ÉGOUTS ET AQUEDUC

Compte avec la Montreal Water and Power Co.

13septembre 1900 -
14 septembre 1912

P49/C5,34

Montreal, 13 Sept. 1900

Mail R.

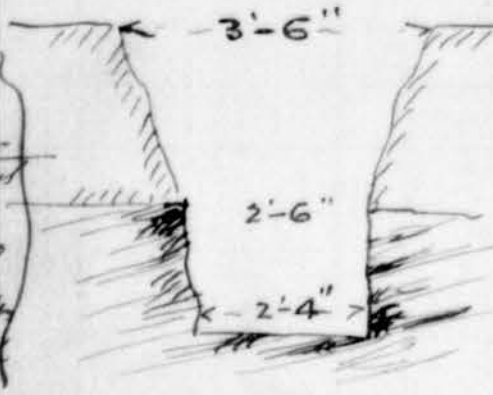
Depth of trenches
4" - 5'-6" deep
6" - 5'-9" "
8" - 6'-0" "
10" - 6'-0" "
12" - 6'-0" "
16" - 6'-6" "

Town St. Louis

Details to figure prices of work done for
Montreal Water & Power Co.

Robin St. - (from Mount Royal to St. Louis) trenching made by Corporation - pipe laid by Co. & refilled by Co.
average depth of earth 4.78 ft.
" " " rock 1.22 ft.

10" pipe



Bracing -
Based on the average
specification that
12 x 6 x 1/8 x 8'
will do 80 cu. yds.
daily = 240
x 25 the cost per ft.
45 cts for bracing
in full width
240 = 45000

earth

3.5
2.5
6.0
3.0 average x 4.78 = 14.34 c ft.
per ft. run of trench.

Rock

2.5
2.33
4.83
2.415 x 1.22 = 2.946 c ft.
per ft. run.

earth & excavation with pick & shovel with cost per cu. yd.

Rock = at minimum $2.25 per c yd. Therefore.

14.34 c. ft. of earth per ft. run / 27 = 0.531 c yd.

2.946 c. ft. per ft. run of rock / 27 = 0.109 c yd.

Therefore.

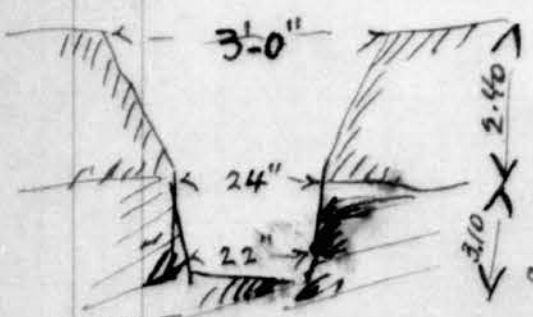
0.531 C. yd. of earth @ 0.20 = 0.106 say 0.11 cts.
0.109 " " " rock @ 2.25 = 0.245 say 0.25 cts

Supt. time keeping, general office & stores
Bracing
Pump tender
Pump fuel
Backfilling
0.36
0.02
0.38
0.01
0.39
0.03
0.42

Robin St. - from St. Louis to St. Ignace
Trench by Corporation pipe laid & refilled by M. W. & P. Co.

4" pipe

Average depth earth = 2.40 ft.
" " rock = 3.10 "



earth
3.0
2.0
5.0
2.5 x 2.40 = 6 C. ft. = 0.22 c yds

Rock
2.00
1.83
3.83
1.915 x 3.10 = 5.936 c. ft. = 0.219 c yds

Therefore 0.22 c yd earth @ 0.20 = 0.044
0.219 c yd rock @ 2.25 = 0.492
0.536

0.53
0.05
0.60

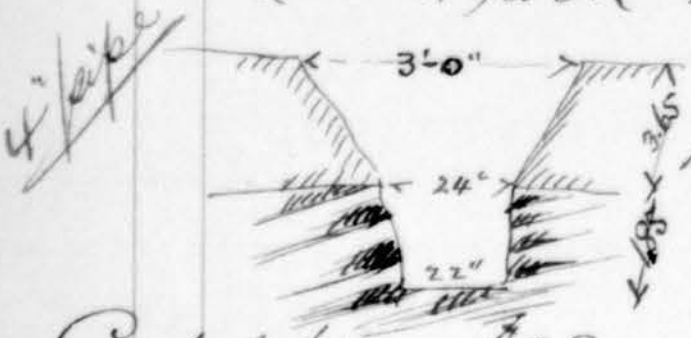
Backfill

Plus sup. time keeping etc. $0.56 say 0.57 cts a ft.

Rue St. Sanquinet from St. Ignace to Du Carmel
Work done by Bastien & Valiquette.

711 ft. long.

average depth earth = 3.65 ft.
" " rock = 1.85 ft.



earth. 3.00 + 2.00 = 5.00 ; 2.50 × 3.65 = 9.125 c.ft. = 0.338 c.yds.

Rock 1.83 + 3.83 = 5.66 ; 1.915 × 1.85 = 3.5427 c.ft. = 0.131 C.yds.

Cost of pipe $28.50 per ton.
weight 21 lbs. per ft. + 3% deviation = 21.6 lbs.
28.50 a ton of 2000 lbs. + $0.75 - Cartage = 29.25 -
29.25 / 2000 = 0.0146 cts a lbs.

or 21.6 lbs - @ 0.0146 = 0.31½ cts pipe + Cartage.

Specials.

1 - 6×6×4×4 Cross	215	lbs.
3 T's = 4×4×4" @ 125#	375	"
2 - 4" plugs @ 10#	20	"
2 - 6" " @ 20#	40	"
	650 #	plus 3% deviation

3% = 19 ; 669 say 670 #

Cost price 2¾ cts plus ½ cts for laying + Cartage = 0.02¾ cts per lb.
therefore 670 # @ 0.02¾ = $18.425 or
18.425 / 711 ft. long = 0.02½ cts a ft. or 0.02 5/8 per ft.

Valves & hydrants -

1 - 4" Valve Cost	$9.35
laying same.	1.21
	$10.56

hydrant - Cost	$33.00
laying Cartage etc.	17.00
	$50.00

with branch pipe.

2 Valves 10.56 + 2 hydrants 100.00 = 110.56 ; 110.56 / 711 ft. = 0.15 5/6 cts per ft. of pipe.

Therefore - Recapitulation.

0.338 Cy d. of earth trenching	@ 0.20	0.0676 ✓ per ft.
0.131 " " " rock "	@ 2.25	0.2947 ✓
1 ft. of pipe & Cartage	@ 0.31½	0.3150 ✓
~~1 ft~~ Specials per ft. of pipe	0.025~~6~~	0.0256 ✓
Valves & hydrants per ft. of pipe.	0.16~~6~~	0.16~~6~~ ✓
Laying		0.0275 ✓
Caulking Lead		0.007 ✓
Lead Yarn & Pull.		0.0325 ✓
back filling including trenching pipe laying Connecting with existing pipe	150 / 711	0.05 ✓
Superintendence time keeping etc.		0.002 ✓
		0.016
		0.9~~808~~
General Office expenses, Contingencies use of tools etc. ~~engineer~~ Say 5%		0.04~~86~~
		1.01~~92~~ (1.0424)

Say $1.04 per ft. with Valve box

Plus 10% Contractors profit. Bracing $1.10 / 1.15

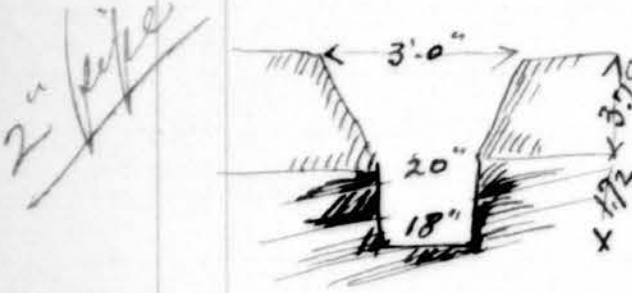
Laval Ave.

Corporation & Co. - trenching only.

average depth of earth. 3.78 ft.

" " " rock = 1.72 ft.

5.50 ft.



earth 3.66
4.66
2.33 × 3.78 = 8.807 c.f. = 0.326 c.yds. ✓

Rock 1.66
1.50
3.16
~~1.72 × 1.72 = 1.8576 = 0.0688~~
1.50 × 1.72 = 2.7176 = 0.1006 cy

Therefore

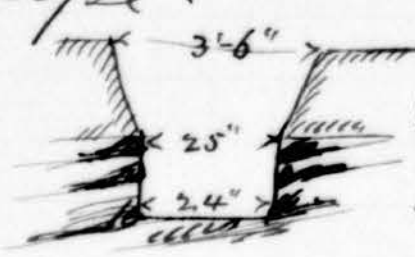
0.326 cy ds. earth per ft.	@ 0.20	0.0652 ✓ 0.0652
~~0.0688~~ " " rock " "	@ 2.25	~~0.1548~~ = 0.2263
0.1006		~~0.2200~~ 0.2915
		~~0.01~~ — 0.01
Superintendence time keeping etc.		~~0.23~~ 0.30
Bracing		~~0.01~~
		~~0.25~~ 0.31
		~~0.05~~
		~~0.29~~ 0.36

Backfilling

City Hall Ave. (from Mount Royal to Boulevard)

C = 1532 ft.
Corporation work. Co laying pipe.
Average depth earth = 5.14 ft.
" " rock = 0.61 .
5.75 ft.

6" pipe.



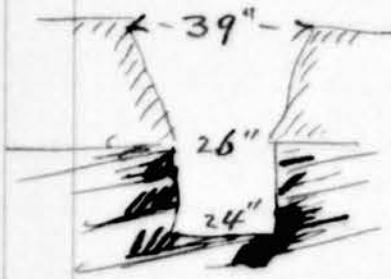
earth 3'5"
2.08
5.58
2.79 × 5.14 = 14.3406 = 0.531 c.yd.

Rock = 2.08
4.08
2.04 × 0.61 = 1.2444 = 0.046 c.yd.

Therefore.

0.531 C. yds. earth per ft.	@ 0.20	= 0.1062
0.046. " rock " "	@ 2.25	0.1035
		0.2097
Say		0.21
Supt. Time Keeping etc	0.01	0.23
Bracing.	0.2367	

City Hall from Boulevard to St. Lawrence
= 453 ft. 512 laid by Bashen & Valiquette.
Average depth of earth = 3.83 ft.
6" pipe " " " rock = 1.92
5'-75"



earth 3.25
2.16
5.41
2.705 × 3.83 = 10.36 c.ft. = 0.383 c.yds.

Rock 2.16
4.16
2.08 × 1.92 = 3.9936 c.ft. = 0.147 c.yds.

Therefore.

0.383 C. yds earth per ft.	@ 0.20	= 0.0766
0.147 " " rock " "	@ 2.25	0.3307
Trenching	Say = 0.41 per ft.	0.4073

Specials.
2-6" sleeves = 180 #
1 Cross 6"×6"×6" = 295 #
1 T. 16"×16"×6" = 1005 #
1 T. 6"×6"×4" = 185 #
1-6" plug. = 20 #
1675 #
2% deviation = 50
1725 #

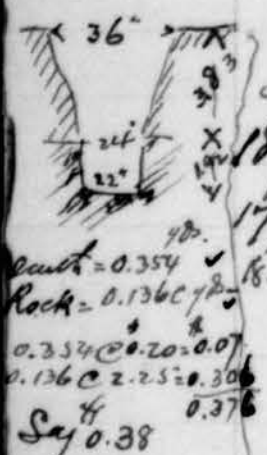
1725 # @ 0.02¾ = 47.4375
47.4375 / 512 = 0.092 cts per ft. of pipe

Valves & hydrants.

2-6" Valves Cost @ $15.40 = $30.80
Laying same with Contractor 3.20
$34.00 per set

Hydrants

1-2 Nozzle hydrant Cost per set. $33.00 ✓
Contract Cost $ @ 1% per set. 0.20 ✓
Laying hydrant 3.00 ✓
18 ft. trenching. @0.38 6.84 ✓
17 ft. of 4" branch laid & connected @0.44 7.48 ✓
& Backfilling @0.05 0.90 ✓
51.42
General office expenses &c. 2.57
Contingencies use of tools &c 5% $53.99
Say 54.00



Valves $34.00
hydrant 54.00
88.00

$\frac{88.00}{512}$ = 0.1718 cts per ft. ✓

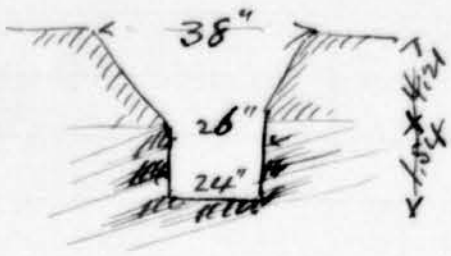
Recapitulation.

Trenching	$0.41 cts per ft. ✓
Specials per ft.	0.092 " " " ✓
Valves & hydrants & laying.	0.1718 . . . ✓
Valve boxes laid	0.009 ✓
Connections with existing pipes at St. Louis	0.0195 ✓
Pipe, laying lead yarn & jut	
& backfilling Contract	
Supt & time Keeping	0.441 . . . ✓
use of tools general office expenses etc 5%	$1.1433
10% for Contractors profit	0.0571
Say $1.30 =	1.2004
Bracing of	0.1200
1.31	0.01
	1.33

worth say at least 10cts
$\frac{10}{512}$ =

George Hypolite St. 6" pipe

Average depth of earth = 4.21 ft.
" " " rock 1.54 ft.
5'-75'



Earth = 3.16
2.16
2 (5.32)
2.66 × 4.21 = 11.1986 = 0.414 c.yd. / c.ft.

Rock 2.16
2.
2 (4.16)
2.08 × 1.54 = 3.20 = 0.118 c.yd. / c.ft.

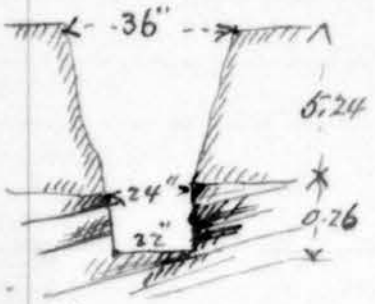
0.414 C.yd. earth per ft. @ 0.20 = $0.0828 ✓
0.118 " " rock " " @ 2.25 = 0.2655 ✓
$0.3483 ✓

Say 0.35 C.Yds a ft.

Supt. time Keeping etc 0.01
Bracing 0.26 ✓
use of tools, general office expenses etc 5% 0.37 = 0.37
0.0185 ✓
0.3885
Say 0.39
Backfilling 0.005
0.445

Cadieux St. — 4" pipe.

Length = 1200'-0"
Average depth of earth = 5.24 ft
" " " rock = 0.26 ft
5.50 ft



Earth 3/2 2 (5.) 2.5 × 5.24 = 13.10 c.ft = ✓0.485 C.Yd. per ft.

Rock 2/1.83 2 (3.83) 1.915 × 0.26 = 0.4979 c.ft = ✓0.0184 C.Yd. per ft.

Therefore.
0.485 C.yd. earth C.Yds. per ft. @ $0.20 = $0.097 per ft. ✓
0.0184 " " rock " " " @ 2.25 = 0.04 ✓
0.137

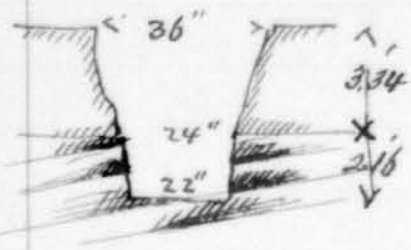
Say $0.14 per ft.

Supt time 0.008
Keeping, night watchmen etc 0.148
Bracing 0.01
0.158
General office & rents, use of tools etc 5% 0.0079
0.1659
Backfilling 0.05
0.2159
Say 0.16 1/2 ✓
Say 0.22 ✓

St. Dominique St. (from Mount Royal to Boulevard St. Louis to St. Eugène)

4" pipe

Length = 2130'-0"
Average depth earth = 3.34 ft.
" " rock = 2.16 ft.



earth. $2\frac{3\frac{2}{5}}{1.5}$ × 3.34 = 8.35 c.ft. = 0.309 c.yd. ✓

Rock. $2\frac{1.83}{3.83}$ / 1.915 × 2.16 = 4.136 c.ft. = 0.153 c.yd. ✓

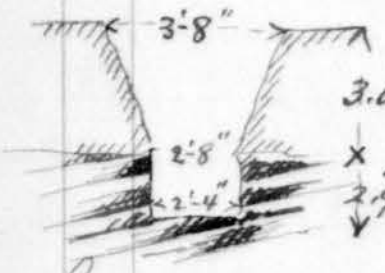
Therefore

0.309 C.yd. per ft. of earth @	0.20	$0.0618 ✓
0.153 C.yd. of rock per ft. of trench @	2.25	0.3442 ✓
		$0.4060
Supt. time Keeping, etc.		0.008 ✓
~~use of tools General Office~~ Bracing		0.414
Backfilling,		0.01 ✓
use of Tools, general office expenses, contingencies etc — 5%		0.424
Say 0.50½ ✓		0.498 ✓

St. Lawrence St. - from Mount Royal to Ops. Charbonneau P.

10" pipe.

Total length = 4292'-0"
average depth of earth = 3.08 ft.
" " " rock = 2.92 ft.
6'-0 0 ft.



earth $2\frac{3.66}{2.66}$ / 3.16 × 3.08 = 9.7328 c.ft. = 0.36 c.yd. ✓

Rock $2\frac{2.66}{2.33}$ / 2.495 × 2.92 = 7.285 c.ft. = 0.269 c.yd. ✓

Therefore.

0.36 c.yd. earth excavation @	0.20	$0.072 ✓
0.269 " " rock " @	2.25	0.605 ✓
		0.677
Supt. time Keeping etc.		0.0125
Bracing Backfilling		0.01 ✓
		0.6995
General office expenses use of tools etc 5%		0.0374
Say $0.73½ ✓		0.7869 ✓

Rue St. Laurent. from Jeppe to Charbonneau's

Bernard.

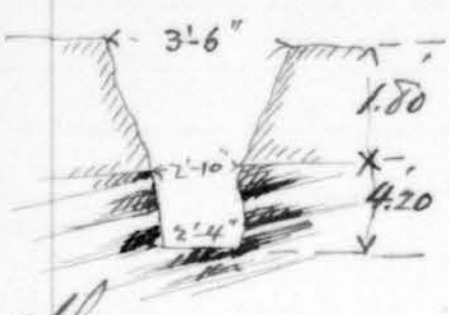
Length = 542-0"

10" pipe.

Average depth earth. = 1.80 ft

" " rock. = 4.20 "

6.00 "



Earth $\frac{3.5}{1.83}$ $\frac{6.33}{3.165}$ × 1.80 = 5.697 c.ft/ft = 0.211 c.yds. ✓

Rock $\frac{2.83}{2.33}$ $\frac{5.16}{2.58}$ × 4.20 = 10.836 c.ft/ft = 0.401 c.yds. ✓

Therefore.

0.211 cyd. of earth Excavation @ 0.20 = 0.0422. ✓

0.401 " " rock " @ 2.25 = 0.90225 ✓

0.94445

Specials.

1 Branch 10"×10"×4" 460 #

1 " 10"×10"×6" 490 #

1-10" plug. @ 50 # 50 #

3% deviation 1000 30

1030 #

1030 # @ 0.02¾ laid = 28.325 ✓

$\frac{28.325}{542}$ = 0.0522 c.yds/ft ✓

Valves & hydrants

1-10" Valve Cost 33.00

Carlage 0.20

2 lead joints 1.80

cutting 1 length of pipe = 0.30

Making 2 joints 0.35

Supt. time keeping etc 0.26

35.91

1 Valve box laid 5.00

40.91

Say 40.90 = 0.0754 c.yds/ft. ✓

Laying 10" Valves

Carlage 384 # @ 1.05 per ton = 0.192

Say 0.20

Hydrants.

1 hydrant Cost @ 33.00

Cartage laying, ~~drainage~~ drainage fitt. cutting pipe. Lead jaunt fuel. 4.35

21 p. of Trenching @ 0.73 = 15.33 ✓

21 p. of backfilling @ 0.05 = 1.05 ✓

20 p. of 4" branch pipe and @ 039 = 7.80 ✓

$61.53

~~Use~~ of tools, general office expenses contingencies etc. 5% 3.07 ✓

$64.60

Hydrant $64.60 / 54 2'-0" = $0.119 per ft. ✓

3'-0" ; 1.80 ; 2.6" ; 22" ; 4.20

Earth 3.76 / 2.58 × 1.80 = 4.644 = 0.172 c.ft. c.78

Rock 2.16 / 1.85 ; 2(3.9) / 1.995 × 4.20 = 8.379 = 0.31 c.yd.

0.172 c.ft. @ 0.20 = $0.0344 ✓

0.31 c.yd. @ 2.25 = 0.6975 ✓

$0.7319

Pipe 65# plus 8% 66.95# at 2.85 plus 75 cts for Cartage 29.25 = $0.0146 per # ✓

66.95# @ 0.0146 = $0.9774 ✓

laying 0.065 ✓

Lead jaunt fuel 0.08 ✓

Backfilling 0.08 ✓

1.17 24 ft.

Recapitulation.

Trenching	$0.9449 ✓
Pipe, comprising laying, lead Jaun, fuel, back filling	
Cartage	0.172 ✓
	2.116 ✓
Supt. & time keeping	.025 ✓
	2.141 ✓
Use of tools, general	0.1070 ✓
Office expenses Contingencies etc 5%	$2.2484 ✓
Specials per ft.	0.0522 ✓
Valves & valve boxes	0.0754 ✓
Hydrants	0.1190 ✓
Connection unit existing pipe	0.009 ✓
	$2.5040
Bracing	0.01
	2.5140
Contractors profit Say 10%	0.2514
	$2.7654 ✓

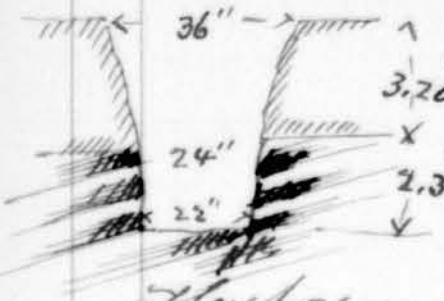
$6 / 5742' =

Clarke St. from Mount Royal to ~~[illegible]~~ Bernard.

Total length = 5003'-0"

4" — pipe

Average depth of earth = 3.20 ft.
" " " rock. = 2.30 ft.
5.50 ft.



Earth. $2\frac{(3.5)^{\frac{3}{2}}}{2.5} \times 3.2$ = 8.00 c.ft. per ft run = 0.296 c.yds. ✓

Rock. $2\frac{(3.83)^{\frac{3}{2}}}{1.915} \times 2.30$ = 4.4045 c.ft. per ft run = 0.163 c.yds. ✓

Therefore.

0.296 C. yds. of earth excavation per ft. of trench @ $0.20 = $0.0592 ✓
0.163 " " " " " " " $2.25 = 0.3667 ✓
$0.4259

Total

Specials -

9 Branches	4"x4"x4" @ 125#	=	1125#
2 crosses	6"x6"x4"x4" @ 215#	=	430#
1 Cross	4"x4"x4"x4" @ 175#	=	175#
1 Branch	16"x16"x4" @ 900#	=	900#
1 Cross	12"x12"x4x4" @	=	590#
1 — 16" sleeve	@		350#
3 — 6" plugs -	@ 20#	=	60#
4 — 4" "	@ 10#	=	40#
2 — 12" "	@ 55#	=	110#
			3780#
Plus 3% deviation -			113#
			3893#

3893 @ $0.02¾ per lbs. = $107.05 ✓

$\frac{\$107.05}{5003}$ = $0.021 per ft. ✓

Valves & hydrants

Valves -

9 - 4" Valves - cost	$9.35 each	= $84.15 ✓
Laying 9 valves (inc sup. incl. keeping)	$1.10	9.90 ✓
9 Valve boxes laid	@ 5.00	45.00 ✓
		$139.05

Total

Hydrants.—

9	2 Nozzle hydrants Cost each	$33.00 =	$297.00 ✓

30 feet hydrants are on the St. where it only has 50'-0" wide & 6 where it is 60'-0" therefore total length of trenches

= 3 × 17' = 51'
= 6 × 20 = 120
171'-0" total length of trench

	Trenching the same as for the main Cast or 171'-0"	@ 0.43 =	73.53 ✓
9	~~Cartage, laying, drainage pits excavating pipes lead yarn & fuel.~~		
	Cartage 9 hydrants	@ 0.20	1.80 ✓
3 × 16 = 48 6 × 19 = 114	162' of pipe laid, Comprising lead yarn & fuel & back filling	= 0.44	71.28 ✓
	Laying 9 hydrants	@ 3.00	27.00 ✓
9	Drainage pits trenching & filling with gravel.	@ 0.50	4.50 ✓
9	Cutting pipes— Lead yarn & fuel for hydrant joints — 0.70 each & for 9	@ 0.20	1.80 ✓ 6.30 ✓
			$483.21 ✓

hydrant 483.21
Valves — 139.05
$622.26

= 622.26 / 5003 ft = $0.124 per ft. ✓

Recapitulation.—

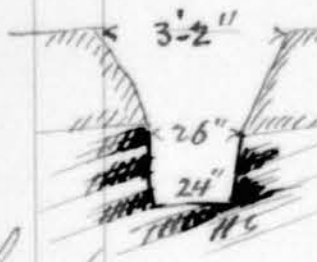
Trenching	$0.4259 ✓	
Pipe Comprising laying lead yarn & fuel & Cartage.	0.375	1.0761
Supt. time Keeping &c.	0.016	10% Contractors profit .1076
Back filling	0.05	$1.1837
Specials. per ft.	0.021	
Valves & hydrants. & Valve boxes.	0.124	
& Connection $615 = 5003 with existing pipes.	0.003	
Bracing— use of tools general office expenses Contractors profit &c &c say 5%	0.01 $1.0249 0.0512	
	1.0761	

b/

St. Urbain St. from Mont Royal to Bernard

Length = 4832 feet.

Average depth of earth = 2.96 ft.
" " " rock = 2.79 "
5.75 "



Earth. $\frac{3.16}{2.16}$ / $\frac{5.32}{2.66}$ × 2.96 = 7.8736 c.ft. = 0.291 c.yds. ✓

Rock $\frac{2.16}{2}$ / $\frac{4.16}{2.08}$ × 2.79 = 5.8032 = 0.214 c.yds. ✓

Therefore

0.291 C. yds. of earth excavation @ 0.20 = 0.0582 ✓
0.214 " " rock " @ #2.26 = 0.4815 ✓
#0.5397

Specials.

1 Branch	12"×12"×6"	@ 530# =	530#
9 "	6"×6"×4"	@ 185# =	1665
1 Cross	16"×16"×6"×6"	@	1005
1 Branches	6"×6"×6"	@	195
1 Cross	12"×12"×6"×6"	@	620
2 "	6"×6"×6"×6"	@ 295 =	590
1-12" sleeve			195
1-16" sleeve			350
5-6" plugs.		@ 20#	100
2-12" "		@ 55	110
			5360
3% deviation.			160 #
			5520

5520# @ 0.02¾ = #151.80 ✓

#151.80 / 4832' = #0.0314 per ft. ✓

Valves & hydrants =

12-6" Valves Cost each #15.40 each = 184.80 ✓
Cartage each weighing 180# ×12 = 2160# @ ¾ per ton = Say 1.00 ✓
Laying 12 Valves 6" each = (new Sup. Instr. Receipt ch) 1.45 = 17.40 ✓
12 Valve boxes last Valves @ 5.00 = #60.00
#263.20

Hydrants.—

9 hydrants @ 33.00 = $297.00 ✓

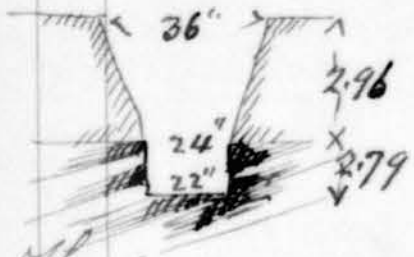
3 of these hydrants are on the portion of St. 80 ft. wide & 6 — where it is 66 ft.

Therefore.

3 × 27' = 81 ft.

6 × 22' = 132 "

213 = total length of trench



earth $\frac{3}{2}\ \frac{2.5}{2.5} \times 2.96 = 7.4$ c.ft. = 0.274 c.yds. ✓

Rock $\frac{2}{1.83}\ \frac{0.83}{1.915} \times 2.79 = 5.34$ c.ft. = 0.197 c.yds ✓

Therefore.

0.274 c.yds @ $0.20 = $0.0548 ✓

0.197 " @ $2.25 = $0.4432 ✓

$0.4980 ✓

213'-0" of trench @ 0.498 = $106.07 ✓

Cartage 9 hydrants @ 0.20 = 1.80 ✓

3 × 26 = 78'

6 × 21 = 126'

204 ft. of pipe (branch)

204 ft. of branch pipe Comprising

lead jam & fuel & backfilling @ 0.44 = 89.76 ✓

9 Drainage pits trenching & filling with gravel — @ 0.50 = 4.50 ✓

9 Cuttings of pipe @ 0.20 = 1.80 ✓

Lead jam & fuel for hydrant joints — @ 0.70 = 6.30 ✓

9 hydrants laid @ 3.00 = 27.00 ✓

534.23 ✓

hydrants $534.23 ✓

Valves. 263.20 ✓

$797.43

$$\frac{797.43}{4832} = \$0.165 \text{ per ft.}$$

6" pipe 33 ft @ 28¢ = $0.34 ✓
Cartage = 29.25 lbs = 0.49 ✓
say 49½ lbs ft

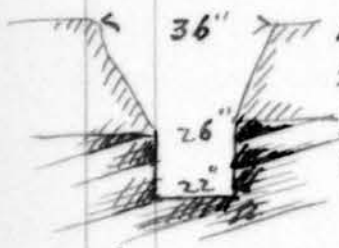
Recapitulation.—

Trenching per ft.	$0.5397 ✓
Pipe, Comprising laying lead	
Jam & fuel & Cartage — ¢	0.576
Supt. time keeping etc.	0.02
Backfilling —	0.05
Specials per ft.	0.0314
Valves & hydrants & valve boxes.	0.165
Connection with existing pipe 4 $\frac{\$15}{4832'}$ =	0.0031
Bracing.	0.01
	1.3952
General office expenses use of Tools Contingencies etc 5%	0.0697
	1.4649
say	1.465
10% Contractor's profit	146
	$1.611 ✓

Waverly St. (from Fairmount to Bernard.)

4" pipe 2376' long.

Average depth of earth = 2.15 ft.
" " " rock = 3.35 ft.



Earth	$\frac{3}{2(\frac{2.16}{2.58})}$ × 2.15 =	5.547 c.ft.	= 0.205 c.yds.
Rock	$\frac{2.16}{1.82}$ $2(\frac{3.99}{1.995})$ × 3.35 =	6.683 c.ft.	= 10.247 c.yds.

Therefore

0.205 Cyds. of earth @	¢020	$0.041 ✓
0.247 " " " rock "	@ $2.25	0.555 ✓
		$0.596 ✓

Specials.

1 — Cross 6"×6"×4"×4"	@		215 #
1 " 12"×12"×4"×4"	@		590 #
5 Branches 4"×4"×4"	@	125 #	625
1 — 6" sleeve	@		85
2 — 12" plugs	@	55 #	110
			1625 #
plus 3% deviation.			48
			1673 # ✓

16⅔# @ #0.02¾ = #46.00 ✓

#4600 = #0.0202 per ft. ✓
2276'

Valves & hydrants.

Valves.

6-4" Valves Cost 9.35 each =		#56.10 ✓
Cartage 6 valves @ 80# = 480# @ 1.00 per ton =		0.24 ✓
Laying 6-4" Valves @ #1.10		#6.60 ✓
6 Valve boxes Cast @ 5.00		30.00 ✓
Valves.		#92.94 ✓

Hydrants.

5 hydrants Cost 33.00		#165.00 ✓
16" of trench x 5 80 ft.	@ 0.59	47.68 ✓
Same price per ft as main per		
Cartage 5 hydrants 400# x 5 = 2000#		1.00 ✓
75 ft. of branch pipes comprising lead jam & fuel & backfilling	@ 0.44	33.00 ✓
5 Drainage pits trenching & filling with gravel	@ 0.50	2.50 ✓
5 Cuttings of pipes	@ 0.20	1.00 ✓
Lead jam & fuel for 5 hydrant joints	@ 0.70	3.50 ✓
5 hydrants laid	@ 3.00	15.00 ✓
hydrants.		#268.68 ✓

hydrants 268.68
Valves - 92.94
361.62 ✓

$\frac{361.62}{2276}$ = #0.1588 per ft. ✓

Recapitulation

Recapitulation.

Trenching per ft.		$0.596 ✓
Pipe, Comprising laying, lead		
Jam, fuel & Cartage —	C	0.375 ✓
Superintendence etc	C	0.016 ✓
Backfilling	C	0.050 ✓
Specials per ft.		0.0202 ✓
Valves, hydrants, & valve boxes		0.1588 ✓
Connections with existing pipes		
2 day $\frac{\$3}{2276}$ =		0.0010
Bracing.		0.01
		$1.228
General Office expenses, use of tools		
Contingencies etc. 5%		0.061
		1.289
Contractors profit 10%		128
		1.417
say		1.42 ✓

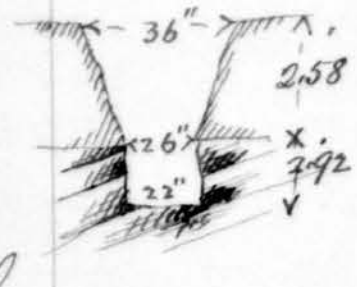
St. George St. (from Fairmount to Bernard St.) — B.V.

4" pipe

Total length = 2339'-6"

Average depth earth = 2.58 ft.

" " rock = 2.92 ft.



earth $\frac{3}{2.16}$ / $\frac{5.16}{2.58}$ × 2.58 = 6.6564 C.ft. = 0.246 C. yds. per ft. ✓

rock $\frac{2.16}{1.83}$ / $\frac{3.99}{1.995}$ × 2.92 = 5.82354 C.ft. = 0.215 C. yds. per ft.

Therefore.

0.246 C. yd. of earth excavation @ 0.20 — $0.0492 ✓

0.215 " " rock " @ 2.25 — 0.4837 ✓

$0.5329

Specials.

5 Branches 4"×4"×4"	@ 125#	626#	
1 Cross 6"×6"×4"×4"	@	215	
1 " 12"×12"×4"×4"	@	590	
2 - 4" plugs	@ 10#	20	
2 - 12" "	@ 55#	110	
		1560	
3% deviation -		46	
		1606#	

1606# @ #0.02¾ per lb = laid = #44.16.

#44.16 / 2339½ = #0.0188 Cost per ft. of pipe.

Valves & Hydrants.

Valves.

6 - 4" Valves cost each #9.35 =		#56.10 ✓
Cartage 6 valves @ 80# = 480# @ 1¢ a ton		0.24 ✓
Laying 6 - 4" valves @ #1.10		6.60 ✓
6 Valveboxes laid @ 5¢		30.00 ✓
Total for Valves =		#92.94

Hydrants.

5 hydrants cost #33.00		#165.00
16 ft trench ×5 = 80 ft. 4" cast iron as main branch	@ #0.539	42.63 ✓
Cartage 5 hydrants 400# @ 5 = 2000#	@ 1¢	1.00 ✓
⅘ ft of branch pipe comprising lead yarn & fuel & back filling	@ 0.44	33.00 ✓
5 Drainage pits; trenching & refilling with gravel.	@ 0.50	2.50
5 Cuttings of pipe	@ 0.20	1.00
Lead yarn & fuel for 5 hydrant joints	@ 0.70	3.50
5 hydrants laid Comprising asph.	@ 3¢	15.00
Total for hydrants =		#263.63 ✓

hydrants = #263.63
Valves = #92.94 ✓
#356.57

#356.57 / 2339½' = #0.1524 ✓

Recapitulation.—

Trenching per ft.	@	$0.5329
Pipe, comprising laying, lead, jam & fuel, also cartage	@	0.3750
Supt. time keeping etc	@	0.0160
Backfilling.	@	0.0800
Specials per ft.	@	0.0188
Valves, hydrants & Valve boxes	@	0.1524
4 Connections with existing pipes $\frac{\$10}{2339\frac{1}{2}}$ =	@	0.0042
Bracing -		0.01
		$1.1493
General office expenses wastage tools		
Contingencies etc - 5%		0.0574
		1.2067
Contractors profit 10%		12.06
Say		1.3273

Cost

Mance St. (from Fairmount to Dernard).—

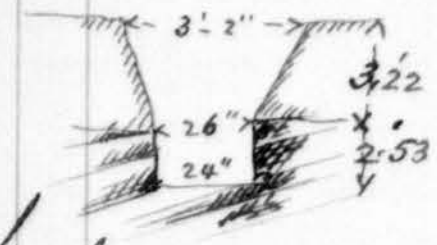
6" pipe

Length = 2327' 0"

Average depth of earth = 3.22 ft.

" " " rock = 2.53 ft.

5.75 ft.



Earth $\frac{3.16}{2.16}$ $2\left(\frac{5}{2}\right)^2$ $2.66 \times 3.22 = 8.5652$ c.ft. = 0.317 C. yd.

Rock $\frac{2.16}{2}$ $2\left(\frac{4.16}{2.08}\right) \times 2.53 = 5.2624$ c.ft. = 0.1949 C. yd.

Therefore.

0.317 C. yds. earth excavation @ 0.20 = $0.0634

0.1949 " rock " @ 2.25 = 0.4385

Total = $0.5019

Specials

5 Branches 6"x6"x4" @ 185# =		925#
1 " 6"x6"x6" @		195
1 Cross 12"x12"x6"x6" @		620
2 - 6" plugs - @ 20#		40
2 - 12" " @ 55#		110
		1890#
3% deviation —		56
		1946#

1946# @ $0.02¾ = $53.515 ✓

4 $53.515 / 2327' = $0.0229 per ft. of pipe. ✓

Valves & hydrants —

Valves.

4 - 6" Valves. Costprice @ $15.40 = $61.60 ✓

Cartage each weighing 180# = 720# @ ½ c. per 100# = 0.36 ✓

Laying 4 valves, no sup. nor time keeping etc. = $2.80 ✓

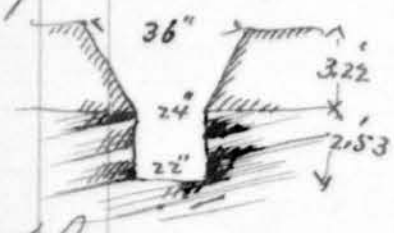
4 Valveboxes laid @ $5.00 = 20.00 ✓

Total for valves = $84.76

Hydrants.

