW1/4 20 & S1/2 21		29	377.00	1,350.00	1,727.00
Flos Township						
Crossland				100.00		100.00
Flos Twp. Roads			59	767.00	700.00	1,467.00
Simcoe County Roads			10	130.00		130.00

SUMMARY OF ASSESSMENTS

Type	Benefit \$	Outlet \$	Total Cost \$	Estimated Grant \$
<u>BRANCH "A"</u>				
Lands	4,210.00	1,330.00	5,540.00	3,693.33
County Roads	360.00	400.00	760.00	-
Township Roads	194.00	106.00	300.00	-
TOTALS	<u>4,764.00</u>	<u>1,836.00</u>	<u>6,600.00</u>	<u>3,693.33</u>
<u>BRANCH "B"</u>				
Lands	2,860.00	1,743.00	4,603.00	3,068.67
TOTALS	<u>2,860.00</u>	<u>1,743.00</u>	<u>4,603.00</u>	<u>3,068.67</u>
<u>BRANCH "C"</u>				
Lands	3,200.00	2,065.00	5,265.00	3,510.00
Township of Flos (Crossland)	-	100.00	100.00	-
Township Roads	40.00	50.00	90.00	-
TOTALS	<u>3,240.00</u>	<u>2,215.00</u>	<u>5,455.00</u>	<u>3,510.00</u>
<u>MAIN DRAIN - Station 0+00 to Branch "C"</u>				
Lands	10,215.00	8,880.00	19,095.00	12,730.00
Township Roads	-	200.00	200.00	-
County Roads	-	320.00	320.00	-
TOTALS	<u>10,215.00</u>	<u>9,400.00</u>	<u>19,615.00</u>	<u>12,730.00</u>
<u>MAIN DRAIN - Branch "C" to End (Station 262+00)</u>				
Lands	11,160.00	44,525.00	55,685.00	37,123.33
Township of Flos (Crossland)	-	100.00	100.00	-
Township Roads	700.00	767.00	1,467.00	-
County Roads	-	130.00	130.00	-
TOTALS	<u>11,860.00</u>	<u>45,522.00</u>	<u>57,382.00</u>	<u>37,123.33</u>

TOTAL ASSESSMENT

Type	Benefit \$	Outlet \$	Total Cost \$	Estimated Grant \$
Lands	31,645.00	58,543.00	90,188.00	60,125.33
Township of Flos (Crossland)	-	200.00	200.00	-
Township Roads	934.00	1,123.00	2,057.00	-
County Roads	<u>360.00</u>	<u>850.00</u>	<u>1,210.00</u>	-
TOTALS	<u>\$32,939.00</u>	<u>\$60,716.00</u>	<u>\$93,655.00</u>	<u>\$60,125.33</u>

And

TOWNSHIP OF FLOS
CROSSLAND MUNICIPAL DRAIN
JOB NO. 6822

SPECIFICATIONS

1. THE WORK

The Work comprised under this Contract shall include the supply of all labour, materials, tools and equipment necessary for the clearing, grubbing, excavation and levelling of excavated materials, replacement of farm crossings and fences or such other work as is incidental to the completed work, all as herein specified or as shown on the accompanying plan and profile.

2. EXTENT OF WORK

The total length of drain to be constructed is approximately 39,000 feet of which 2,400 feet is 10" dia. clay tile. The estimated amount of excavation is approximately 66,000 cubic yards.

3. DETAILS OF DITCH

The ditch shall have a bottom width varying from 2 to 8 feet, with side slopes of 2 feet horizontally to 1 foot vertically. Depths shall be controlled by grade stakes set by the Engineer, but generally will be approximately 4 feet and will vary as shown on the profile.

4. FENCES

Where the ditch crosses a fence, it shall be removed and replaced in good condition at the Contractor's expense. Where the ditch parallels a fence dividing two fields, the Contractor shall preserve it from damage, or make good such repairs as are necessary to put it in as good condition as it was found. Where the ditch runs alongside a road allowance, the Contractor shall remove the existing fence, and replace it with a new fence, as directed by the Engineer, and shall be paid at the unit price bid. New fence shall be woven wire farm fence conforming to D.H.O. Standard DD-901.

