

ENGINEER'S AWARD.

UNDER THE DITCHES AND WATER COURSES ACT.

I, OLIVER SMITH, the Engineer appointed by the Municipal Council of the Township of Ops in the County of Victoria, under the Ditches and Water Courses Act, having been required so to do by the requisition of Wilbert Thorn, owner of the North Half of lot number four in the tenth concession of the said Township of Ops, filed with the Clerk of the Municipality and representing that he requires a ditch under the provisions of the said Act for the draining of the said land, and that the following lands and roads will be affected:-

Lot 3, Con. 10 owned by Mrs. William Corneil.  
South Half Lot 4, Con. 10 owned by John Thorn.  
West Half Lot 5. Con. 10 owned by Bert Pogue.  
East Half Lot 5. Con. 10 owned by Vincent Pogue.  
Lot 5 Con. 11 owned by George Downey.  
Part Lot 1 Con. 4 Emily, owned by Reuben Reeds.  
The Railway right-of-way owned by the Canadian Pacific Railway.  
The road allowances of the Township of Ops controlled by the Municipal Council thereof,

did attend at the time and place named in my notice, and did attend at an adjourned meeting held by me on May 9th. 1936, notices of which were served on each interested party as prescribed by said Act, proof of such service was filed with me and every private landowner was present, the Canadian Pacific Railway being represented by the Engineer, Mr. Rudder, and the Municipality of the Township of Ops being represented by its Reeve, Mr. Walter Reeds.

With every owner either personally present or represented as aforesaid I proceeded to examine all who wished to give evidence, under oath, and having heard the evidence and observed the witnesses and after having carefully studied and examined the whole locality personally, I HAVE COME TO THE FOLLOWING CONCLUSION:-

I FIND that the present Canadian Pacific Railway culvert at Milage 9.95 Port McNicol Subdivision on the South Half of Lot 4, was constructed in 1911 and that in building the said railway certain waters from the west parts of Lots 4 and 5 in the said Tenth Concession were diverted, and all brought to flow in in-

creased velocity and converge on the South Half of said Lot FOUR where all the waters from the lands affected by this award are caused to flow in a southwesterly direction through the said culvert. It is obvious from my survey and examination and from that of E. L. CAVANA, O.L.S. who gave evidence that the invert or bottom of the culvert was not constructed low enough to take care of the waters from the system of drainage which existed in 1911 and accordingly the Railway has created an obstruction impeding the natural flow of the water and causing it to remain upon the adjoining lands to the east of the said railway.

I invited the Railway representative to furnish evidence of any investigation made at the time of the construction of the railway to ascertain whether or not the invert of the culvert was being constructed at sufficiently low elevation to take care of the waters from the drainage system then existing. No evidence was tendered, whereas, other witnesses swore positively from personal knowledge that the drain proceeding southwesterly across the Vincent Pogue property in Lot FIVE Concession Ten, has been in its present condition for over forty years. And, as my personal investigations prove that the invert of the railway culvert is constructed too high to accept the waters draining thereto, I can come to no other conclusion but that the Railway Company made no investigation in 1911 to assure themselves against the possibility of creating an obstruction to the flow of water in this drainage system.

I FIND FURTHER that since the construction of this culvert, additional drainage improvement has been made to lands affected by this award and that an additional and increased volume of water has been made to flow upon the lands immediately up stream from this culvert. I find also that in the twenty-four years since the construction of this culvert and prior to the filing of this requisition, no definite action has been taken to obtain relief from the condition created by this culvert, either by the owners of lands immediately affected by the obstruction and consequent damming up of waters upon their lands, or by the

land owners whose responsibility it has been to carry the drainage from their lands through to a sufficient outlet.

I FIND FURTHER that through the construction of snow fences an unusual flow of water is made to flow southerly along the right-of-way of the Canadian Pacific Railway in said Lot FIVE, and owing to the incapacity of the Railway ditch to carry it farther a large volume of this water is made to overflow on the west part of said Lot FIVE at a point indicated by the words, "overflow from Railway" on the plan of drainage area forming part of this award.

I FIND that the present ditch through said Lots THREE and FOUR requires deepening to a lower grade to provide sufficient fall to care for the flow of water discharged from lands affected by this award, and that a covered title drain across the north part of the north half of Lot FOUR is necessary for the drainage of said land and relieving same from the flow of water discharging from the west half of Lot Number FIVE.

The location, description and course of the said ditch and covered drain are set forth in the plan and specifications thereof hereto attached and forming part of this award.

The said work will affect the following lands:-

The South Half Lot FOUR	CON. 10 Ops,	owned by John Thorn.
The North Half Lot FOUR	Con. 10 Ops,	owned by Wilbert Thorn.
The West Half Lot FIVE	Con. 10 Ops,	owned by Bert Pogue.
The East Half Lot FIVE	Con. 10 Ops,	owned by Vincent Pogue.
The West Half Lot FIVE	Con. 11 Ops,	owned by Vincent Pogue.
The East Half Lot SIX	Con. 10 Ops,	owned by George Downey.