5 hydrants Cost 33 = $165.00 ✓

20 p. trenches x 5 = 100 ft. of trench @ 0.462 = 46.20 ✓



Earth $\frac{3}{4}$ / 2.5 × 3.22 = 8.05 c ft = 0.298 C. yds. ✓

Rock 1.53 / 3.83 / 1.915 × 2.53 = 4.844 c ft = 0.179 C. yds. ✓

Therefore

0.298 C. yds. Earth Excavation @	0.20	$0.0596 ✓
0.179 " rock " @	2.25	0.4027
Cartage hydrant 2000# @	1c per 100#	0.4623
of 2000#		$1.00

5 branches 19' long 95'-0" of branch pipe comprising lead, yarn & fuel & back filling — @ 0.44 = 41.80 ✓

hydrant Carried over = $254.00

	Brought forward.		$254.00
5	Drainage pits trenching & filling with gravel	¢ 0.50	2.50
5	Cuttings of pipe	¢ 0.20	1.00
	Lead yarn & fuel for hydrant joints 5	¢ 0.70	3.50
5	hydrant lead Composing Supt. &c	¢ 3.00	15.00
			$276.00

Valves. $67.76
hydrants 276.00
$343.76

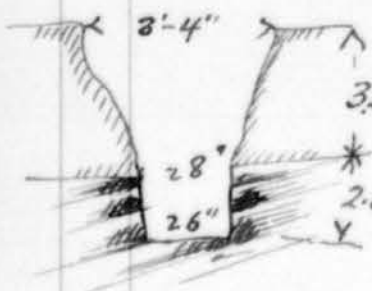
$\frac{34376}{2327}$ = $0.1563 per ft. of pipe

Recapitulation. —

Trenching per ft.	¢	$0.1019
Pipe Comprising laying, lead, yarn, fuel & Cartage	¢	0.5760
Supt. time keeping, &c	¢	0.0260
Back filling		0.0500
Specials per ft.	¢	0.0229
Valves, hydrants & valve boxes	¢	0.1563
Connections $\frac{8}{2327}$ =		0.0034
Bracing.		0.0100
		$1.3400
General office expenses, use of tools, Contin- genera &c say 5%		0.067
		$1.407
Contractors profit 10%		.140
Say 1.54		1.547 ✓

8" pipe

Park Ave from Mount Royal to 400' northwards
Length = 400'-0" Domely Corporation.
average depth of earth = 3.32 ft
" " " rock = 2.68 "
6.00 "



earth = 3.33 / 2.33 / 2(5.66) / 2.83 × 3.32 = 9.3956 = C.Ft. 0.3479 C.Yds. ✓

Rock = 2.33 / 2.16 / 2(4.49) / 2.245 × 2.68 = 6.0166 = C.Ft. 0.2228 C.Yds. ✓

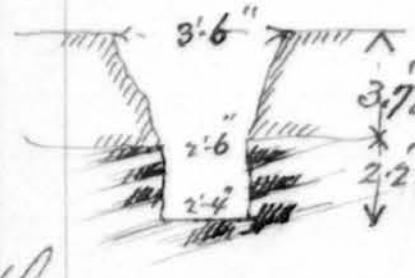
Therefore.

0.3479 C.yds of earth excavation @ 0.20 = 0.06958 ✓
0.2228 " " rock " @ 2.25 = 0.50130
0.57088
Bracing Backfilling 0.01 / 0.05 = 0.02154
Supt. Inspecting use of tools etc 5% 0.02854
~~Bracing~~.

Total = $0.66 ✓

Park Ave - from 400' north of Mount Royal to St. Louis St.) Work done by Bastien & Valiquette.

10" pipe Length 1545'-0"
average depth of earth = 3.78 ft
" " " rock 2.22 "
6.00 "



earth = 3.5 / 2.5 / 2(6.00) / 3.00 × 3.78 = 11.34 = C.Ft. 0.42 C.Yds. ✓

rock = 2.5 / 2.33 / 2(4.83) / 2.415 × 2.22 = 5.3613 = C.Yds. 0.198 ✓

Therefore

0.42 C.yds. of earth excavation @ 0.20 = $0.084 ✓
0.198 " " " rock @ 2.25 = 0.445 ✓
trenching = $0.529 ✓

Specials.

1	Reducer 10" to 8" @	190 #
6	Branches 10"x10"x4" @ 460 #	2760 #
1	Cross 10"x10"x6"x6" @	590 #
		3540 #
	3% deviation	106 #
		3646 # ✓

3646 # @ 0.02¾ = #100.26

#100.26 / 1545' = #0.0648 per ft. ✓

Valves & hydrants -

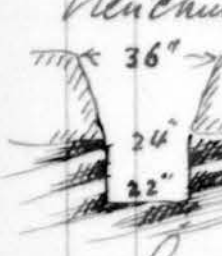
Valves.

1-10" Valve Cost	#33.00
Cartage	0.20
2 lead joints.	1.80
Cutting 1 length pipe.	0.30
Making 2 joints.	0.35
Surface box 1 @	0.26
	35.91
1 Valve boy 5 hours	5
	#40.91

Hydrants.

4 hydrants @ #33	#132.00

Trenching



earth. (3.00/2)(5.00/2) x 3.78 = 9.45 C.ft. = ✓ 0.35 C.yds.

Rock (2.83/2)(1.915) x 2.22 = 4.25 C.ft. = ✓ 0.157 C.yds

Therefore

0.35 C.yds. earth excavation	@ 0.20 =	#0.07 ✓
0.157 " " rock "	@ 2.25 =	0.35 ✓
		0.42 ✓
4 times 27'-0" = 108' of trenching,		
	@ 0.42	#45.36 ✓
4 Drainage pits, excavation & filling with gravel	@ 0.50	2.00
5 Cuttings & repipe	@ 0.20	1.00
		#180.36

Carried over

	Brought forward.		$180.36
	Lead jam & fuel for hydrant joints 4 joints	@ 0.70	2.80
4	Branches 26' long of 4" pipe comprising lead jam fuel &		
104'	back fillings	@ 0.44	45.76
4	hydrants laid & Comprising Supt etc.	@ 3.00	12.00
	Hydrants =		$240.92

Valves. $140.91
Hydrants. $240.92
$281.83

$\frac{281.83}{1545'} = \$0.182$ per ft.

Recapitulation —

Trenching -	$0.529
Pipe comprising laying, lead yarn, fuel & Cartage @	1.122
Supt. time Keeping etc.	0.025
Back filling	0.05
Special per ft.	0.068
Valves, hydrants & Valve boxes -	0.182
3 Connection $\frac{\$15.00}{1545-1} =$	0.0096
Bracing	0.01
	1.995
General Office expenses, Contingencies use of tools &c say 5%	0.099
	2.094
Contractors profit 10%	209
Total =	$2.303

10" pipe

Park Ave. - (from St. Louis to 273 South of Bernard)

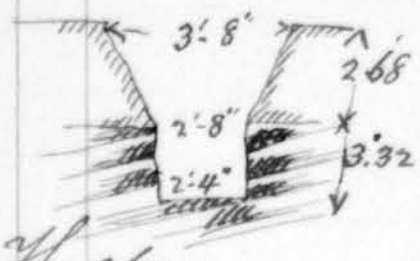
Work done by Corporation

Total length = 2624'-0"

Average depth of earth = 2.68 feet

" " " rock = 3.32

6'00



Earth 3.66 / 2.66 / 2(6.32) → 3.16 × 2.68 = 8.4688 C.ft = 0.313 C.yd. ✓

Rock 2.66 / 2.33 / 2(4.99) → 2.495 × 3.32 = 8.2834 C.ft = 0.306 C.yd. ✓

Therefore.

0.313 C.yd. of earth excavation @ 0.20 = $0.0626 ✓

0.306 " " " rock " @ 2.25 = 0.6885 ✓

Backfilling $0.7511

0.45

Supt. time Keeping men & tools 0.02

Bracing. 0.01

Say $0.83 ✓ $0.8111

10" pipe

Park Ave. (from 273'-0" South of Bernard to Bernard)

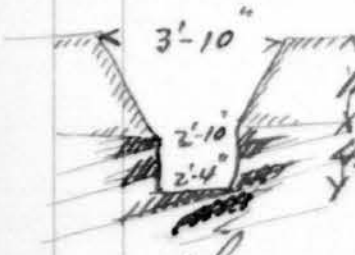
Work done by Bachien Valiquette

Length = 273'-0"

Average depth of earth = 1.20 ft

" " " rock = 4.80 ft

6'00



Earth 3.83 / 2.83 / 2(6.66) → 3.33 × 1.20 = 3.996 C.ft = 0.148 C.yd. ✓

Rock 2.83 / 2.33 / 2(5.16) → 2.58 × 4.80 = 12.384 C.ft = 0.458 C.yd. ✓

Therefore.

0.148 C.yd. of earth excavation @ 0.20 = 0.0296 ✓

0.458 " " " rock " @ 2.25 = 1.0305 ✓

Trenching $1.0601 ✓

Specials.

2 - 10" - ⅛ bends @ 270 #
1 Branch 10"x10"x4" @ 460
730 #
3% deviation 22
752 #

752 # @ $0.02¾ = $20.68

$20.68 / 273' = $0.075⁷

Valves & hydrants.

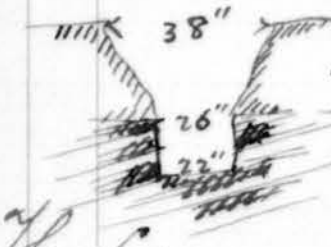
Valves. -

1-10" Valve cost	$33.00
Cartage	0.20
2 cast joints	1.80
Cutting & caulking pipe	0.30
Making 2 joints	0.35
Supplies keeping thru	0.26
	35.91
1 Valve box cast	5.00
Valve =	$40.91

Hydrants.

1 hydrant Cost $33.00

Trenching



earth 3.16 / 2.16 / 2(3.32) / 2.66 x 1.20 = 3.192 c.ft. = 0.118 c.yd. ✓

Rock 2.16 / 1.80 / 2(3.99) / 1.995 x 4.80 = 9.576 c.ft. = 0.354 c.yd. ✓

Therefore

0.118 C. yds. of earth excavation	@ $0.20	$0.0236 ✓
0.354 " " of rock "	@ 2.25	0.7965 ✓
		0.8201
27'-0" of trenching.	$0.82	$22.14 ✓
1 Drainage pit, excavation filling	0.50	0.50 ✓
with gravel.		
Cutting pipe.		0.20 ✓
Lead Jam & Jute Joint Compound		0.70 ✓
26 ft. of 4" branch pipe Comprising lead Jam Jute & backfilling	@ 0.44	11.44 ✓
Carried over.		67.98

Brought forward.	$67.98
1 hydrant laid comprising disp. time keeping etc.	3.00
	$70.98 ✓

Valve = $40.91
Hydrant $70.98
$111.89

$\frac{\$111.89}{273'} = \$0.409$ ✓

Recapitulation. -

Trenching.	$1.0601
Pipe, comprising laying, cast	
Jam, fuel & Cartage - C	1.1220
Supt. time Keeping etc.	0.0250
Back filling.	0.0500
Specials per ft.	0.0757
Valves, hydrants & Valve boxes.	0.4090
2 Connections $\frac{\$5.00}{273}$	0.0183
Bracing.	0.0100
	$2.7701 ✓
General office expenses, Contingencies use of tools etc say 5%	0.1385 ✓
	2.9086
Contractors profit 10%	0.2908
	3.1994

Say $3.20 ✓

Beaudry St. (from Mount Royal to northern extremity)

4" pipe Length ~~0~~ 408'-0"

Montreal Corporation.

Average depth of earth. = 2.65 ft.

" " rock = 2.85 "

5.50 ft. C.Y.D.

earth $\frac{3}{2}\left(\frac{5.}{2.5}\right) \times 2.65 = 6.625$ cft = 0.245 ✓

Rock $\frac{2}{1.83}\left(\frac{3.83}{1.915}\right) \times 2.85 = 5.457$ cft = 0.202 cy D.

Therefore

0.245 C. yds. earth excavation @ 0.20 = 0.0490

0.202 " rock " @ 2.25 = 0.4545

Supt. time Keeping = 0.0080

Bracing - = 0.0100

Back filling - = 0.0500

$0.571 ✓

Beaudry St. from the end of this to Hutchison St. pipe

33'-0" of 4" pipe laid by B & V.

Trenching as above.

Valve

1-4" Valve laid ~~$15.49~~ = 15.49

~~$15.49 = $0.469 per ft.~~

1 Valve box laid. = 5.00

$\frac{\$20.49}{33'} = \$0.62$ per ft. ✓ = 20.49

Recapitulation

Trenching @ 0.57 = $0.571 ✓

Pipe Comprising laying, lead jam

Fuel, also cartage. @ = 0.375 ✓

Supt. time Keeping etc. @ = 0.016 ✓

Back filling - = 0.050 ✓

Valve & valve box - = 0.620 ✓

1 Connection $\frac{\$1.60}{33'}$ = with 4" pipe. = 0.045

Bracing - = 0.010

$1.686

General office expenses use of tools Combustibles etc 5% = 0.084

Say $1.95 Contractors profit 10% = 1.770 ✓

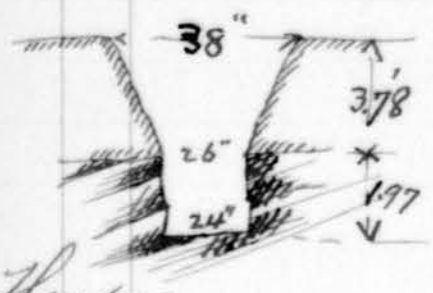
6" pipe.

Hutchison St. (from Beaudry to Boulevard)

Total length 1153 ft. Corporation.

Average depth of earth = 3.78 ft.

" " " rock = 1.97 ft.



		C.ft	C.yd.
earth	$\frac{3.16}{2.16}$ $\frac{2}{5.32}$ $2.66 \times 3.78 =$	10.0548 =	0.372 ✓
Rock	$\frac{2.16}{2}$ $\frac{2}{4.16}$ $2.08 \times 1.97 =$	4.0976 =	0.151 ✓

Therefore

0.372 C.yds earth excavation	@ 0.20		$0.0744 ✓
0.151 " " rock "	@ 2.25		0.3397 ✓
		Trenching	$0.4141 ✓

Specials.—

3 Branches 6"x6"x4"	@ 185#	555#
1-6" ¼ bend	@ 160#	160
2-6" plugs	@ 20#	40
		~~655~~ #
		~~20~~
		~~675~~ #

755 / 22 / 777

2% deviation.

777 ~~676~~ # @ $0.02\frac{3}{4}$ = ~~18.56~~ 21.36

~~18.56~~ 21.36 = ~~0.016~~ per ft. 0.018.

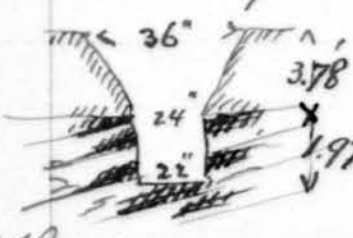
1153'

Valves & Hydrants.

0 Valves.

Hydrants.—

Trenching. earth $\frac{3}{2}$ $2(\frac{5}{2.5}) \times 3.78 =$ C.ft 9.45 = C.yds. ✓0.35 ✓



Rock $\frac{2}{1.53}$ $2(\frac{3.83}{1.915}) \times 1.97 =$ e.ft 3.77 = C.yd. 0.139 ✓

Therefore

0.35 C.yds earth ex.	@ 0.20	$0.07 ✓
0.139 " " " rock "	@ 2.25	0.31 ✓
		$0.38 ✓

over —

1	hydrant Cost price		$33.00
22	ft trenching	@ 0.38	8.36 ✓
1	drainage pit, trenching & filling with gravel		0.50
	Cutting pipe		0.20
	Lead yarn & fuel for hydrant joint		0.70
21	ft. of hydrant branch Comprising Cast iron fuel laying & backfilling gravel	@ 0.44	9.24 ✓
1	hydrant laid Comprising Supt. time keeping &c.		3.00 ✓
			$55.00

÷ $\frac{\$55.00}{1153'} = \$0.0477$ per ft.

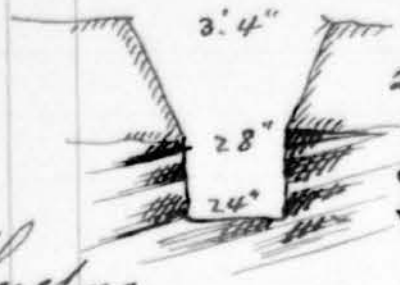
Recapitulation.—

Trenching		0.4141
Pipe Comprising laying, lead Yarn, fuel & Cartage	@	0.576
Supt. time keeping &c	@	0.020
Backfilling.	@	0.050
Specials per ft.	@	0.018
hydrant	@	0.0477
Bracing —	@	0.010
		$1.1358
General office expenses, use of tools, Contingencies &c say 5%		0.0567
		1.1925
Contractors profit say 10%		0.1190
		$1.3115

Say $1.31 ✓

6" pipe — Hutchison St. (from Fairmount to Bernard St.) — Bastien & Valiquette

Length = 2367 ft.
Average depth of earth = 2.09 ft.
" " " rock = 3.66 ft.
5.75 ft.



earth $\frac{3.33 + 2.33}{2} \times \frac{5.66}{2.83} \times 2.09 = 5.9147$ c.ft. = 0.219 c.yds. ✓

Rock $\frac{2.33 + 2}{2} \times \frac{4.33}{2.165} \times 3.66 = 7.9239$ c.ft. = 0.293 c.yds. ✓

Therefore.

0.219 c. yds. earth excavation @ 0.20 = $0.0438 ✓
0.293 " " rock @ 2.25 = 0.6592 ✓
Total trenching = $0.7030 ✓

Specials.

5 Branches 6"×6"×4" @ 185# = 925# ✓
1 Cross 6"×6"×6"×6" @ 295# = 295 ✓
1 " 12"×12"×6"×6" @ = 620 # ✓
2-6" plug @ 20# = 40 ✓
1-4" " @ = 10 ✓
2-12" " @ 55# = 110 ✓
2000#
Plus 3% deviation 60
2060#

2060# @ $0.02\frac{3}{4}$ = $56.65 ✓

$\frac{\$56.65}{2367'} = \$0.0239$ per ft. ✓

Valves & Hydrants

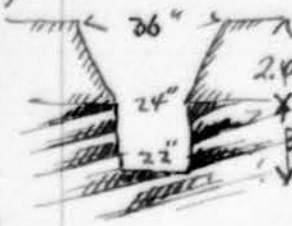
Valves.

4-6" Valves Cost @ 15.40 = $61.60 ✓
Cartage each weigh 180# 720# @ 1½ per cwt. = 0.36 ✓
Laying 4-6" valves - setting mark time keeping etc. @ 1.45 = 5.80 ✓
4 Valve boxes laid @ 5.00 = 20.00 ✓
$87.76 ✓

Hydrants.—

4 hydrants Costs @ 33.00 = $132.00

Trenching.



earth $2\left(\frac{\frac{3}{2}}{2.5}\right) \times 2.09 =$ 5.225 c.ft. = 0.193 C. yds.

Rock $2\left(\frac{\frac{2}{1.83}}{1.915}\right) \times 3.66 =$ 7.0089 c.ft. = 0.259 C. yds.

Therefore

0.193 C. yds. earth excavation @ 0.20 = $0.0386 ✓

0.259 " " rock " @ 2.25 = 0.5827

Total trenching = $0.6213 ✓

~~Specials~~ —

4 × 20'-800 trenching @ $0.62 = $49.60 ✓

4 Drainage fitg trenching & fillin with gravel @ 0.50 = 2.00 ✓

4 Cuttings of pipe @ 0.20 = 0.80 ✓

Lead jam & fuel for 4 hydrants

4 Joints @ 0.70 = 2.80 ✓

4 hydrants laid Comprising Supt. etc ~~fuel~~ @ 3.00 = 12.00 ✓

19 × 4 = 76' long of branch pipe Comprising lead, jam, fuel & backfilling @ 0.44 = 33.44 ✓

$232.64

Valves. $87.76 ✓

Hydrants. 232.64 ✓

$320.40 ✓

$\frac{\$320.40}{2367'} = \$0.135$ ✓

Recapitulation. —

Trenching per. ft. @	$ 0.7030 ✓
Pipe, Conpressing, laying, lead, jam	
fuel, & Cartage - @	0.5760 ✓
Supt. time Keeping, Blacksmithing	0.0200 ✓
Backfilling.	0.0500 ✓
Specials per ft.	0.0239 ✓
Valves, hydrants Valve boxes.	0.1350 ✓
Connection with existing pipes	
$\frac{\$5}{2367'}$ =	0.0021 ✓
Bracing.	0.0100
	$ 1.5200
General office expenses, use of tools,	
Contingencies, etc say 5%	0.076
	$ 1.596
Contractors profit 10%	0.159
	$ 1.755 -
Say $ 1.75 1/2 ✓	

4" Pipe

Albina St. (from Mount Royal to St. Louis)

Length 463'—0" — Corporation.

Average depth of earth excavation 3.95 ft.
" " " rock " 1.55 "
5.50 ft.

earth $\frac{3}{2}(5) \times 3.95 = 9.875$ c.ft. = 0.365 c.yds.

Rock $\frac{2}{1.03}$ $2(3.53)$ $1.915 \times 1.55 = 2.968$ c.ft. = 0.109 c.yds.

Therefore.

0.365 C.yds of earth excavation	@ 0.20	$0.073
0.109 " " rock "	@ 2.25	0.245
		0.318
Sup. time keeping		0.008
Bracing		0.010
Backfilling		0.050
		0.386
General office expenses etc 3%		0.011
		0.397
Say		$0.40

4" pipe. DeGaspé St. (St. Louis to Marquette)

Length = 930'

Corporation

Average depth of earth = 1.60 ft.
" " rock = 3.90 ft.
5.50 ft.

earth $\frac{3.16}{2.76}$ $1(5.32)$ $2.66 \times 1.60 = 4.256$ c.ft. = 0.157 c.yds.

Rock $\frac{2.16}{1.82}$ $2(3.99)$ $1.995 \times 3.90 = 7.78$ c.ft. = 0.288 c.yds.

Therefore.

0.157 C.yds. earth excavation	@ 0.20	$0.0314
0.288 " " rock "	@ 2.25	0.6480
		0.6794
Sup. time keeping etc		0.0080
Bracing		0.01
Backfilling		0.05
		0.7474
General office expenses etc 3%		0.0224
		0.7698
Say		$0.77

6" pipe

Casgrain St. (from St. Louis to Maguire)

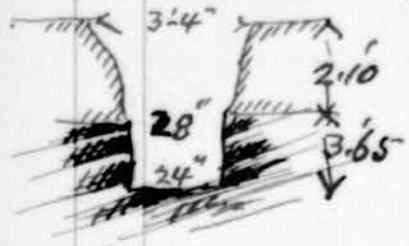
Carpondain -

Length = 928 ft.

Average depth of earth = 2.10 ft.

" " " rock = 3.65 "

5.75 ft.



earth $\frac{3.33}{2.33}$ $\frac{2(5.66)}{2.83} \times 2.10 = 5.943$ c.ft. = 0.22 c.yds. ✓

Rock $\frac{2.33}{2}$ $\frac{2(4.33)}{2.165} \times 3.65 = 7.90$ c.ft. = 0.292 c.yds. ✓

Therefore

0.22 C.yds. earth exc.	@ 0.20	$ 0.044
0.292 " rock.	@ 2.25	0.657 ✓
		$ 0.701
Sup. time keeping etc.		0.010
Bracing —		0.016
Backfilling		0.050
		0.777 ✓
General office expenses etc say 3%		0.023 ✓
		0.794

Say 0.80 ✓

6" pipe Casgrain St. (from Maguire northwards.

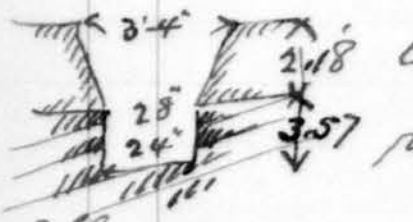
Made by Bastien & Valiquette.

Length of pipe 372'-0"

average depth of earth ex. = 2.18 ft.

" " " rock " = 3.57 "

5.75 " c.ft. c.yds.



earth $\frac{3.33}{2.33}$ $\frac{2(5.66)}{2.83} \times 2.18 = 6.1694$ = 0.228 ✓

rock $\frac{2.33}{2}$ $\frac{2(4.33)}{2.165} \times 3.57 = 7.729$ c.ft. = 0.286 c.yds. ✓

Therefore.

0.228 C.yds. earth excavation	@ 0.20	0.0456 ✓
0.286 " " " rock "	@ 2.25	0.6435
Total trenching =		$ 0.6891 ✓

Specials.

0 Specials -
no valves —
no hydrants -

Recapitulation.

Trenching -		$0.6891 ✓
Pipe, comprising laying lead jam		✓
fuel & Cartage.		0.5760
Sup. time Keeping Wtr.		0.0200 ✓
Backfilling		0.0500 ✓
1 Connection $\frac{\$1.50}{372'}$ = unit existing pipe.		0.0040 ✓
Bracing.		0.0100 ✓
		$1.3491 ✓
General Office expenses, use of tools,		
Contingencies, etc. say 5%		0.0674
		$1.4165
Contractors profit 10%		$ .1416
Say $1.56 ✓.		1.5581

4" pipe St. Dominique (From St. Eugène to Lane south of C.P.R.) —

Length = 2185'-0"
average depth of earth = 3.63 ft.
" " " rock = 1.87 ft.
5.50 ft.

earth $2\left(\frac{5}{2.5}\right)^{\frac{3}{2}} \times 3.63' = 9.075 \text{ c.ft.} = 0.336 \text{ C.yds}$

rock $2\left(\frac{3.83}{1.915}\right)^{\frac{2}{1.83}} \times 1.87' = 3.581 \text{ c.ft.} = 0.1326 \text{ C.yds.}$

Therefore.

0.336 C.yds. of earth excavation	@ 0.20	$0.0672 ✓
0.1326 " " " rock "	@ 2.25	0.2983 ✓
		$0.3655 ✓

Specials.

4 Branches 4"x4"x4" @	125# =		500#
1 Cross 6"x6"x4"x4" @	215		215
1 Cross 12"x12"x4"x4" @	590		590
3 - 4" plugs - @	10		30
			1335#
3% deviation			40
			1375#

1375# @ 0.02¾ = #37.81 ✓

#37.81 / 2185' = #0.0173 per ft. ✓

Valves & hydrants

Valves.

4 - 4" Valves Cost	#9.33	#37.40	✓
Cartage 4 valves @ 80# = 320# @ [illegible]		0.16	✓
Laying 4 - 4" valves	@ 1.10	4.40	✓
4 Valve boxes -	@ 5%	20.00	✓
	Valves.	#61.96	

Hydrants.

Trenching. Same price as for main cut -

20' bench + ¾ = 60'-0'	@ #0.365 =	#21.93	✓	21 93
3 hydrants	@ 33%	#99.00		99 00
Cartage 3 hydrants @ 400# each = 1200#				
@ 1/2% per ton. -		0.60		0. 60
5'-7"-0" of Branch pipe Compensing				
lead Jam & fuel also backfilling	@ 0.44	25.08		25 08
3 Drainage pits, excavation & refilling				
with gravel	@ 0.50	1.50		1 50
3 Cuttings of pipe	@ 0.20	0.60		60
Lead Jam & fuel for hydrant				
joints.	@ 0.70	2. 10		2 10
3 hydrant laid & Compensing expt.				
time Repairs etc.	@ 3%	9.00		9 00
Hydrants =		#192.81		159.81 ✓

61.96 : 159.81 / 221.77

Valves = #61.96 / #254.77 = 221.77 / 2185'-1 = #0.101 per ft.

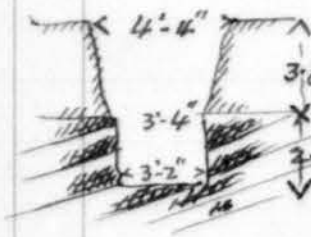
Hydrants = #192.81 / #254.77 = #0.116 per ft.

Recapitulation.—

Trenching per ft.	$0.3655
Pipe Conferencing Laying, Cad jam	
Fuel & Cartage	0.3750
Supt. time Keeping etc.	0.0160
Back Filling	0.0500
Specials per ft.	0.0173
Valves, hydrants & Valvebox's.	0.1010
2 Connections with existing pipe	
#3 / 2185 =	0.0013
Bracing.	0.0100
	$0.9361
Jewel office expenses, use of tools, Contingencies etc 5%	0.0468
	0.9829
Contractors profit 10%	0.0998
	1.0811
Say $1.08	1.08

12" pipe

Mount Royal Ave. (from Saguenay to Western limit)
Madely Expiration
Length = 305 3'-0"
Average depth of earth = 3.82 ft
" " rock = 2.18 "



earth 4.33 / 3.33 / 2)7.66 — 3.83 × 3.82 = 14.63 c.ft = 0.541 c.yds. ✓

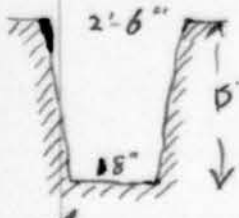
Rock 3.33 / 3.16 / 2)6.49 — 3.245 × 2.18 = 7.074 c.ft = 0.262 c.yds. ✓

Therefore
0.541 C.yds of earth excavation @ $0.20 = 0.1082
0.262 " " " rock " @ $2.25 = 0.5895 ✓
$0.6977
Supt. time Keeping etc = 0.0150
Bracing 0.0100
Backfilling 0.0500
Jewel office expenses, use of tools etc 3% 0.0231
$0.7958 Say $0.80

6" pipe Villeneuve St. (from City Hall ave to St. Laurence) Corporation —

Length = 885'-0"

all in earth —



3.5 − 1.5 − 2 (4.0) 2.0 × 5.75' = 11.50 C.ft. = √ 0.425 C. yds.

Therefore

0.425 C. yds. of earth excavation @ 20		$ 0.085
Supt. time keeping &c —		0.010
Bracing		0.010
Backfilling.		0.050
		0.155
General office expenses, use of tools etc say 2% of earth rock use of tools and horses, supt also etc)		0.003
		$ 0.158

Say 0.16 ✓

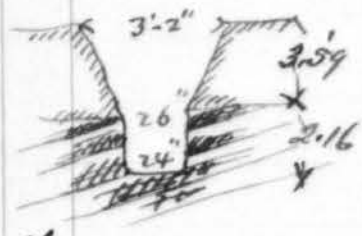
6" pipe Villeneuve St. (from St. Laurence to St. Urbain. Basile & Valiquette)

Length 528'-0"

Average depth of earth = 3.59 ft.

" " " rock = 2.16 "

6.75 ft.



earth 3.16 + 2.16 / 2 (5.32) 2.66 × 3.59 = 9.5494 C.ft. = 0.353 C. yds. ✓

Rock 2.16 / 2 (4.16) 2.08 × 2.16 = 4.4928 C.ft. = 0.166 C. yd.

Therefore.

0.353 C-yds. of earth excavation	@ 0.20	$ 0.0706 ✓
0.166 " " rock "	@ 2.25	0.3735 ✓
Trenching —		$ 0.4441 ✓

Specials.—

2 Branches 6"×6"×4" @ 185#		370#
1 Cross 6"×6"×4"×4"	@	215
1 " 6"×6"×6"×6"	@	295
1 — 6" plug	@	20
		900#

900# @ 0.02¾ = #24.75 ✓

∀ $\frac{\#24.75}{528'}$ = #0.0468 per ft. ✓

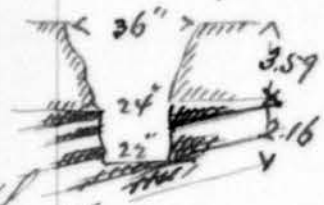
Valves ∀ hydrants:

Valves.

4 — 6 Valves	@ #15.00	#61.60 ✓
Cartage each weighing 180# = 720# @ 5¢ per cwt		0.36 ✓
Laying 4-6" Valves, no Supt. during laying etc	@ 1.45	5.80
4 Valve boxes laid	@ 5.00	20.00
Total for Valves =		#87.76

Hydrants.—

Trenching.



	C.ft.	C.yds.
Earth $\frac{3}{2}(\frac{5}{2.5})^2 \times 3.59$ =	8.975 =	0.332 ✓
Rock $\frac{2}{3}(\frac{3.83}{1.915})^2 \times 2.16$ =	4.1364 =	0.153 C.yds.

Therefore

0.332 C.yds. of earth etc.	@ 0.20	#0.0664 ✓
0.153 C.yds. " rock "	@ 2.25	0.3442
		0.4106
2 — 16.5 ft trench = 33.0 ft trench	@ 0.41	13.53 ✓
2 hydrants	@ 33.00	66.00 ✓
2 — 15'-6" branches = 31.0 ft branch		
Pipe comprising lead jam fuel ∀ back filling	@ 0.44	13.64 ✓
Cartage 2 hydrants @ 400# = 800# @ 1¢ per cwt		0.40 ✓
2 Drainage pits, excavation ∀ filling with gravel —	@ 0.50	1.00 ✓
2 Pipe Cuttings.	@ 0.20	0.40 ✓
Lead jam ∀ fuel for 2 hydrant joints	@ 0.70	1.40 ✓
Carried over.		#96.37 ✓

	Brought forward.		$96.37
2	Hydrants complete including Supt etc.	@ 3.00	6.00
		Hydrants =	$102.37
		Valves = 87.76	
		Hydrants = 102.37	
		Total $190.13	
		$190.13 / 528'-0" = $0.361	✓
	Recapitulation.		
	Trenching per ft.	@	$0.4441 ✓
	Pipe complete laying, lead, jam, fuel, & Cartage.	@	0.576 ✓
	Supt. time keepers etc.	@	0.070 ✓
	Back filling.	@	0.050 ✓
	Specials per ft.	@	0.0468 ✓
	Valves, hydrants & valve boxes	@	0.3600 ✓
2	Connections with existing pipes $6.50 / 528' =		0.0123
	Bracing.		0.0100 ✓
			$1.5292
	General office expenses, use of tools, Contingencies etc. say 5%		0.0759
			$1.5951
	Contractors ~~profits~~ 10%		0.1596
			$1.7546
	Say $1.76	✓	

6" pipe — Boulevard. (from Sauguinet to Cadieux & Gage thypolite to St. Dominique) — Corporation —

Length = 840 ft for both piece —

Average depth of earth = 3.93 ft

" " " rock = 1.82 ft

5.75 ft.

earth 3.16 / 2.16 / 2(5.32) / 2.66 × 3.93 = 10.4538 = 0.387 C.yds. (C.ft.)

Rock 2.16 / 2 / 2(4.16) / 2.08 × 1.82 = 3.7856 = 0.140 C.yd. ✓

Therefore.

0.387 C. yds. of earth excavation @ 0.20 = $0.0774 ✓

0.140 " " " rock " @ 2.25 = 0.315 ✓

$0.3924 ✓

Sups. line keeping etc. 0.0100

Bracing. 0.0100

Backfilling. 0.0500

$0.4624 ✓

General office expenses, use of tools etc say 3% (on a/c of rock ex. if 10% is greater, lines commenced longer etc.) 0.0138

0.4762 ✓

Say $0.48 ✓

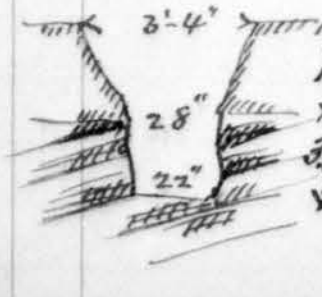
4" pipe — Edouard Charles St. (from Park Ave to Outremont) Bachand & Valiquette —

Length = 423 ft.

Average depth of earth 1.66 ft.

" " " rock 3.84 ft.

5.50 ft.



earth 3.33 / 2.33 / 2(5.66) / 2.83 × 1.66 = 4.6978 = 0.1739 C.yds. (C.ft.) ✓

Rock 2.33 / 1.83 / 2(4.16) / 2.08 × 3.84 = 7.9872 = 0.2958 C.yds. ✓

Therefore.

0.1739 C. yds Sand exc.	@ $0.20	$0.03478 ✓
0.2958 " " - rock "	@ $2.25	0.66555 ✓
trenching =		0.70033 ✓

Specials.

1 Branch 4"x4"x4"	@	125#
1 - 4" plug	@	10
		135#
Plus 3% deviation.		4
		139# ✓

139# @ $0.02 3/4 = $3.82 ✓

$3.82 / 423' = $0.009 per ft ✓

Valve & hydrants.

Valves.

1 - 4" Valve	@	$9.35 ✓
Cartage 8# @ 1¢ per ton.		0.04 ✓
Laying 1 - 4" valve.		1.10 ✓
1 Valve box set		5.00 ✓
Valve = 2		$15.49 ✓

Hydrant:

Trenching same as main trench.

1 hydrant	@ 33¢	$33.00 ✓
16 ft. 4" pipe	@ 0.70	11.20 ✓
Cartage 1 hydrant 400# @ 6/- a ton		0.20 ✓
15 ft. of branch pipe, Comprising lead jam & fuel & back filling	@ 0.44	6.60 ✓
1 Drainage pit & excavation & filling with gravel		0.50 ✓
1 pipe cutting - Lead jam & fuel for hydrant joint.		0.20 ✓
		0.70 ✓
1 hydrant box Comprising cupt etc		3.00 ✓
		55.40 ✓

Valves = $15.49 ✓
Hydrants = 55.40 ✓
$70.89 ✓

$70.89 / 423' = $0.167 ✓

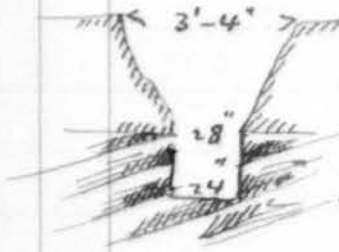
Recapitulation. —

Trenching —	$0.7003 ✓
Pipe comprising laying, lead	
Jam, fuel & cartage —	0.3750 ✓
Supt. time keeping etc.	0.0160 ✓
Backfilling	0.0500 ✓
Specials per ft.	0.0090 ✓
Valves hydrants & vale boxes.	0.1670 ✓
Bracing	0.0100 ✓
Say $1.33 ✓	$1.3273

St. Louis St. (from St. Denis Ward to Sanguinet St.)
Corporation.

6" pipe

Length = 175'—
Average depth of earth = 2.40 ft.
" " " rock = 3.35 ft.
5.75 ft.



earth ½ (3.33 + 2.33 = 5.66)
2.83 × 2.40 = 6.792 C.ft = 0.251 C.yds. ✓

Rock ½ (2.33 + 4.33 = 6.66)
2.165 × 3.35 = 7.25275 C.ft = 0.267 C.yds ✓

Therefore.

0.251 C.yds. of earth excavation	@ $0.20	$0.0502 ✓
0.267 " " " rock "	@ $2.25	0.6007 ✓
		$0.6509 ✓
Supt. time keeping etc.		0.0100 ✓
Bracing		0.0100 ✓
Backfilling		0.0500 ✓
General office expenses, use of tools etc 10%		0.7209 ✓
		0.0216
say	$0.74 ✓	0.7425 ✓

St. Louis St. / St. Sanguinet to Park Ave.)

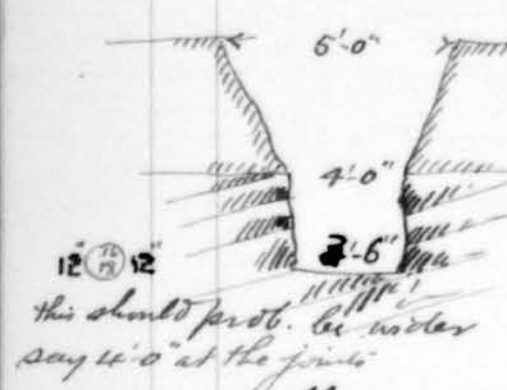
16" pipe — Corporation —

Length = 2657 ft.

Average depth of earth = 2.55 ft.

" " " rock = 3.95 ft.

6.50 ft.



this should prob. be wider say 4'-0" at the joints

earth — 5.0 / 4.00 / 2(9.00) — 4.5 × 2.55 = 11.475 c.ft. = 0.4250 c.yds.

Rock — 4 / 3.5 / 2(7.5) — 3.75 × 3.95 = 14.8125 c.ft. = 0.548 c.yds.

Therefore.

0.4175 C yds. of earth excavation @ $0.20 — $0.0850 ✓

0.548 " " " rock " @ $2.25 — 1.2330 ✓

$1.3180 ✓

Supt. time Keeping etc Blacksmithing — 0.0450

Bracing. — 0.0100

Backfilling. — 0.0800

$1.4530 ✓

General Office expenses use of tools etc Cartage trench, longer time etc / say 4% — 0.0580 ✓

$1.5115 ✓

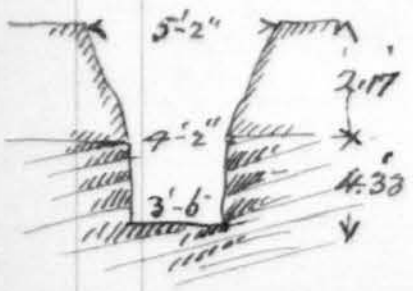
Say $1.51 ✓

16" pipe — St. Louis St. / from Park Ave. to Outremont Bachen & Valiquette.

Length 382.'3"

Average depth of earth = 2.17 ft.