5. CLASSIFICATION OF MATERIALS

All material excavated from the drain shall be classified as earth. The price bid shall be full compensation for excavation and spreading excavated material.

6. DISPOSAL OF EXCAVATED MATERIALS

Material excavated from the ditch shall be cast to either side of the ditch and shall be levelled to a depth not exceeding 2 feet. Sufficient openings shall be left to assure adequate drainage of adjacent lands as determined by the Engineer.

7. TILE DRAIN - BRANCH "A"

Approximately 2,400 feet of 10" dia. clay field tile of acceptable quality shall be laid by means of trenching machine, the excavated material to be used for backfill. The tile will be installed an average depth of 3 feet, as shown on the profile.

8. REMOVE AND REPLACE EXISTING FARM CROSSINGS

Except as otherwise noted, existing concrete, timber or metal pipe culverts shall be removed and disposed of clear of the ditch site. Where salvageable, metal culverts shall be excavated and removed and shall remain the property of the Property Owner. New culverts of the size and length specified shall be placed. The price bid shall be compensation in full for removal and disposal of the existing culverts, supply, place and backfill the new culvert and build new approaches to the stream crossing.

9. CLEARING AND GRUBBING

All trees within the 60 feet ditch limits shall be felled and cut into manageable lengths. Where the Owner wishes to retain the trees, the Contractor shall pile the cut up trees at points along the ditch to be determined by the Owner. Where the Owner does not wish to retain the trees, the Contractor shall remove and dispose of them clear of the ditch limits to the satisfaction of the Property Owner. All tree limbs, brush, etc. and tree stumps shall be removed and disposed of clear of the ditch limits, to the satisfaction of the Owner and/or the Engineer.

10. NOTICE TO OWNERS

The Contractor shall give property owners ten (10) days notice prior to entering onto their lands. Where crops are to be removed the Contractor shall notify in writing the property owner in question. Should the property owner not remove crops within ten (10) days of receipt of such written notice from the Contractor, the Contractor will not be responsible for damages to crops within the 60 foot ditch limits.

11. PROSECUTION OF WORK

The Contractor shall commence work on or before the time specified in the Contract, and shall proceed diligently to complete the Work within the time allowed. If the Contractor appears unable to complete the work within the time specified, the Municipality shall have the right to relet the unfinished portion of the work and retain the Contractor's deposit to pay for such relet work.

12. ALTERATIONS

The Engineer may make alterations to the alignment, cross-section or profile of the ditch if he considers that a more efficient drain will result. Such alterations, additions or deductions to the Work shall be carried out at the unit prices bid in the Contract.

13. ACCEPTANCE

All Work must be done to the satisfaction of the Engineer. Before acceptance, the drain shall form continuous channels of the form and dimensions as shown on the plan, profile and specifications. The excavated material shall be levelled and the side slopes of the ditch shall be trimmed to the proper cross-sections, except that the Contractor will not be responsible for those areas trampled by cattle.

14. PAYMENTS

Progress Payments of 85% of the Work completed will be made at the end of each month. Final payment will be made within Forty (40) days of the acceptance of the Work by the Municipality.

The amounts bid shall be compensation in full for carrying out the Work as specified.

15. MEANING OF TERMS

In these specifications, Municipality shall mean the TOWNSHIP OF FLOS; Contractor shall mean the person or persons signing the Contract or his or their representatives or employees in charge of the Work; Engineer shall mean Ainley and Associates Limited, Consulting Engineers, Collingwood, Ontario, or such other engineers as may be appointed by the Municipality to supervise the Work.

16. INSTRUCTIONS TO BIDDERS

Bidders shall use the Tender Form supplied by the Municipality. All blanks shall be filled in and no additions to the Tender Form or conditional statements will be allowed.

The bid shall be accompanied by a Certified Cheque payable to the Municipality for the sum of Ten Percent (10%) of the amount bid. Cheques of unsuccessful bidders will be returned within Thirty (30) days. The cheque of the successful bidder will be returned with the final payment on completion of the Work.

Tender Deposit Cheques will be forfeited if the bidder withdraws his Tender. The Deposit Cheque of the successful bidder will be forfeited if he should fail to complete the Contract.

The Municipality reserves the right to reject any or all bids.