The right-of-way of the Canadian Pacific Railway passing through said Lots FOUR and FIVE owned by the said Company.

The side-road allowance between said Lots FIVE and SIX and the Concession road allowance between said Concessions 10 and 11 controlled by the Municipality of the Township of Ops.

I DO THEREFORE AWARD and apportion the work and furnishing of material among the lands affected and the owners thereof, according to my estimate of their respective interests in the said work, as follows:

THE CANADIAN PACIFIC RAILWAY COMPANY shall lower the invert of the culvert under their railway at Mileage 9.95 Port

McNicol Subdivision on the south half of said Lot FOUR Concession 10 Ops or otherwise provide additional waterway in accordance with the specifications and to the grade shown on the profile attached to and forming part of this award, the cost of which I estimate will be approximately \$500.00, 50% of said cost up to an amount not exceeding \$250.00 to be borne as hereinafter set forth, the balance of said cost to be assumed by the said Company. The said company shall grade the ditch to and from the said culvert across their right-of-way to the grade shown on said profile and in accordance with said specifications, attached to and forming part of this award, the cost of which I estimate will be \$25.00. The said Company shall also clean out the ditch on the west side of their right-of-way across the southerly part of said Lot Five to a sufficient width and depth to provide drainage along their own right-of-way and shall make such further provisions as may be necessary to refrain from causing water to flow from their right-of-way at the point indicated by "overflow from Railway" on the plan of the drainage area attached to and forming part of this award, the cost of which I estimate will be approximately \$50.00. And I fix the time for the performance and completion of the above said work on November 30th., 1936, at furthest.

JOHN THORN, OWNER OF THE SOUTH HALF OF LOT NUMBER FOUR CONCESSION 10 OPS, shall construct in accordance with the plan, profile and specifications forming part of this award all that portion of the said ditch from the outlet ~~forming part of this award all that portion~~ at Station "A" in the right-of-way of the said Canadian Pacific Railway in Lot Two in said concession up to Station 3 00 all of which according to my estimate will amount in value to \$150.00. I fix the time for the completion of said work on the 30th. day September 1936. The said John Thorn shall contribute in labor and materials to the extent of 5% of the cost of lowering of the said culvert up to an amount not exceeding \$25.00.

WILBERT THORN, OWNER OF THE NORTH HALF LOT NUMBER FOUR, CONCESSION 10 OPS, shall construct and complete in accordance with the said specifications all that portion of the said ditch from Station 3-00 to St. 16-00 all of which according to my estimate will amount to \$350.00. The said Wilbert Thorn shall furnish 450 feet of 6 inch field tile, and shall excavate and lay and backfill the tile drain shown on said plan commencing at Station 42-90 and running northerly a distance of 877 feet to the northerly limit of said Lot FOUR, all of which according to my estimate will amount in value to \$60.00 and I fix the time for the completion of said work on October 31st. 1936. the said Wilbert Thorn shall contribute in labor and materials toward the lowering of said culvert to the extent of 12% of the cost thereof up to an amount not exceeding \$60.00.

VINCENT POGUE, OWNER OF THE EAST HALF OF LOT FIVE IN SAID CONCESSION shall construct and complete in accordance with the said specifications all that portion of said ditch from Station 16-00 to the right-of-way of the Canadian Pacific Railway all of which according to my estimate will amount in value to \$470.00 and I fix the time for the performance of the same on October 31st. 1936, at furthest. The said Vincent Pogue shall contribute in labor and materials toward the lowering of the said Railway culvert to the extent of 18% of the cost thereof up to an amount not exceeding \$90.00.

BERT POGUE, OWNER OF THE WEST HALF OF LOT NUMBER FIVE CONCESSION 10 OPS, shall construct and complete in accordance with the said specifications all that portion of the said ditch from the easterly limit of the right-of-way of the Canadian Pacific Railway up to Station 41-00 at the line between the north and south halves of said Lot Number FOUR, all of which according to my estimate will amount in value to \$200.00. The said Bert Pogue shall contribute in labor and materials toward the lowering of said railway culvert to the extent of nine per cent of the cost thereof, up to an amount not exceeding \$45.00. The said Bert Pogue shall furnish 430 feet of 6 inch field tile for the construction of a covered tile drain across the

north part of the north half of Lot Number FOUR as shown on plan forming part of this award, and shall construct in accordance with the specifications hereto attached a catch basin at the line between said Lots FOUR and FIVE, all of which according to my estimate will amount in value to \$30.00, and I fix the time for the completion of said work on October 31st. 1936, at furthest.

GEORGE DOWNEY, OWNER OF THE EAST HALF OF LOT SIX CONCESSION TEN, OPS, shall construct and complete all that portion of said ditch in accordance with the said specifications across the north half of said Lot Number FOUR all of which according to my estimate will amount in value to \$65.00. The said George Downey shall contribute in labor and materials towards the lowering of said railway culvert to the extent of 3% of the cost thereof up to an amount not exceeding \$15.00. And I fix the time for the completion of the said work on October 31st. 1936.