" " " rock = 4.33 ft.



earth — 5.16 / 4.16 / 2(9.32) — 4.66 × 2.17 = 10.1122 c.ft. = ✓0.374 c.yds. ✓

Rock — 4.16 / 3.50 / 2(7.66) — 3.83 × 4.33 = 16.5839 c.ft. ✓ = ✓0.614 c.yds. ✓

Therefore.

0.374 C.y. do. of earth excavation	@ 0.20	#0.0748 ✓
0.614 " " rock "	@ 2.25	1.3815 ✓
Trenching =		#1.4563

Specials.

1 Branch 16"x16"x6"	@	910 #
1 " 16"x16"x4"	"	900 #
1 — 16" plug	@	100
1 — 6" "	@	20
		1930 #
Plus 3% deviation.		58
		1988 #

1988# @ #0.02¾ = #54.67 ✓

#54.67 / 382'-3" = #0.143 per ft. ✓

Valves & hydrants.

0 Valves.

Hydrants.

Trenching.

earth — 3.16 / 2.16 / 2(5.32) / 2.66 × 2.17 = 5.7722 @ /ft = 0.2137 ✓

Rock — 2.16 / 1.83 / 2(3.99 × 4.33) = ~~17.2767~~ @ /ft = ~~0.639~~ C.yds. / 1.995 × 4.33 = 8.6383 = 0.329

Therefore

0.2137 C.y. do. earth excavation	@ #0.20	#0.04274 ✓ 0.04274
~~0.684~~ " " rock "	@ 2.25	~~1.43775~~ 0.7200
0.320		~~1.48049~~ 0.76294

Therefore.

27' of trenching	@ ~~248~~	#~~20.52~~ 20.00 ✓
1 hydrant	@	33.00 ✓
26 ft. of branch pipe comprising pipe lead jam, fuel, & backfilling	@ 0.44	11.44 ✓
Cartage 1 hydrant 400# @ ½¢ a ton.		0.20 ✓
1 Drainage pit, excavation & filling with gravel.		0.50 ✓
1 pipe cutting.		0.20 ✓
Lead jam & fuel for hydrant joint		0.20 ✓
Carried over		#86.56

Brought forward.		~~$~~ 66 56
		~~56.00~~
hydrant laying, comprising Supt etc.		3.00
hydrant.	=	$ 69.56
Valve	0.00	
hydrant	69.56	
	$ 69.56	
$\frac{69.56}{38'-3"}$ =	~~$0.232 per ft.~~	✓ 0,182

Pipe 135 ft + 3% = 135 ft + 4 = 139 ft
139 ft @ 28.32 + 75 cts a ton = $2.03
Lead Jam 1 pup 0.16
laying 0.13
2.32
6 25-gang day 2.00

Recapitulation.

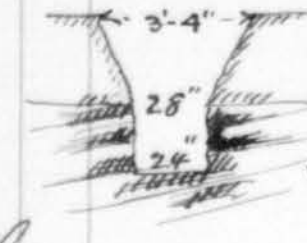
Trenching		~~$~~ 1.4563 ✓
Pipe comprising laying, lead		
Farm fuel & Cartage -		2.3200 ✓
Supt. time Keeping, Blacksmithing etc.		0.0500 ✓
Backfilling.		0.0800 ✓
Specials per ft.		0.1430 ✓
~~Labor~~ Hydrants & ~~valves~~		0.1920
		~~0.1320~~
Connection with existing pipe		
$\frac{95}{382'3"}$ =		0.0130
Bracing -		0.0100 ✓
		~~$ 4.3043~~
		4.2543
General Office expenses, use of tools, Contingencies etc day 5%		0.2127
		4.4670
Contractors profit - 10%		.4467
Total		~~$ 4.9714~~
		$4.9137

Fairmont St. (from St Lawrence to Hutchison).

Bacien & Valiquette.

6" pipe Length 1824'-0"

Average depth of earth = 1.28 Ft.
" " " rock = 4.47 "
5.75 Ft.



Earth. 2.33 / 2 | 4.66 / 2.33 × 1.28 = 3.6224 c.ft. = 0.134 c.yds.

Rock 2.33 / 2 | 4.33 / 2.165 × 4.47 = 9.6775 c.ft. = 0.358 c.yds. ✓

Therefore.

0.134 C. yds. earth excavation @ 0.20 = 0.0268 ✓
0.358 " rock @ 2.25 = 0.8055 ✓
Trenching = $0.8323 ✓

Specials.

3	Branch 10"x10"x6"	@	490#	1470#
3	10" sleeve	@	155#	465
4	Branches 6"x6"x4"	@	185#	740
2	" 6"x6"x6"	@	195#	390
3	4" plugs.	@	10#	30
2	6" "	@	20#	40
				3135#
	Plus 3% deviation			94
				3229 ✓

3229# @ 0.02¾ = $88.79 ✓ ✓

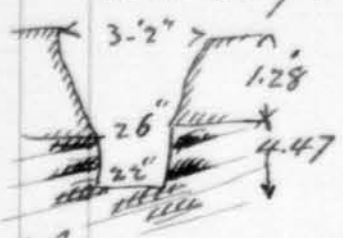
$88.79 / 1824'-0" = $0.0486 ✓

Valves & hydrants —

Valves.

6-6" Valves	@	15.40	$92.40
Cartage 400#×6 = 2400# @ $1.00 per ton			1.20
Laying 6-6" valves no Sleeves etc	@	1.45	8.70 ✓
6 Valve boxes laid	@	5.00	30.00 ✓
			$132.30 ✓

Hydrants.



Trenching. earth $\frac{3.16}{2.16}$ / $2(5.32)$ / $2.66 \times 1.28 = 3.4048$ C.ft. = 0.1261 C.yds ✓

Rock $\frac{2.16}{1.83}$ / $2(3.99)$ / $1.995 \times 4.47 = 8.9146$ = 0.3302 C.yds. ✓

Therefore.

0.1261 C.yds earth excav.	@ #0.20	#0.0252 ✓
0.3302 " " rock "	@ 2.25	0.7429
		0.7681 ✓
Say #0.77		
22' trench	@ 0.77	16.94 ✓
1 hydrant		33.00 ✓
1 Drainage pit excavation filling with gravel.		0.50 ✓
1 Cutting pipe		0.20 ✓
Lead jam & fuel for hydrant joint		0.70 ✓
1 hydrant laid Complete including Supt etc.		3.00 ✓
21 ft. of branch pipe Comprising Lead jam, fuel & backfilling	@ 0.44	9.24 ✓
~~Backfilling~~		#63.58

hydrant 63.58
+ Valve 132.30
#195.88

+ $\frac{\#195.88}{1824'}$ = #0.1073

Recapitulation.

Trenching per ft.	#0.8323 ✓
Pipe Comprising laying, Lead Jam fuel & Cartage.	0.5760 ✓
Supt. time keeping. blacksmithing etc.	0.0200 ✓
Backfilling.	0.0500 ✓
Specials per ft	0.0486 ✓
Valves & hydrants Water boxes.	0.1073 ✓
3 Connections $\frac{\#30}{1824'}$ =	0.0164 ✓
Carried over	#1.6506 ✓

Brought forward.	$1.6506
Bracing.	0.0100
	1.6606
Sewral Office expenses, use of tools, Contingencies, etc say 5%	0.0830
	1.7436
Contractors profit 10%	0.1743
	1.9179
Say $1.92	

4" pipe

St. Eugène St:- (from St. Dominique to Casgrain)

Broken Y Valiquette.

Length = 372'-0"

Average depth of earth = 3.07 ft.

" " " rock = 2.43 "

5'-5"0

Earth $\frac{3.00}{2}$ / $2\left(\frac{5.00}{2.5}\right) + 3.07 = 7.675$ C.ft. = 0.284 C.yd. ✓

Rock $\frac{2}{1.53}$ / $2\left(\frac{3.83}{1.915}\right) \times 2.43 = 4.6534 = 0.172$ C.yd.

Therefore.

0.284 C.yd. earth excavation @	$0.20	$0.0568 ✓
0.172 " " rock " @	$2.25	0.3870 ✓
		$0.4438 ✓

Specials.-

2 Branches 4"x4"x4" @ 125#	250
1 - 4" plug @	10#
	260#
Plus 3%	8
	268#

268# @ 0.02 3/4 = $7.37 ✓

$\frac{\$7.37}{372'-0"}$ = $0.0198 ✓

Valves & hydrants-

4 4" Valves.	@ $9.35	$37.40
Cartage 4 valves @ 80 = 320 #	@ ¢ per lbs	0.16 ✓
Laying 4 4" valves.	@ 1.10	4.40 ✓
4 Valve boxes laid	@ 5.00	20.00 ✓
		$61.96

As by Quants therefore

$\frac{61.96}{372'}$ = $0.166 per ft. ✓

Recapitulation.

Trenching per ft.	$0.4438 ✓
Pipe comprising laying, lead fans, fuel & Cartage @	0.3750 ✓
Supt. time Keeping, blacksmithing ✓	0.0160 ✓
Backfilling	0.0500 ✓
Specials per ft.	0.0198 ✓
Valves -	0.1660 ✓
1 Connection with existing pipe $\frac{150}{372}$ =	0.0040 ✓
Bracing.	0.0100 ✓
	$1.0846
Journal office expenses, use of tools, Contingencies etc 5%	0.0542
	$1.1388
Contractors profit (10)%	0.1138
	$1.2526
Say $1.25 ✓	

4" pipe Rue Young. (from Park Ave. to Hutchison St)

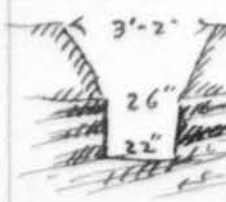
Bastien & Valiquette.

Length = 432'-0"

average depth of earth = 1.94 ft

" " " rock = 3.56 "

5.50 ft.



Earth = $\frac{3.16}{1.16}$ / $\frac{5.32}{2.66}$ × 1.94 = 5.16 c.ft. = 0.191 ✓ c.yds.

Rock $\frac{2.16}{1.83}$ / $\frac{3.99}{1.995}$ × 3.56 = 7.10 c.ft. = 0.262 c.yds. ✓

Therefore.

0.191 C.Yds. earth excavation	@ $0.20	$0.0382 ✓
0.262. " rock "	@ $2.25	0.5895 ✓
Trenching.		$0.6277 ✓

Specials.

1 Branch 10"x10"x4"	@	460#
1-10" sleeve	@	155
1 Brand 4"x4"x4"	@	125
1-4" plug	@	10#
		760#
Plus 3%		22
		782#

1/2" @ 0.# @ 2 3/4 = $21.23 ✓

$21.23 / 432 = $0.0491 ✓

Valves & hydrants

Valves

1-4" Valve	@ $9.35	$9.35
Cartage 1 valve 80# @ ½ a ton =		0.04
Laying 1-4" valve		1.10
1 valve box laid.		5.00
		$15.49 ✓

Hydrants:

1 hydrant		33.00
22' trenching - same price as main trench		
	@ 0.607	13.86 ✓
Cartage 1 hydrant 400# @ ½ a ton.		0.20 ✓
21 ft. of branch pipe Comprising lead		
jam, fuel & backfilling	@ 0.44	9.24 ✓
1 Drainage pit, excavation & filling		
with gravel.		0.50 ✓
pipe cutting.		0.20 ✓
Lead jam, fuel for hydrant joint		0.70 ✓
1 hydrant laid Comprising		
supt etc.		3.00 ✓
		$60.70 ✓

Valves = 15.49 ✓
hydrant = 60.70 ✓
$76.19

$\frac{\$76.19}{432'} = \$0.1532$ 0,1763.

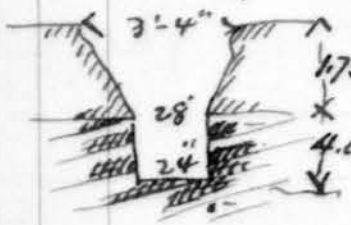
Recapitulation.

Trenching per ft.	$0.6277 ✓
Pipe Comprising, Laying, lead, Yarn, fuel & Cartage @	0.3750 ✓
Supt. time keeping, blacksmithing &c.	0.0160 ✓
Backfilling -	0.0500 ✓
Specials per ft.	0.0491 ✓
Valve, hydrant valve boxes.	~~0.1532~~ 0.1763
Connection with existing pipe $\frac{\$10}{432'}$ =	0.0231 ✓
Bracing.	0.0100 ✓
	~~$1.3044~~
General office expenses, use of tools, Contingencies etc 5%	1.2272 0663 ~~0.0652~~
	~~$1.3673~~ 1.2935
Contractors profit 10%	0.1393
Say ~~$1.50~~ $1.53 —	$1.5328

6" pipe

Maguire St: (from St Dominique to Jacques Bizet & Valiquette.

Length = 491'-0"
Average depth earth = 1.75 ft
" " rock = 4.00 ft.
5.75 ft.



earth $\frac{3.33 \times 2.33}{2} \times 5.66 \times 1.75' = 4.9525$ c.ft. = 0.183 c.yd. ✓

Rock $\frac{2.33}{2} \times 4.33 \times 2.165' \times 4.00 = 8.66$ c.ft. = 0.320 c.yd.

Therefore.

0.183 C. yds of earth excavation @ 0.20	$0.0366 ✓
0.320 " " " rock " @ 2.25	0.7200 ✓
Trenching =	$0.7566 ✓

Specials.

2	Crosses 6"×6"×4"×4"	@ 215#		430#
1	Cross 6"×6"×6"×6"	@ 295#		295
3	-4" plugs	@ 10#		30
1	-6" plug.	@ 20#		20
				775#
	Plus 3%			23
				798#

798# @ $0.02 3/4 = $21.94 ✓

$21.94 / 491' = $0.0446 per ft. ✓

Valves & hydrants

Valves.

5-6" Valves.	@ 15.40	$77.00	✓
2-4" "	@ 9.35	18.70	✓

Cartage 5-6" valves. 180# = 900#
" 2-4" " 80# 160#
@ $1.00 a ton 1060#

		0.53	✓
Laying 5-6" Valves	@ 1.45	7.25	✓
" 2-4" "	@ 1.10	2.20	✓
7 6" valves stores last	@ 5.00	35.00	✓
Total Valves =		$140.68	✓

Hydrants.

Trenching.

Earth 3.16 / 2.16 / 2(5.32) / 2.66 × 1.75 = 4.655 C. ft. = 0.1724 C.yd. ✓

Rock 2.16 / 1.83 / 2(3.99) / 1.995 × 4.00 = 7.98 C ft = 0.2955 C.yd. ✓

Therefore

0.1724 C yd. earth excavation	@ 0.20	0.03448	✓
0.2955 " rock "	@ 2.25	0.66487	✓
Say 0.70		0.69935	
20' Trenching —	@ 0.70	14.00	✓
1 hydrant	@	33.00	✓
19' branch pipe comprising lead, jarn, joints & backfilling	0.44	8.36	✓
Carried over =		$55.36	

Brought forward.	$55.36
Cartage 1 hydrant 400 lbs @ 1 ct ✓	0.20 ✓
1 Drainage pit, excavation & filling with gravel.	0.50 ✓
1 pipe cutting.	0.20 ✓
Lead yarn & fuel for hydrant joint.	0.70 ✓
1 hydrant Cart, Carpenter Supt — hydrants —	3.00 ✓
	$59.96
Value — $140.68 ✓	
hydrants. 59.96 ✓	
$200.64	
÷ $200.64 / 491' = $0.4086 ✓	
Recapitulation —	
Trenching	$0.7566 ✓
Pipe comprising laying, lead yarn, fuel & cartage	0.5760 ✓
Supt: time Keeper &c.	0.0200 ✓
Backfilling.	0.0500 ✓
Special per ft.	0.0446 ✓
Valves & hydrants & tube boxes.	0.4086 ✓
3 Connections $4.50 / 491'	0.0091 ✓
Braces	0.0100 ✓
	$1.8749 ✓
General office & pencils, use of tools Contingencies, etc say 5%	0.0937 ✓
	1.9686
Contractors profit 10%	0.1968
	2.1654
Say $2.16 ✓	

6" pipe

600'-0" north of Fairmont.
Lane ~~between St Urbain & Marcel~~ / between St Urbain & Fairmount
& Marcel —

Bachin & Valiquette.

Length = 754'-6"
Average depth of earth = 1.66 ft.
" " " rock = 4.09 "
5.75 ft.

earth 2.33 / 2.33 / 2(5.66)
2.83 × 1.66 = 4.6978 C.ft. = 0.1739 C.yds. ✓

Rock 2.33 / 2 / 2(4.33)
2.165 × 4.09 = 8.8548 C.ft. = 0.3279 C.yds. ✓

Therefore.
0.1739 C. yds. earth excavation @ $0.20 $0.03478 ✓
0.3279 " rock " @ $2.25 0.73777 ✓
Trenching = $0.77255 ✓

No Specials - Contador up streets.
No hydrants -
Valves.
2-6" Valves - @ $15.40 $30.80 ✓
Cartage 2 valves 180# = 360# @ $1.00 per ton 0.18 ✓
Laying 2-6" Valves. @ $1.45 2.90 ✓
2 Valve boxes Cast. @ $5.00 10.00 ✓
Valves = $43.88 ✓
$43.88 / 754 = $0.0581 ✓

Recapitulation.

Trenching per ft.	$0.7725	✓
Valves & valve boxes.	0.0581	✓
Pipe, Comprising laying, Cad. jam, fuel, & Cartage.	0.5760	✓
Supt. time Keeping etc.	0.0200	✓
Backfilling -	0.0500	✓
Bracing -	0.0100	✓
	$1.4866	
General office & power use of plant Contingencies etc 5%	0.0743	✓
	1.5609	
Contractors profit 10%	0.1560	Say $1.72
	1.7169	

(formerly Langetta)

12" Fosse St. Viateur (from St. Laurence to St. Dominique)

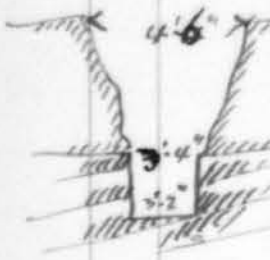
Bastien & Valiquette

Length = 293'-0"

Average depth of earth = 5'-0"

" " " rock = 1'-0"

6'-0"



earth 4.5 / 3.33 / 2(7.83)

3.915 × 5'-0" = 19.575 c.ft. = 0.725 c.yds. ✓

Rock 3.33 / 3.16 / 2(6.49)

3.245 × 1'0" = 3.245 c.ft. = 0.1201 c.yds. ✓

Therefore.

0.725 C.yds. earth excavation @ 0.20 = $0.145 ✓

0.1201 " " rock " @ 2.25 = 0.270 ✓

Trenching = $0.415 ✓

Specials.

2 Reducers 12" to 10" @ 240# 480# ✓

1 – 10" sleeve @ 155 ✓

2 Branches 12"×12"×12" @ 650# 1300 ✓

1 " 12"×12"×4" @ 500 ✓

2 – 12" plugs @ 55# 110 ✓

2 – 4" " @ 10# 20 ✓

2565#

Plus 3% deviation 77

2642#

2642# @ 0.02 3/4 = #72.76 ~~#72.76~~ 72.65

72.76 / 293' = #0.248 ✓

Valves & ~~Hydrants~~ =

Valves.

2 – 12" Valves — @ 41.80 = $83.60 ✓

Cartage 2×490# = 980# @ 1/2 per ton 0.49 ✓

Laying 2-12" Valves @ 2.70 5.40 ✓

2 Valve boxes laid. @ 5.00 10.00 ✓

Valves $99.49

Hydrants.

Trenching.

	c.ft	c.yd.
earth $= \frac{\frac{3}{2}(5^{-}) \times 3'\text{-}0"}{2.5^{-}}$	= 12.5	= 0.4629 ✓
Rock $\frac{2}{1.83}$ $\frac{(3.83}{1.915^{-}} \times 1'\text{-}0"$	= 1.915	= 0.0709 ✓

Therefore.

0.4629 C.yds. of earth excavation	@ $0.20	$0.0925 ✓
0.0709 " " " rock "	@ $2.25	$0.1595 ✓
		$0.2520 ✓
20' Trenching	@ $0.22	$4.40 ✓
1 hydrant		33.00 ✓
1-4" branch Comprising, lead jam fuel & backfilling	0.44	8.36 ✓
Cartage 1 hydrant 400# @ 9 per cwt		0.20 ✓
1 Drainage pit, excavation, & filling with sand -		0.50 ✓
1 Pipe Cutting.		0.20 ✓
Lead jam & fuel for hydrant joint		0.70 ✓
1 hydrant laying, Comprising earth etc.		3.00 ✓
hydrant =		$50.96

Valves = $99.49
hydrant = 50.96
$150.45

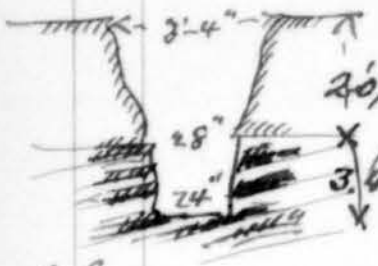
$\frac{\$150.25}{293'} = \$0.513$

Recapitulation.

Trenching per ft.	$0.4150 ✓
Pipe Comprising, laying lead jam fuel & Cartage —	1.4463 ✓
Supt. time Keeping blacksmithing etc	0.0300 ✓
Backfilling.	0.0650 ✓
Specials per ft.	0.2480 ✓
Valves, hydrants & valve boxes.	0.5130 ✓
Carried over	$2.7173 ✓

Brought forward		$ 2.7173 ✓
1 Large Connection — $\frac{\#150}{293}$ =		0.0511 ✓
Bracing.		0.0100 ✓
		2.7784
General Office expenses, use of tools		
Contingencies, etc say 5%		0.1389
		$ 2.9173
Contractors profit say 10%		2917
Say 3.21		3.2080

6" pipe **Lane** North of Valois St. (between St. Laurence & St. Dominique) —
Bastien & Valiquette.
Length = 308'-0"
Average depth of earth = 2.07 ft
" " " rock = 3.68 "
5.75 "



		c.ft.	c.yds.
Earth	$\frac{3.33}{2.33}$ $\frac{2(5.66}{2.83}$ × 2.07 =	5.8581 =	0.2169 ✓
Rock	$\frac{2.33}{2}$ $\frac{2(4.33}{2.165}$ × 3.68 =	7.4259 =	~~0.275~~
		7.9672 =	0.295

Therefore

0.2169 C.yds. earth excavation @ 0.20		$ 0.04338 ✓
0.295 " " rock " @ 2.25		0.66375
		~~0.61875~~
Trenching =		~~0.66713~~
		0.71713

Specials.

1-Branch 10"×10"×4" C		460 #
1-10" sleeve C		153
633 # @ 0.02¾ = $ 17.40 ✓ × $\frac{17.40}{208}$ = 0.056 ✓	Plus 3% de.	613 #
		633

Valves & hydrants.

Valves.

2. 4" Valves. @ 9.35		18.70 ✓
Cartage 2-4" Valves @ 80 # = 160 # @ 1.00 per ton		0.08 ✓
Laying 2-4" valves. @ 1.10		2.20 ✓
2 Valve boxes Laid @ 5.00		10.00 ✓
Valves		$ 30.98

No hydrants Consequently.

$\frac{\$30.98}{308'} = \$0.1005$ - per ft. ✓

Recapitulation.

Trenching.	~~$0.66283~~	
Pipe, Compensing laying, lead	0.71713 ✓	
yarn, fuel & Cartage - @	0.37500 ✓	
Supt. time Keeping, blacksmithage	0.01600	
Backfilling	0.05000	
Specials.	0.05600 ✓	
Valves — $\frac{1}{10}$	0.10050 ✓	
1 Connection $\frac{1}{308}$	0.03200 ✓	
Bracing.	0.01000	
	~~$1.30163~~ $1.35663	
	~~1.30663~~	
General Office expenses, use of tools, Contingencies etc 5%	0.065	0.06783
	~~$1.366~~	1.42446
Contractors profit 10%	~~0.136~~	0.14244
	~~$1.502~~	$1.56690

Say $1.57

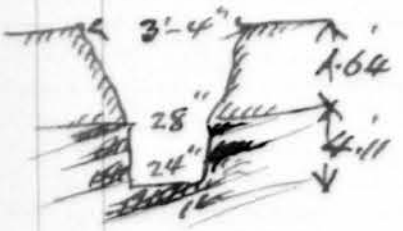
6" pipe Bernard St. (from St. Laurence to Hutchison, Bastien & Valiquette.

Length = 1893'-0"

Average depth of earth = 1.64 ft.

" " - rock = 4.11 ft.

5.75 ft.



Earth $\frac{3.33}{2.33}$ $\frac{2}{5.66}$ $2.83 \times 1.64 = 4.6412$ c.ft. = 0.1718 c.yds. ✓

Rock $\frac{2.33}{2}$ $\frac{2}{4.33}$ $2.165 \times 4.11 = 8.898$ c.ft. = 0.329 c.yds. ✓

Therefore.

0.1718 C. yds. earth excavation @	$0.20	$0.0343 ✓
0.329 C. yds. rock " @	$2.25	0.7402 ✓
Trenching =		$0.7745 ✓

Specials.

3	Branches 6"x6"x4"x4" @ 185#		555#
4	" 6"x6"x6"x6" @ 195#		780
5	4" plugs @ 10#		50
8	6" " @ 20#		160
			1545#
	Plus 3% deviation —		46
			1591#

1591# @ 0.02 3/4 = #43.75 ✓

#43.75 / 1893' = #0.0231 ✓

Valves & hydrants.

Valves.

6 - 6" Valves -	@ 15.40	#92.40 ✓
Cartage 6-6" Valves 180# = 1080# @ 1/2 a ton		0.54 ✓
Laying 6-6" Valves	@ 1.45	8.70 ✓
6 Valve boxes laid.	@ 5.00	30.00 ✓
		#131.64

No hydrants Consequently.

#131.64 / 1893' = #0.069 ✓

Recapitulation.

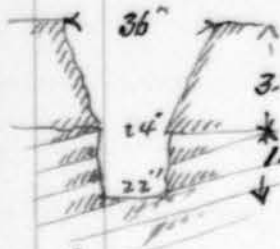
Trenching.	#0.7745 ✓
Pipe comprising laying, lead	
Yarn fuel, & Cartage @	0.5760 ✓
Supt. time keeping, blacksmithing @	0.0200 ✓
Backfilling — @	0.0500 ✓
Specials.	0.0231 ✓
Valves & valve boxes.	0.0690 ✓
1 Connection #1.57 / 1893' =	0.0007 ✓
Bracing.	0.0100 ✓
	#1.5233 ✓
General Office expenses, used tools, Contingencies etc 5%	0.0761 ✓
	#1.5994 ✓
Contractors profit 10%	0.1599 ✓
Say #1.76 ✓	1.7593

Cadieux St. (from Boulevard northwards).

4" pipe Length = 245 ft.

Corporation.

Average depth of earth = 3.58 ft
" " " rock = 1.92 "
5.50 ft.



Earth $2\frac{3}{5}$ × 245 × 3.58 = 8.95 C.ft = 0.331 C. yds.

Rock $2\frac{1.83}{3.83}$ × 1.915 × 1.92 = 3.678 C.ft = 0.136 C. yds.

Therefore

0.331 C. yds. of earth excavation @	0.20	= 0.066
0.136 " " " rock " @	2.25	= 0.306
		= 0.372
Supt. time Keeping, Blacksmithing.		0.010
Bracing "		0.010
Backfilling.		0.050
		0.442
General office expenses, use of tools etc = 3%		0.013
		0.455

Say $0.45\frac{1}{2}$ per ft.

— Private Services —

— " —

Sanguinet St.

Services laid by Co. By Corporation —

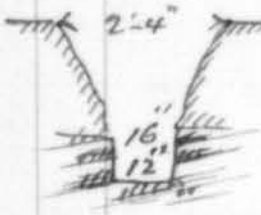
Average length 22.42 ft.

Average depth of earth 3.69 ft.

" " " rock 1.31 ft.

5.00 ft.

Remark The Co laid its service & refilled the trenches
Consequently the trenching only is to be charged.



Earth $\frac{2.33 + 1.33}{2} \times 3.69 = 6.7527$ c.ft. = 0.25 c yds. ✓

Rock $\frac{1.33 + 2.33}{2} \times 1.31 = 1.526$ c.ft. = 0.056 c.yds ✓

Trench

Therefore.

0.25 C yds of earth excavation @ 0.20 = $0.05 ✓

0.056 " " " rock " @ 2.50 = 0.14

$0.19 ✓

Sup. timbering, Blacksmithing 0.01

Bracing. 0.01

$021

Therefore.

22.42 ft. of trench @ 0.21 = $4.708 say 4.71 ✓

Remark — Rock has been counted at $2.50 because it is worth more to take out rock out of a narrow service trench that out of a wide one also it requires more precautions against accidents.

— By Bastien & Valiquette —

Remark All services laid by Bastien & Valiquette trenching, refilling, Service pipe & fittings, also labor putting in, must be taken into a/c

3 double services.

Average length of services = 27'-0"
" " " trenches = 27'-0"

Same section as above same price per ft.
assuming 23'-0" of $\frac{5}{8}$" pipe and ~~2~~ 2 branches of 2'-0"
each of $\frac{1}{2}$" pipe we have.

Price of one service.—

27 ft. trench —	@ 0.21	5.67 ✓	
27 ft. of backfilling.	@ 0.05	1.35 ✓	
Undoing & replacing sidewalk		0.10	
23 ft. of $\frac{5}{8}$" lead pipe 9 lbs. per yd. @			
or 69# delivered on work	@ 0.05	3.45 ✓	
8 ft. of $\frac{1}{2}$" lead pipe 6# p. yd or			
✓ 6#	@ 0.05	0.80 ✓	✓ 15.87
1 $\frac{5}{8}$" nozzle —	@ 0.45	0.45 ✓ — Contractors prices 10%	✓ 1.58
1 3 way Cock.	@ 1.30	1.30 ✓	✓ 17.45
1 Box Complete	@	1.40 ✓	
laying one service		0.60	
Supt. time keeping general office accounts & superintending Contr. Collection general office 5%		15.42 ✓	
Laying a double service		✓ 15.87	

2 Men and a horse wagon will lay on average
6 services a day

1 Man can drill 20 hole — at a cost of $\frac{1.25}{20} = 0.06\frac{1}{4}$

Therefore

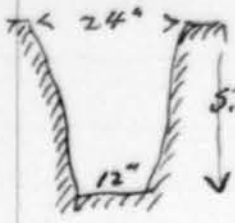
Laying —

2 men	@ 1.25	2.50 ✓
1 horse & wagon		0.75 ✓
		✓ 3.25

Laying = $\frac{3.25}{6} = 0.5416$ ✓
Drilling hole 0.0625
0.6041 ✓
Say ✓ 0.60 each ✓

City Hall St.—

By Corporation —
Average length of trench = 25'
all in earth.



2/1 (3/1.5 ÷ 45 = 7.5 ✓ Cft ✓ Cyds. 0.277 ✓

Therefore

0.277 Cyds	@ 0.20	0.0554 ✓
~~Supt. time keeping~~	~~5%~~	~~0.0080~~
Backing -		0.0000
Supt. time keeping, blacksmithing, Contingencies, use of tools, general office exp.	5%	0.0554
		0.0027
Therefore. Day 0.06.		0.0581
25-0'	@ 0.06	$1.50 ✓

By Bachin & Velizquette

2 - Single services.
Average length - 27'
" " of trench = 27'

Average depth earth = 2.83
" rock = 1.17
" = earth: 0.259 c.y.
rock: 0.050 " "
0.259 c.y. @ 0.20 = 0.051 ✓
0.05 @ 2.50 = 0.125 ✓
0.176 ✓

27'-0" of trench	@ 0.17½ ✓	$4.72 ✓
27 of ½" lead pipe = 54#	@ 0.05	2.70 ✓
27' of Backfilling -	@ 0.05	1.35 ✓
Undoing & replacing sidewalk	@	0.10
½" Nozzle	@ 0.27½	0.27½ ✓
1 Stop Cock ½	@ 0.74	0.74.
1 Bal Complete	@ 1.40	1.40.
27 ft Backfilling	@ 0.01	0.27
Laying one service		0.55 ✓
		$12.05 ✓
		12.10
Supt. time Keeping, general office expenses use of tools, contingencies etc	5%	0.60
		12.70
		1.27
		13.92
Contractors profit 10%		1.392
		15.688.
Say		$15.00 13.92

Single

3 Double services 30'-0" ~~27'-00~~ long on average.
trenches ~~30'~~ ft. long on average

Double

30' of trenching	@ 0.17½		$5.25 ✓
30' of backfilling	@ 0.05		1.50 ✓
26' of 3/8" pipe = 78#	@ 0.05		3.90 ✓
8' of 1/2" " = 16#	@ 0.05		0.80 ✓
1 - 5/8" Nozzle.	@ 0.45		0.45 ✓
1 3 way ~~Cock~~ stop Cock	@		1.30 ✓
1 Bag Complete.	@		1.40 ✓
Laying one service	@		0.60 ✓
			$15.20 ✓
Supt. time Keeping, use of tools - general office expenses, Contingencies etc. 4%			0.608 ✓
			$15.808 ✓
Contractors profit 10%			1.580 ✓
			$17.388 ✓
Say $17.39 ✓			

Laval. Ave.

6 services. Trenching by Corp. Backfilling by Co.

Average length = 10'-0"

average depths of earth. 3.78 ft.

" " " rock 1.22

5'00 ft.

Earth $\frac{2.33}{1.33}$ $\frac{2(3.66}{1.83 \times 3.78} = 6.917$ c.ft. ✓ = 0.256 c.yd. ✓

Rock $\frac{1.33}{2(2.33}$ $1.165 \times 1.22 = 1.421$ c.ft. = 0.05 c.yds.

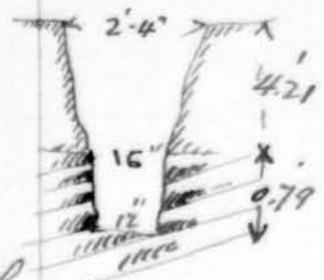
Therefore.

0.256 C.yd. earth exc.	@ 0.20		$0.051 ✓
0.05 " " rock "	@ 2.32		0.11 ✓
			$0.162 ✓
10' Trenching	@ 0.18	~~$1.76~~ ✓	1.82
10 Bracing		~~0.01~~	0.10
Supt time Keeping, blacksmithing, use of tools, Contingencies, etc general office expenses - 4%		~~1.77~~	1.92
		~~0.07~~ ✓	.07
		~~$1.84~~ ✓	$1.99 ✓

Trench

George Hypolite St.

44 Trenches made by Corporation.
Average length = 25'-0"
average depth of earth = 4.21 ft.
" " " rock = 0.79 ft.
6'-0" ft.



earth 2(3.66) 2.33 1.33 1.83 × 4.21 = 7.70 = 0.28 C.yd. ✓ C.Y.D.

Rock 2(2.33) 1.33 1.165 × 0.79 = 0.92 = 0.034 C.yds. ✓

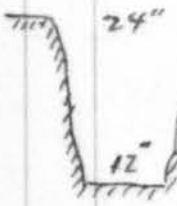
Therefore -

✓ 0.28 C.yds. of earth & Contents	@0.20	0.056 ✓
✓ 0.034 " " rock "	@2.30	0.085 ✓
		0.141 ✓
Bracing.		0.010
		0.151 ✓
Supt. time Keeping, blacksmithing. General Office expenses, use of tools Contingencies etc 5%		0.0075 ✓
		0.1585 ✓
Say 0.16 cts.		
25'-0" of trench	@0.16	4.00

Trench.

Cadieux St.

48 Trenches made by Corporation.
Average length = 25'-6"
Average depth of earth = 5.00 ft.
" " " rock = 0.00



Contents per lineal ft. = 0.277 C yds. (per page 64.

0.277 C yds earth & Gravel.	@0.20	0.0554 ✓
Bracing.		0.0000
		0.0554 ✓
use of tools, time Keeping, blacksmithing Contingencies, general office expenses 5%		0.0027 ✓
		0.0581 ✓
Say 0.06 per ft.		

25'-0" long. C 0.06 $1.50

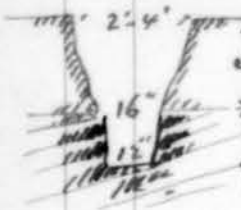
Baelen & Valiquette

Cadieux St.

1 Special private double service laid to Mr. Germain, notary. ~~1 service~~ laid by Baelen & Valiquette.

Length = 95'-0"

Average depth of earth = 3.58 ft.
" " " rock = 1.42 "
5'.00



Earth 2.33 / 1.33 / 3.66 ✓ C.ft.
1.83' × 3.58 = 6.55 = 0.242 C.yd. ✓

Rock 1.33 / 1.33 C.ft.
1.165 × 1.42 = 1.65 = 0.061 C.yd. ✓

Therefore.

0.242 C.yds. earth excavation	C 0.20	$ 0.048 ✓	
0.061 " " rock "	C 2.50	0.152 ✓	
		0.200	
95 ft. of trenching	C 0.20	~~$ 19.00~~ ✓	19.00
91 ft. of 5/8" pipe = 273 lbs	C 0.05	~~13.65~~ ✓	13.65
8 ft. of 1/2" pipe = 16 lbs	C 0.05	~~0.80~~ ✓	0.80
Undoing & replacing sidewalk		~~0.10~~ ✓	0.10
1 5/8" nozzle		~~0.45~~ ✓	0.45
1 3/4" Stop Cocks	1.30	~~1.30~~ ✓	1.30
1 Box complete	C	~~1.40~~ ✓	1.40
95 @ 1 Backfilling		~~0.05~~	4.75
Laying Service (Special		~~1.00~~ ✓	1.00
		~~$ 34.75~~ ✓	$ 42.45

Superintendence Keeping Blacksmithing General office expenses Contingencies use of tools etc 5%

~~1.88~~ ✓ 2.12
~~39.63~~ ✓ $ 44.57
Contractors profit 10% ~~3.96~~ ✓ 4.46
Total ~~$ 43.59~~ ✓ $ 49.03

Trench

Corbeil lane. (This service is entered on Saguenier St. as it is connected to the Saguenier St. main.

169' Trenching from Saguenier St. to E into Corbeil's lane made by proprietor - service laid by Co. & refilled by Co.

Trenching all in earth.

Cost the same as earth trenching elsewhere = $0.06 a ft.

195' ft. of trenching in earth @ 0.06 $11.70

Trench

St. Dominique St.

61 Trenches by Corporation.

Average length 21'-3"

Average depth of earth = 3.34 ft.

" " " rock = 1.66 ft.

5'.00 ft.

earth $\frac{2.33}{1.33}$ $\frac{3.66}{}$ C.ft.

1.83 × 3.34 = 6.11 = 0.226 C.yds.

Rock $\frac{1.33}{2}$ $\frac{2.33}{}$

1.165 × 1.66 = 1.93 = 0.0714 C.yds.

0.226 C.yds. earth & excavation @ $0.20 $0.045

0.0714 " - rock - @ $2.50 0.178

0.223

Bracing. 0.010

0.233

Superintending, Office expenses, use of tools, Contingencies 5% 0.0116

Say 0.24½ 0.2446

21.25 ft. of trenching @ 0.24½ 5.20

Boulevard Vaudreuil

Single

St. Dominique St.

2 Single services
average length of service 32'
" " " trench 32'
Average depth of earth = 3.63 ft.
" " " rock = 1.37 ft.
5.00 ft.

3.63 earth 2.33 / 1.33 / (3.66)
1.83 × 3.63 = 6.64 c.ft. = 0.245 C yds. ✓

Rock 1.33 / 2(2.33)
1.165 × 1.37 = 1.596 c.ft. = 0.059 ✓ C yds.