THE MUNICIPALITY OF THE TOWNSHIP OF OPS shall contribute in labor and materials toward the lowering of said railway culvert to the extent of 3% of the cost thereof up to an amount not exceeding \$15.00.

I DO FURTHER AWARD AND APPORTION THE MAINTENANCE of the above ditch by assigning to each of the said parties to this award that part of said ditch awarded and apportioned to them for construction.

SPECIFICATIONS.

The drainage work herein awarded construction shall consist of:

- (a) An open ditch from the outlet at Station "A" in the right-of-way of the Canadian Pacific Railway in Lot 2, Concession 10, Ops, to Station 52-70 at the north limit of Lot 4 in said Concession as shown on Plan of Drains awarded construction forming part of this award;
- (b) A covered six inch tile drain, commencing at Station 42-90 in the line of said ditch in the north half of Lot 4, and thence northerly through said lot a distance of 877 feet to the northerly limit thereof, as shown on said Plan.

Each party to this award shall give the Engineer due notice of his intention to commence construction of his portion of the work, and it is in the interest of all parties concerned that work on all portions of the work commence at or about the same time with a view to reducing the expense of laying out the work.

All stakes and grade hubs set by the Engineer in the laying out of the work shall be preserved by the parties to this award to facilitate the inspection of said work upon the completion thereof.

OPEN DITCH SECTION:

Except where otherwise laid out and indicated on the ground, the open ditch section shall follow the alignment of the present open ditch throughout. Diversions from the line of the present ditch shall be as shown and laid out by the Engineer on the ground.

That section of the ditch from the outlet at Station "A" to the south limit of Lot THREE shall be cleared of all brush to a width of sixteen feet.

The ditch throughout shall be excavated to the depths and grade line shown on the profile thereto attached and forming part of this award, and shall have a minimum bottom width of four feet. The sides shall be finished to a slope of at least one and one-half horizontal to one vertical and shall in no case have a width at the top of less than ten feet.

The material to be excavated from said ditch shall be deposited outside at a distance of ten feet from the edge of the ditch and as nearly as convenient one-half of said material on each side of the drain.

RAILWAY CULVERT:

Additional waterway shall be provided in the invert of the culvert under the Canadian Pacific Railway to the grade line shown on the profile forming part of this award and shall have a cross sectional area equivalent to that of a twenty-four inch circular pipe.

TILE DRAIN SECTION:

Trench for the tile drain section shall be excavated to the line and grade shown on the plan and profile forming part of this award and as laid out by the Engineer on the ground, and shall have a bottom width sufficient to conveniently and carefully lay one line of six inch field tile. The tile shall be free from check or flaw of six inch bore and subject to the inspection and approval of the



Engineer. They must be laid true to grade and with closely fitted joints. Soft and spongy bottom, if any, must be bridged with two inch cedar plank and must meet with the approval of the Engineer before backfilling is commenced. Backfilling must be carefully done to avoid injuring or displacing the tile from their proper alignment in the trench.

CATCH BASIN:

An intake or catch basin shall be constructed at the north end of said tile drain just north of the fence between said Lots FOUR and FIVE. The excavation for same shall be four feet square and to a depth of two feet below the invert of the tile drain. The bottom of said excavation shall be filled with one foot of field stones upon which shall be set a form 2½ ft. square outside measurement, in such a way as to leave a nine inch space on all sides between the form and the wall of the excavation. The top of the form shall be approximately six inches below the bottom of the open drain leading into said basin. The nine inch space around the form shall be filled with field stone bedded in cement mortar of cement and coarse sharp sand mixed in the proportion of 1 to 3, leaving at least one inch of mortar between the form and the stone. A six inch field tile shall be inserted into the concrete on the north side of the catch basin at convenient elevation to receive the drainage from said Lot FIVE. The top of said catch basin shall be covered with four inches of cedar plank.

All work must be done to the satisfaction of the Engineer in charge.

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Engineer. They must be laid true to grade and with closely fitted joints. Soft and spongy bottom, if any, must be bridged with two inch cedar plank and must meet with the approval of the Engineer before backfilling is commenced. Backfilling must be carefully done to avoid injuring or displacing the tile from their proper alignment in the trench.

CATCH BASIN:

An intake or catch basin shall be constructed at the north end of said tile drain just north of the fence between said Lots FOUR and FIVE. The excavation for same shall be four feet square and to a depth of two feet below the invert of the tile drain. The bottom of said excavation shall be filled with one foot of field stones upon which shall be set a form 2 1/2 ft. square outside measurement, in such a way as to leave a nine inch space on all sides between the form and the wall of the excavation. The top of the form shall be approximately six inches below the bottom of the open drain leading into said basin. The nine inch space around the form shall be filled with field stone bedded in cement mortar of cement and coarse sharp sand mixed in the proportion of 1 to 3, leaving at least one inch of mortar between the form and the stone. A six inch field tile shall be inserted into the concrete on the north side of the catch basin at convenient elevation to receive the drainage from said Lot FIVE. The top of said catch basin shall be covered with four inches of cedar plank.

All work must be done to the satisfaction of the Engineer in charge.

*W. Herbert Johnson*  
*Drain Survey*