Therefore

0.245 C yds. earth excavation	@ 0.20	= $0.049 ✓	
0.059 " " rock "	@ 2.50	0.147 ✓	
		0.196	
32 ft. of trenching	@ 0.196	= $6.272 ✓	6.272
32 ft. of ¾ pipe = 64#	@ 0.05	~~3.20~~ ✓	3.200
Breaking & replacing sidewalk		~~0.10~~ ✓	0.100
1 ¾ nozzle.		~~0.275~~ ✓	0.275
1 ¾ stop Cock		~~0.75~~ ✓	0.750
1 Box Complete		1.40 ✓	1.400
32 Back filling		~~0.05~~	1.600
laying service		~~0.55~~ ✓	0.550
32 Branch	@ 0.01	= $12.597	$14.467

Supt. time Keeping, blacksmithing
General office expense, Contingencies
use of tools etc. 5%

~~0.629~~ ✓ 0.723
~~13.226~~ 15.190
~~1.327~~ ✓ 1.519
~~$14.548~~ $16.709

Contractors profit 10%

Boulevard Vaudreuil

Double

2 Doubles -
average length service = 32'-6"
" " trench = 32'-6"

Cost of excavation same as for Single -
Then

32.5	Trenching	@	0.19	6.37 ✓	6 37
28.5	ft. of ⅝" pipe = 85.5 ft	@	005	4.27 ✓	4 27
8	ft of ½" pipe - 16 ft	@	0.05	0.80 ✓	0.80
	Undoing & replacing sidewalk			0.10 ✓	0.10
1	⅝" nozzle			0.45 ✓	0.45
1	3 Way stop Cock			1.30 ✓	1.30
1	Box complete			1.40 ✓	1.40
32.50	Backfilling			0.05	
	Laying service			0.60 ✓	1.62
32.5	Bracing				0.60
				15.34	# 16.91
	Supt. time Repairs etc. Contingencies				1.32
	& general office expenses, use of tools etc 5%				17.23
				0.76 ✓	0.86
				# 16.00	# 18.09
	Contractors profit 10%			1.60	1 80
				# 17.76	# 19.89

Trench

~~St Lawrence St~~ -

St Dominique -

Lafontaine Lane off St Dominique.

Length of trench all in earth 121'-0" long.

Same price as for other earth excavation = 0.06 aft

121'-0" of earth trench	@	0.06	# 7.26 ✓

Trench

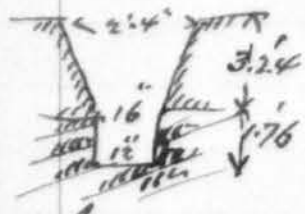
St Lawrence St. -

87 Trenches by Corporation. Average length = 23.47

Average depth earth = 3.24 ft. ✓

" " rock = 1.76 ft. ✓

5.00 ft



earth - $\frac{2(2.33+1.33)}{1.83} \times 3.24 = 5.929$ c ft = 0.219 c yd. ✓

Rock $\frac{1.33+2.33}{2} \times 1.76 = 2.05$ c. ft = 0.075 c yd. ✓

Therefore.

0.219 C yd. earth exc.	@	0.20	# 0.0438 ✓
0.075 " " rock "	@	2.50	0.1875 ✓
			0.2313
Bracing			0.01
Supt. time Repairs, etc & general office expenses use of tools Contingencies etc 5%			0.2413
23.47 lineal ft @ 0.25 = 5.86 Total			0.012 ✓
			0.2533 ✓

Baster & Valois Sing.

St. Lawrence.

/ Single —

average length of service = 24'
" " " trench = 24"
Average depth of earth = 1.80 ft.
" " " rock = 3.20 ft
5.00 ft.

2.66
1.66
2 (4.32
2.16 × 1.80 = 3.888 C.ft. = 0.144 C.yds. ✓
1.66
2 (2.66
1.33 × 3.20 = 4.256 C.ft. ✓ 0.157 C.yds. ✓

Therefore.

0.144 C.yd. earth excavation	@ 0.20	~~0.0288~~	✓
0.157 " . rock "	@ 2.50	0.3925	✓
		0.4213	✓
24 ft. of trenching	@ 0.42	~~10.08~~	✓ 10.08
24 ft. of ¾" pipe = 48#	@ 0.05	~~2.40~~	✓ 2.40
Undoing & replacing sidewalk		~~0.10~~	✓ 0.10
1 ½" Angle.		~~0.05~~	✓ 0.275
1 ½" stop Cock		~~0.75~~	✓ 0.75
1 Box Complete		~~1.40~~	✓ 1.40
24 ft. Backfilling - laying service		~~0.05~~	1.20
		~~0.55~~	✓ 0.55
24 " Bracing ———	@ 0.01	~~16.00~~	✓ 16.795 / 24
			16.995
Supt. - Time Keeping Etc, Contingencies			
General office expenses, use of tools & 5%		~~0.785~~	0.85
		~~16.982~~	17.852
Contractors profit 10%		~~1.63~~	✓ 1.789
		~~18.01~~	19.581

Brl. Double.

/ Double.

Length of service = 44'0"
" " trench. = 44'0"
Trenching same price as for single

44 ft. of trenching	@ 0.42	~~18.48~~	✓ 18.48
40 ft. of ⅝" pipe = 120#	@ 0.05	~~6.00~~	✓ 6.00
8 ft. ½" lead pipe = 16#	@ 0.05	~~0.80~~	✓ 0.80
Undoing & replacing sidewalk		~~0.10~~	✓ 0.10
Carried over		25.38	✓ 25.38

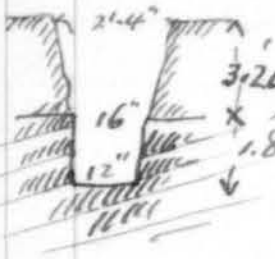
Brought forward.		$ 25.38 ✓ # 25.38
1 5/8 Nozzle.		~~0.45~~ ✓ 0.45
1 3 Way Cock.		~~1.30~~ ✓ 1.30
1 Box complete.		~~1.40~~ ✓ 1.40
44 Backfilling.		~~2.20~~ ✓ 2.20
44 Laying service		~~0.65~~ ✓ 0.65
44 Bracing		~~29.23~~ ✓ .44
		# 31.82
Supt. time Inspecting etc. Contingencies Journal office expenses, use of tools.	@ 5%	~~1.46~~ ✓ 1.59
		~~33.09~~ # 33.41
Contractors profit 10%		~~3.06~~ 3.34
		~~$ 36.15~~ ✓ # 36.75

Backfilling & Valve pits Single

Clarke St.

22 Single services

Average length = 36.12 ft.
" " of trench = 34.39 ft.
Average depth of earth. 3.20 ft.
" " " rock. 1.80 ft.
5.00 ft.



Earth 2.33 + 1.33 = 3.66 ÷ 2 = 1.83 c.ft.
1.83 × 3.20 = 5.856 = 0.216 C. Yds ✓

Rock 1.33 + 1 = 2.33 ÷ 2 = 1.165 c.ft.
1.165 × 1.80 = 2.097 = 0.077 C. Yds.

Therefore.

0.216 C. Yds of earth excavation	@	0.20	0.0432
0.077 C. Yds of rock "	@	2.50	0.1925 ✓
			# 0.2357 ✓

Say # 0.24

34.39 ft. of trenching.	@	0.24	# 8.25 8.25
36.12 ft. of ½" pipe = 72.24 #	@	0.05	3.61 3.61
Undoing & replacing sidewalk	@		0.10 ✓ 0.10
1 ½" Nozzle			0.275 ✓ 0.275
1 Stop cock.			1.30 ✓ 1.30
1 Box complete.	@		1.40 ✓ 1.40
Laying service	@		0.55 ✓ 0.55
			~~# 15.85~~ # 15.485
			# 15.485

			11		N. 485
			1.7195		1.719
			~~0.05~~		~~0.343~~
34.39	Back filling		~~0.2439~~		
34.39	Bracing	@.01	~~15.485~~		17.547
	Brought forward.		~~15.485~~		
	Supt. time Keeping, blacksmithing		~~15.535~~		0.877
	General office expense, Contingencies				
	used tools etc 5%		~~0.776~~		
			~~16.311~~		18.424
	Contractors profit 10%		~~1.631~~		1.842
	Say ~~17.07~~ ~~17.94~~		~~$ 17.942~~		$ 20.266
			~~17.947~~		

Boulevard Valiquette Double.

115 Double services

Average length of service = 34.98 ft.
" " " trench = 27.07 ft.
Average depth of earth = 3.20 ft.
" " " rock = 1.80 ft.
5.00 ft.

trenching the same as for the single services.

27.07 ft. of trenching	@0.24	~~6.50~~	6.50
30.98 ft. of 5/8" pipe = 92.94#	@.05	~~4.65~~	4.65
8 ft. of 1/2" pipe = 16#	@0.05	~~0.80~~	0.80
Undoing & replacing sidewalk @		~~0.10~~	0.10
1 5/8" Nozzle.		~~0.45~~	0.45
1 3 Way stop cock.		~~1.30~~	1.30
1 Box Complete		~~1.40~~	1.40
27.07 Back filling		~~1.35~~	1.35
27.07 laying service		~~0.60~~	0.60
27.07 Bracing	@.01	~~0.27~~	0.27
		~~$ 15.86~~	$ 17.42
Supt. time Keeping, etc. General office expenses, Contingencies used tools etc 5%		~~0.79~~	0.87
		~~$ 16.65~~	$ 18.29
Contractors profit 10%		~~1.66~~	1.83
		~~$ 18.25~~	$ 20.12
		~~18.30~~	

Boulevard Valiquette Special.

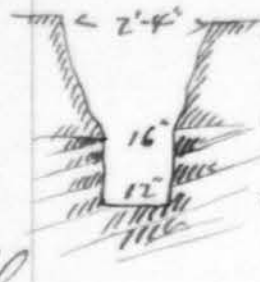
1 Special service 2" pipe 38'-0" long.
at Silk factory.
trenching 6' wider & in plus.
3.20 x 0.5 = 1.60 cu ft = 0.05 cu yds in plus - earth
Rock 1.80 x 0.5 = 0.90 cu ft = 0.033 " " " " Rock

	Or earth -	0.216 c yds.	✓	
	w addition Earth	0.059	✓	
	Total earth =	0.275	✓	
	Rock =	0.077 c yds.		
	w addition " =	0.033		
		0.110 c yds		
	Therefore			
0.275	C yds. earth excavation	@ 4.20	✓ 0.055 ✓	
0.110	" " Rock "	@ 2.50	0.275 ✓	
			0.330	
38-0"	Trenching.	@ 0.33	~~12.54~~ ✓	12.54
38-0"	of 2" galv. iron pipe	@ 0.20	~~7.60~~ ✓	7.60
1-	2" galv. iron nipples.	@ 0.20	~~0.20~~ ✓	0.20
1-	2" plug Cock with hod	@ 2.25	~~2.25~~ ✓	2.25
	Undoing & replacing sidewalk.		~~2.10~~ ✓	0.10
1	4" T 125#	@ 0.02½	~~2.43~~ ✓	3.43
1	4" sleeve 55#			
1-	4" plug 10" 65#			
		@ 0.01½	~~1.78~~ ✓	1.78
	Tapping & threading plug.		~~.50~~ ✓	0.50
	Making connection with main pipes		~~2.00~~ ✓	2.00
	Lead yarn & fuel		~~1.70~~ ✓	1.70
	Laying service		~~2.00~~ ✓	2.00
38'	Backfilling		~~1.90~~ ✓	1.90
	Box complete		~~1.40~~ ✓	1.40
38.	Bracing	@ 0.01	~~0.38~~	0.38
				~~37.78~~
	Supt. time Repairing etc. General office expenses, Carriages, incidentals etc 5%		~~1.89~~ ✓	1.89
			~~39.67~~	39.67
	Contractors profit 10%		~~3.96~~	3.96
			~~43.63~~	~~43.63~~
			~~1.059~~	
	Day		~~1.06~~	

Boston & Valleyfield
Single services

St. Urbain St.

13 Single services of an average length = 34'.61
average length of trench = 34'.61
Average depth of earth = 2.96 ft.
" " " rock = 2.04 ft.
5'.00 ft.



earth = 2.33 + 1.33 = 2(3.66) ✓ ÷ 2 = 1.83 ×

	cft.	c. yds.
1.83 × 2.96 =	5.4168 =	0.20 ✓

Rock 1.33 + 1 = 2(2.33) ÷ 2 = 1.165 ×

	cft.	c. yds.
1.165 × 2.04 =	2.3766 =	0.088 ✓

Therefore.

0.20 C. yds. earth exc.	@ 0.20	$ 0.04 ✓
0.088 " " rock "	@ 2.50	0.22 ✓
		$ 0.26 ✓

34.61 ft. of trenching	@ 0.26	~~9.00~~	9.00
34.61 ft. of ½" pipe = 69.22 #	@ 0.05	~~3.46~~ ×	3.46
Undoing & replacing Standard		~~0.10~~	0.10
1 ½" Nozzle		~~0.275~~ ✓	0.2750
1 ½" Stop Cock		~~0.750~~	0.750
1 Box Complete		~~1.40~~	1.40
34.61 Back filling - laying Service		~~0.05~~ ✓	1.7305
34.61 Bracing —	@ 0.01	~~0.58~~ ✓	0.55
		~~$ 15.585~~ ✓	0.3461
			$ 17.6116
Contingencies, Supt. time keeping, use of tools, general spec expenses etc	5%	~~0.779~~ ✓	0.88
		~~16.364~~	18.49
Contractors profit 10%		~~1.636~~	1.85
		~~$ 18.000~~	$ 20.34

Boston & Valleyfield
Double

19 Doubles
average length of service = 33.47.
" " " trench = 29.95.
trenching same as for single as follows —

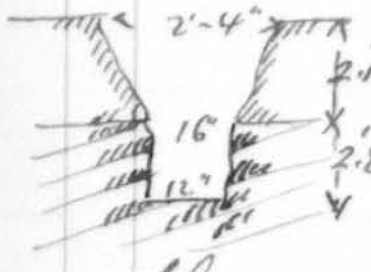
29.95 ft. of trenching	@ .26	$ ~~7.79~~ ✓	7.79
284 ft. of 5/8" pipe = 85.41 #	@ 0.05	~~4.27~~ ✓	4.27
10 ft of 1/2" " = 16 #	@ 0.05	~~1.80~~ ✓	1.00
Undoing replacing sidewalks		~~0.10~~ ✓	0.10
1 - 5/8" Nozzle.		~~0.45~~ ✓	0.45
1 - 3 Way stop Cock.		~~1.30~~ ✓	0.30
1 Box Complete.		~~1.40~~ ✓	1.40
29.95 Backfilling.		~~2.00~~ ✓	1.4975
laying service		~~0.60~~ ✓	0.60
29.95 Bracing	@ 0.01.		0.2995
		$ ~~16.96~~	$ 17.7070
Supt. time Keeping etc. Contingencies use of tools, general office expenses 5%		~~0.848~~	0.8850
		~~17.808~~	18.5970
Contractors profit 10%		~~1.780~~	1.86
		~~19.588~~	20.45
Say = ~~$19.30~~ ~~19.58~~		19.588	

Waterworks Service

Waverly St.

18 Singles.

Average length of service = 35.55 ft.
" " " trench = 35.55 ft.
Average depth earth = 2.15 ft.
" " rock = 2.85 ft
5.00 ft.



earth 2.33 / 1.33 / 2(3.66) c.ft. c.yds.
1.83 × 2.15 = 3.9345 = 0.145 ✓

Rock 1.33 / 1 / 2(2.33) c.ft. c.yds.
1.165 × 2.85 = 3.32 = 0.122

Therefore.

0.145 C.Yds. of earth Excav.	@ 0.20		0.029 ✓
0.122 " " rock "	@ 2.50		0.305 ✓
		$	0.334 ✓
35.55 ft. of trenching		@ 0.334	$ 11.87 ✓
35.55 ft. of 1/2" pipe = 71.10 #		@ 0.05	3.55 ✓
Undoing replacing sidewalk			0.10 ✓
Carried over			15.52 ✓

	Brought forward.		~~#15.52~~ ✓ 15.52
1	½" Nozzle -		~~0.295~~ ✓ 0.275
1	½" stop Cock.		~~0.750~~ ✓ 0.750
1	Box Complete		~~1.40~~ ✓ 1.40
35.55	Back filling - laying service		~~2.05~~ ~~0.55~~ ✓ 1.7890 0.55
35.55	Bracing	@ 0.01	~~18.545~~ 0.35
			#20.62
	Supt. time Keeping etc Contingencies, use of tools, General office expenses etc. 5%		~~0.927~~ ✓ 1.03
			~~#19.469~~ 21.65
	Contractors profit 10%		~~1.946~~ 2.16
	Total		~~#21.463~~ #23.81

Bastien Valiquette Double.

11 Double services.

Average length of service = 36.09 ft.

" " " trench = 35.50

trenching same as for single service

35.5 ft.	of trenching	@ 0.334	~~#11.85~~ ✓ 11.85
3209 ft.	of ⅝" pipe = 96.27#	@ 0.05	~~4.81~~ ✓ 4.81
8 ft.	of ½" pipe = 16#	@ 0.05	~~0.80~~ ✓ 0.80
	Undoing & replacing sidewalk		~~0.10~~ ✓ 0.10
1	⅝" Nozzle	@	~~0.445~~ ✓ 0.445
1	3 way stop Cock	@	~~1.30~~ ✓ 1.30
1	Box Complete		~~1.40~~ ✓ 1.40
35.5	Back filling. laying service		~~2.05~~ 1.795 ~~0.60~~ ✓ 0.60
35.5	Bracing	@ 0.01	~~#2.136~~ 0.355
			#23.440
	Supt. time Keeping, etc Contingencies, use of tools, general office & expenses - 5%		~~0.068~~ 1.17
			~~2.428~~ #24.61
	Contractors profit 10%		~~2.242~~ 2.46
	=		~~#24.670~~ #27.07

Boulton & Valiquette
Singles

St. George St.

3 Singles -

Average length of service = 33.33 ft -
" " " trench = 33.33 "
Average depth of earth = 2.58 ft
" " " rock = 2.42 "
5.00 ft -

Earth $\frac{2.33}{1.33}$ 2(3.66) C.ft. $1.83 \times 2.58 = 4.72 = 0.174$ C.yds. ✓

Rock $\frac{1.33}{2.33}$ 2 C.ft. $1.165 \times 2.42 = 2.82 = 0.104$ C.yds. ✓

Therefore.

0.174 C.yds. earth excavation	@ 0.20	$0.0348 ✓
0.104 " " rock "	@ 2.50	0.26 ✓
Trenching.		$0.2948 ✓
33.33 ft. of trenching	@ 0.29	~~9.66~~ ✓ 9.66
33.33 ft. of ½" pipe = 66.66 ft	@ 0.05	~~3.33~~ ✓ 3.33
Undoing & replacing sidewalk	@	~~0.10~~ ✓ 0.10
1 ½" nozzle	@	~~0.275~~ ✓ 0.275
1 ½" stop Cock	@	~~0.75~~ ✓ 0.750
1 Bag Complete Shotfiring	@	~~1.40~~ ✓ 1.40
33.33 Laying service	@	~~0.05~~ ~~0.65~~ ✓ 1.665
33.33 Bracing	@ 0.01	~~0.33~~ ✓ 0.3333
		~~$0.66~~ ✓ $18.0648
General Office & Stores, Time Keeping, Supt.		
Contingencies, use of tools etc 5%		~~0.05~~ 0.9032
		~~0.90~~ 18.9680
Contractors profit 10%		~~1.86~~ 1.897
		~~$18.615~~ $20.865 ✓

Boulton & Valiquette
Doubles

1 / Double.

average length of service = 35.47 ft.
" " " trench = 29.35 ft.
trench same price as for singles -

~~29.35~~	ft. of trench	@ 0.24	~~$8.51~~	✓	8.51
31.44	ft. of $\frac{3}{8}$" pipe = 94.41#	@ 0.05	~~4.72~~	✓	4.72
8	ft. of $\frac{1}{2}$" pipe = 16#	@ 005	~~0.80~~	✓	0.80
	Undoing & replacing sidewalk	@	~~0.10~~	✓	0.10
1	$\frac{3}{8}$" nozzle	@	~~0.45~~	✓	0.45
1	3 Way stopcock		~~1.30~~	✓	1.30
1	Box complete		~~1.40~~	✓	1.40
29.35	Backfilling	@ 0.05	~~0.05~~		1.4675
	Paving service		~~0.60~~	✓	0.60
29.35	Bracing	@ 0.01	~~$1.79~~	✓	0.2935
					$19.6410
Supt time keeping, etc. Contingencies use of tools, general office expenses 5%			~~0.696~~		0.982
			~~18.870~~	✓	$20.623
	Contractors profit 10%		~~1.887~~	✓	206
	Total =		~~$20.708~~	✓	$22.68

1 Special 2" Galv. iron service 6'

Fairmont School —

Length = 33 ft.

Trenching 33 ft. long. would be 6" wider than for lead service, consequently by adding on the contents of the additional 6" we have

earth = 2.58 X 0.50 = 1.29 C. ft = 0.047 C yd. ✓

Rock 2.42 x 0.50 = 1.21 C ft = 0.044 = "

Therefore total trenching

=

earth = 0.174 C yd. ✓

addition = 0.047

0.221 C. yd. ✓

Rock = 0.104 C. yd.

addition 0.044

0.148 C. yd.

Therefore.

✓ 0.221 C yds. of earth excav. @ 0.20 $0.044 ✓

0.148 " " " rock " @ 2.50 0.370

Trenching = ~~0.410~~

0.410

Boulton Walkingville Special

33 ft. of trenching	@ 0.40	~~$13.53~~	13.53
33 ft. of 2" galv. iron pipe	@ 0.20	6.60	6.60
1 - 2" galv. iron nipple -	@ 0.20	0.20	0.20
1 2" stop Cock + rod.	C	2.25	2.25
Undoing + replacing sidewalk		0.10	0.10
1 6"×6"×4" T @ 185#			
1 - 4" plug @ 10#			
1 - 6" sleeve @ 85#			
280#			
8% dev. - 18#		7.92	7.92
288#	@ 0.02¾		
Tapping + threading 4" plug		0.50	0.50
Making Connection with main pipe -		2.50	2.50
Lead Jant + fuel		2.80	2.80
Laying service		2.00	2.00
33 / Backfilling		1.65	1.65
1 Bal Complete		1.40	1.40
33 Bracing	@ 0.01	0.33	0.33
Supt. time Picking, etc Contingencies,		$31.81	$41.78
use of tools, general office expenses 5%		2.09	2.09
		$43.90	$43.87
Contractors profit 10%		4.39	4.38
Total		$48.29	$48.26

Boulton Walkingville Single

Mance St.

20 Single services.

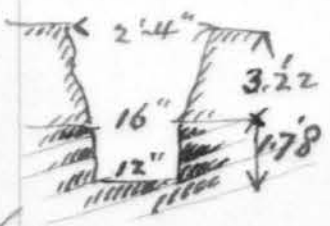
average length = 30.50 ft.

" " Trench = 28.90 ft.

Average depth of earth = 3.22 ft.

" " " rock = 1.78 "

5.00 ft.



		C.ft.	C.Yds.
Earth	2.33, 1.33, 2[2.66], 1.83' × 3.22	= 5.8926	= 0.218 ✓
Rock	1.33, 1, 2[2.33], 1.165' × 1.78	= 2.07	= 0.076 ✓

Therefore

0.218 C.Yds. earth @ 0.20 = $0.0436 ✓

0.076 " " rock @ 2.50 = 0.19 ✓

Trenching = $0.2336 ✓

28.90	Ft. of trenching.	@ 0.23	~~$ 6.647~~ ✓	6.647
30.50	Ft. of ½" pipe = 61.00 #	@ 0.05	~~3.050~~ ✓	3.050
	Hoarding & replacing sidewalk	@	~~0.10~~	0.10
1	½" nozzle	@	~~0.275~~	0.275
1	½" stop cock	@	~~0.75~~	0.75
1	Box complete	@	~~1.40~~	1.40
28.90	Backfilling		~~1.045~~	1.045
	laying service		~~0.55~~	0.55
28.90	Bracing	@ .01	~~$ 12.82~~	0.289
				14.506
	Contingencies, use of tools Gen. Office Expenses, Supt. Time Keeping etc 5%		~~0.68~~ ✓	0.725
			~~$ 13.46~~ ✓	15.231
	Contractors profit 10%		~~1.34~~ ✓	1.523
			~~$ 14.80~~ ✓	16.754

---

14 Double -

Average length of service = 32.28 ft.

" " trench = 32.28 ft.

Trenching same per ice as for single.

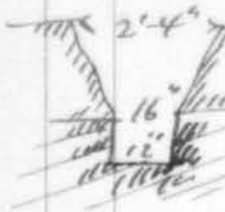
1 Double & Valve Chamber

32.28	Ft. of trenching	@ 0.23	~~$ 7.42~~ ✓	7.42
28.28	Ft. of ⅝" pipe = 84.84 #	@ 0.05	~~4.24~~ ✓	4.24
8	Ft. of ½" pipe = 16 #	@ 0.05	~~0.80~~ ✓	0.80
	Hoarding & replacing sidewalk		~~0.10~~ ✓	0.10
1	⅝" nozzle.	@	~~0.40~~ ✓	0.40
1	3 Way Stop Cock.	@	~~1.30~~ ✓	1.30
1	Box Complete.	@	~~1.40~~ ✓	1.40
32.28	Backfilling		~~0.05~~	1.614
	laying service		~~0.60~~ ✓	0.60
32.28	Bracing	@ 0.01	~~$ 16.36~~ ✓	0.3228
				17.2468
	Supt. time keeping etc. Contingencies, use of tools, General Office Expenses etc 5%		~~0.8180~~	0.9123
			~~$ 17.1780~~ ✓	19.1591
	Contractors profit 10%		~~1.7178~~	1.9159
	Total =		~~$ 18.8958~~ ✓	21.0750
			~~18.8958~~	
			~~Say $ 18.90~~	

Park Ave -

Trenches

22 Trenches made by Corporation
Average length = 40 ft.
Average depth of earth = 2.42 ft
" " " rock = 2.58
5.00 ft.



earth. 2.33 + 1.33 = 3.66 ÷ 2 = 1.83 × 2.42 = 4.4286 c.ft. = 0.164 c.yd. ✓

Rock 1.33 + 2.33 = 3.66 ÷ 2 = 1.165 × 2.58 = 3.00 c.ft. = 0.111 c.yd. ✓

Therefore.

0.164 C.yd. earth trenching @ 0.20		$0.0328 ✓
0.111 " " rock " @ 2.50		0.2775 ✓
		$0.3103 ✓
40 ft. Trenching @ 0.31		$12.40 ✓
Bracing.		0.01 ✓
Superintendence Keeping, Contingencies, use of tools, general office expenses etc 5%		12.41 ✓
		0.62
		$13.03 ✓

Boston Valve Pit Single.

2 Single services.
average length of service = 41.5 ft.
" " trench = 41.5 ft.
Trenching same as above.

41.5 ft. Trenching @ 0.31	~~$12.865~~ ✓	12.865
41.5 ft. of ½" lead pipe = 83.0 # @ 0.05	~~4.15~~ ✓	4.15
Welding Replacing sidewalk	~~0.10~~ ✓	0.10
1 ½" Nozzle @	~~0.275~~ ✓	0.275
1 ½" stop Cock.	~~0.750~~ ✓	0.750
1 Box Complete.	~~1.40~~ ✓	1.40
41.5 Laying Service. Back filling	~~2.075~~	2.075
	~~0.550~~	0.550
41.5 Bracing @ 0.01	~~0.415~~	0.415
	~~20.440~~	
Contingencies, Supt. time Keeping etc use of tools, General office expenses 5%	~~1.007~~	$22.580 1.13
Contractors profit 10%	~~21.447~~	23.71
Total	~~21.447~~ = ~~$23.591~~	2.37 = $26.08

Beaudry St.

Yeux de.

1 trench made by Corporation = 20 ft. long.

Average depth of earth = 2.65 ft
" " " rock = 2.35 ft
5.00

earth $\frac{2.33}{1.33}$ / $\frac{3.66}{2}$ = 1.83' × 2.65' = 4.8495 c.ft. = 0.179 c.yds.

Rock $\frac{1.33}{1}$ / $\frac{2.33}{2}$ = 1.165' × 2.35' = 2.73775 c.ft. = 0.101 c.yds.

Therefore,

0.179 C. yds. of earth excavation	@ .20	0.0358
0.101 " " " rock "	@ 2.50	0.2525
		$0.2883
20 ft. of trench	@ 0.2783	5.566
Bracing		0.01
		5.776
Contingencies, use of tools, general office expenses, Supt. time Keeping etc.	5%	0.288
Total		$6.064

Boston & Valleyfield Double

1 Double service 23'-0" long.
trenching same as above.

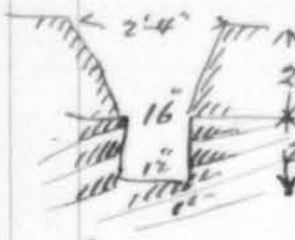
20 ft. trenching	@ 0.2883	~~$6.63~~ ✓	6.63
19 ft. of 5/8" pipe = 57 #	@ 0.05	~~2.85~~ ✓	2.85
8 ft. of 1/2" " = 16 #	@ 0.05	~~0.80~~ ✓	0.80
Undoing & replacing sidewalk		~~0.10~~ ✓	0.10
1 5/8" nozzle		~~0.45~~ ✓	0.45
1 3 Way stop Cock.		~~1.30~~ ✓	1.30
1 Buf Complete		~~1.40~~ ✓	1.40
23 Backfilling		~~0.05~~	1.15
laying service		~~0.60~~	0.60
23 ft Bracing	@ 0.01	~~$3.05~~	.23
			$15.51
Supt. time Keeping etc. use of tools, general office expenses, Contingencies etc 5%		~~0.6975~~	0.77
		~~14.6475~~	$16.28
Contractors profit 10%		~~1.464~~	1.63
Total =		~~$16.11~~	$17.91

Bastien & Valiquette
Single

Hutchison St.

2 Single services.

average length of service = 33'
" " " trench = 33'
Average depth of earth = 2.09 ft.
" " " rock = 2.91 ft.
5.00 ft.



Earth $\frac{1.33}{1.33}$ / 2(3.66) / 1.83 × 2.09' = 3.8247 = 0.141 ✓ c.yd.

Rock $\frac{1.33}{1}$ / 2(2.33) / 1.165 × 2.91 = 3.39 ✓ = 0.126 c.yd.

Therefore.

0.141 Cyds. earth excavation	@ 0.20	$0.028 ✓	
0.121 " " rock	@ 2.50	0.315 ✓	
		$0.343	
Trenching			
33' of trenching	@ 0.34	~~$0.89~~	11.22
33' of Backfilling.	@ 0.05	~~1.65~~	1.65
Undoing & replacing sidewalk		~~0.10~~	0.10
33' of ½" pipe = 66 ft	@ 0.05	~~3.30~~	3.30
1 ½" nozzle	@	~~0.275~~	0.275
1 ½" stopcock	@	~~0.75~~	0.75
1 Box complete -	@	~~1.40~~	1.40
33' of Bracing -	@ 0.01	~~0.33~~	0.33
Laying.		~~0.55~~	0.55
		~~$19.745~~	
			$19.375
Superintendence, Keeping, etc General office expenses, use of tools, Contingencies etc 5%		~~0.996~~	0.978
		~~$19.341~~	20.353
Contractors profit 10%		~~1.934~~	2.035
Total -		~~$21.275~~	$22.388

Bastien & Valiquette
double.

3 Doubles

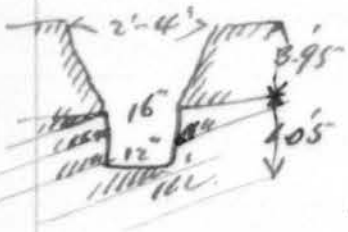
average length of service = 29.33
" " " trench = 19.33
Trenching same as above

19.33 ft. of trenching.	@ 0.34	~~$ 6.375~~	6.57
19.33 ft. of backfilling	@ 0.05	~~0.966~~	0.966
Undoing & replacing sidewalk		~~0.10~~	0.10
25.33 ft. of $\frac{3}{8}$" pipe = 75.99 ft	@ 0.05	~~3.799~~	3.799
8 ft. of $\frac{1}{2}$" " = 16 ft	@ 0.05	~~0.80~~	0.80
1 $\frac{1}{8}$" nozzle.	@	~~0.45~~	0.45
1 3 Way stop cock	@	~~1.30~~	1.30
1 Box complete.	@	~~1.40~~	1.40
19.33 Bracing & laying.	@ 0.01	~~0.193~~	0.193
		~~0.60~~	0.60
		~~$ 15.98~~	$ 16.178
Supt. time Keeping etc. use of tools, General office expens, Contingencies etc 5%		~~0.799~~	0.809
		~~16.789~~	$ 16.987
Contractors profit 10%		~~1.678~~	1698
Total =		~~$ 18.467~~	$ 18.685

Albina.

Trenches

10 Trenches made by Corporation —
Average length = 12.50
average depth of earth = 3.95 ft.
" " " rock = 1.05 "
5.00 ft.



earth $\frac{2.33}{1.33}$ / 2 (3.66) / 1.83 c.ft. × 3.95 = 7.2285 c.ft. = 0.267 c.yds. ✓

Rock $\frac{1.33}{1}$ / 2 (2.33) / 1.165 c.ft. × 1.05 = 1.223 c.ft. = 0.045 c.yds.

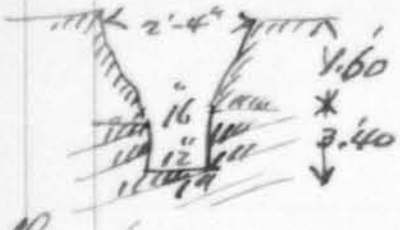
Therefore.

0.267 c.yds. of earth @	@ 0.20	$ 0.0534 ✓
0.045 " " " rock "	@ 2.50	0.1125 ✓
		0.1659
12.5 ft. of trench	@ 0.1659	$ 2.07 ✓
12.5 Bracing		0.12 ✓
		2.19
Supt. time Keeping, Contingencies General office & pens' etc use of tools 5%		0.10
Total =		$ 2.29 ✓

De Gaspé

Trenches

15 Trenches made by Corporation –
Average length = 25 ft.
Average depth of earth = 1.60 ft.
" " " rock = 3.40 ft.
5.00 ft.



Earth $\frac{1.33}{1.33}$ / $\frac{3.66}{2}$ = 1.83 × 1.6' = 2.928 c.ft. = 0.108 c.yd. ✓

Rock $\frac{1.33}{1}$ / $\frac{2.33}{2}$ = 1.165 × 3.40 = 3.96 c.ft. = 0.146 c.yd. ✓

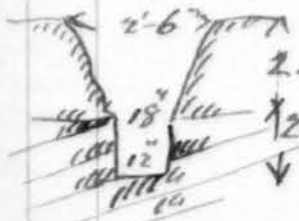
Therefore.

0.108 C.yd. earth excavation	@ $0.20	$0.0216 ✓
0.146 " " rock "	@ $2.50	0.365 ✓
		$0.3866 ✓
25 ft. of trenching	@ 0.3866 =	$9.66 ✓
25 ft. of Bracing.	@ 0.01	.25
		9.91 ✓
Sub. to Time Keeping etc. use of tools, Contingencies, Contingencies General Office expenses 5%		0.495 ✓
		$10.405 ✓

Casgrain St.

Trenches

16 Trenches made by Corporation.
Average length = 30 ft.
Average depth of earth = 2.10 ft.
" " " rock = 2.90 "
5.00 "



Earth $\frac{2.5}{1.5}$ / $\frac{4.0}{2}$ = 2.0 × 2.10 = 4.20 c.ft. = 0.155 c.yd. ✓

Rock $\frac{1.5}{2.5}$ / $\frac{}{2}$ = 1.25 × 2.90 = 3.625 c.ft. = 0.134 c.yd. ✓

Therefore.

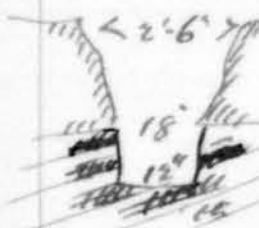
0.155 C.yd. earth excav.	@ 0.20	$0.031 ✓
0.134 " " rock "	@ 2.50	0.335 ✓
Trenching =		0.366 ✓

30 ft. Trenching	@ 0.366	10.98
30 ft of Bracing	@ 0.01	0.30
		11.28
Supt. time Keeping etc. use of tools, Contingencies, general office expenses 5%		0.56
Total =		$ 11.84

Boston & Valiquette
Single

1 Single service.

Average length of service = 33'
" " " trench = 33'
Average depth of earth = 2.18 ft
" " " rock = 2.82 ft
5.00 "



Earth $\frac{2.5}{1.5}$ $\frac{2.5}{2(4.0)}$ 2.00 × 2.18 = 4.36 c-ft = 0.161 c-yds ✓

Rock $\frac{1.5}{2.5}$ $\frac{2.5}{1.25}$ × 2.82 = ~~c-ft~~ = ~~c-yds~~
3.525 = 0.131

Therefore.

0.161 Cyd. earth yeas.	@ 2.00	$ 0.322
0.131 ~~0.129~~ " rock "	@ 2.50	0.3275
		~~0.3597~~
Trenching =		$ 0.3597

33' of trenching	@ 0.3597	11.87
33' of backfilling	@ 0.05	1.65
33' of bracing.	@ 0.01	0.33
" doing replacing sidewalk		0.10
33 ft. of ½" pipe = 66 lbs.	@ 0.05	3.30
1 ½ nozzle	@	0.275
1 ½" stop Cock.		0.75
1 Boy complete.		1.40
laying service		0.55
		20.225
Supt. time Keeping, etc. use of tools, Contingencies general office expenses, etc 5%		1.002
		21.227
Contractors profit 10%		2.122
Total =		$ 23.349

Boulevard & Vallières de Mont Blanc.
Double.

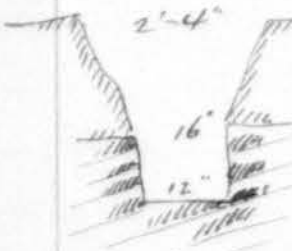
4 Double services
Average length of service = 31.5 ft.
" " trench = 23.25 ft.
Trenching the same as for single services.

23.25	ft. of trenching -	@ .3597	$ 8.363 ✓
23.25	ft. of backfilling	@ .005	1.162 ✓
23.25	ft. of bracing.	@ .001	0.232 ✓
	Undoing & replacing sidewalk		0.100
27.5	ft. $\frac{5}{8}$" pipe = 82.5 #	@ .005	4.125 ✓
8	ft. of $\frac{1}{2}$" " = 16 #	@ .005	0.80 ✓
1	$\frac{5}{8}$" nozzle -	@	0.45
1	3 Way stop Cock	@	1.30
1	Box complete.	@	1.40
	Laying service		0.60
			$ 18.582 ✓
	Supt. time keeping, etc. use of tools, Contingencies, General office expenses etc 5%		0.926
			19.458
	Contractors profit 10%		1.945
	Total —		$ 21.403

Mount Royal Ave.

24 Trenches made by Corporation
Average length = 25 ft.
Average depth of earth = 3.36 ft.
" " " rock = 1.64 "

Trench.



500 ft²

Earth $\frac{2.33}{1.33}$ $\frac{2(0.66)}{1.83}$ × 3.36 = 6.1488 C.ft. = 0.153 C.Yds.

Rock $\frac{2.33}{1}$ $\frac{(2.33}{1.165}$ × 1.64 = 1.91 C-ft. = 0.070 C.Yds.

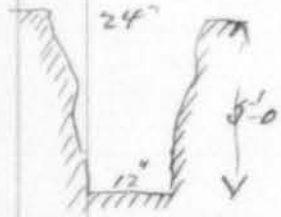
Therefore. 0.223 C.Yds earth @ .20 $ 0.0454
0.07 C.Yds. rock @ 2.50 0.175
0.2204

25 ft. of trenching	@ 0.220 ~~0.205~~	~~0.125~~ ✓	5 - 50
25 ft. of Bracing	@ 0.01	0.25 ✓	- 25
		~~4.39~~ 5 ✓	5.75
Supt. time Reaping, etc. use of tools, Contingencies, general office expenses etc	@ 5%	~~0.218~~	1.29
Total =		~~5.643~~	√6.04

Villeneuve.

12 Trenches made by Corporation
average length = 21.68 ft.
average depth of earth = 5 ft.
no rock.

12 Trenches



Cubic yds. per ft run of trench = 0.277 @ 7d. ✓

Price for the kind of work

0.277 C.yd. of excavation	@ 0.20	0.0554
Supt. time Reaping, etc. General office exp. use of tools, Contingencies	5%	0.00275 ✓
		0.05815 ✓
Say 0.06		
no Bracing 21.88 ft. of excavation	@ 0.06	1.31 ✓
Total		

Boulevard.

8 Trenches made by Corporation.
Average length of trench = 50 ft.
" depth of earth = 3.37 ft.
" " rock = 1.63 "
5'-0" "

Trenches

earth = $2\frac{\frac{2.33}{1.33}}{\frac{3.66}{1.83}} \times 3.37 = 6.167$ C ft. = 0.228 C. yds. ✓

Rock = $2\frac{\frac{1.33}{1.33}}{\frac{2.33}{1.165}} \times 1.63 = 1.8989$ C ft. = 0.07 C yd. ✓

Therefore.

0.228 C.yds. of earth excav.	@ 0.20	$0.0456 ✓
0.07 " " " rock "	@ 2.50	0.175
	Trenching =	0.2206 ✓
50 ft. of trenching	@ 0.22	11.00 ✓
~~50 ft. of backfilling~~	~~@ 0.05~~	~~2.50~~
50 ft. of bracing	@ 0.01	0.50 ✓
		11.50 ✓
Supt. time keeping & te. general office expenses, use of tools etc 5%		0.57
Total =		$12.07 ✓

Edouard Charles.

2 Double services.

Basilian Double.

average length of service = 26'-0"
" " " trench = 26'-0
Average depth of earth. = 1.66 ft.
" " " rock = 3.34 ft.
5.00 ft.

1.66 earth $\frac{2.66}{1.66}$ $\frac{1}{4\ 32}$ @ ft
2.16 × 1.66 = 3.5856 = 0.132 C. yds.

Rock $\frac{1.66}{2.66}$ C. ft
1.33 × 3.34 = 4.44 = 0.164 C. yds.

Therefore.

0.132 C.yds of earth excavation	@ 0.20	$0.0264 ✓
0.164 " " " rock "	@ 2.50	0.41 ✓
	Trenching	$0.4364 ✓
26'-0" ft of trenching	@ 0.436 4	$11.3464 ✓
26 ft. of backfilling	@ 0.05	1.30 ✓
26 ft. of bracing	@ 0.01	0.26 ✓
Undoing & replacing sidewalk	@	0.10 ✓
22 ft. of $\frac{5}{8}$" pipe = 66 lbs	@ 0.05	3.30 ✓
8 ft. of $\frac{1}{2}$" pipe = 16 lbs	@ 0.05	0.80 ✓
Carried over =		$17.1064 ✓

	Brought forward.		£17.1064 ✓
1	5/8 nozzle.	C	0.45 ✓
1	3 Way stop Cock	C	1.30 ✓
1	Box Complete.		1.40 ✓
	laying service.		0.60 ✓
			£20.8564
	Supt. time keeping etc. General office expenses, use of tools, Contingencies 5%		1.0428 ✓
			£21.8992
	Contractors profit 10%		2.18 ✓
			£24.0792 ✓
	Say £24.08 ✓		

St. Louis.

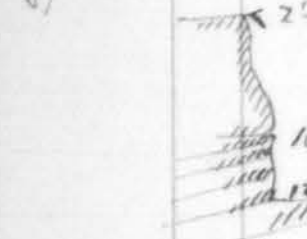
19 Trenches made by Corporation.

Average length of trench = 22.53 ft.

" depth of earth = 1.48 ft

" " " rock = 3.52

5.00 ft.



earth $2\left(\frac{2.5 + 1.5}{2}\right) \times 1.48 = 2.96$ c.ft. = 0.109 c.yd.

Rock $2\left(\frac{1.5 + 1.25}{2}\right) \times 3.52 = 4.40$ c.ft. = 0.162 c.yd.

Therefore.

0.109 C.yds. of earth excav.	@ £0.20	£0.0218 ✓
0.162 " " rock "	@ £2.50	0.405 ✓
		£0.4268 ✓
22.53 ft. of trenching	@ £0.4268	9.6158 ✓
22.53 ft. of tracing	@ £0.01	0.2253 ✓
		9.8411 ✓
Supt. time Keeping, etc general office exp. Contingencies, use of tools etc 5%		0.492
Say £10.33		10.3331

Boston Montgomerie Con. & Co.

8 Double services -

Average length of service = 42.12 ft.
" " " trench = 31.62 ft.
Average depth of earth = 2.17 ft.
" " " rock = 2.83
5.00 ft.

earth. 2.5 / 1.1 / 4.0 / 1.00 × 2.17 = 4.34 c.ft. ÷ 0.16 @ 40.

Rock 1.5 / 2.5 / 1.25 × 2.83 = 3.5375 c.ft. @ 40.

Therefore.

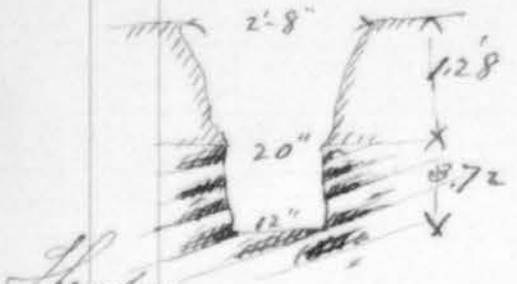
0.16 c yd. of earth by excav.	@ 0.20	$ 0.032
0.131 " " rock "	@ 2.50	0.3275
		$ 0.3595
31.62 ft. of trenching	@ 0.3595	$ 11.367
31.62 ft. of backfilling	@ 0.05	1.581
31.62 ft. of bracing.	@ 0.01	0.316
Tunneling & replacing sidewalk	@	0.10
1 5/8" Nozzle.	@	0.45
1 3 Way Stop Cock.	@	1.30
1 Box Complete.	@	1.40
Laying service		0.60
		$ 17.114
Superintendence keeping, etc. general office expenses, Contingencies, Incidentals etc. 5%		0.855
		$ 17.969
Contractors profit 10%		1.796
Total =		$ 19.765

Fairmount St.

4 Single services -

Boston Montgomerie Con. & Co.

Average length of service =	27.75 ft.
" " " trench =	27.75 ft.
Average depth of earth. excav. =	1.28 ft.
" " " rock " =	3.72 ft.
	5.00



			C.ft	C.yds.
Earth	2.66 / 1.66 / 2(4.32) / 2.16	× 1.28 =	2.7648 =	0.102 ✓
Rock	1.66 / 1 / 2(2.66) / 1.33	× 3.72 =	4.4376 =	0.183 ✓

Therefore.

0.102 C.yds. Earth excavation	@ 0.20	$ 0.0204	
0.183 " " rock "	@ 2.50	0.4575	✓
Trenching	=	$ 0.4779	✓
27.75 ft. of trenching	@ 0.4779	$ 13.2617	✓
27.75 ft of backfilling	@ 0.05	1.3875	✓
27.75 ft. of bracing.	0.01	.2775	✓
Shoring & replacing sidewalk.		0.10	✓
1 ½" Nozzle.		0.275	✓
1 ½" stop Cock.		0.750	✓
1 Box complete		1.400	✓
laying service.		0.550	✓
		$ 18.0017	✓
Supt. time Keeping the use of tools fuel office expenses, Contingencies etc 5%		0.90	
		$ 18.90	✓
Contractors profit 10%		1.89	
Total =		$ 20.79	✓

Duration of Work 1 day for Double.

6 Doubles.

Average length of services. 34.66 ft.
" " " trench = 24 ft.
Trench same as for Singles.

24 ft. of trench	@ 0.4779	$ 11.4696	✓
24 ft. of backfilling.	@ 0.05	1.200	✓
24 ft. of bracing	0.01	0.24	✓
Shoring & replacing sidewalk.		0.10	✓
1 5/8" Nozzle.		0.45	✓
1 3 Way stop Cock.		1.30	✓
Carried over =		$ 14.7396	✓

	Brought forward.		$14.7596
1	Box complete.		1.40
	Laying service.		0.60
			$16.7596
	Supt. time Keeping etc. General office expenses, use of tools, Contingencies at 5%		0.8379
			17.5975
	Contractors profit 10%		1.7597
	Total		$19.3572

Boulevard Valois Ouest

Special service at Picardo-
length = 201'
1" galv. iron pipe.
Trenching same as for single & Double service.

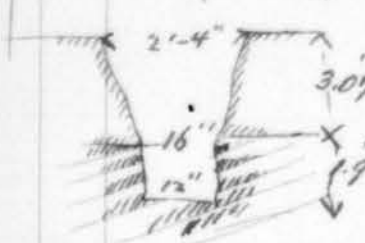
201	L.f. trenching	@ 0.0479	$9.6.0579
201	L.f. back filling	@ 0.05	10.05
201	L.f. bracing.	@ 0.01	2.01
	Hardening & replacing sidewalk		0.10
1	6×6×4 T @ 185#		
1	4" plug @ 10#		
1	6" sleeve @ 85#		
	280# @ 0.02¾		7.70
	Threading plug		0.50
201	L.f. galv. 1" W.I. pipe.	@ 007	14.07
1	1" stop Cock & rod.	@	1.00
1	Box Complete.		1.40
	Laying service & inserting T Lead joint & fuse.		5.00
			2.75
			150.6379
	Supt. time keeping, etc use of tools, Contingencies, general office expenses, etc. 2% (on dep. of labour)		281
			143.4479
	Contractors profit 10%		14.3447
	Say		$157.7926

Praedium Valiquette
Triple.

St. Eugène.

1 triple service ~~1 single~~

Length of pipe = 29'-0"
" " trench = 29'-0"
Average depth of earth. = 3.07 ft.
" " " rock = 1.93 ft.
5.00 ft.



Earth $\frac{1.33}{1.33}$ 2(3.66 / 1.83) × 3.07 = 5.6181 c.ft. = 0.208 c.yds.

Rock $\frac{1.33}{1.33}$ 2(2.33 / 1.165) × 1.93 = 2.248 c.ft. = 0.083 c.yds.

Therefore.

0.208 C. yds. of earth excav.	@ 0.20	$ 0.0416 ✓
0.083 " " " rock "	@ 2.50	0.2075
		$ 0.2491

Say 0.25

29 ft. trenching	@ 0.25	$ 7.25 ✓
29 ft. of back filling	@ 0.05	1.45 ✓
29 ft. of tracing.	0.01	0.29 ✓
25 ft. of $\frac{5}{8}$" pipe = 75 lbs	@ 0.05	3.75 ✓
12 ft. of $\frac{1}{2}$" pipe = 24 lbs	@ 0.05	1.20 ✓
1 $\frac{5}{8}$" nozzle	@	0.45 ✓
1 3 Way Y	@	0.65 ✓
3 $\frac{1}{2}$" stop Cocks	@ 0.75	2.25 ✓
3 Boxes Complete.	@ 1.40	4.20 ✓
laying services	@	0.70 ✓
		$ 22.19 ✓
Supt. time Keeping &c. Contingencies, use of tools, power &c. 5%		1.105
		$ 23.295
Contractors profit 10%		2.329
Total		$ 25.624

Bastien & Marquette Alleyside

1 Special service
galv. iron of 1" diameter
length of service 38'-9"
Same trenching as for lead service

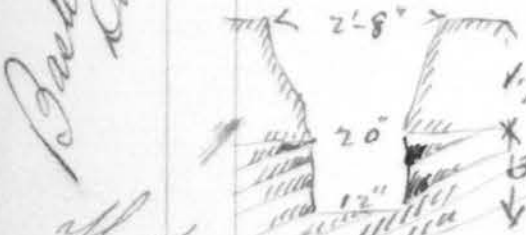
38.75 ft. of trenching	@ 0.25	$9.6875	✓
38.75 ft. of backfilling.	@ 005	1.9375	✓
38.75 ft. of bracing.	0.01	0.3875	✓
38.75 ft. of 1" galv. iron pipe	@ 0.07	2.7125	✓
1 - 1" galv. iron nipple	@ 0.07	0.0700	
1 - 1" Stop Cock & rod,	@	1.0000	
1 Bay Complete -	@	1.40	✓
laying service	@	0.75	✓
Breaking & relaying sidewalk	@	0.10	✓
		$18.0450	✓
Supt. timekeeper, etc, General office expenses, Contingencies, use of tools etc. 5%		0.902	✓
		18.947	
Contractors profit 10%		1.894	✓
Total =		$20.841	✓

Bastien & Marquette Double

Young St.

12 Doubles -

Average length of service = 33.69 ft.
" " " trench = 30.86 ft.
Average depth of earth = 1.94 ft.
" " - rock = 3.06 ft.
5' 00 ft.



1.94 ft. earth: 2.66 / 1.64 / 1.02 C.ft. = 2.66 + 1.64 + 1.02 = 4.19 = 0.155 C.yds. @ 70.

Therefore. 1.66 / 2.66 C.ft.
1.33 + 3.06 = 4.0698 = 0.150 C.yds. ✓

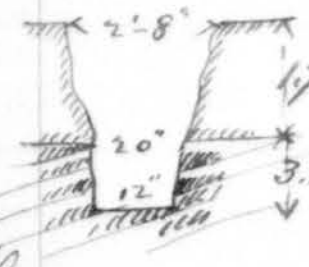
0.155 C.yds of earth excavation -	@ 0.20	$0.03	✓
0.150 " " rock "	@ 2.50	0.375	✓
Trenching.		$0.405	✓

30.85 ft. of trenching		$12.49	✓
29.69 ft. of $\frac{5}{8}$" pipe = 89.07 ℔	@ 0.05	4.45	✓
8 ft. of $\frac{1}{2}$" " = 16 ℔	@ 0.05	0.80	✓
30.85 ft. of back filling	@ 05	1.54	✓
30.85 ft. of bracing.	0.01	.30	✓
Widening & replacing sidewalk &c		0.10	✓
1 $\frac{5}{8}$" nozzle.		0.45	✓
1 3 Way stop Cock.		1.20	✓
1 Box Complete.		1.40	✓
laying service		0.60	✓
		$23.43	✓
Supt. time Keeping Gen. General Office expenses, use of tools Contingencies 5%		1.17	✓
		24.60	✓
Contractors profit 10%		2.46	✓
Total =		$27.06	✓

Maguire.

4 Double services.

Section of Voltigeurs Boulevard



average length of service = 32 ft.
" " " trench = 32 "
average depth of earth = 1.75 ft
" " " rock = 3.25 "
5.00 ft.

earth 2 (2.66 / 1.66 / 4.32) 2.16 × 1.75 = 3.78 c.ft. = 0.14 c.yds. ✓

Rock 2 (1.66 / 2.66) 1.33 × 3.25 = 4.32 c.ft. = 0.16 c.yds. ✓

Therefore 0.14 C.yds of earth excav @ 0.20 = 0.028 ✓
0.16 C.yds of rock excav. @ 2.50 = 0.40 ✓
Trench = $0.428 ✓

32	ft. of trenching	@ 0.428	$ 13.696	✓
32	ft. of backfilling	@ 0.05 —	1.600	✓
32	ft. of bracing.	@ 0.01	0.32	✓
	Undoing replacing Sidewalk	@	0.10	
28	ft. of $\frac{5}{8}$" pipe = 84#	@ 0.05 —	4.20	✓
8	ft. of $\frac{1}{2}$" = 16#	@ 0.05 —	0.80	✓
1	$\frac{5}{8}$" Nozzle	@	0.45 —	✓
1	3 Way Stop Cock.	@	1.30	✓
1	Box Complete.	@	1.40	✓
	laying service.		0.60	✓
			$ 24.466	✓
	Supt. time Keeping etc. General office expenses use of tools, Contingencies, etc 5%		1.223	✓
			25.689	✓
	Contractors profit 10%		2.568	
	Total —		$ 28.257	✓

Double & Triple

1 Triple service
length = 32 ft.
Trenching the same as for the double

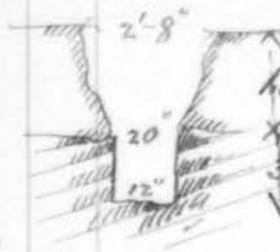
32	ft. of trenching	@ 0.428	$ 13.696	✓
32	ft. of backfilling	@ 0.05	1.60	✓
32	ft. of bracing	@ 0.01	0.32	✓
	Undoing & replacing Sidewalk	@	0.10	✓
28	ft. of $\frac{5}{8}$" pipe = 84#	@ 0.05	4.20	✓
12	ft. of $\frac{1}{2}$" = 24#	@	1.20	✓
1	$\frac{5}{8}$" Nozzle	@	0.45	✓
3	$\frac{1}{2}$" stop Cocks	@ 0.75	2.25	✓
1	3 Way Y.	@	0.65	✓
3	Boys Complete	@	1.40	✓
	laying service		0.[illegible]	✓
			26.566	
	Supt. time keeping etc. General office expenses, use of tools, Contingencies etc 5%		1.328	✓
			27.894	✓
	Contractors profit 10%		2.789	
	Total —		$ 30.683	✓

Boarden Walk grade Single

Lane at 600' north of Fairmont between St. Urbain & Mance —

5 Single services.

Average length of service = 6.50 ft.
" " " trench = 6.50 ft.
Average depth of earth = 1.66 ft.
" " " rock = 3.34 ft.
5.00 ft.



Earth 2.66 / 1.66 / 4.32 — 2.16 × 1.66 = 3.5856 = 0.132 C.yds

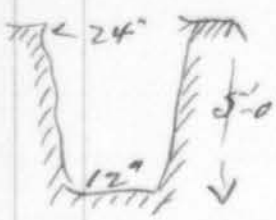
Rock 1.66 / 2.66 / 1.33 × 3.34 = 4.44 C.ft. = 0.164 C.yd.

Therefore:

0.132 C.yds. of earth excavation @ 0.20		$ 0.026 ✓
0.164 " " rock " @ 2.50		0.41
		$ 0.436 ✓
Trenching.		
6.5 ft. of trenching	@ 0.436	$ 2.834 ✓
6.5 ft. of backfilling	@ 0.05	0.325 ✓
6.5 ft. of tracing	@ 0.01	0.065 ✓
No sidewalk.		
6.5 ft. of ½" lead pipe = 13.0 #	@ 0.05	0.650 ✓
1 ½" nozzle	@	0.275 ✓
1 ½" stop cock.	@	0.75 ✓
1 Box Complete	@	1.40 ✓
Laying service		0.55 ✓
		6.849 ✓
Supt. time Keeping etc, General Office Expenses, use of tools, Contingencies 5%		0.342 ✓
Total =		$ 7.191 ✓
Contractors profit 10%		0.719 ✓
Total		$ 7.910 ✓

Boulevard & Valois ouette
Double

St. Viateur -
6 Double services.
Average length of service = 35.16 ft.
" " " trench = 11.83 ft.
Average depth of earth = 5'-0" ft
" " " rock = 0.00



Same price as already found on page 64 = $0.0[illegible] per ft.

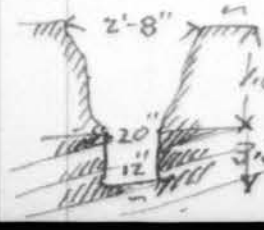
11.83 ft. of trenching	@ 0.06	$0.7098 ✓
11.83 ft. of backfilling	@ 0.05	0.5915 ✓
11.83 ft. of bracing.	@ 0.01	0.1183 ✓
Shoring & replacing sidewalk		0.10 ✓
31.16 ft. of 5/8" cast pipe = 93.48 lbs	@ 0.05	4.6774 ✓
8 ft. 1/2" " = 16 lbs	@ 0.05	0.80 ✓
1 5/8" Nozzle.	@	0.45 ✓
1 3 Way stop Cock.	@	1.30 ✓
1 Box Complete.	@	1.40 ✓
Laying service.		0.60 ✓
		$10.7436 ✓
Supt. time keeping, etc. general office expenses, Contingencies, use of tools etc 5%		0.5371
		$11.2807 ✓
Contractors profit 10%		1.1287 ✓
Total =		$12.4094 ✓

Bernard St. —

3 Doubles.

Boulevard & Valois ouette
Double.

Average length of service = 36 ft.
" " " trench = 24 ft.
" depth of earth = 1.64 ft
" " " rock = 3.36
5.00 ft.



Earth 2.66 / 1.66 / (4 3/8) × 1.16 × 1.64 = 3.54 cft = 0.131 C. yd.

Rock 1.66 / (2.66 / 1.33) × 3.36 = 4.4688 cft = 0.165 C. yd.

Sherbrooke.

0.131 C. yds. of earth excav.	@	0.20	0.026 ✓
0.165 " " " rock "	@	2.50	0.41 2s ✓
		Total trenching =	0.438s ✓
24 f. of trenching	@	0.438s	10.52
24 f. of backfilling.	@	0.05	1.20 ✓
24 f. of bracing.	@	0.01	0.24 ✓
Taking & replacing sidewalk			0.10 ✓
32 f. of 5/8" pipe. = 96#	@	0.05	4.80 ✓
8 f. of 1/2 " = 16#	@	0.05	0.80 ✓
1 5/8" Nozzle.	@		0.45 ✓
1 3 Way Stop Cock.	@		1.30 ✓
1 Box complete.	@		1.40 ✓
Laying service			0.60 ✓
			21.41 ✓
Supt. time keeping, Contingencies, use of tools, general office expenses		5%	1.07
			22.48 ✓
Contractors profit 10%			2.24 ✓
Total =			$24.72 ✓

Private Services laid by M.W. & P.Co.

in trenches made by Corporation
between Feb 1899 and Sept 1900

"

St. Lawrence -

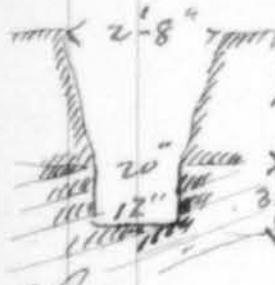
1 Single service to No 1294 St Lawrence

Length = 26 ft.

average depth of earth = 1'9" ft.

" " " rock = 3.3 "

5'0"



earth: 2.66 / 1.66 / 2(4.32)

2.16 × 1.75 = 3.78 C.ft. = 0.14 C.yds.

Rock: 1.66 / 1.66 / 2(2.66)

1.33 × 3.25 = 4.32 C.ft. = 0.16 C.yds

Therefore

0.14 C.yds. of earth excav.	@ $0.20	$0.028
0.16 " " rock "	@ $2.50	$0.40
		$0.428
Superintendence, Keeping, etc. Contingencies		0.01
		0.438
General Office expenses, use of tools 5%		0.021
		0.459
Say		$0.46
26 ft. of trenching	@ 0.46	$11.96

Boulevard.

opp. Church.

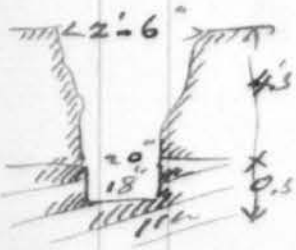
Trench for 2" galv. iron service.

Length = 25'-0"

Average depth of earth = 4'-6"

" " " rock = 0'-6"

5'-0"



earth: 2.5 / 1.66 / 2(4.16)

2.08 × 4.5' = 9.36 C.ft. = 0.346

Rock: 1.66 / 1.52 / 2(3.18)

1.58 × 0.5' = 0.79 = 0.029 C.yds

0.346 ✓

~~0.118~~ C.yds. of earth trenching @ 0.20 $ 0.069
0.029 " " rock " @ 2.50 0.072 ✓
$ ~~0.188~~ 0.141
0.01
0. ~~188~~ 0.151
Bracing -
Supt. time Repairing stays use of tools, Contingencies, General office expenses 5% + 0.0075
$ ~~0.1229~~ 0.1585
Say $ 0. ~~16~~ 16 cts.

St. Hypolite St.

75 ft @ 0.16 = $ 12.00

2 Cuts, one for a double service & for a single
one Cut for double service = 25 ft. long.
" " " single " = 29 ft. long.
average depth of earth = 5 ft. (no rock.

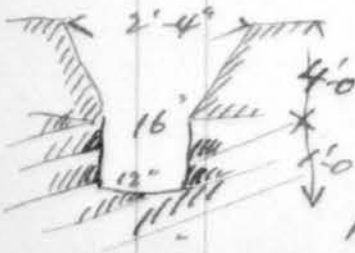
Trenching as before 6 cts a ft. $
54 ft. of trenching @ 0.06 3.24 ✓

Cadieux St.

1 Single service op. No 1330
Cut - 29 ft. long.
all earth - (no rock)
29 ft. of trenching in earth @ 0.06 $ 1.74 ✓

City Hall St.

Cut for single service —.
Length of cut 30 ft.
average depth of earth = 4'-0"
" " " rock = 1.00
5.00



Earth 2.33
1.33
2(3.66
1.83 × 4'-0" = 7.32 C.ft. = 0.27 ✓ C.yds.

Rock 1.33
2(2.33
1.165 × 1'-0" = 1.165 C.ft. = 0.04 ✓ C.yds.

0.27 Cyds. earth excavation	@0.20	0.054
0.04 " " rock	@2.50	0.100
Bracing -		0.01
		0.164
Supt. time Keeping etc use of tools		
General office expenses, Contingencies 5%		0.008
		0.172
30 ft.	@0.17	$5.10

Montreal, Sept 21st 1900

Town St. Louis.

Estimate of amount to be permitted by the M. W. P. Co. to the Town of St. Louis for trenching and back filling on the following Sheets —

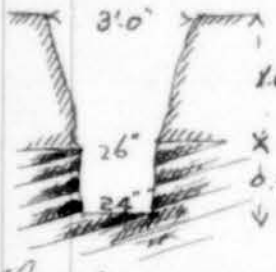
Boulevard. (From St Urbain to Park Ave.).

6" pipe.

Length 940 ft.

Average depth of earth excavation = 1.66 ft.

" " " rock " = 0.92 ft.



earth $\frac{3}{2}\frac{2.16}{5.16}$ $2.58' \times 1.66 = 4.2828$ C. ft. = 0.158 C. yds.

Rock $\frac{2}{2}\frac{2.16}{4.16}$ $2.08 \times 0.96 = 1.9968$ C. ft. = ~~0.070~~ 0.073 C. yds.

Therefore.

0.158 C. yds. of earth excavation @ $2.20 = 0.0316$

0.07 " " " rock " @ $2.25 = 0.1576$

~~Bracing~~ (no bracing).

Back filling. 0.0500

$0.2392

Supt. time keeping, blacksmithing, General office expenses, use of tools, Contingencies etc. 5% 0.0119

$0.2511

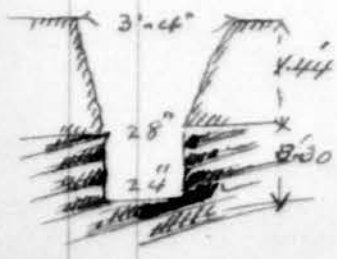
Say $0.25 per ft.

6" pipe. Boulevard. (From Park Ave. Westwards.)

Length = 402 ft.

Average depth of earth excav. = 1.44 ft.

" " " rock " = 3.30 ft.



earth $\frac{3}{2}\frac{3.33}{5.33}$ $2.83' \times 1.44 = 4.0752$ C. ft. = 0.150 C. yds.

Rock $\frac{2}{2}\frac{2.33}{4.33}$ $2.165' \times 3.30 = 7.1445$ C. ft. = 0.264 C. yds.

Therefore.

0.150 C. yds. of earth excavation	@ 0.20	$0.03
0.264 " " rock "	@ 2.25	0.594
~~Bracing~~ (no bracing)		~~0.010~~
Backfilling.		0.050
		$0.674
Supt. time Keeping, Blacksmithing, General office expenses, use of tools, Contingencies etc. 5%.		0.033
		$0.707

Say 0.71

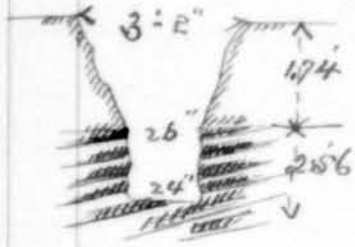
Villeneuve. (From St. Urbain to Park Ave).

6" pipe.

Length = 930 ft.

Average depth of earth excavation = 1.74 ft.

" " " rock " = 2.56 ft.



Earth. = $\frac{3.16 \times 2.16}{2} \Big| \frac{5.32}{2.66}$ × 1.74 = 4.6284 C.ft. = 0.171 C. yds.

Rock = $\frac{2.16}{2} \Big| \frac{4.16}{2.08}$ × 2.56 = 5.3248 C.ft. = 0.197 C. yds.

Therefore.

0.171 C. yds. of earth excavation	@ 0.20	$0.034
0.197 " " rock "	@ 2.25	0.443
~~Bracing~~ (no bracing)		~~0.01~~
Backfilling.		0.05
		$0.527
Supt. time Keeping, blacksmithing, general office expenses, use of tools, contingencies etc. 5%		0.026
		0.553

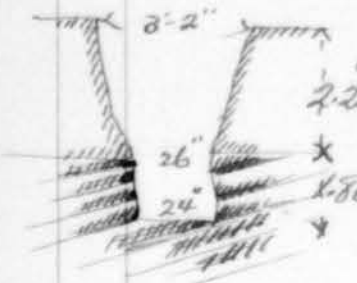
Say $0.55.

6" pipe. Esplanade Ave. (From Mount Royal to Boulevard.).

Length = 1516 feet.

Average depth of earth excavation = 2.25 ft.

" " " rock . 1.86 "



Earth $\frac{3.16 \times 2.16}{2} \times 2.25 = 5.985$ C.ft. = 0.221 C. yds.

Rock $\frac{2.16}{2}(4.16 + 2.08) \times 1.86 = 3.8688$ C.ft. = 0.143 C. yds.

Therefore.

0.221 C. yds. of earth excavation @ $0.20 = $0.0442

0.143 " " " rock " @ $2.25 = 0.3217

~~Bracing~~ (no bracing) ~~0.0700~~

Backfilling. 0.0500

0.4159

Supt. time Keeping, Blacksmithing, use of tools, General office expenses, Contin. Items say 5% 0.0207

$0.4366

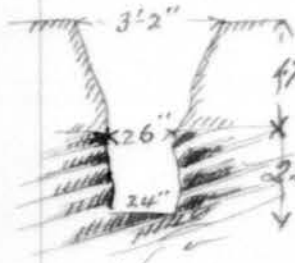
Say $0.44

Mance St. (From Mount Royal to Boulevard.).

6" pipe. Length = 1518'-6"

Average dept of earth = 1.75 ft.

" " " " 2.03 "



Earth exc. $\frac{3.16 \times 2.16}{2} \times 1.75 = 4.655$ C.ft. = 0.172 C. yds.

Rock $\frac{2.16}{2}(4.16 + 2.08) \times 2.03 = 4.2224$ C.ft. = 0.156 " "

Therefore.

0.172 C. yds. of earth excavation @ $0.20 = $0.0344

0.156 " " " rock " @ $2.25 = 0.3510

~~Bracing~~. (no bracing.) ~~0.0700~~

Backfilling. 0.0500

Supt. time Keeping, Blacksmithing, Gen. office expenses, use of tools, Contin. Items say 5% 0.0217

$0.4571

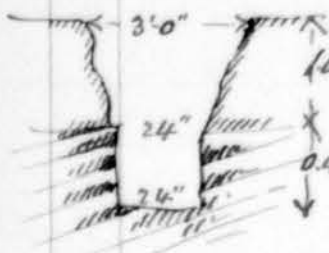
Say $0.46

6" pipe. Cascrain St. (From north of Maguire to north of Viateur St.)

Length = 1005 ft.

Average depth of earth = 1.00 ft.

" " " rock = 0.47 ft.



Earth $\frac{2\frac{1}{2}}{2.5 \times 1.0} = 2.5$ C.ft. = 0.09 C.yds.

Rock $\frac{2\frac{1}{2}}{2 \times 0.47} = 0.94$ C.ft. = 0.034 C.yds.

Therefore.

0.09 C.yds. of earth excavation	@ 0.20	$0.018
0.034 " " " rock "	@ 2.25	0.0765
Back filling		0.05
		$0.1445
Supt. time keeping, blacksmithing, general office expenses, use of tools, sanitary devices etc. 5%		0.0072
Total =		$0.1517

J. EMILE VANIER
Civil Engineer
Offices:
107 ST. JAMES STREET.

– Town St. Louis –

Montreal, Sept 21st 1900

Trenching & back filling done by Corporation by day labor: 1st Contract:			Trenching & back filling done by Bastien & Valiquette 2d Contract:			Pipe & Specials Bastien & Valiquette's work – 2d Contract:		
	#			#			#	
Sanguinet St.	880	00	Sanguinet St.	355	50	Sanguinet St.	462	15
" "	411	00	City Hall	281	60	City Hall.	399	36
Laval Ave	98	64	St. Dominique	1092	50	St. Dominique.	1267	30
City Hall	459	60	St. Lawrence	636	85	St. Lawrence.	859	07
George Hypolite	672	32	Clark Ave.	2838	60	Clark.	3037	80
Cadieux St.	264	00	St. Urbain.	3382	40	St. Urbain.	4397	12
"	125	12	Waverly	1752	52	Waverly.	1479	40
St. Dominique	1065	00	St. George.	1614	25	St. George.	1497	28
St. Lawrence	3390	60	Mance.	1535	82	Mance.	2280	46
Park Ave.	2441	92	Park Ave.	1431	40	Park Ave.	2995	70
Beaudry	208	08	Beaudry	24	42	Beaudry	39	93
Albina	185	20	Hutchison	2755	11	Hutchison	2909	40
De Gaspé	716	10	Casgrain	239	36	Casgrain	340	96
Casgrain.	742	40	Villeneuve	311	52	Villeneuve	617	76
Mount Royal.	2442	40	Edouard Charles.	376	47	Edouard Charles.	186	12
Villeneuve.	141	60	St. Louis.	691	87	St. Louis.	1184	98
Boulevard.	403	20	Fairmount.	1896	96	Fairmount.	1605	12
St. Louis.	4141	57	St. Eugène.	219	48	St. Eugène.	245	52
	#18788	75	Young.	345	60	Young.	315	36
			Maguire	466	45	Maguire	594	11
			Laneboo N. Fairmount	731	38	Laneboo N. Fairmount.	565	50
			St. Viateur	169	94	St. Viateur.	770	59
			Lane N. St. Viateur.	280	28	Lane N. St. Viateur.	203	28
			Bernard.	1845	67	Bernard.	1485	99
				#25275	95		#29740	26

Trenches now open or in the course of being opened.

= 6311'-6"

Estimated Cost = #2548.22

J. EMILE VANIER
Civil Engineer
AND
LAND SURVEYOR.
Offices:
107 ST. JAMES STREET.

Montreal, 189

Toldl length of ten Ches made by Corporation = 27279 ft
at a total estimated Cost of = $18788.75 or an
average of
= $1.451 per ft.

Total length of trenches made by Bastien & Valiquette
for mains = 34246.75 ft. at a total estimated
Cost of $2527.95 or an average of
= $0.738 cts per ft.

The total length of trenches for mains made
by the Corporation and Bastien & Valiquette
Combined = 61525.75 ft at a total Cost of
$44064.70 or an average of
= $0.716 per ft.

Private Services.

Total length of trenches made by Corporation for private
services = 11218.25 ft. at a total estimated
cost of $2245.14 or an average of
= $0.20 per ft.

Total length of trenches made by Bastien & Valiquette for
private services = 9961.25 ft. at a total estimated cost
of $3991.31 or an average of
$0.40

Total length of trenches dug for private services by Corp.
and Bastien & Valiquette combined = 21179.48 ft. at a total
estimated Cost of $6236.75 or an average of
= 0.294 cts per ft.

14 Septembre 1900

F.C.Bailargé Ecr-
Ingénieur
Hotel de Ville de Québec
Q u é b e c P.Q.

Cher Monsieur,

J'ai l'honneur d'accuser réception des renseignements que vous m'avez donnés au sujet des tranchées de tuyaux à l'eau .

Je vous en suis bien reconnaissant car vous m'avez rendu un fort service.

S'il vous plaît,cher Monsieur, me donner l'occasion de vous retourner le compliment,comme disent M.M .les Anglais.

Bien à vous,

J. EMILE VANIER
Ingénieur · et · Architecte
BUREAUX:
No. 107 RUE ST-JACQUES,
MONTREAL

Montréal 17 Septembre 1900.

A son Honneur le Maire et à
M.M.les Echevins de la Corporation
de la Ville St.Louis,
Comté d'Hochelaga,P.Q.

Messieurs,

En réponse à la demande qui m'a été faite par les Membres de votre Comité spécial,après la non réussite du projet d'achat du "plant" de la"MONTREAL WATER & POWER Co."chez vous, d'il y a quelques semaines,de réviser à date la réclamation que votre Ville a contre la Compagnie d'Eau,j'ai l'honneur de vous présenter l'état de compte ci-joint.

Au mois de Février 1899,M.M., il vous a été présenté,en cartons,un travail contenant la série des rapports divers,que je vous avais adressés depuis l'année 1893 environ,sur ce que la Compagnie d'Eau vous devait,et j'y avais ajouté les listes de répartition des remises à faire aux propriétaires,sur leurs cotisations d'égouts,pour les excavations et remplissages exécutés se rapportant aux conduites d'eau principales ,mises en place par la"MONTREAL WATER & POWER Co." ainsi qu'aux branchements ou services privés.

Ces rapports faits graduellement depuis 1893,étaient basés,comme j'ai eu maintes occasions de le rappeler à votre Conseil depuis l'origine,sur des indications et une marche à suivre qui différaient beaucoup de ce que je croyais être,et de ce que je crois encore aujourd'hui être la véritable interprétation du contrat du 12 Février 1891,intervenu entre la Compagnie d'Eau et votre Ville.

Ainsi tous les comptes produits jusqu'à présent M.M., étaient basés sur des taux d'hiver et d'été correspondants aux saisons diverses durant lesquelles les travaux d'excavation pour égouts chez vous avaient été exécutés,c'est-a-dire un peu durant toutes les

saisons de l'année,mais surtout en hiver, comme vous le savez tous.

Ce n'était pas là M.M., mon opinion et là-dessus ce que j'en pensais alors,n'a pas varié depuis.

Si l'on se reporte,M.M. à l'article 3 de ce contrat du 12 février 1891,on y trouve,en substance,que:

• La Municipalité ayant décidé de contruire ses égouts,en même temps
• que la Compagnie doit poser ses tuyaux à eau,dans les rues de la
• dite Municipalité;la Corporation fera les excavations nécessaires
• pour l'exécution de ses travaux d'égouts,et elle remplira alors ces
• tranchées,jusqu'à la hauteur voulue pour y asseoir les tuyaux à
• eau, et la dite Compagnie y mettra ensuite en place ses conduites
• d'eau et la dite Corporation en complètera après le remplissage
• jusqu'au niveau de la rue.La Compagnie remboursera au comptant à la
• dite Corporation les sommes que la Compagnie elle-même aurait été
• obligée de débourser pour poser ses propres tuyaux à eau,sur ces
• mêmes rues,dans le cas où la Corporation n'aurait pas construit ses
• égouts."

En résumé M.M.,ce que la Compagnie D'Eau,d'après moi, devait ou doit rembourser à votre Ville,c'est ce qu'elle aurait dépensé elle-même en creusant et remplissant ses tranchées pour tuyaux à eau sur ces mêmes rues,dans le même sol,dont on connait à présent la nature exacte.Car vous n'ignorez pas,M.M., qu'en vue de calculer ce remboursement,j'ai dû,depuis l'origine,mesurer spécialement les profondeurs de terre au-dessus du roc,au fur et à mesure de l'avancement des travaux et consigner le tout sur des plans et rapports qui sont aux archives de votre Corporation.

Examinons à présent,si vous voulez,M.M., dans quelles conditions la Compagnie en question se serait trouvée pour exécuter les ouvrages que votre Ville,par des circonstances particulières,a

faits,pour le compte de cette Compagnie.

La Compagnie d'Eau,ici intéressée,aurait d'après moi, M.M., fait ce que toutes les Compagnies d'Eau, ou propriétaires et constructeurs d'aqueducs,y compris même les Corporations municipales qui possèdent et font des travaux d'aqueduc,font invariablement,c'est-à-dire des travaux d'aqueduc durant la saison ordinaire durant laquelle se font de semblables travaux sous notre climat, c'est-à-dire du 1er ou du 15 Mai environ de chaque année à aller au 15 Novembre ou au 1er Décembre,suivant la température.

Tout le monde sait,et vous aussi, M.M., qu'à Montréal par exemple,les travaux d'aqueduc courants ne se font pas en-dehors de l'époque de l'année que je viens de mentionner,et que même au commencement et à la fin de chaque saison d'ouvrage,des avis paraissent même dans les journaux à l'effet,qu'à partir de telle époque au commencement de la saison on commencera à faire des travaux d'aqueduc et qu'après telle autre date à la fin de la même saison on ne posera plus de services etc.

Comme question de fait M.M., la Cité de Montréal n'a jamais posé de conduites d'eau dans ses rues,en-dehors de la saison limitée que j'ai indiquée,à moins qu'il n'ait arrivé des choses urgentes,comme ruptures de tuyaux,ou dégels à faire etc.

Aussi comme question de fait M.M., la même Compagnie d'Eau,dans les autres Municipalités qui entourent Montréal où son système d'aqueduc s'étend aussi et où les travaux de voierie sont aussi sous mon contrôle d'Ingénieur,cette même Compagnie dis-je n'a jamais,à ma connaissance,depuis son début en 1891,entrepris l'exécution d'aucun ouvrage de ce genre en-dehors de la saison d'ouvrage que j'ai mentionnée.

Enfin j'ajouterai,M.M., que dans ma pratique de 20 années,

dans la construction d'aqueducs,dans la Province de Québec,je n'ai jamais pensé un seul instant à faire exécuter des travaux d'aqueduc du genre de ceux qui nous occupent dans le moment,en-dehors de la saison que j'ai citée plus haut,c'est-à-dire en-dehors de l'époque de l'année qui s'écoule entre Mai & Décembre.

Chez vous M.M., les circonstances étaient particulières, la nature du sol était telle que votre Corporation pouvait et était en droit de changer les habitudes reconnues, et pour favoriser la classe ouvrière, faire, durant ce qu'on est convenu d'appeler la mauvaise saison et à des taux nécessairement plus élevés,ces travaux que toute Compagnie ou propriétaire d'aqueduc exécute dans un temps plus favorable et par conséquent à un taux moins onéreux.

Dans tous les cas M.M., si l'on revient au contrat du 18 février 1891,on trouve que la"MONTREAL WATER & POWER CO." doit rembourser à votre Corporation,ce qu'elle aurait dépensé elle-même (la Cie.) pour exécuter ces mêmes ouvrages que votre Ville a faits pour elle (la Cie.)

Pour moi,M.M., il n'y a pas à aller au-delà et tout expert en la matière appelé à aviser un tribunal quelconque sous les circonstances ne dirait pas autrement,j'en ai l'intime conviction.

Conséquemment,M.M., les comptes envoyés jusqu'à présent à la Compagnie d'eau et basés sur le désir et l'ordre exprimés par un Conseil qui vous a précédé,ont dû depuis quelques semaines être revisés en entier,les calculs des déblais et remblais refaits,et un inventaire minutieux a dû aussi être refait en totalité,enfin M.M., toute cette question dont l'origine,remonte à 1891 pour se continuer jusqu'à présent et encore quarante années durant,s'il n'y a rien de changé, a dû être reprise à neuf,entièrement,pour en arriver à l'état ci-joint qui représente,je dois le déclarer,mes vues exactes

et impartiales sur le sujet important que je soumets à votre considération.

En tout ceci, M.M., je n'ai eu en vue, que l'intérêt bien entendu de votre Ville,et le souci de ma réputation professionnelle.

La question a été traitée exclusivement M.M., au point de vue de l'équité et de l'expérience acquise en semblable matière.

Les mêmes considérations s'appliquent aussi M.M., aux travaux que vous avez fait faire sous l'autorité du précédent créé par le 2e.contrat avec la Compagnie d'eau,c'est-à-dire le contrat du 16 Juillet 1895, contrat supplémentaire si vous voulez,ou arrangement spécial et temporaire qui est intervenu dans un moment et des circonstances particulières,et ne devant s'appliquer alors qu'à un petit nombre de rues prévues.D'après cet arrangement M.M., et pour faciliter le développement de votre Ville, et ce qui est arrivé depuis en a justifié les prévisions d'alors,votre Corporation,M.M., a poussé ses égouts à travers des terrains relativement vacants alors et a exécuté en avant ou à l'avance comme on pourrait dire certains travaux d'aqueduc, remboursables par la Compagnie d'eau dans certaines conditions détaillées à ce contrat du 16 Juillet 1895.

L'état de compte ci-joint comprend aussi ces ouvrages,et le tout a été basé sur les 2 contrats du 12 Février 1891 et 16 Juillet 1895,dont j'ai longuement et aussi consciencieusement (une pareille) étudié l'interprétation qu'en devait leur donner.

Comme mémoire M.M., je vous rappellerai les clauses 6 et 8 du 2e.contrat qui se rapportent particulièrement au remboursement à faire à votre Ville par la Compagnie,et lesquelles ont servi à établir une portion importante de la réclamation révisée ci-jointe;ces clauses

seraient en substance les suivantes,savoir:

CLAUSE 6."Aussitôt que le revenu de la taxe d'eau perçue le long des extensions d'aqueduc introduites par la Ville St.Louis atteindront 10 pour cent de leur coût,la dite Municipalité pourra alors requérir la Compagnie de prendre possession des dites extensions et d'en payer le coût comme il est pourvu plus loin,etc-."

CLAUSE 8."Le montant payable par la Compagnie dans l'éventualité d'une prise de possession des extensions aux conduites d'eau,d'après les termes du présent contrat,sera le prix coûtant,avec intérêt au taux de 6% par an.Le dit prix coûtant ne devant pas excéder une valeur marchande raisonnable("fair market value"), et tout ouvrage exécuté ne devant pas avoir été fait en-dehors de la saison d'été."

Ainsi M.M., la marche à suivre dans l'établissement de votre réclamation contre la Compagnie d'Eau était pour moi bien indiquée.

L'état de compte ci-joint,M.M., couvre tout,depuis l'origine en 1891 jusqu'à date,serait classifié comme suit,savoir:

1o Le creusage et le remplissage des tranchées faites par votre Corporation,à la journée et par entrepreneurs,sur les diverses rues et parties de rues de votre Municipalité où la MONTREAL WATER & POWER Co."a ensuite placé ses conduites d'eau principales et accessoires.

2o Le creusage et le remplissage des tranchées faites par votre Corporation,à la journée ou par entrepreneur,sur les rues où on a introduit pour votre compte les conduites d'eau principales,avec accessoires et raccordements aux portions

d'aqueduc mises en opération antérieurement par la Compagnie d'eau.

3e Enfin le creusage des tranchées pour branchements ou services d'eau privés,exécutés par les propriétaires riverains de chacune des rues,soit que le tuyautage y ait été ensuite introduit par la Compagnie d'eau en premier lieu ou ultérieurement par votre Corporation sous l'autorité du 2e.contrat. Tout ce travail,M.M., se trouve réparti sur environ 62,000 pieds de rues et ruelles,pour les conduites principales,et comprendrait 21,000 pieds courants de tranchées,approximativement,pour les services privés.Ici,M.M., je dois attirer votre attention qu'avec le 1er contrat,de février 1891,l'évaluation des ouvrages faits doit être d'après le coût à la journée, c'est-à-dire en conformité avec la pratique suivie par la Compagnie d'Eau,tandis que les travaux exécutés en vertu de 2e.contrat,de Juillet 1895,la valeur marchande y mentionnée comporte un bénéfice de contracteur en plus du coût à la journée.

Mon estimation pour le tout M.M., se monte à la somme de $83591.88 ,et j'ai été suffisamment libéral, dans la considération de mes chiffres,pour vous laisser à un moment donné dans la discussion de cette réclamation avec la Compagnie d'Eau,la latitude nécessaire quelquefois,pour l'obtention d'un règlement rapide.Tout de même cette estimation peut être aisément maintenue devant un tribunal d'arbitrage et je suis tout prêt à y comparaître et à soutenir cette évaluation.La question d'intérêt pourrait être traitée par Mr.VINCENT, votre Secrétaire Trésorier,et les tranchées ouvertes actuellement, comme sur les rues BOULEVARD,VILLENEUVE & CASGRAIN,feraient au besoin

l'objet d'une évaluation supplémentaire.

Le tout humblement soumis,

V/

Ingénieur de la Ville St.Louis.

J. EMILE VANIER.
Civil Engineer & Architect,
PROVINCIAL LAND SURVEYOR.
OFFICE
107 St. James Street.

ESTIMATE OF WORK DONE & MATERIALS FURNISHED TO MONTREAL WATER & POWER Co. BY THE TOWN OF St.LOUIS UNDER CONTRACTS OF FEBRUARY 12th,1891 & JULY 16th,1895 RESPECTIVELY.

SANGUINET St. (from Mount Royal to St.Louis)				
2000 running ft.of trenching and backfilling,for 10" pipe, made by Corperation.....at	$0.44	$880.00		
(from Mt.Royal to Boulevard completed 1st Sept.1892)				
685.running ft.of trenching and backfilling,from St.Louis to St.Ignace Sts.for 4" pipe made by Corperation.....at	0.60	411.00		
(completed March 1st 1894)				
711 Running ft.of 4" cast iron pipe,comprising specials,valves, hydrants,trenching,cartage & backfilling,work done by BASTIEN & VALIQUETTE,from St.Ignace to du Carmel.....at	1.15	817.65	$2108.65	
(completed April 1st 1897.)				
63. trenches for private services without refilling,made by Corporation.....at	4.71	296.73		
3 double services complete, made by BASTIEN & VALIQUETTE .....at	17.45	52.35		
1 trench for large service to Corbeil's lane off Sanguinet St.no back filling,made by proprietor.....at		11.70	360.78	$2469.43
LAVAL Ave.(from Mount Royal northwards)				
274.running ft. of trenching and backfilling made by Corporation for 2" pipe.....at	0.36	98.64	98.64	
(completed 1st May 1894)				
6 trenches for private services, no refilling,made by Corporation.....at	1.99	11.94	11,94	110.58
Carried over.....				$2580.01

Brought forward.....				$2580.01
CITY HALL Ave.(from Mount Royal to Boulevard).				
1532 running ft.of trenching and backfilling for 6" pipe made by Corporation.....at (completed 1st May 1892)	$0.30	$459.60		
512.running ft.of 4" cast iron pipe,comprising specials,valves, hydrants,trenching,cartage and backfilling,work done by BASTIEN & VALIQUETTE,from Boulevard to St.Louis.....at (completed 1st Nov.1895)	1.33	680.96	1140.56	
43. trenches for private services,without refilling,made by Corporation.....at	1.50	64.50		
2 single services,laid,complete, by BASTIEN & VALIQUETTE.....at	13.66	27.32		
3. double services,laid, complete by BASTIEN & VALIQUETTE .....at	17.92	53.76	145.58	1286.14
GEORGE HYPOLITE St.(from Mount Royal to Boulevard.)				
1528 running ft. of trenching and backfilling for 6" pipe, made by Corporation.....at (completed 31st.Dec.1893)	0.44	672.32	672.32	
44.- trenches for private services,no refilling,made by Corporation.....at	4.00	176.00	176.00	848.32
CADIEUX St.(from Mount Royal to Elmire St.)				
1200.- running ft.of trenching and backfilling for 4" pipe, made by Corporation.....at (completed 31st December 1892)	0.22	264.00		
Carried over.....		264.00		$4714.47

Brought forward.....		$3284.00		$4714.47
(from Boulevard northwards.) 275.- running ft.of trenching and backfilling for 4" pipe, made by Corporation.....at (completed 1st May 1899)	$0.45/2	123.12	$389.12	
48.- trenches for private services,no backfilling,made by Corporation.....at	1.50	72.00		
1.-double service laid to Mr. Germain's,notary,by BASTIEN & VALIQUETTE,extra long.....at		49.03	121.03	510.15
St.DOMINIQUE St.(from Mount Royal to Boulevard & St.Louis to St.Eugene) 2180.-running ft.of trenching and backfilling for 4" pipe, made by Corporation.....at (completed 1st July 1892 at Boulevard and at St.Eugene 1st June 1892)	0.50	1065.00		
(from St.Eugene to Lane south of C.P.R'y) 2185.-running feet of 4" cast iron pipe,comprising trenching, backfilling,specials,valves, valve boxes,hydrants,cartage & laying,work done by BASTIEN & VALIQUETTE.....at	1.98	2359.80	3424.80	
(from St.Eugene to Maguire,completed 1st August 1895,and from McGuire to Lane near C.P.R'y on 1st June 1899.) 61.trenches for private services, nobackfilling,made by Corporation.....at	5.20	317.20		
2.-single services,laid complete, by BASTIEN & VALIQUETTE.....at	16.71	33.42		
2.-double services,laid complete, by BASTIEN & VALIQUETTE.....at	19.89	39.80		
1.-trench made by Corporation for service to Lapointe Lane.at		7.26	397.68	3822.48
Carried over.....				$9047.10

Brought forward..				$9047.10
St.LAWRENCE St.(from Mount Royal Ave. to above Lauretta St.opposite Charbonneau's) 4292.- running ft.of trenching and backfilling for 10" pipe,made by Corporation.....at (completed to creek above St. Louis,1st January 1893 and to Charbonneau's Mills on 1st of March 1894)	$0.79	$3390.68		
(from opposite Charbonneau's to Bernard St.) 542.- running ft.of 10" cast iron pipe comprising,specials, valves,hydrants,trenching,backfilling,cartage and laying,work done by BASTIEN & VALIQUETTE .....at (completed 1st January 1898)	2.76	1495.92	4886.60	
87.-trenches for private services, no backfilling,made by Corporation.....at	5.86	509.82		
1.-Single service,laid complete, by BASTIEN & VALIQUETTE.....at	19.58	19.58		
1.- double service,laid complete by BASTIEN & VALIQUETTE.....at	36.75	36.75	566.15	5452.75
CLARKE St.(from Mount Royal Ave. to Bernard St.) 4980 running ft.of 4" cast iron pipe,comprising specials,valves,hydrants,trenching,backfilling,cartage and laying, work done by BASTIEN & VALIQUETTE .....at (from St.Louis to 119 ft.above Bernard on 1st Sept.1895,from Mt.Royal to Villeneuve on1st August 1897,and from Villeneuve to St.Louis on 1st of May 1898)	1.18		5876.40	
Carried over.....			$5876.40	$14499.85

Brought forward....			$5876.40	$14499.85
22.- single services,laid complete by BASTIEN & VALIQUETTE .....at	20.26	445.72		
115.-double services,laid complete by BASTIEN & VALIQUETTE .....at	20.12	2313.80		
1.-special 2" galvanised iron service for the silk factory, laid complete by BASTIEN & VALIQUETTE.....at	48.63	48.63	2803.15	8679.55
St.URBAIN St.(from Mount Royal to Bernard)				
4332.- running ft. of 6" cast iron pipe comprising specials, valves,hydrants,trenching,backfilling,cartage and laying, work done by BASTIEN & VALIQUETTE .....at	1.61		7779.52	
(from St.Louis to 140 ft.above Viateur,completed 1st June 1896, from above Viateur to Bernard, completed 1st June 1897 and from Mt.Royal to St.Louis completed 1st June 1899)				
13.- single services,laid complete by BASTIEN & VALIQUETTE .....at	20.34	264.42		
19.-double services,laid complete by BASTIEN & VALIQUETTE .....at	20,45	388.55	652,97	8432,49
WAVERLY St. (from Fairmount to Bernard.)				
2276.-running ft. of 4" cast iron pipe, comprising specials, valves,hydrants,trenching,backfilling,cartage and laying,work done by BASTIEN & VALIQUETTE .....at	1.42		3231.92	
(completed Mat 1st 1897.)				
Carried over.....			$8231.92	$31611.89

Brought forward.....			$3281.92	$21611.89
18.- single services,laid complete by BASTIEN & VALIQUETTE .....at	$23.81	$423.58		
11.- double services,laid complete by BASTIEN & VALIQUETTE .....at	27.07	297.77	726.35	3958.27
St.George St.(from Fairmount to Bernard.) 2328/2.- running feet of 4" cast iron pipe, comprising specials, valves,hydrants, trenching,backfilling,cartage and laying,work done by BASTIEN & VALIQUETTE .....at (from Fairmount to Lane completed Oct.1st 1896,from Lane to Viateur,completed 1st of June 1897,and from Viateur to Bernard completed January 1898).	1.33		3111.58	
3.- single services,laid complete by BASTIEN & VALIQUETTE .....at	20.86	62.58		
17.-double services,laid complete by BASTIEN & VALIQUETTE .....at	22.69	385.56		
1.- 2" galvanised iron service for Fairmount School,laid complete by BASTIEN & VALIQUETTE .....at	48.26	48.26	496.40	3607.98
MANCE St.(from Fairmount to Bernard.) 2827.-running ft.of 6" cast iron pipe,comprising specials,valves, hydrants,trenching,backfilling, cartage and laying,work done by BASTIEN & VALIQUETTE.....at (from Fairmount to 140 ft. above Viateur,completed 1st June 1896,and 1st June 1898 to Bernard).	1.64		3816.28	
20.-single services,laid complete by BASTIEN & VALIQUETTE.at	16.75	335.00		
14.-double services,laid complete by BASTIEN & VALIQUETTE.at	21.07	294.98	629.98	4446.26
Carried over.....				$43624.26

Brought forward.....				$43024.25
PARK Ave.-(from Mount Royal 400'-0" northwards) 400.- running ft.of trenching and backfilling for 8" pipe made by Corporation.....at (completed March 1st 1894).	$0.66	$264.00		
(from the end of the above to St.Louis St.) 1545.-running ft.of 10" cast iron pipe,comprising specials, valves,hydrants,trenching, back-filling,cartage and laying,work done by BASTIEN & VALIQUETTE.at (completed July 1st 1896.)	2.30	3553.50		
(from St.Louis to 273'-0" south of Bernard St.) 2624.- running ft.of trenching and backfilling,for 10" pipe, made by Corporation.....at (completed February 1895)	0.83	2177.92		
(from 273'-0" south of Bernard to Bernard) 273.0 running ft. of 10" cast iron pipe,comprising specials, valves,hydrants,trenching,back-filling,cartage and laying,work done by BASTIEN &VALIQUETTE .....at (completed Julylst 1897.)	3.30	873.60	6369.02	
22.-trenches for private services, made by Corporation.....at	13.03	286.66		
2.- single services,laid com-plete,by BASTIEN & VALIQUETTE .....at	26.08	52.16	338.82	7207,84
BEAUDRY St.-(from Mount Royal to northern extremity). 408.running ft. of trenching & backfilling for 4" pipe,made by Corporation.....at (completed January 1st 1894).	0.51	208.08		
Carried over.....		$208.08		$50832.19

Brought forward.....		$208.08		$50882.19
32.-running ft. of 4" cast iron pipe, comprising valves,valve boxes,backfilling,trenching, cartage and laying,work done by BASTIEN & VALIQUETTE.....at (completed Nov.1st 1897).	$1.35	$64.35	$272.43	
1.trench for private service, made by Corporation.....at	6.06	6.06		
1.- double service,laid complete,by BASTIEN & VALIQUETTE .....at	17.91	17.91	23.97	296.40
HUTCHISON St.-(from Beaudry St. to Boulevard). 1193.-running ft.of 6" cast iron pipe,comprising specials,valves, hydrants,trenching,backfilling, cartage and laying,work done by BASTIEN & VALIQUETTE.....at (completed Nosv.1st 1897).	1.31	1510.43		
(from Fairmount to Bernard). 2367.- running ft.of 6" cast iron pipe,comprising specials, valves, hydrants,trenching,backfilling, cartage and laying,work done by BASTIEN & VALIQUETTE.....at (completed May 1st 1898)	1.75/2	4134.03	5664.51	
2.- single services,laid complete by BASTIEN & VALIQUETTE .....at	22.61	45.22		
3.- double services,laid complete by BASTIEN & VALIQUETTE .....at	16.68	56.04	101.26	5765.77
ALBINA St.- (from Boulevard to St.Louis.) 462.running ft.of trenching and backfilling for 4" pipe, made by Corporation.....at (completed May 1st 1894.)	0.40		185.20	
10- trenches for private services,made by Corporation....at	2.29	22.90	22.90	208.10
Carried over.....				$57102.46

Brought forward.....				$67102.46
DeGASPE St. from St.Louis to Maguire St.) 980.running ft.of trenching and backfilling for 4" pipe,made by Corporation.....at (completed 1st Nov.1894)	$0.77		$716.10	
15.-trenches for private services, made by BASTIEN & VALIQUETTE.at	10.40	156.00	156.00	872.10
CASGRAIN St.-(from St.Louis to Maguire) 988.-running ft.of trenching and backfilling for 6" pipe, made by Corporation.....at (completed 1st Sept.1894.)	0.80	742.40		
(from Maguire northwards) 872.-running ft.of 6" cast iron pipe,comprising trenching,backfilling,specials,valves,hydrants, valve boxes,cartage & laying, work done by BASTIEN & VALIQUETTE .....at (completed Nov.1st 1897.)	1.56	580.32	1322.72	
16.-trenches for private services,made by Corporation.....at	11.84	189.44		
1- single service laid complete by BASTIEN & VALIQUETTE.....at	23.35	23.35		
4.- double services,laid complete by BASTIEN & VALIQUETTE .....at	21.40	85.60	298.39	1621.11
MOUNT ROYAL Ave.(from Sanguinet St.to Western limits of Town.) 3053.-running ft. of trenching and backfilling for 12" pipe, made by Corporation.....at (from Sanguinet to City Hall Ave. completed Jan1st.1892; from City Hall Ave.to St.Urbain Dec.1st 1892; from St.Urbain to Outremont on Dec.1st 1893).	0.80	2442.40	2442.40	
Carried over.....			$2442.40	$69595.67

Brought forward.....			$2442.40	$59585.67
24.-trenches for private services, made by Corporation.....at	$6.04	144.96	$144.96	2587.36
VILLENEUVE St.-(from City Hall Ave. to St.Lawrence.) 880.-running ft.of trenching and backfilling for 6" pipe,made by the Corporation.....at (completed Sept.1st 1892.)	0.16	141.60		
(from St.Lawrence to St. Urbain) 928.- running ft.of 6" cast iron pipe,comprising trenching,back-filling,specials,valves,valve boxes,hydrants,cartage & laying work done by BASTIEN & VALIQUETTE .....at (from St.Lawrence to Clark,completed July 1st 1897,and from Clarke to St.Urbain,completed 1st May 1900.)	1.76	929.28	1070.88	
12.-trenches for private services, made by Corporation.....at	1.31	15.72	15.72	1086.60
BOULEVARD.(from Sanguinet to Cadieux and from George Hypolite St. to St.Dominique.) 960.-runningt ft. of trenching and backfilling for 6" pipe, made by Corporation.....at (from Sanguinet to City Hall Ave. completed May 1st 1894; from Hypolite to St.Dominique,completed Sept.1st 1892.)	0.48	403.20	403.20	
8.- trenches for private services, made by Corporation.....at	12.07	96.56	96.56	499.76
EDOUARD CHARLES St.(from Park Ave.to Outremont). 423.-running ft. of 4" cast iron pipe,comprising trenching,back-filling,laying,specials,valves, hydrants,valve boxes,& cartage, work done by BASTIEN & VALIQUETTE .....at (completed July 1st 1896.)	1.33	562.59	562.59	
Carried over.....			$563.59	$63769.39

Brought forward.....			$562.59	$68760.00
8.-double services,laid complete by BASTIEN & VALIQUETTE.....at	$24.08	$48.16	$48.16	$610.75
ST.LOUIS St.-(from St.Denis Ward to Sanguinet St). 175.-running ft.of trenching and backfilling for 6"pipe, made by Corporation.....at	0.74	129.50		
(from Sanguinet St.to Park Ave.) 2657.-running ft.of trenching and backfilling for 16" pipe, made by Corporation.....at	1.51	4012.07		
(from Park Ave.to limit Outremont.) 882'-8" running ft.of 16" cast iron pipe,comprising trenching backfilling,specials,valves, valve boxes,hydrants,cartage & laying,work done by BASTIEN & VALIQUETTE.....at (completed from St.Denis Ward to St.Lawrence St.on June 1st 1898; from St.Lawrence St. to St. Urbain on Jan.1st 1898 and to Park Ave.on June 1st 1898,and to Hutchison 1st Oct.1898.)	4.91	1876.85	6018.42	
13.- trenches for private services,made by Corporation....at	10.33	126.27		
8.- double services,laid complete by BASTIEN & VALIQUETTE .....at	19.76	158.08	354.35	6372.77
FAIRMOUNT St.-(from St.Lawrence to Hutchison.) 1824.-running ft.of 6" cast iron pipe,comprising trenching,backfilling,specials,valves,valve boxes,hydrants,cartage& laying, work done by BASTIEN & VALIQUETTE .....at (completed Dec.1st 1898.)	1.92	3502.08	3502.08	
Carried over.....			$8502.08	$70782.91

Brought forward.....			$8502.08	$70782.91
4.- single services,laid complete, by BASTIEN & VALIQUETTE.....at	$20.79	$83.16		
6.- double services,laid complete by BASTIEN & VALIQUETTE.....at	19.36	116.16		
1- 1" galvanized iron special service,laid complete at Mr. Picard's, by BASTIEN & VALIQUETTE .....at		157.79	357.11	3859.19
St.EUGENE St.-(from St.Dominique to Cangrain.) 372.- running ft.of 4" cast iron pipe comprising trenching,back-filling,specials,valves,hydrants, valve boxes,cartage & laying,work done by BASTIEN & VALIQUETTE .....at (completed Aug.1st 1895.)	1.25	465.00	465.00	
1.- triple service,laid complete by BASTIEN & VALIQUETTE.....at	25.62	25.62		
1.- special 1" galvanized iron service,laid complete by BASTIEN & VALIQUETTE.....at	20.84	20.84	46.46	511.46
YOUNG St.- (from Park Ave. to Hutchison St.) 482.-running ft.of 4" cast iron pipe comprising trenching,back-filling,specials,valves,hydrants, valve boxes,cartage & laying,work done by BASTIEN & VALIQUETTE.at (completed Sept.1st 1895.)	1.38	660.96	660.96	
12 double services,laid complete, by BASTIEN & VALIQUETTE.....at	27.06	324.72	324.72	985.68
MAGUIRE St.(from St.Dominique to Gaspé St.) 491.- Running ft.of 6" cast iron pipe,comprising trenching,back-filling,specials,valves,hydrants, valve boxes,cartage & laying,work done by BASTIEN & VALIQUETTE.at	2.18	1060.56	1060.56	
Carried over.....			$1060.56	$76109.24

Brought forward.....			$1060.56	$78209.84
(completed Jan.1st 1898.)				
4.- double services,laid complete by BASTIEN & VALIQUETTE.....at	28.26	113.04		
1.- triple service,laid complete by BASTIEN & VALIQUETTE.....at	30.68	30.68	143.72	1204.28
LANE at 600'-0" north of Fairmount. (between St.Urbain & Mance). 784.-running ft. of 6" cast iron pipe comprising trenching,backfilling,valves & valve boxes,cartage and laying,work done by BASTIEN & VALIQUETTE.....at	1.72	1296.88	1296.88	
(completed July 1st 1898.)				
5.- single services laid complete by BASTIEN & VALIQUETTE.....at	7.91	39.55	39.55	1336.43
St.VIATEUR. formerly Lauretta (from St.Lawrence to Beaubien) 298.-running ft.of 12" cast iron pipe comprising trenching,backfilling,specials,valves,hydrants, valve boxes,cartage & laying, work done by BASTIEN & VALIQUETTE .....at	3.21	940.53	940.53	
(completed Sept.1st 1897.)				
6.- double services,laid complete by BASTIEN & VALIQUETTE.....at	$12.42	74.52	74.52	1015.05
LANE NORTH OF VIATEUR St. (between St.Lawrence & St.Dominique.) 398.-running ft.of 4" cast iron pipe,comprising trenching,backfilling,specials,valves,hydrants, valve boxes,cartage & laying,work done by BASTIEN & VALIQUETTE.at	1.87		488.56	488.56
(completed february 1st 1899.)				
BERNARD St.(from St.Lawrence to Hutchison.) 1893.-running ft. of 6" cast iron pipe,comprising trenching,backfilling,specials,valves,hydrants, valve boxes,cartage & laying,work done by BASTIEN & VALIQUETTE.at	1.76	3331.68	3331.68	
(from Clarke to Hutchison,completed June 1st 1897; from Clarke to St. Lawrence,completed Jan.1st 1898)				
Carried over.....			$3331.68	$80148.56

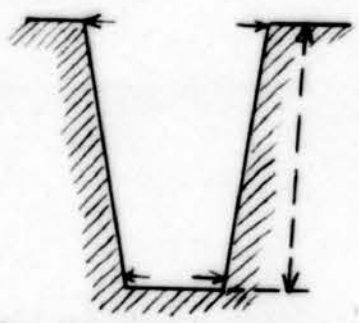
Brought forward.....			$3381.68	$80148.58
8.- double services, laid complete by BASTIEN & VALIQUETTE.....at	$24.72	$74.16	$74.16	3405.84
SERVICES LAID IN TRENCHES MADE BY THE CORPORATION.(from Feb. 1909 to 18th, Sept. 1909.-				
St.LAWRENCE St. 1.- trench for private service, made by Corporation.....at			11.96	
BOULEVARD. 1.- trench for 2" galvanized iron service made by Corporation..at			12.00	
St.HYPOLITE St.- 2.- trenches for private services, made by Corporation....at	3.24		6.48	
CADIEUX St. 1.- trench for private service, made by Corporation.....at			1.74	
CITY HALL Ave.- 1- trench for private service made by Corporation.....at			5.10	37.88
GRAND TOTAL.....				$3594.68

Montreal 17th September 1909.

Engineer Town of St.Louis.

Quebec

SOLID ROCK TRENCHES



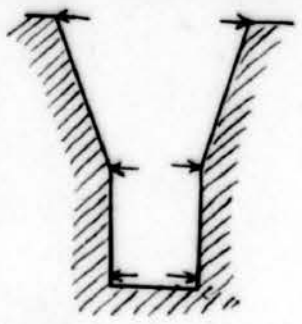
4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM	DEPTH OF TRENCH
6 " "	3.0	2.6	6.6
8 " "	3.0	2.8	6.8
10 " "	3.3	2.10	6.10
12 " "	4.6	4.0 x	7.0
14 " "	4.6	4.2	7.2
16 " "	4.9	4.4	7.4
	5.0	4.6	7.6

x Depths of trench based on 6'0" of filling over pipe as protection against frost.

EARTH & ROCK TRENCHES

say lower half in solid rock
upper " " earth
~~~~~~~~ " ~~~~~~~~

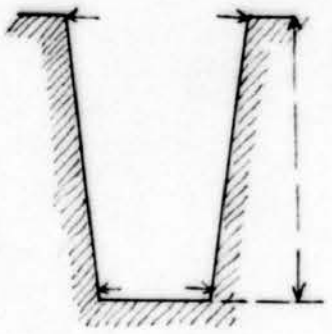
N.B. Rock supposed to be limestone
and all blasted out.



4 INCH PIPE	WIDTH AT BOTTOM	WIDTH TOP OF ROCK	WIDTH STREET SURFACE.
	2.6	2-6	4.6
6 " " =	2.8	2.8	4.6
8 " " =	2.10	2.10	4.9
10 " " =	4.0 *	4.0	5.0
12 " " =	4.2	4.2	5.2
14 " " =	4.4	4.4	5.4
16 " " =	4.6	4.6	5.6

* N.B The width of rock branching will depend on getting at the desired depth with at the bottom, it is the interest of the Contractor to make his trench in rock wide enough to easily blast down to desired depth. if it can be done vertically from the depth down (as supposed above) which is hardly possible, + no loose rock left overhanging, it would answer. at top or half depth
~~~~~~~~

EARTH TRENCHES

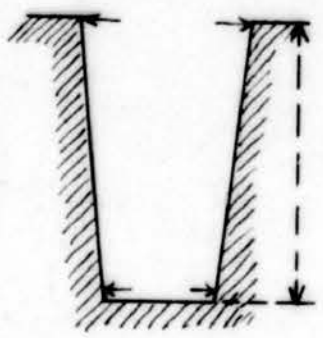


4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM
6 " "	= 4.6	2.8
8 " "	= 4.9	2.10
10 " "	= 5.0	4.0 × N.B
12 " "	= 5.2	4.2
14 " "	= 5.4	4.4
16 " "	= 5.6	4.6

× N.B = Same width through bowl. Rock or earth at bottom based on 1.0" each side of pipe for 4"-6"-8", and 1½ on each side of pipes up to 16" to allow of staving lead joint with comfort.

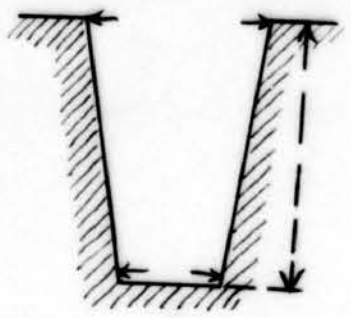
×× Width at top + slop of sides will naturally vary and depend on nature of ground - sometimes the trench may be carried up almost vertically, shored up here and there, but then a wider space must be left at one or both sides on top to allow of men walking along it.

EARTH TRENCHES



4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM
6	•	• =
8	•	• =
10	•	• =
12	•	• =
14	•	• =
16	•	• =

SOLID ROCK TRENCHES

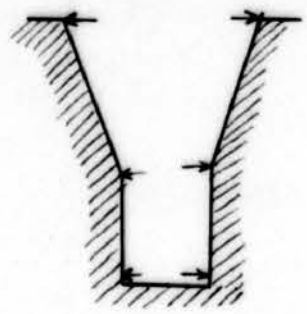


4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM	DEPTH OF TRENCH
6 " "			
8 " "			
10 " "			
12 " "			
14 " "			
16 " "			

EARTH & ROCK TRENCHES

say lower half in solid rock
upper " " earth
========== " ========

N.B. Rock supposed to be limestone and all blasted out.



4 INCH PIPE	WIDTH AT BOTTOM	WIDTH TOP OF ROCK	WIDTH STREET SURFACE.
6 "	" =		
8 "	" =		
10 "	" =		
12 "	" =		
14 "	" =		
16 "	" =		

OTTAWA. CANADA.

JOHN GALT. C.E. AND M.E.
CITY ENGINEER.

NEWTON J. KER. C.E.
ASST CITY ENGINEER.

Sept. 18, 1900.

J. Emile Vanier, Esq.,
Montreal,
P.Q.

Dear Sir:-

In reply to yours of the 11th. I return herewith the three sheets with dimensions marked thereon. Of course you will understand that these are only approximate, as a great deal depends upon the conditions, for example, the character of the rock, also care and skill with which blasting is done, the material overlying the rock, etc.

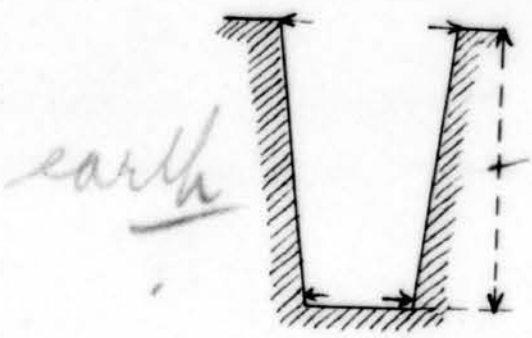
Yours truly,

John Galt

City Engineer.

Encl.

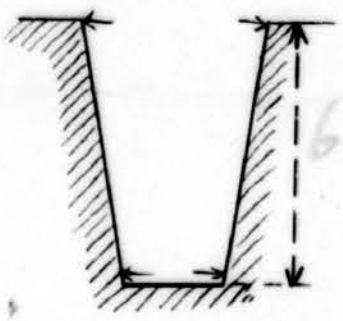
EARTH TRENCHES



4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM
6 " " =	24	18
8 " " =	24	18
10 " " =	30	24
12 " " =	30	24
14 " " =	30	24
16 " " =	33	28

Hall

SOLID ROCK TRENCHES

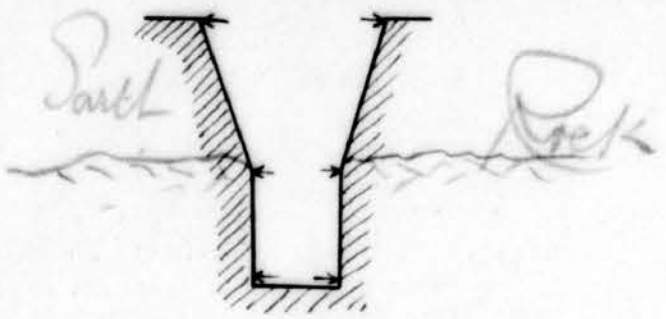


4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM	DEPTH OF TRENCH
6 " "	= 26	18	
8 " "	= 26	18	
10 " "	= 24	22	
12 " "	= 24	22	
14 " "	= 30	26	
16 " "	= 30	26	

EARTH & ROCK TRENCHES

say lower half in solid rock
upper " " earth
~~~~~~~~~~ " ~~~~~~~~

N.B. Rock supposed to be limestone and all blasted out.



4 INCH PIPE	WIDTH AT BOTTOM	WIDTH TOP OF ROCK	WIDTH STREET SURFACE.
	18"	18"	
6 " " =	18"	18"	30
8 " " =	18"	18	30
10 " " =	22"	22	33
12 " " =	22"	22	33
14 " " =	26"	26	36
16 " " =	26"	26	36

Depth. 6 ft. appx

Soil

Ottawa
~~~~~~~~~~

Montreal Water Works Shop,

GRAND TRUNK STREET,

Montreal, 13th Sept 1899

L. Jos Marin. Esq
Supt
M. W. W

Dear Sir I have yours of the 12th inst with enclosure, which I now return along with the information you ask for. I have made no variation; in my price or French experience between all clay. 1/2 & 1/2 or Solid Rock Cuttings or Trenches. The figures now furnished you; are based on the supposition that the earth has not been previously disturbed or got close to other Cuts for Sewer Gas pipes &c. Yours Resp
J. Thompson

Montreal Water Works Shop,

GRAND TRUNK STREET,

Montreal, Sept 13 189/1900

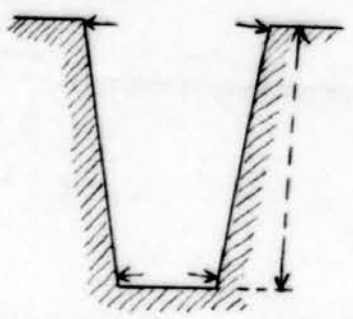
Earth Trenches

4 in pipe	2½ × 2½ × 5½	deep
6	do	2½ × 2½ × 5½	do
8	do	3 × 3 × 6	do
10	do	3 × 3 × 6	do
12	do	3½ × 3½ × 6	do
16	do	4 × 4 × 7	do

J. Thompson

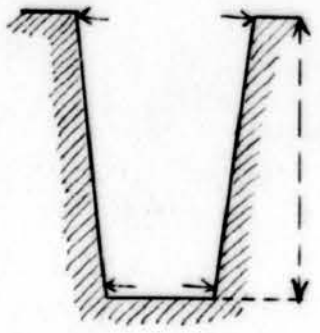
The same measurements will apply to Cuts ½ Rock & ½ Clay & - & All Rock.

SOLID ROCK TRENCHES



4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM	DEPTH OF TRENCH
6 " " =			
8 " " =			
10 " " =			
12 " " =			
14 " " =			
16 " " =			

EARTH TRENCHES

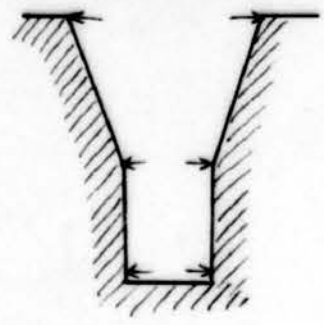


4 INCH PIPE	WIDTH AT TOP	WIDTH AT BOTTOM
6	• • =	
8	• • =	
10	• • =	
12	• • =	
14	• • =	
16	• • =	

EARTH & ROCK TRENCHES

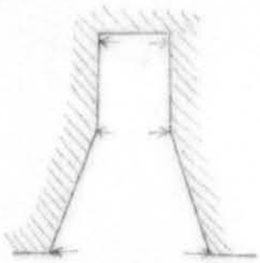
say lower half in solid rock
upper " " earth
~~~~~~~~ " ~~~~~~~

N.B. Rock supposed to be limestone
and all blasted out.



INCH PIPE	WIDTH AT BOTTOM	WIDTH TOP OF ROCK	WIDTH STREET SURFACE.
6	"	"	=
8	"	"	=
10	"	"	=
12	"	"	=
14	"	"	=
16	"	"	=
~~~~~~~~

Water pipe tunnels
City of Montreal



Drummond, McCall & Co.

Iron, Steel and Metal Merchants.

OFFICES:
CANADA LIFE BUILDING,
ST. JAMES & ST. PETER STS

Montreal, Canada. Sept. 21st, 1900

J. B. Vanier Esq.,

Montreal.

My Dear Vanier,

I have to leave for Ottawa at 10 o'clock unexpectedly. I have seen Wm. Hanson and told him to meet you at 11 o'clock, and have also given him an idea of what is necessary. You had better call him up on the phone however and have him meet you about 10 o'clock, so that you can give him any advice necessary,

Yours faithfully,

Thos. J. Drummond

Dict. by T.J.D.

J. EMILE VANIER.
Civil Engineer & Architect,
PROVINCIAL LAND SURVEYOR,
OFFICE
107 St. James Street.

Montreal, Sept. 21st, 1900.

TOWN OF St. LOUIS
ESTIMATE OF AMOUNT TO BE PAID BY MONTREAL WATER & POWER Co. FOR TRENCHING AND BACKFILLING, TO THE CORPORATION OF THE TOWN OF St. LOUIS ON THE FOLLOWING Sts. WHICH ARE EITHER ACTUALLY OPEN OR IN THE COURSE OF BEING OPENED

	BOULEVARD (from St. Urbain to Park Ave.)			
340	Running ft. of trenching and back filling for 6" pipe, made by the Corporation.....at		0.25	$235.00
	(From Park Ave. Westwards.)			
402	Running ft. of trenching and backfilling for 6" pipe made by Corporation.....at		0.71	285.42
	VILLENEUVE St. (from St. URBAIN St. to PARK Ave.)			
930	Running ft. of trenching and backfilling for 6" pipe, made by Corporation.....at		0.55	511.50
	ESPLANADE St. (from Mount Royal to Boulevard St.)			
1516	Running ft. of trenching and backfilling for 6" pipe, made by Corporation.....at		0.44	667.04
	MANCH St. (from Mount Royal to Boulevard.)			
1518/2	Running ft. of trenching and backfilling for 6" pipe, made by Corporation.....at		0.46	698.51
	CASGRAIN St.- (from north of Maguire to north of Vistour.)			
1005	Running ft. of trenching and backfilling for 6" pipe, made by Corporation.....at		0.15	150.75 $2548.22
	TOTAL.....			$2548.22

copie au P.C.

28 Sept. 1900

A.F.Vincent Ecr-
Sec.Tres.
Corporation Ville St.Louis P.Q.

Cher Monsieur,

J'ai l'honneur de vous adresser ci-jointe la lettre supplémentaire à la proposition de la MONTREAL WATER & POWER, re reglement de comptes avec votre Ville.

J'ai vu M.M., les directeurs et je leur ai donné les explications que vous m'aviez chargé de leur transmettre, je crois que cette lettre couvre tout et la proposition devient ainsi très complète.

J'ai l'honneur d'être, cher Monsieur,

Votre très obéissant serviteur,

Ingénieur Ville St.Louis.

CANADA
PROVINCE DE QUÉBEC.
DISTRICT D
COUR SUPERIEURE
Pour la Province de Québec.

L'honorable Louis Beaubien.

DEMANDEUR

La Ville St Louis,
vs.
Leonidas Villeneuve et al

DÉFENDEURS
mis en cause

Contre
Dis par la Cr
M. W. m. B.

VICTORIA, par la grâce de Dieu, reine du Royaume-Uni de la Grande-Bretagne et d'Irlande, défenseur de la foi, et impératrice des Indes ;

A James Laurie, ingénieur des cités et districts de Montréal

A la demande de la défenderesse

en cette cause nous vous commandons sous les peines de droit, de comparaître personnellement devant notre dite cour Supérieure siégeant au palais de Justice, à Montréal, à dix heures et demie de l'avant-midi le neuvième jour de Octobre prochain pour rendre votre témoignage en cette cause et votre présence y sera requise heure par heure et jour par jour jusqu'à ce que vous soyez légalement libéré

En foi de quoi nous avons fait apposer aux présentes le sceau de notre dite Cour Supérieure, à Montréal, ce huitième jour de Octobre mil neuf

(*Signé*) Edmund Barry
Dep Protonotaire.

(VRAIE COPIE)
Beaubien & Brossard
Avocat de la Défenderesse

No. 3130

ENQUÊTE ET MÉRITE
CHAMBRE NO.

Cour Supérieure.

DISTRICT D E Montreal

L'honorable Louis Beaubien

Demande ur

La Ville de St Louis
+
L. Villeneuve et al *Défende ur*

SUBPŒNA.

Copie pour
No. 78 rue Avenue Laval
Montréal.

Pour renseignements le témoin peut s'adresser à
M
Procureur d
No. rue

Taxé à
$8.00
9 octobre 1900

C. THÉORET, Editeur en Loi, 11 et 13 rue St-Jacques, Montréal.
No. 89

CANADA
PROVINCE DE QUÉBEC.
DISTRICT D
COUR SUPERIEURE
Pour la Province de Québec.

L'honorable Louis Beaubien

DEMANDEUR

La Ville de St Louis vs

Léonidas Villeneuve et al

DÉFENDEURS
mis en cause

VICTORIA, par la grâce de Dieu, reine du Royaume-Uni de la Grande-Bretagne et d'Irlande, défenseur de la foi, et impératrice des Indes ;

A J. Emile Vanier, Ecr, Protonotaire adjoint, de cette district de Montréal

A la demande de la Défenderesse

en cette cause nous vous commandons sous les peines de droit, de comparaître personnellement devant notre dite cour Supérieure siégeant au palais de Justice, à Montréal, à dix heures et demie de l'avant-midi le dix-septième jour de Décembre courant pour rendre votre témoignage en cette cause et votre présence y sera requise heure par heure et jour par jour jusqu'à ce que vous soyez légalement libéré

En foi de quoi nous avons fait apposer aux présentes le sceau de notre dite Cour Supérieure, à Montréal, ce quinzième jour de Décembre mil neuf cent

(Signé) L. D. Lareau
Dép. Protonotaire.

(VRAIE COPIE)
Beaullow et Brossard
Avocats du Demandeur.

No. 3130

ENQUÊTE ET MÉRITE
CHAMBRE NO.

Cour Supérieure.

DISTRICT D

Demande

vs

Défende

SUBPŒNA.

Copie pour M. Emile Vanier.
No. rue
Montréal.

Pour renseignements le témoin peut s'adresser à
M
Procureur d
No. rue

a été taxée pour
2 jours les 17 + sept. 1900
? #
voie des Vallées Jeffries

C. THIBODEAU, Editeur en Loi, 11 et 13 rue St-Jacques, Montréal.

No. 39

WHITE, O'HALLORAN & BUCHANAN
ADVOCATES.

W. J. WHITE, Q.C. G. F. O'HALLORAN.
A. W. P. BUCHANAN.
Cable Address, "WHITESCO"

New York Life Building.

Montreal, 12th. Jan., 1901

J. Emile Vanier Esq.,

City.

My dear Vanier,

I tried to get you yesterday on the telephone in reply to yours of the 11th., but you were unfortunately out. No doubt Mr. Drummond has communicated with you before this. The Company insist on having legislation to make matters right.

Yours faithfully,

W. J. White

Villes St Louis
referent Comité
avec M. M.P.Co.

14 Janvier 1901

A.F.Vincent Ecr-
Sec.Tres.
Ville St.Louis P.Q.

Cher Monsieur,

Pour faire suite à la conversation que nous avons eue aujourd'hui avec Mr.BISAILLON au sujet de la Montreal Water & Power Co.,je crois qu'il serait opportun que vous demandiez au Maire et à M.M. les membres du Comité spécial de venir me rencontrer ici demain à 9 heures.Mr.BISAILLON sera ici et je crois qu'il y aura du nouveau qui pourra rencontrer les vues des intéressés.

Venez aussi.

Bien à vous,

Ingénieur Ville St.Louis.

le 14 Janvier 1901

après midi — 4½ h.

Mile End × M.W.P. Co.

Examen nouvelles propositions
de la Cie — clause de 10%
enlevée —

Villeneuve

Villeneuve St Louis

Ff refléchir
compte
avec Cie d'eau

1a

1st 5 years on interest on whole amount $63000.00. present value = $1783.65 at Compound at 4%.

2d $3000.00

Payable.

1st 20000. in 5 years on interest
2d - 21000. " 10 " " "
3d - 21000 " 15 " " "
4th - 21000 " 20 " " "

All based on 4% Compound interest
Present value as follows.

1st	=	$16438.17
2d	=	14186.88
3d	=	11660.51
4th	=	9584.09
		$51869.65
		51783.65
		86.00

Villeh Lui
en compte avec
le M. W. P. Co

15th January 1901

Hanson Brothers
Canada Life Building
C i t y.

Dear Sirs,

Re adjustment of accounts with MILE END, I have this morning in my office the Mayor with Committee and legal adviser all discussion pending matter.

The question of relative cash values of former and present proposal of your Company is under discussion.

The point is this,vis:

1st PROPOSAL $63000.00, $15000.00 payable in five years without interest,$16000.00 payable in 10 years with interest at 4%.

$16000.00 payable in 10 years do_____do_____

$16000.00 do_____ do_____do_____

For these last three amounts interest at 4% to run only after one first payment of $15000.00 has been made.

2nd.PROPOSAL $[illegible]000.00, $20000.00 payable in 5 years without interest.

$21000.00 do_____ 10 years without inrerest.

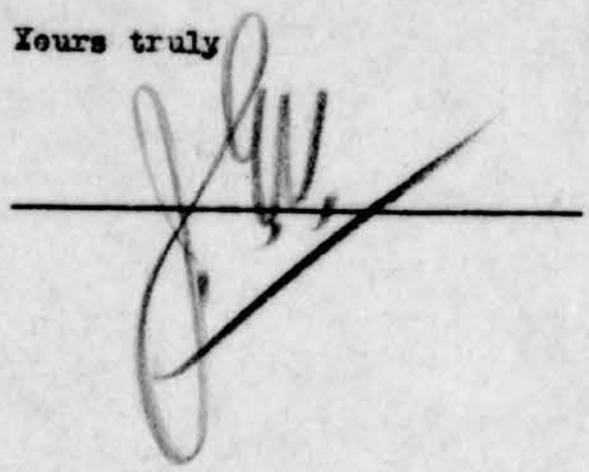
$21000.00 de_____ in 15 years without interest

$21000.00 de_____ in 20 years without intewwst.

The problem to resolve will be the following: What would a party going to bank with these two series of amounts to discount on a 4% interest basis would get in actual cash at once? As I say interest to be 4% all around.

A private answer to the above in the shortest time possible would greatly accommodate,

Yours truly



Cable address.
"HANSON" MONTREAL.
MEMBERS MONTREAL STOCK EXCHANGE

EDWIN HANSON.
WILLIAM HANSON

Hanson Bros.,
Government, Municipal & Railway Debentures.
Canada Life Chambers, St. James Street.

Montreal, Jan. 15th, 1901.

J.E.Vanier, Esq.,
City.

Dear Sir:-

We have yours of the 15th, and in reply may say that, as we make the calculation, the present value of the offer contained in the Montreal Water & Power Company's letter of yesterday is exactly $90.00 more than the offer contained in their letter of September last, so that the rough calculation that was made in the Company's office turns out to be almost right to a dollar.

Yours very truly,

Hanson Bros

P.S. Rather strange the two offers are practically the same thing
H B

Montreal 22nd January 1901.

Joseph Beaubien Esq-
M.S.R'y Building
C i t y.

Dear Sir,

Refering to your letter of January 21st addressed to our President Mr.EDWIN HANSON, I beg to say in reply that the propositions therein contained have been very fully discussed by the directors of this Company, and I think the decision of the Board was clearly placed before you verbally yesterday.

So far as the 1st part of your letter is concerned which applies to settlement of past claims, we cannot see our way clear to accept your suggestions.

In regard to the alterations you suggested in our proposal of the 14th instant relative to the future, we may say that we are really indifferent, and we are inclined to think that the changes you propose would be to our benefit.

However, the whole affair is now before the Council and as a member of that body (Mr.Gohier) was present at the meeting Yesterday at which we explained our position to you. The Council will doubtless be fully advised of the result of that conference.

Yours faithfully,
(signed Thos.J.Drummond Vice-Prest.M.W & P.Co.

25 Jan 1901

Ville St Louis
Jugement
Comptes
No. 10 P.60

A son Honneur le Maire et
à M.M. les Echevins de
la Ville St.Louis -

Messieurs,

Les soussignés constitués en Comité Spécial en vertu d'une résolution aux fins de discuter avec la Cie. MONTREAL WATER & POWER, les moyens de régler les difficultés pendantes entre elle et la Corporation et fixer ses rapports quant à l'avenir relativement à l'extension de l'aqueduc dans les nouvelles rues, ont l'honneur de faire rapport:

Qu'à la suite des procédures prises par l'Hon.LOUIS BEAUBIEN pour faire mettre de côté l'acceptation par votre Conseil, les propositions faites par la Compagnie en date du 27 et 28 Septembre dernier, les soussignés ont demandé et obtenu la permission de discuter à nouveau les diverses questionsen litige entre la Compagnie et la Corporation et obtenir si possible des propositions plus favorables.

Que la Compagnie a accédé à la demande des soussignés, et qu'à la suite de nombreuses entrevues, la Cie. a finalement consenti à faire les propositions contenues dans trois lettres, marquées respectivement 1,2,3, lesquelles sont annexées au présent rapport.

Les soussignés ont maintenant l'honneur de suggérer:

1o Que la proposition de la Cie.mentionnée dans la lettre No.1 ne devait pas être acceptée par le Conseil à moins que l'article 1er soit modifié en substituant après les mots, "The following sums on the dates stated"

$22500.00 le 1er Janvier 1906
$22500.00 le 1er Janvier1911
$22500.00 le 1er Janvier 1916
$22500.00 le 1er Janvier 1921

2o Que la proposition mentionnée dans la lettre No.2 ne soit acceptée qu'en autant que l'article 2 soit amendé comme suit:

" The Corporation to have the right to extend the system for the supply of water on streets north of the CANADIAN PACIFIC RAILWAY tracks the cost of which chargeable to the Company shall not exceed the sum of fifty thousand dollars -

Whan desirable the Corporation may connect said system to the water mains of St.Denis Ward provided the Company shall not be compelled to obtain or pay for right of way and provided further that the Company shall not be bound to supply water through the said St. Denis Ward system in contravention of agreement entered into between the Company and the City of Montreal,or in the case of the sale by the Company of the said St.Denis Ward system.

In all cases where such connections are made proper valves shall be placed as directed by the Company's Engineer."

Et que l'article "5" soit amendée en y ajoutant les mots suivants:

"When the Corporation shall have notified the Company of its intention of laying pipes on a certain street,the Company will state in writing the amount for which it can supply,and lay such pipes,and is willing to contract for same if so desired by the Corporation."

Et que $50,000.00 soit substitué au montant de $25,000.00 dans le paragraphe 8.

Le tout respectueusement soumis,

Vl

Ville St.Louis
ce 25 Janvier 1901.

A Louis compte avec M. Wilson

29 Janvier 1901

Personnelle.

P.J.Bisaillon Ecr- Avocat
C i t é -

Cher Monsieur,

Dans l'affaire de la Ville St.Louis et de la MONTREAL WATER & POWER Co. les choses sont réglées pour ce qui concerne les résolutions adoptées de part et d'autre, mais il reste un document notarié à préparer basé sur le règlement effectué.

La compagnie a transmis à M.WHITE, son avocat, tous les documents qui concernent cette affaire et l'a prié de s'entendre avec vous pour dresser ce document.

La compganie a déjà autorisé ses officers à signer pour pour elle, et à St.Louis il reste à donner l'autorisation au maire et au secrétaire de signer ce document.

Maintenant, cher monsieur, j'attire votre attention sur les faits importants suivants, savoir:

1o Que la dernière assemblée du Conseil actuel de St.Louis doit avoir lieu jeudi soir de cette semaine.

2o. Qu'il est de toute importance que le document en préparation

soit signé par le maire VILLENEUVE, le nouveau maire devant être élu lundi prochain -

3o. Que M.WHITE part en voyage pour sa santé demain soir mercredi.

4o. Qu'il est absolument nécessaire que la révision de ce document soit faite par vous et arrive au conseil jeudi soir tout révisé et prêt à signer.

Ainsi vous voyez qu'il n'y a pas de temps à perdre et que tous les amis comptent absolument sur vous pour que vous fassiez tous les pas et démarches nécessaires pour voir M.WHITE et clore cette affaire sans délai.

Il y a là, la dernière main à mettre à cette affaire qui nous occupe déjà depuis longtemps.

S'il vous plaît ne pas oublier -

Bien à vous,

Règlement de compte avec la "M. W. and O. Co"

1er Février 1901

COMPTE PAYÉ

DEC31 1900

A.F.Vincent Ecr-
Sec,Tres.
Corp.Ville de St.Louis -

Cher Monsieur,

En réponse à la remarque que vous me faisiez ce matin je dois vous dire que la réclamation de votre Ville qui a été soumise à la "MONTREAL WATER & POWER Co." pour travaux d'aqueduc et accessoires, en septembre dernier, et qui a été discutée depuis qu'on projette de régler finalement pour $90,000.00,comprend tous les ouvrages énumérés en détail dans les états que j'ai préparés et qui sont datés les 17 & 21 septembre 1900 respectivement,pas plus ni moins.

C'est exactement et absolument tout ce qui a été transmis à la Compagnie,et par conséquent les tuyaux à l'eau posés sur les rues du terrain de l'exposition et la rue Casgrain,ainsi que tous services par M.M. les contracteurs BASTIEN & VALIQUETTE l'automne dernier après le 21 Septembre resteront à réclamer de la Compagnie d'Eau en sus de ce qui peut être porté au contrat d'arrangement adopté hier soir

par votre Conseil.

Il n'y peut y avoir de doute là-dessus la chose est très bien établie.

Votre tout dévoué,

Ingénieur, Ville St.Louis.

3 copies

1

~~The Montreal Water & Power Co~~

~~Dr. To~~

~~The Corporation of the Town of St. Louis~~

Statement shewing the amount of dues paid by the Corporation of the Town of St. Louis for the Montreal Water & Power Co. according the agreement of Feb. 1st 1901

I. North of C.P.R'y.

Park Ave. (from Van Horne to Pacific Ave)						
791	feet 10" pipe with specials, Valves, hydrants			1262	84	
791	feet of trenching and backfilling	@	0.30	237	30	
20	" " " " (1 hydrant)		0.30	6	00	1506 14
Mance St. (from Pacific Ave to C.P.R)						
1490	feet 6" pipe with specials, Valves, hydrants			1365	44	
1490	" of trenching and backfilling	@	0.30	447	00	
39	" " " " (3 hydrants)	@	0.30	11	70	1823 14
St. George Street (from Pacific Ave North)						
380	feet 6" pipe with specials, Valves, hydrants			371	17	
380	" of trenching and backfilling	@	0.30	114	00	
16	" " " " (1 hydrant)	@	0.30	4	80	489 97
Clarke Street (from Atlantic to Chenier)						
1611	feet 6" pipe with specials, Valves, hydrants			1417	55	
1611	" of trenching and backfilling	@	0.30	483	30	
32	" " " " (2 hydrants)	@	0.30	9	60	1910 45
St. Lawrence (from Pacific Ave. to County)						
1249	feet 10" pipe with specials, Valves, hydrants			1945	81	
1249	" of trenching and backfilling	@	0.30	374	70	
42	" " " " (3 hydrants)	@	0.30	12	60	2333 11
St. Dominick Street (from Beaubien Southward)						
446	feet 6" pipe with specials, Valves, hydrants			417	92	
446	" of trenching and backfilling	@	0.30	133	80	
11	" " " " (1 hydrant)	@	0.30	3	30	555 02
De Gaspé Ave. (from Beaubien to County)						
924	feet 6" pipe with specials, Valves, hydrants			872	32	
924	" of trenching and backfilling	@	0.30	277	20	
22	" " " " (2 hydrants)	@	0.30	6	60	1156 12
	Forward					9773.95

	Brought forward					9773 95
	Selina Ave (Susan to Count)					
2588	feet of 6" pipe with specials, valves, hydrants etc.			2245 93		
2588	" of trenching and backfilling	@	0.30	876 40		
33	" " " (3 hydrants)	@	0.30	9 90		3132.23
	Sanguinet St. (North and South of Beaubien)					
700	feet of 10" pipe with specials, valves, hydrants etc.			1200 42		
700	" of trenching and backfilling	@	0.30	210 00		
22	" " " (2 hydrants)	@	0.30	6 60		1417.02
	Susan Street (from Selina to Sanguinet)					
166	feet of 10" pipe with specials, valves, hydrants etc.			345 29		
166	" of trenching and backfilling	@	0.30	49 80		
10	" " " (1 hydrant)	@	0.30	3 00		398 09
	Atlantic Ave. (from Selina to Selina)					
54	feet of 12" pipe with specials valves, ~~hydrants~~ etc.			143 11		
54	" of trenching and backfilling	@	0.30	16 20		159 31
	Pacific Ave. (from Parc Av. to St Lawrence B.)					
1617	feet of 10" pipe with specials, valves, hydrants etc.			2633 16		
1617	" of trenching and backfilling	@	0.30	485 10		
31	" " " (3 hydrants)	@	0.30	9 30		3127.56
	Beaubien St. (from St. Lawrence to limits)					
1246	feet of 10" pipe with specials, valves, hydrants etc.			1943 25		
1246	" of trenching and backfilling	@	0.30	373 80		
24	" " " (3 hydrants)	@	0.30	7 20		2324.25
	II. South of C.P.R'y.					
	Waverley St. (from Bernard St. Northwards)					
350	feet of 6" pipe with specials, valves, hydrants etc.			372 48		
350	" of trenching and backfilling	@	0.30	105 00		
22	" " " (1 hydrant)	@	0.30	6 60		484 08
150	feet 6" pipe (beyond the 150 ft. meeting not above St. W.H. Co's letter of Sept. 1st 1892)	@	1.06	159 60		
150	" of trenching and backfilling	@	0.30	45 00		688.68
	Cabgrain Ave. (from end of actual pipe to end of water trench)					
581	feet of 6" pipe with specials, valves, hydrants etc.					632 67
	Manee Ave (from Mont Royal to Beaubien)					
1518	feet of 6" pipe with specials, valves, hydrants etc.					1511 33
	Forward					23165 09

	Brought forward				23165 09
	Esplanade Ave. (from Mount Royal to Boulevard)				
1516	feet 6" pipe with Specials, Valves, Hydrants &c.				1368 51
	Villeneuve St. (from St Urbain to Park)				
930	feet 6" pipe with Specials, Valves, Hydrants &c.				950 54
	Boulevard (from St Urbain to end of pipe and from Park to Rockland St.)				
620	feet 6" pipe with Specials, Valves, Hydrants &c.				677 54
	Boulevard (from Cabanel St. to George Riff. Clyde)				
275	feet 6" pipe with Specials, Valves, Hydrants &c.		345	04	
275	. of trenching and backfilling @ 0.30		82	50	427 54
	Elmire Street				
450	feet 6" pipe with Specials, Valves, Hydrants &c.		341	03	31
450	. of trenching and backfilling @ 0.30		135	00	476 03
	Total for pipes, Specials, hydrants, lead, gates, fuel and labor, &c.				27065 25

Montreal, December 31 1902
~~January 24th 1903~~.

Prepared by:

Engineer Town of St. Louis.

(4)

Aqueduc
Vale Ste Louise
3 copies

January 24 - 1903

Statement shewing amounts payable to the ~~Town~~ ~~Corporation~~ Corporation of the Town of St. Louis by the Montreal Water & Power Co. for cuts for private services as per agreement of the 1st of February 1901.

1900						
		Villeneuve Street				
October	15	Z. Beaudet	25' of trenching and backfilling	@	0.20	4.60
		St. Dominick Street.				
"	26	Eug. Themens	21.3' " " "	@	0.20	4.25
		Mount Royal Ave.				
November	19	A. F. Riopelle	25' " " "	@	0.20	5.00
						13.85
1901						
		St. Lawrence Street				
		A. E. Morni	32' of trenching and backfilling	@	0.20	6 40
		F. Gobeille	42' " " "	"	"	8 40
		J. Guilbault	42' " " "	"	"	8 40
		Jos. Martel	22' " " "	"	"	4 40
		F. Gobeille	42' " " "	"	"	8 40
		St. Urbain Street.				
		Reeves, brothers	35' of trenching and backfilling	@	0.20	7 00
		A. Allary	35' " " "	"	"	7 00
		St. George Street				
		Taquette	33' of trenching and backfilling	@	0.20	6 60
		Mance Street				
		Walker	30' of trenching and backfilling	@	0.20	6 00
		A. E. Foster	30' " " "	"	"	6 00
		F. G. Wooster	30' " " "	"	"	6 00
		Boulevard				
		F. Amiot	50' of trenching and backfilling	@	0.20	10 00
		Park Ave.				
		R. A. Mason	40' of trenching and backfilling	@	0.20	8 00
		City Hall Ave.				
		C. Parent	25' of trenching and backfilling	@	0.20	5 00
				Forward		~~115 73~~ 111 45

		Brought forward.			$	~~146~~ 111 ~~73~~ 45
		City Hall Ave (continued)				
		T. Ducharme - 25' of trenching and backfilling @	0.20			5 00
		Waverley Street.				
		Thos. Mc. Bean 30' of trenching and backfilling @	0.20			6 00
		Cadieux Street				
		G. Germain 25' of trenching and backfilling @	0.20			5 00
		St. Dominick Street.				
		Victor Cedre. 30' of trenching and backfilling @	0.20			6 00
1902						
		Clarke Street.				
		Joseph Beaumont 30' of trenching and backfilling @	0.20			6 00
		J. O. Laroche 30'. " " " "				6 00
		F. Gobeille 28'. " " " "				5 60
		St. Urbain Street				
		Reeves. Brothers 36' of trenching and backfilling @	0.20			7 20
		George Ebel 33'. " " " "				6 60
		S. Maranda 30'. " " " "				6 00
		Waverley Street				
		Rock Magnan 30' of trenching and backfilling @	0.20			6 00
		Robert Neville, Jr. 30'. " " " "				6 00
		W. Swift 25'. " " " "				5 00
		Robert Neville, Jr. 30'. " " " "				6 00
		A. Ward 25'. " " " "				5 00
		George Foliquin 25'. " " " "				5 00
		Elie Savoie. 25'. " " " "				5 00
		Mance Street.				
		W. J. Bailey 25' of trenching and backfilling @	0.20			5 00
		F. J. Wooster 30'. " " " "				6 00
		W. J. Bailey 30'. " " " "				6 00
		George Morris 30'. " " " "				6 00
		Park Ave.				
		Adolphe Dupperreault 35' of trenching and backfilling @	0.20			7 00
		R. Hubert 37'. " " " "				7 40
		R. Neville 42'. " " " "				8 40
				Forward	$	~~259 93~~ 254.65

	Brought forward			~~259 93~~ 255 65
Park Ave. (continued)				
R. Neville	42' of trenching and backfilling @	0.20		8 40
St. Georges Street.				
J. Frappier	24' of trenching and backfilling @	0.20		4 80
Boulevard.				
C. David (Mde)	50' of trenching and backfilling @	0.20		10 00
St. Louis Street.				
Alphonse Gauthier	37' of trenching and backfilling @	0.20		7 40
				236 25
St. Dominick Street.				
Paul Demers	28' of trenching and backfilling @	0.20		5 60
L. Daigneault	10' " " " " "			2 00
				293 85
Cabgrain Ave.				
Brother Charest	29' of trenching and backfilling @	0.20		5 80
D. Hanffe	30' " " " " "			6 00
Cadieux Street				
V. Paquette	30' of trenching and backfilling @	0.20		6 00
D^s Demers	30' " " " " "			6 00
City Hall Ave.				
Montreal Sheriff & Overseers	25' of trenching and backfilling @	0.20		5 00
Villeneuve Street				
Exors Villeneuve	30' of trenching and backfilling @	0.20		6 00
Elmire Street				
P. Demers	24' of trenching and backfilling @	0.20		4 80
P. Demers	24' " " " " "			4 80
Lane (South Depot Ave.)				
O. H. Estage	15' of trenching and backfilling @	0.20		3 00
Sanguinet Street				
Alie Delorme	20' of trenching and backfilling @	0.20		4 00
				~~339 53~~ 344.25

Montreal, ~~January 24th 1903~~ December 31, 1902.

Prepared by:

V

Engineer Town of St. Louis.

4 copies fools cap
avec entêtes faire le coin
pour chaque copie
copie à la 1re feuille
V.

19 déc. 06

Montréal, le 31 décembre 1905

Etat des sommes dues à date et à être remboursées à la Corporation de la Ville de St Louis, Comté d'Hochelaga P.Q. par la Montréal Water & Power Co pour travaux d'aqueduc exécutés par la dite Ville depuis en vertu d'arrangements spéciaux consignés dans des actes notariés.

1° Réglement de emprunt pour travaux exécutés antérieurement au 1er Février 1901.
(Voir document notarié N° 2598. Me Lemay, Fait à Cameron 1er février 1901).
La Compagnie doit par ce reglement doit rembourser à échéances fixes à la Ville de St Louis, la somme de ..... $ 90,000.00

2° " travaux exécutés en 1901 et 1902
(voir état du 31 décembre 1902)

Avenue du Parc,	de Van Horne à Ave. Pacifique,	1506 14
Rue Mance,	de Ave. Pacifique à C.P.Ry.	1823 14
" St Georges,	" " " au allant vers le nord,	489 97
" Clarke,	de rue Atlantique à Chênes,	1910 45
" St Laurent,	" " Pacifique à Comté,	2333 11
" St Dominique,	" Beaubien au allant vers le Sud,	555 02
" de Gaspé,	de Beaubien à Comté,	1156 12
" Alma,	" Suzanne " "	3132 23
" Saguenay,	au sud et au nord de Beaubien,	1417 02
" Suzanne,	de Alma à Saguenay,	398 09
" Atlantique,	de Mance à Mance,	159 31
" Pacifique,	de Parc à St Laurent,	3127 56
" Beaubien,	" St Laurent à limites	2324 25
" Waverley,	de Bernard vers le nord	688 68
" Casgrain,	du bout actuel du trottoir à 2 au a aller au bout de l'égout construit,	632 67
	a reporter	$ 21653 76

Ces chiffres comprennent les travaux faits jusqu'au 30 Sept. 1902 inclusivement.

		Report	$ 2165376	9000000
	Rue Mance, de Mont Royal à Boulevard		151133	
	" Esplanade, " " " " "		136851	
			2453360	
	" Villeneuve, " St Urbain à Parc,		95054	
X	" Boulevard, " " " à aller au bout du tuyau d'eau actuel, et de Parc à Hutchison,		67754	
X	" de de Cadieux à Georges Hyppolite		42754	$
X	" Elmire, En entier,		47603	$ 2706525
	3e Travaux de 1903 et 1904			
	Rue Sanguinet, de extrémité actuelle du tuyau d'eau au nord de Beaubien, à St Zotique, et de do au sud de Beaubien, à Courté,		276283	
	" de Gaspé de Courté vers le sud " St Zotique " " "			
	" " " à Jeanne,		126677	
	" Casgrain, de Courté vers le sud " " " " nord			
	" Beaubien " " sud			
	" " " " sud			
	" St Zotique " " "		169698	
	" St Laurent, de Pacifique à aller à la dernière maison au nord de Atlantique,		226652	
	" St Urbain, de Pacifique vers le nord " Atlantique " " sud " " " à Beaumont		150273	
	" Waverley, de " " "		137686	
	" Grande Ave, " Waverley à limites nord,		187884	
	" St Georges, " bout actuel tuyau d'eau au nord de Pacifique, à aller à dernière maison, et de Atlantique à C.P. Ry.		88938	
	" du Parc, de Pacifique vers le nord jusqu'à la dernière maison, et de Atlantique à Beaumont,		114886	$
	à reporter		$ 14799778	17065

do - do - do -

	Report		#14799.77 #1706525
	Rue Mance, de Beaumont à limites nord,	70806	
	" Hutchison, de Beaumont à limite nord de de Beaumont vers le sud,	95492	
	" Atlantique, de St Laurent à St Urbain, de St Urbain à Mance et de Mance à Parc,	45919 81	
	" Beaumont, En entier,	23111 81	
	" Coulé, de de face pré à Carfour,	90723	
	" St Zotique, " Carfour à [illegible]	156178	
	" " Substitution de l'une entre de 12" 212" 210" 210"		
	" " à une [illegible] de 12" 212" X 12" à la dite entre de [illegible]	3075	
	" Bourgogne, " " Coté ouest à centre de do,	16640	
	" Mance, de Bernard vers le nord,	23029	
	" Waverley, de bout actuel lui au nord de Bernard à aller à Van Horne,	111220	
	" St Georges, de Bernard en allant vers le nord,	61288	
	" St Urbain, de Bernard en allant vers nord	31791	
X	" Lauretta, " St Dominique à Carfour,	639.73	
	" Atlantique, valve de 12" mise en place sur la ligne de la dite entre E. de Ri' pour la partie d'eau [illegible]	10000	# 28973.54
	4e travaux fin 1904 de [illegible]		
	[illegible]		
	Rue Sanguinet, de Coulé en allant vers le sud jusqu'à 30 pieds de la ligne sud de St Charles,	21944 44	
518.30 259.20 777.50 X	" " de l'avenue du dépot à aller à la rue Carmel,	777.50	
	" " à partir de 30 pieds au sud de St Charles, en allant vers l'ave. du Dépot.	23311	320505
		a reporter	#14943.84

N.B. Les travaux d'aqueduc de la rue St Charles exécutés pour le Compte de la Cie. Philipp ne sont pas compris ici.

Doit #2749.60

Report			$1492/384
Services de l'Ingenieur sur do part 5%			746219
Total pour tuyaux de premier, y compris branchées à 30 cents le p.d. courant suivant Conventions notariées.			$1567/603

5o Tranchées des services privés à 20 cents le pd. Courant à être remboursées à la Ville par la Cie d'Eau, suivant arrangements.

Tranchées de services pour l'année 1901.		$ 119 60	
" " " " "	1902	210 80	
" " " " "	1903	275 40	
" " " " "	1904	575 90	209 593
" " " " "	1905	913 23	118 70
Grand total dû par la Cie. d'eau à la Ville de St Louis, au 31 dec. 1904			$ 1578/73
			$ 158.801.96

N.B. Les branchées de services pour lesquelles sont en suspens au moins et qui le sera celles de 1904 seront établies vers la fin Oct. 1906.

Montréal 19 Octobre 1906

V1

Ingénieur Ville de St Louis

Ville de St. Louis.

18 mars 1907.

Monsieur Tanner,

Contrairement à ce que vient
de signaler M. Vincent, les
sommes dues par la "Montreal
Water and Power Co." pour
les travaux d'aqueduc exécutés
par la Corporation dans les rues
ci-après désignées, figurent
dans le rapport ci-annexé
du 19 octobre 1906 :

1°	Elmire (en entier)	$ 476.03
2°	Boulevard	I. St. Hubert à la Ouest 677.54 I. de Fare à Rachel Est I. Cadieux à Hippolyte 427.54
3°	Sanguinet (Dépôt à Carmel)	
4°	Laurette (de St. Dominique à Cadieux)	639.73

le 20 Mai 1907.

A.F.Vincent, Ecr.,
Secrétaire - Trésorier
Ville de St.Louis -

Le corps au fonds a été terminé à Vaucent ici au travail (2e fois) de 2 sept 1909 V.

Cher Monsieur,

Au sujet de ce que vous me parlies il y a quelques jours et se rapportant à ce que la MONTREAL WATER & POWER COMPANY devait à la VILLE DE St.LOUIS au 31 décembre dernier, je ne puis faire mieux que de vous renvoyer au mémoire très complet et très détaillé que je vous adressais l'automne dernier et lequel est daté le 19 Octobre 1906 chemin de tous les comptes à apporter au 31 decembre 1905. excepté pour ce qui concerne la Cie d'eau au verso.

Au montant mentionné à ce rapport, soit,..... $158801.96

Il faut ajouter à les ouvrages faits à la Pleurisse électrique 2749.60

~~Il faut ajouter,...~~

L'Ordre de paiement No.1 du 1er.Avril 1906 pour travaux de tuyautage d'aqueduc et accessoires, donné à Mr. BASTIEN, soit..... 11336.52

L'ordre No.2 du 6 Nov. pour do, soit,.... 14971.68

Tranchées de services privés pour 1906, environ,..... 827.20

Les longueurs de tranchées principales à 30 cts. sur lesquels les travaux BASTIEN de 1905 et 1906 ont été faits et compris dans les deux ordres ci-dessus, lesquelles longueurs se montent à 9950 pieds environ, ou à,..... 2985.00

Honoraires payés à J.Wauven 1906, 1er aqueduc, 1129.43

ou un total de,..... 174321.39

duquel il faudrait déduire les sommes de $22500.00 ~~reçues par votre Ville en acompte de la Cie d'eau au Compte, du 1er Janvier 1906, suivant le détail ci-dessus, et enfin tenir compte des intérets~~ 22500.00

170321.39

J'ai l'honneur d'être, cher Monsieur,
Votre bien dévoué,

Ingénieur Ville de St.Louis -

Ag- Ville
(ar-h.)

3 Juin 1907.

A.F.Vincent, Ecr.,
Secrétaire - Trésorier
Ville de St.Louis -

Cher Monsieur,

J'ai l'honneur de vous expédier présentement copie clavigraphiée d'un des comptes de votre Ville vs "MONTREAL WATER & POWER COMPANY" et portant la date du 19 Octobre 1906 - Le tout en conformité avec la demande que vous me faisies vendredi de la semaine dernière.

J'ai l'honneur d'Être, cher Monsieur,

Votre très obéissant serviteur,

V.

Ingénieur Ville de St.Louis -

Montreal le 17 Mars 1908

Mr. A.F. Vincent, Secretaire Tresorier de la
Ville de St. Louis

Cher Monsieur

J'ai l'honneur de vous transmettre un etat detaillé des sommes dues par la Montreal Water & Power Co à la Corporation de la Ville de St Louis, pour travaux d'egoutage executés en 1907, par la dite Ville en vertu d'arrangements speciaux avec la Compagnie.

Le montant total se chiffre @ # 74237.31.
dont detail suit:

1° ~~Travaux~~ Travaux executés par le ~~Contracteurs~~ Contracteur T. Bastien

(a) Rues au nord du C.P.R.

St Laurent	6643 91
Dauphinet	2742 00
Alma	3471 94
de Gaspé	3516 84
Coupaie	6828 96
St Dominique	453 00
Clarke	1152 51
St Urbain	2550 00
Comte	6000 00
St Lotbinière	2733 37
Wood	58 68
Suzanne	3422 08
Buller	1576 80
Mariel	1711 46
Chemin	967 63
A Reporter	# 43829 18

Report	43829 18	
Beaumont	2192 20	
Stanley	1506 00	
Bagg	1521 11	
~~Materiaux sur les lots~~	~~3000~~	45706.49 ✓
(b) Rues au sud du C.P.R.		
Van Horne	11050 00	
St. Laurent	3429 62	
Clarke	356 26	
St. Urbain	4146 20	
Waverley	334 81	
St. George	4184 89	
Mance	7409 39	
Clarimont	552 00	
St. Valier	11342 24	
Maguire	1451 40	
de Lesperance	1693 60	
Laurette	1033 21	46982 62
		$ 92689 11 ✓
De ce montant il faut deduire le mandats 1 et 2 emis en 1906, soit		26308 20 ✓
Balance pour 1907		$ 66380 91 ✓
Ce montant a été payé par les mandats 3, 4, 5, 27 et 31 —		
2° Le remboursement à raison de 0.30¢ par pied des branchés principales pour les rues sur lesquelle les travaux Bastien ont été faits La longueur totale approximative se monte à environ ~~8604~~ 8604 pieds pour 1907, y compris les branchements aux bornes fontaines, @ 30¢		$ 2581.20 ✓
à Reporter		$ 68962.11

1855.4
2950
8604

Report		68962.18
3/o Traitement des service spéciaux pour 1907		1824.10.
4/o Honoraire de l'Inspecteur pour les deux 1er et 2e soit 5% sur une somme de $ 71947.15.		3448.10
Grand Total =		$ 74237 31

4 copies

Montreal March 17th 1908

A. F. Vincent Esq.
Sec. Treas. Town of St Louis,
County of Hochelaga P.Q.

Dear Sir,

I beg to hand you herein below a detailed statement of the amounts due ~~by~~ to your Corporation by the Montreal Water & Power Co. for pipe laying done in 1907 under existing agreements, and this exclusively for the year 1907.

1st Work done under contract by
Mr. T. Bastien.

(a) Width of the C.P. Ry tracks

St Lawrence Street		#6643.90
Sanguinet	"	2742.00
Alma	"	3471.94
de Gaspé	"	3516.84
Casgrain	"	6828.96
St Dominique	"	453.00
Clarke	"	1152.51
St Urbain	"	2550.00
Coursol	"	6000.00
St Zotique	"	2733.37
Maud	"	58.68
Saguenay	"	3422.08
Bulles	"	1576.80
Marcil	"	1711.46
Cherrier	"	967.63
Beaumont	"	219.20
Stanley	"	1506.00
Baff	"	152.11 45706.4

Brought forward #45706.49

(b) South of the C.P.R. tracks

Van Horne Street		#11050.00
St Lawrence	"	3428.62
Clarke	"	356.26
St Urbain	"	4146.20
Waverley	"	334.81
St George	"	4184.89
Mance	"	7409.39
Clarement	"	552.00
St Valerie	"	11342.24
McGuire	"	1451.40
de Gaspé	"	1693.60
Lanette	"	1033.21 46982.62
		#92689.11

From which there is to deduct that ~~part~~ made in 1905-1906 and charged to the Company in a previous report, viz:

26308.20

Balance for 1907 = 66380.91

(as is detailed in certificate of payment ~~Nos~~ Nos 3.4.5.27 + 31 to inc. T. Barlow)

2o - Trenching and refilling of main trenches as per agreement with Company

8604 running of trenching, including lug mark for inches, @ 30¢ = 2581.20

(see credit assessment rolls for above already sent to Sec. Treas. with sewer rolls)

3o - Trenching for private services as per agreement

See detailed report of private service trenches already sent to Sec. Treas. for year 1907.

4o - Engineer's services on #6876.11 — 1827.10
Actual work done in 1907 and chargeable to Company - } # 3448.10 / 74237.31

70789.20

* Engineer's time of 21 hours

J. EMILE VANIER
Ingenieur Civil et Architecte
BUREAU:
NO. 5 SQUARE BEAVER HALL
MONTREAL

Comptes à la Ville
Aq. Ville de Mtl

Montréal, March 17th, 1908

l'original de ce reçu
vient d'être soumis
ce jour à Messrs Vincent
pour vérification
Implicata à la Cité avec
une lettre de lui

N.

A.F.Vincent, Esq.,
Secretary-Treasurer
Town of St.Louis
County of Hochelaga, P.Q.

Dear Sir,

I beg to hand you herein below a detailed statement of the amounts due by your Corporation by the MONTREAL WATER & POWER COMPANY, for pipe laying done in 1907 under existing agreements, and thus exclusively for the year 1907.

1o. WORK DONE UNDER CONTRACT BY MR. T. BASTIEN

(a) North of the C.P.R'y tracks

St.LAWRENCE Street,		$6643.91
SANGUINET "		2742.00
ALMA "		3471.94
DeGASPE "		3516.84
CASGRAIN "		6828.96
St.DOMINIQUE "		453.00
CLARKE "		1152.51
St.URBAIN "		2556.00
COMTE "		6000.00
St.ZOTIQUE "		2733.37
MAUD "		58.68
SUZANNE "		3422.08
BUTLER "		1576.80
MARCIL "		1711.46
~~CHAUSSIER~~ Chemin "		967.63
BEAUMONT "		219.20
STANLEY "		1506.00
RAGG "		152.11 — 45706.49

(b) SOUTH OF THE C.P.R'y TRACKS

VAN-HORNE Street,		11050.00
St.LAWRENCE "		3428.62
CLARKE "		356.26
St.URBAIN "		4146.30
WAVERLEY "		334.81
St.GEORGE "		4184.89
MANCE "		7409.39
CLAIREMONT "		552.00
St.VIATEUR "		11342.24
McGUIRE "		1451.40
DeGASPE "		1693.60
LAURETTA "		1033.21 — $46082.62
Carried over,		$92809.11

Brought forward,..		$92689.11
From which there is to be deduct that part made in 1905 & 1906 and charged to the Company in a previous report, viz:,.....		26308.20
BALANCE FOR 1907 =		$66380.91

(as included in certificates of payment Nos. 3,4,5,27 & 31 to Mr.T.BASTIEN)

2o. TRENCHING AND REFILLING OF MAIN TRENCHES AS PER AGREEMENT WITH COMPANY.

8604 Running feet of trenching, including hydrant branches,.....at	0.30	2581.20

(see credit assessment rolls for above already sent to Sec. Treas. with sewer rolls)

3o. TRENCHING FOR PRIVATE SERVICES AS PER AGREEMENT -

See detailed report of private services trenches already sent to Sec. Treas.for year 1907,..... 1827.10

4o. ENGINEER'S SERVICES ON $68962.11,. 3448.10

TOTAL WORK DONE IN 1907 AND CHARGEABLE TO COMPANY,..... $74237.31

Engineer Town of St.Louis -

Montreal. February 22 1909.

A.F. Vincent. Esq.
Secretary Treasurer.
Town of St. Louis.
County of Hochelaga P.Q.

Ag. Vallée Thos Comptr (Mr. 22 - 1909)

Dear Sir.

I beg to hand you herein below a detailed statement of the amounts due to your Corporation by the "Montreal Water & Power Co" for pipe laying done in 1908 under existing agreements.

1° Work done under contract by Mr. T. Bastien

(a) Streets North of C.P.R. tracks

		$
Bagg	(from St. Laurence to N.W. limits of the Town)	3190 22
Clarke	(Between Bagg & Stanley Sts.)	1602.69
Esplanade	do — do.	139.50
St. Claire	do — do	261.00
Alexandra	(from Avenue to Bagg)	3438.13
Lane	(from Alexandra to Grande Ave.)	894.00
Stanley	(from St. Laurence to limits of Town)	2239.33
Beaumont	(from Clarke going west)	323.79
Atlantique	(from Park to Hutchison)	1045.40
Park	(Atlantique to near Jacques)	2242 50
Lane	(along the C.P.R. North line of the C.P.R. from St. Urbain to near Avenue)	1413 75

(b) Streets South of C.P.R. tracks.

12-1-43	from Park to Hutchison.	889 71
Villeneuve	(from City Hall Ave. to limits of Montreal)	981 82
Boulevard	(St. Dominique to St. Urbain)	2534 82
Cadieux	(from St. Louis Road South)	1163 55
Rivgain	(St. Laurence to St. Dominique)	908.47
		$23208.68

From that amount shall be Deducted the following Amounts which were Charged to the Company in my

1911

		$ 23208.68
Previous report of March 17th 1908, viz:		
Beaumont Ave.	219.20	
Stanley	1506.00	
Bagg	152.11	
Clarke	1152.51	$ 3029.82
		$ 20178.86
Balance for 1908.		
(as included in certificates of payment Nos 33. 35. 36. 37. 39. 41. 42 & 44 to Mr. T. Barlow)		
2o Trenching & Refilling of Mains Trenches as per agreement with the Co.		
3346 Running feet of trenching including hydrant trenches @ 30		$ 1003.80
(See credit assessment rolls for above already sent to Sec. Treas. with sewer rolls)		
3o Trenching for Private service as per agreement.		
See detailed report of private service trenches already sent to Sec. Treas. for year 1908.		1674.60
4o Engineer's services on items 1 & 2 — 5% on $ 21182.66		$ 1059.13
Total amount of work done in 1908 and chargeable to the Company.		$ 23916.39

Engineer Town of St Louis

Hôtel 13/09.

Notes de Préparation du compte ci-joint —

Côté Septentrional

		Bd de tonnes principale Poids tonnes	Montant Répartit
Bagg - Répartition des sommes envoyé au secrétaire =		1815	272.25
A ajouter:			
Travers Rue St. Laurent =	42' @ 0.30		12.60
" de Rues Clarke, Esdras St Claire & Alexandra =	264' @ 0.15		39.60
Mess Pas de bornefontaine -			
Alexandra.			
Répartition		907	136.05
A ajouter:			
1/2 largeur de Bagg =	33 @ 0.30		9.90
1/2 " " Roome =	33 @ 0.30		9.90
Tranchée pour 2 bornefontaines			
Part	32' @ 30¢		9.60
Stanley (déligné St Esdras & Ste Emilie exclus)			
Répartition		768	115.20
A ajouter:			
Largeur de Esdras, Ste Claire Part	66 @ 0.15		9.90
Tranchée pour 1 bornefontaine	18' @ 0.30		5.40
Atlantique			
Répartition		5267	78.90
A ajouter:			
Traverse rue Parc jusqu'au Lisgar Part	33' @ 30¢		9.90
Répartition			
Tranchée pour une bornefontaine	18' @ 30¢		5.40
Parc			
Répartition		1808	271.20
A ajouter: Rencontré de Lisgar Rue Atlantique =	20' @ 30		6.00
2 bornefontaines Part	40' @ 30		12.00
			999.90
			1003.80

J. EMILE VANIER
Ingenieur Civil et Architecte

BUREAU
No. 6 SQUARE BEAVER HALL
MONTREAL

Montréal, 31st. December 1909

A.F.Vincent, Esq.
Secretary -Treasurer
Town of St. Louis -

Dear Sir,

I beg to hand you herein below a complete statement of the amounts due to your Corporation by "THE MONTREAL WATER & POWER Co." for pipe laying under existing agreements.

According to my report dated the 19th of October the amount due to your Corporation on the 31st. of December 1905 Was,..... $$58801.96

In 1906 the amount disbursed by your Corporation and chargeable to the Company was,.....	33999.43	
	$192801.39	
From which amount shall be deducted the sum paid by the Company to your Corporation on the 1st. of January 1906,.....	22500.00	
Due to your Corporation on 31st./06. (see report dated May 20th 1907) -		$170301.39
In 1907 the amount paid by the Corporation for pipe laying has been,... (see report dated March 17th 1908) -		74237.31
For 1908 the amount due your Corporation was (see report dated February 22nd. 1909),.....		23916.39
In 1909, the expense has been as follows:		
1o. WORK DONE UNDER CONTRACT BY T.BASTIEN		
(a) Streets north of C.P.R. tracks - SANGUINET,.....	$5009.04	
St. DOMINIQUE, from Maud to Chemin du Sault,.....	6140.63	
Carried over,..	$11149.67	$268455.09

	Brought forward,..	$11149.67	$268455.09
1e. WORK DONE UNDER CONTRACT BY T.BASTIEN -			
(a) STREET NORTH OF C.P.R. TRACKS			
SANGUINET			
Ste. CHARLES (from DeGaspé to C.P.R.		393.91	
MAUD (from St. Lawrence to St.Charles		2011.28	
SHAMROCK,.....		695.59	
CLARKE from Atlantic to Bagg,...		2360.62	
St.URBAIN from C.P.R. to near Atlantique,.....		4903.91	
St.GEORGE (esplanade) from C.P.R. to Atlantique,.....		3484.62	
MANCE (from C.P.R. to Pacific,..		1680.95	
PARC (from Atlantique to near Pacifique and from Beaumont to City limits,.....		3818.24	
EVELINE (from Stanley to Bagg)		1452.06	
Ste.CLAIRE " " ")		2686.45	
AVENUE (from Ste. Claire to Alexandra),...		761.53	
LANE, along C.P.R. tracks,.....		2766.15	
PACIFIQUE from Park to Hutchison		960.10	
(b) STREETS SOUTH OF C.P.R. TRACKS			
DeGASPE from McGUIRE to DEPOT,..		2261.45	
CASGRAIN from North Lauretta to Depot Avenue,.....		711.05	
DEPOT AVENUE, from St.Lawrence to Sanguinet -,.....		3377.61	
St.DOMINIQUE (from Depot Ave. - Sanguinet going south,.....		1255.34	
CLAIREMONT AVENUE,.....		686.75	
VAN HORNE AVENUE,.....		13621.47	
		$61038.75	
From that amount shall be deducted the following amounts which were charged to the Company in previous reports, viz:			
SANGUINET			
C.P.R. Crossing not done,.....	$660.00		
Charged in 1907,.....	2742.00		
St.DOMINIQUE (charged in 1907)	453.00		
MAUD " " "	58.68		
Carried over,..	$3913.68	$61038.75	$268455.09

Brought forward,....	$3913.68	$61038.75	$268455.09
CLARKE (charged in 1908)	1602.69		
St.URBAIN " " 1907)	2550.00		
PARK " " 1908)	2242.50		
EVELINE " " ")	139.50		
Ste.CLAIRE " " ")	261.00		
LANE ALONG C.P.R.TRACKS			
230ft.of pipe not laid at 3.25=747.50			
Charged in 1908,..... 1413.75			
	2161.25		
DeGASPE (charged in 1907)	1698.60		
CLAIREMONT Ave." " ")	552.00		
VAN HORNE AVENUE,.....	11050.00		
COMTE STREET over charged in 1907	280.33		
DEPOT AVENUE			
452 ft.of pipe not laid,....	1102.88	27549.48	
BALANCE,.....			$23489.32
2o. PAID to GIRARD & MARSOLAIS for trench for water pipe on MANCE & ESPLANADE Streets, between BOULEVARD St.JOSEPH & LAURIER Ave.			241.80
3o. Work done by LAURIN & LEITCH on Cadieux street between EVELINE & BOULEVARD St.JOSEPH,.....			794.85
4o. LAURIN & LEITCH contract dated November the 2nd. 1909 with additions as detailed in report of December 29th/09.....	9227.01		
To deduct from that amount for work not yet done,.....	227.26	8949.75	
5o. TRENCHING & REFILLING MAIN TRENCHES AS PER AGREEMENT WITH THE COMPANY. See detailed report of private services trenches already sent to Sec. Treasury for year 1909,...			1383.83
Carried over,.....			$316870.08

	Brought forward,....		$316870.02
7e.	Engineer's service 5% on items 1,2,3,4 & 5 - $47031.10		2351.55
	TOTAL AMOUNT,.....		$319221.57

V,

Engineer Town of St.Louis -

J. EMILE VANIER
Civil Engineer and Architect

OFFICE:
No. 15 BEAVER HALL SQUARE
MONTREAL

Montreal, 31st. December 1909.

A.F.Vincent, Esq.,
Secretary - Treasurer
Town of St.Louis -

Dear Sir,

I beg to hand you herein below a complete statement of the amounts due to your Corporation by "THE MONTREAL WATER & POWER Co." for pipe laying under existing agreements.

According to my report dated the 19th of October the amount due to your Corporation on the 31st. of December 1905 was,..... $153801.36

In 1906 the amount disbursed by your Corporation and chargeable to the Company was,..... 33999.43

$192801.39

From which amount shall be deducted the sum paid by the Company to your Corporation on the 1st.of January 1906,..... 22500.00

Due to your Corporation on 31st.Dec./06. (see report dated May 20th 1907) - $170301.39

In 1907 the amount paid by the Corporation for pipe laying has been,.... 74237.31
(see report dated March 17th 1907)

For 1908 the amount due your Corporation was (see report dated February 22nd. 1909),..... 23916.39

In 1909, the expense has been as follows:

1o. WORK DONE UNDER CONTRACT BY T.BASTIEN

(a) Streets north of C.P.R. tracks -
SANSGUINET,..... $5009.04
St.DOMINIQUE, from Maud to Chemin du Sault,..... 6140.63

Carried over,.... $11149.67 $268455.09

Brought forward,....		$11149.67	$268455.09
lo. WORK DONE UNDER CONTRACT BY T.BASTIEN -			
(a) STREET NORTH OF C.P.R.TRACKS			
SANGUINET			
St.CHARLES (from DeGaspé to C/P.R.		393.91	
MAUD (from St.Lawrence to St.Charles		2011.28	
SHAMROCK,.....		395.59	
CLARKE from Atlantic to Bagg,.		2360.62	
St.URBAIN from C.P.R. to near Atlantique,.....		4903.91	
St.GEORGE (Esplanade) from C.P.R. to Atlantique,.....		3484.62	
MANCE (from C.P.R. to Pacific,..		1680.95	
PARC (from Atlantique to near Pacifique and from Beaumont to City limits,.....		3818.24	
EVELINE (from Stanley to Bagg)		1452.06	
Ste.CLAIRE " " " ")		2686.45	
AVENUE (from Ste. Claire to Alexandra),.....		761.53	
LANE , along C.P.R. tracks,.....		2766.15	
PACIFIQUE from Park to Hutchison		960.10	
(b) STREETS SOUTH OF C.P.R.TRACKS			
DeGASPE from McGUIRE to DEPOT,..		2261.45	
CASGRAIN from North Lauretta to Depot Avenue,.....		711.05	
DEPOT AVENUE, from St.Lawrence to Sanguinet -,.....		3377.61	
St.DOMINIQUE (from Depot Ave. Sanguinet going south,.....		1255.34	
CLAIREMONT AVENUE,.....		686.75	
VAN HORNE AVENUE ,..... ...		13621.47	
		$61038.75	
From that amount shall be deducted the following amounts which were charged to the Company in previous reports, viz:			
SANGUINET			
C.P.R. Crossing not done,.....	$660.00		
Charged in 1907,.....	2742.00		
St.DOMINIQUE(charged in 1907)	453.00		
MAUD " " "	58.68		
Carried over,.....	$3913.68	$61038.75	268455.09

Brought forward,...		$3913.68	$61038.75 $268455.09
CLARKE (charged in 1908)	1602.69		
St.URBAIN " " 1907)	2550.00		
PARK " " 1908)	2242.50		
EVELINE " " ")	139.50		
Ste.CLAIRE " " ")	261.00		
LANE ALONG C.P.R. TRACKS			
230 ft.of pipe not laid at 3.25=747.50			
Charged in 1908,....	1413.75	2161.25	
DeGASPE (charged in 1907)	1693.60		
CLAIREMONT Ave. " " ")	552.00		
VAN-HORNE AVENUE,.....	11050.00		
COTE STREET over charged in 1907	230.33		
DEPOT AVENUE			
452 ft.of pipe not laid,....	1102.88	27549.48	
BALANCE,.....			$33489.32

2o. PAID to GIRARD & MARSOLAIS for trench for water pipe on LANCE & ESPLANADE Streets, betwen BOULEVARD St.JOSEPH & LAURIER Ave. + 241.80

3o. Work done by LAURIN & LEITCH on Cadieux street between EVELINE & BOULEVARD St.JOSEPH,..... 794.85

4o. LAURIN & LEITCH contract dated November the 2nd. 1909 with additions as detailed in report of December 29th/09 ..... 9227.01

To deduct from that amount for work not yet done,..... 277.26 8949.75

5o. TRENCHING & REFILLING MAIN TRENCHES AS PER AGREEMENT WITH THE COMPANY.
See detailed report of private services trenches already sent to Sec. Treasury for year 1909,... 1383.83

Carried over,..... $316870.02

Brought forward,.....		$316870.02
7o. Engineer's service 5% on items 1,2,3 4 & 5 - $47031.10		2351.55
TOTAL AMOUNT,.....		$319221.57

Engineer Town of St.Louis -

J. EMILE VANIER
Ingenieur Civil et Architecte

BUREAU:
NO 8, SQUARE BEAVER HALL
MONTREAL

Montréal, le 29 Mars 1910.

A. F. Vincent, Ecr.,
Ancien Sec. trés.
de l'ex Ville de St.-Louis.

Cher Monsieur:-

En réponse à votre demande, j'ai l'honneur de vous transmettre deux copies anglaises du compte des sommes que la Montreal Water & Power Co. devait à l'ancienne Ville de Saint-Louis au 31 décembre dernier 1909.

J'ai l'honneur d'être, cher Monsieur,

Votre toujours dévoué,

J. Emile Vanier

Ancien Ingénieur Ville de St. Louis.

J. EMILE VANIER
Civil Engineer and Architect

OFFICE:
NO. 6 BEAVER HALL SQUARE
MONTREAL

Montreal, December 31st. 1909

A.F.Vincent, Esq.,
Secretary Treasurer
Town of St.Louis

Dear Sir,

I beg to hand you herein below complete and revised statement of the amounts due to your Corporation by the "MONTREAL WATER & POWER COMPANY" for pipe laying according to existing agreements between your Town and the said Company.

FIRSTLY - On the 31st of December 1905 according to my report dated October 19th, 1906 the amount due was,.....	$158801.96	
To which must be added the amount of the work done for "The Phillips Electrical Works" on St. Charles and deGaspé street,.....	2749.60	
Engineers service, 5% on this amount of $2749.60 ,.....	137.48	
	$161689.04	
From this must be deducted the sum paid by the Company to your Town on the 1st.of January 1906, viz,.....	22500.00	
Balance due,.....		$139189.04
SECONDLY Work done by contractor T.BASTIEN in 1905 and 1906		
(a) STREETS NORTH OF C.P.R. TRACKS		
St.LAWRENCE,.....	$6472.41	
SUZANNE,.....	2270.02	
SANGUINET ,.....	1392.00	
ALMA ,.....	1861.56	
DeGASPE,.....	2573.03	
CASGRAIN,.....,.....	3338.26	
BULLER,.....	1176.00	
MARCIL (Erin) ,.....	1664.40	
COMTE,.....	1808.00	
St.DOMINIQUE,.....	292.00	
St.URBAIN,.....	2028.00	
(b) STREETS SOUTH OF C.P.R.TRACKS		
VAN -HORNE,.....	7002.00	
MANCE,.....	284.00	
CLAIRMONT,.....	450.07	32111.75
Carried over,.....		$171300.79

Brought forward,.....		$171300.79
Trenching for private services in 1906 as per agreement,.....		827.20
Engineer's services 5% on $32111.75		1605.59
DUE ONE THE 31st.OF DECEMBER 1906		$173733.58

THIRDLY - WORK DONE IN 1907

(a) STREETS SOUTH OF C.P.R.TRACKS

SANGUINET -	$1576.66
St.DOMINIQUE -	438.00
CLARKE -	1283.69
COMTE -	4539.91
St. ZOTIQUE -	1555.04
MAUD -	36.00
BULLER -	1827.24
MARCIL (Erin)	1938.77
CHENIER -	333.69
BEAUMONT -	216.00
STANLEY -	1042.08
RAGG -	139.92

(b) STREETS SOUTH OF C.P.R.TRACKS

St.LAWRENCE -	2852.28
CLARKE -	273.83
St.URBAIN -	2343.29
WAVERLEY -	209.13
St.GEORGES -	1448.56
MANCE -	1923.44
St.VIATEUR	5508.19
MAGUIRE -	574.85
DEGASPE -	1646.89
LAURETTA -	810.96
	$32518.41

From which there is to be deducted that part made in 1906 and charged to the Company in previous report, viz:,...	6616.40	$25902.01
Trenching for private services in 1907 as per agreement,.....		1827.10
Engineer's services,5% on $25902.01 =		1295.60
DUE ON 31st.DECEMBER 1907		$202757.79
Brought forward,.....		$202757.79

Brought forward,.....		$202757.79
FOURTHLY - WORK DONE IN 1908		
(a) STREETS NORTH OF C.P.R. TRACKS		
BAGG -	$2934.14	
CLARKE -	1712.08	
EVELINE -	132.30	
Ste. CLAIRE	127.80	
ALEXANDRA -	2146.87	
RUELLE Alexandra à Grande -	400.00	
STANLEY	1661.59	
BEAUMONT	317.71	
ATLANTIQUE	1019.52	
PARC -	2106.00	
LANE ALONG C.P.R. TRACKS	783.00	
(b) STREETS SOUTH OF C.P.R. TRACKS		
12-1-43	430.11	
VILLENEUVE -	655.90	
St.JOSEPH BOULEVARD	1198.06	
CADIEUX -	294.67	
St.EUGENE -	282.63	
	$16211.33	
From which must be deducted the amounts charged to the Company in 1906 & 1907, viz:,.	2681.69	13529.69
Trenching for private services in 1908 as per agreement -		1674.60
Engineer's services 5% on $13529.69		676.48
DUE ON DECEMBER 31st. 1908		$218638.56
FIFTHLY - WORK DONE IN 1909		
(a) STREETS NORTH OF C.P.R.TRACKS		
SANGUINET -	$2620.66	
St.DOMINIQUE	5932.00	
St.CHARLES -	221.14	
MAUD -	1286.19	
SHAMROCK	768.81	
CLARKE -	2632.32	
St.URBAIN -	2555.31	
St.GEORGES	1616.83	
MANDE	791.65	
PARC	3713.48	
EVELINE	1398.17	
Carried over,.....	$23536.56	$218638.56

Brought forward,.....	$23536.56	$218633.56
Ste.CLAIRE	1319.22	
AVENUE -	774.44	
LANE NORTH OF C.P.R.	786.94	
PACIFIQUE	792.24	
(b) STREETS SOUTH OF C.P.R.TRACKS		
DeGASPE	2195.31	
CASGRAIN.	450.44	
DEPOT AVENUE	1567.64	
St.DOMINIQUE	539.60	
VAN - HORNE	8464.66	
	$40427.05	
From this amount must be deducted what has beenn charged to the COMPANY in the reports of 1906, 07 & 08, viz:,.....	17988.72	22438.33
Trenching for private services in 1909 as per agreement -		1383.83
Paid to GIRARD & MARSOLAIS for trenching and refilling of water cut on MANCE & ESPLANADE Sts. from Boulevard to Laurier -		241.80
Work done by LAURIN & LEITCH on CADIEUX from Elmire to Boulevard St. Joseph,.....		794.25
LAURIN & LEITCH CONTRACT OF NOVEMBER 2nd. 1909 -		
Material, pipe laying etc, including addition to contract on HUTCHISON street - (See report of December 29th 1909)	6395.01	
5600 Running feet of trench,.....at 0.30	1680.00	
TO DEDUCT,.....	$8075.01	
Work on YVONNE STREET not done amounting to about,.....	300.00	7775.01
Engineer's services on amount above mentioned, viz:$22438.33,$241.80,$794.25, 7775.01 = $21249.99		1562.50
TOTAL MOUNT DUE BY THE COMPANY ON THE 31st.DECEMBER 1909.....		$252834.88

J. Emile Vanier
Eng. Town of St Louis

December 31st. 1910.

Stuart Howard Esq. C. E.,
Deputy City Surveyor,
City-Hall,
C I T Y -

Dear Sir:-

According to by-laws still in force at St.-Louis, (Laurier Ward) and pertaining to the establishment of cost of sewers to be paid by proprietors etc., we had before annexation and we did also last January and February, prepare special rolls called "ROLE DES REMISES AUX PROPRIETAIRES POUR TRANCHEES DES TUYAUX PRINCIPAUX D'AQUEDUC", et "ROLE DES REMISES POUR TRANCHEES DES SERVICES PRIVES D'AQUEDUC".

These rolls are special credits to be applied against charges to proprietors for cost of sewers, and these are at the same time debited against the Montreal Water & Power Co. according to existing contracts.

If you refer the whole matter to your employee Mr. Schiffelaers, who is perfectly acquainted with this question, he will be able now to prepare rolls in question.

This work was comprised in a special yearly engagement that I had with late Town of St.-Louis, but as same terminates to-day, it is up to your department to attend to it.

Yours truly,

City Hall

Montreal Jan. 4th. 1911. 19

Mr. J. Emile Vanier, C.E.

5 Beaver Hall Square,

City.

Dear Sir;---

I beg to acknowledge receipt of your letter of the 31st. ultimo, regarding special rolls called "Role de remises aux propriétaires pour tranchées des tuyaux principaux d'aqueduc" and "Role des remises pour tranchées des services privés d'aqueduc".

Starting from the first of January we will arrange to look after these rolls ourselves.

Yours Truly,

Stuart Howard

Supt. of Sewers.

19 Ville de St Louis

le 10 mai 1911 -

Mr. L. J. Pelletier,
Contrôleur de la Cité de Montréal,
Hôtel de Ville,
Montréal -

Cher Monsieur,

En réponse à la vôtre du 9 du courant au sujet des travaux d'aqueduc exécutés à St.Louis, pour le compte de la Montreal Water & Power Co. jusqu'au 31 décembre 1909, je dois vous dire que des rapports de ce genre ont été dûment faits annuellement jusqu'à l'année ci-dessus mentionnée inclusivement, lesquels rapports ont été remis à l'ancien secrétaire de la Ville de St.Louis, Mr. Vincent, pour être déposés aux archives.

En vous adressant à ce Monsieur vous auriez certainement les rapports en question.

Dans tous les cas, je me tiens toujours à votre disposition pour l'aide dont vous pourriez avoir besoin dans cette affaire, comme dans toute autre qui serait de mon ressort.

En attendant, je demeure,

Votre bien dévoué,

VS

Hôtel de Ville

Montréal 9 mai 1911 19

Monsieur J.E.Vanier

Ingénieur Civil.

Montréal.

Cher Monsieur,

Permettez-moi de vous adresser ci-joint copie d'une lettre que je reçois à l'instant même de la Compagnie Montreal Water & Power Co,relativement à la créance de la Ville St.Louis contre la dite Compagnie.

Vous seriez bien aimable de me laisser savoir si les conclusions de cette lettre sont vraies et si c'est votre intention de préparer un rapport final du coût de l'aqueduc dans St.Louis,à la date du 31 décembre 1909-date de l'annexion.-

Votre bien dévoué.

J. Bellemare

Contrôleur & Auditeur.

MONTREAL WATER & POWER CO.,

Montreal, May 8th.1911.

(COPY)

L.J.Pelletier,Esq.

City Comptroller.

Montreal.

Dear Sir:-

Following our interview of last week, I beg to say that upon my return to the Office I asked our Engineering Department if they had received a statement of work done in St.Louis de Mile End showing a total of $302,000.00 (a copy of which you showed me that day in your Office) and although they were quite sure that no such statement had been received by us I asked them to make a thorough search and see whether or not it might have been side-tracked, but it seems now to be quite certain that the statement has never been received by us. The only one we have being the one dated 19th.of October,1906, showing a total of work done to the 31st.of Dec.1905,$ 158,801.96 and we would therefore be much obliged to you if you would have a copy of the $302,000.00 statement sent to us.

Yours truly,

MONTREAL WATER & POWER COMPANY.

(signed) A.M.Robb

Comptroller

Forme 356-4M-6-11

ÉXTRAIT

Aqueduc Lavaltrie
M. W. F. Co

Procès-verbal d'une assemblée du Bureau des Commissaires,

Tenue le 10 Juin, 1912.

Il est

RESOLU:-De prier l'Ingénieur en Chef de se rencontrer avec M. l'Ingénieur Vanier pour reviser les divers montants chargés à la Cie Montreal Water & Power Co. et formant une somme totale de $302,703.01 pour travaux d'aqueduc dans l'ancienne Ville St Louis.

Compte fait
No 5939

(Certifié)

(Signé) L. N. Senécal,
Secrétaire.

Copie.-

Transmis à M. l'ingenieur Vanier en le priant de s'entendre avec moi pour fixer l'entrevue.
Geo. Janin.

Hôtel-de-Ville

Montreal 11 Juin, 1912.

M. J. E. Vanier,

5 Beaver Hall Square,

Cité

Monsieur,

J'ai l'honneur de vous transmettre un extrait du procès verbal d'une assemblée du Bureau des Commissaires, tenue le 10 Juin, 1912.

Secretaire.

EXTRAIT

Il est

RESOLU:-De prier l'Ingénieur en Chef de se rencontrer avec M. l'Ingénieur Vanier pour reviser les divers montants chargés à la Cie Montreal Water & Power Co. et formant une somme totale de $302,703.01 pour travaux d'aqueduc dans l'ancienne Ville St Louis.

(Certifié)

Secrétaire.

le 8 Juillet 1912.

Monsieur L.N.Senecal,
Secrétaire des Commissaires de la
Cité de MONTREAL.

Cher Monsieur.

Il y a quelques jours vous m'avez transmis la copie d'une résolution adoptée par le Bureau de M.M. les Commissaires de la Cité le 10 Juin dernier et par laquelle le bureau en question me demandait de faire la vérification d'un compte de $302703.01 que devrait la Montreal Water & Power Co., à la Cité.

J'ai cette question à l'étude depuis quelques jours et aussitôt que j'en aurai réuni tous les éléments je communiquerai avec Monsieur Janin et avec votre bureau.

En attendant je vous prie de me croire, cher Monsieur,

Votre toujours dévoué,

V.

COMMISSAIRES:

Le Maire Lavallée, Président
Joseph Ainey
L. N. Dupuis
E. P. Lachapelle, M. D.
C. H. Godfroy

Toute Correspondance doit être adressée au Secrétaire du Bureau des Commissaires

Compte Taxe

Bureau des Commissaires
de la Cité de Montréal,

Hôtel-de-Ville, Montréal, 5 Juillet 1912

M. J. Emile Venier,
5 Square Beaver Hall,
Cité.

Cher Monsieur;-

J'ai l'honneur d'accuser réception de votre lettre du 3 juillet courant, Re :- Vérification d'un compte de $ 302,705.01 que devrait la Montreal Water & Power Co. à la Cité.

Votre tout dévoué,

Secrétaire.

Rapport auprès de L. A. Renaud le 12 sept 1911 JV

Dép. du bureau = $ 12.61

J. EMILE VANIER
Ingenieur Civil et Architecte

BUREAU
NO. 8 SQUARE BEAVER HALL
MONTREAL

Montréal, le 5 Septembre 1912 -

Mr. L.N. Sénécal,
Secrétaire du Bureau
des Commissaires de la Cité
Hotel de Ville
Montréal -

Cher Monsieur,

Je viens de terminer la révision des comptes que devait la "MONTREAL WATER & POWER Co." à la Corporation de l'ancienne Ville de St.LOUIS, jusqu'au 31 décembre 1909, c'est-à-dire jusqu'au moment de son annexion à la Cité de MONTREAL.

Ces comptes découlent d'obligations contractées par la Compagnie en question envers la dite Ville de St.LOUIS, lesquelles sont détaillées au long dans les documents suivants, savoir:

1o. Contrat du 12 février 1891, JOHN FAIR, N.P. minute No.2795
(voir article 3 particulièrement de ce contrat.)

2o. Contrat du 1er. février 1901, J.A. CAMETON N.P. minute No.2598.

3o. Contrat du 17 Juillet 1903, John Fair, N.P. minute No.11347 .

Le contrat du 1er. février 1901 se rapporte particulièrement à un règlement de comptes entre la Ville de St.LOUIS et la "MONTREAL WATER & POWERR Co."

La dette de la Compagnie envers la Ville était définitivement fixée à ce moment, à $90,000.00 . payable comme suit: $22500.00 le 1er. Janvier 1906, (j'ai eu connaissance que ce paiement a été fait, voir à vérifier quand même); $22500.00 le 1er janvier 1911; $22500.00 le 1er.janvier 1916 et $22,500.00 le 1er. janvier 1921, le tout sans intéret en autant que je puis voir.

Dans le contrat du 17 Juillet 1903, il est pourvu particulièrement à des taux fixes de remboursement par la Cie. à la Ville, en ce qui concerne les tranchées de tuyaux à eau creusées par la Ville, et celles des branchements particuliers faites par les propriétaires riverains. Il est aussi pourvu au remboursement des ouvrages d'aqueduc exécutés par la Ville de St.LOUIS, pour le compte de la Cie. d'eau,

toujours dans le but d'activer le développement de la Ville.

D'après le contrat du 17 juillet 1903, les remboursements à être faits à la Ville de St.Louis par la Cie. d'eau dont, comme suit: un tiers, dans 10 ans à compter de la fin de l'année durant laquelle les ouvrages ont été exécutés; un tiers 15 ans après, et un tiers, 20 ans après, le tout avec intéret à ajouter, au taux de 4% par an.(Voir clause 8 du contrat de 1903).

Vous trouverez dans un état résumé que j'adressais à la Ville de St.Louis au 31 Décembre 1909, que la Montreal Water & Power Co. devait à cette époque à la dite Ville, à part les intérets de 4% par an, mentionnés plus haut et que je n'ai pas compris, un total de $319221.57.

Vous trouverez de amples détails dans les divers états annuels que j'ai adressés à la Ville de St.Louis dans le temps, et dont copies ci-jointes, savoir:

1o.	19 octobre 1906, résumant les ouvrages exécutés depuis 1901, et se montant à,...		$158801.96
2o.	20 Mai 1907, se montant à,.....	$192801.39	
	à déduire, état du 19 Octobre 1906,	158801.96	
	Soit pour l'année 1906 exclusivement,		33999.43
3o.	17 Mars 1908, se montant à		74237.31
	Soit pour l'année 1907 exclusivement,		
4o.	22 février 1909, pour 1908 exclusivement,		23916.39
5o.	31 décembre 1909, partie de cet état concernant exclusivement les ouvrages de 1909,		50766.48
			$341721.57
	A déduire, 1er. paiement fait par la Cie. à la Ville de St.Louis le 1er. Janvier 1906		22500.00
	Balance au 31 Décembre 1909,.. (à part les intérets accrus).		$319221.57

Quant à ces intérets accrus, il serait facile de les calculer en référant aux divers états annuels ci-joints.

Pour faciliter l'étude de toute cette question j'ai annexé aussi.

ici, les copies des contrats de 1901 et de 1903 - ce sont des copies non notariées mais on pourra les comparer au besoin avec celles notariées.

Enfin cher Monsieur, je dois attirer votre attention, ainsi que celle de M.M. les Commissaires et de l'Ingénieur en chef de la Ville, Mons. JANIN, que beaucoup des chiffres des états annuels représentent les prix coûtants d'ouvrages à la Ville de St.LOUIS.

Je me tiens absolument à la disposition de M.M les Commissaires ainsi qu'a celle des officers de votre Corporation pour tout ce qui touche à cette question importante.

Bien à vous,

(signé)

J.EMILE VANIER -
Ancien Ingénieur Ville de St.Louis
maintenant Quartier Laurier de la Cité
de Montréal

COMMISSAIRES:

Le Maire Lavallée, Président
Joseph Amey
L. N. Dupuis
E. P. Lachapelle, M. D.
C. H. Godfrey

Toute Correspondance doit être adressée au Secrétaire du Bureau des Commissaires.

Bureau des Commissaires
de la Cité de Montréal.

Hôtel-de-Ville, Montréal, 14 Sept. 12

M. J. E. Vanier,

5 Square Beaver Hall,

Cité,

Monsieur:-

J'ai l'honneur d'accuser réception de votre lettre en date du 5 courant, au sujet de la révision des comptes que devait la Montreal Water & Power Co. à la Corporation de l'ancienne Ville de St. Louis jusqu'au moment de son annexion à la Cité de Montreal, et de vous informer qu'elle a été référée au Contrôleur et Auditeur de la Cité.

Votre tout devoué,

Secretaire.