

Council Chamber, Ann Arbor, Mich.,
January 19, 1914. Regular Ses-
sion.

Meeting called to order by the
president. Present: Ald. Schultz,
Fiegel, Hanselmann, A. Lutz, Proch-
now, Koernke, Pipp, Sherk, Hubbard,
Rash, Groves, G. Lutz, Pres. Schmid,
13. Absent: Ald. Flynn, Sink, 2.
Minutes of previous meeting ap-
proved.

From Board of Public Works.

Mr. John Koch presented to board
a plat of John Koch addition to
City of Ann Arbor.

Moved by Mr. Schmid, that the
board recommends to the council
acceptance of plat of John Koch
addition. Adopted by board.

(Council action.)

Moved by Ald. Hanselmann, that
the recommendation be approved.

Moved by Ald. Schultz, that the
plat be referred to the Street com-
mittee.

Motion to refer adopted as follows:
Yeas, Ald. Schultz, Fiegel, Hansel-
mann, A. Lutz, Prochnow, Koernke,
Pipp, Sherk, Hubbard, Rash, Groves,
G. Lutz, Pres. Schmid, 13. Nays,
none.

Communications.

Ann Arbor, Mich., January 9, 1914.
To the Honorable the Common
Council: Gentlemen—We, the un-
dersigned Water Commissioners, af-
ter careful consideration of the mat-
ter, respectfully petition your Hon-
orable body to cause all necessary
arrangements to be made as soon as
possible so that the Water Depart-
ment may have suitable offices in the
City Hall building.

Respectfully submitted, John Lin-
denschmitt, Wirt Cornwell, Water
Commissioners.

Moved by Ald. Groves, that the
chair appoint a committee of five to
investigate the matter and report
back at next meeting of council.
Adopted and following committee
appointed: Ald. Hanselmann,
Koernke, Pipp, Sherk, and Groves.

Committee Reports.

FINANCE REPORT.

Fire Fund.

Chas. J. Andrews, salary	\$ 41.66
Eugene Williams, salary	38.50
George Hoelzle, salary	38.50
Ralph Edwards, salary	38.50
Henry McLaren, salary	36.50
Jacob Gwinner, salary	36.50
Arthur Clark, salary	35.00
Max Wittlinger, salary	35.00
Harley Wise, salary	35.00
Martin Noll, salary	35.00
John Behr, salary	35.00
George Isbel, salary	35.00

Mat. Heininger, salary	35.00
Frank Markey, salary	35.00
Thos. Shamp, salary	35.00
Clyde Carpenter, salary	35.00
Arthur Snyder, salary	30.00
Julius Ehnis, salary	30.00
Chas. Carroll, salary	23.00
Frank Kapp, salary	23.00

Total salaries for one-half month
of January\$686.16

Police Fund.

John T. Kenny, salary	\$ 41.66
Thos. O'Brien, salary	40.00
Wm. J. Aprill, salary	35.00
Gustave Meyer, salary	35.00
Rex Burnett, salary	35.00
Ruben Armbruster, salary	35.00
Edward Kuhn, salary	35.00
Wm. Blackburn, salary	35.00
Edward Blumhardt, salary	32.50

Total salaries for one-half month
of January\$324.16

Contingent Fund.

M. C. Ryan, salary	\$ 30.00
H. G. Prettyman, P. M., postage..	32.40

Contingent fund total\$ 62.40

Bridge, Culvert and Crosswalk Fund.

Chas. Andrews, labor	\$ 2.00
Al Beltz, labor	4.25
Geo. Carpenter, labor	5.25
Wm. Clark, labor	13.34
John Dalgliesh, labor	6.25
Geo. Fowler, labor	4.50
Jos. F. Gloeser, labor	20.56
August Herman, labor	1 50
Mike Hession, labor	16.50
Sam. Kalmbach, labor	4 25
G. J. Mack, labor	7.00
Geo. Miley, labor	2.75
W. H. Romig, labor	5.25
W. C. Russell, labor	7.80
Geo. Schaible, labor	8.00
A. G. Schneeberger, labor	3.50
Adam Stoll, labor	13 89
Fred Ulrich, labor	28.50
John Wendland, labor	7.75
R. S. White, labor	7.35
C. M. Williams, labor	12.45
Joe Youngbauer, labor	7.88
James Blades, snow plowing	14.00
Ernest Buckette, snow plowing ..	12.00
S. A. Elsifor, team	3.30
F. G. Hanselman, team	9.00
John Herrst, snow plowing	14.00
Chris. Koch, snow plowing	14.00
Mrs. H. Marquardt, snow plowing	14.00
John Miller, team .....	.50
Carl Rehberg, snow plowing	12.00
David Wallenmaier, snow plowing	14.00
M. M. Wheelock, snow plowing..	8.00
Joseph Williams, snow plowing..	5 00

Bridge, Cul. and Crosswalk fund
total\$310.32

Labor Acc. Sewer Dist. No. 50.

Hochrein & Reimold, 5 per cent
retained on contract 84.23

Labor Acc. Sewer Dist. No. 56.

E. L. Schneider, third estimate... 921.83

Recapitulation.

Contingent fund	\$ 62.40
Fire	686.16
Police	324.16

Bridge, Cul. and Crosswalk..... 310.32

Total City funds\$1,383.04
Sewer Funds.

Labor accounts—

Dist. No. 50\$ 84.23
Dist. No. 56 921.83

Total Sewer funds\$1,006.06

Grand total\$2,389.10
Ann Arbor, Mich., January 19, 1914.

To the Finance Committee of the Common Council:

Gentlemen—I have examined the foregoing accounts against the city of Ann Arbor, and I hereby certify that they are correct to the best of my knowledge

ROSS GRANGER, City Clerk.

To the Honorable, the Common Council:

Gentlemen—Your Finance committee have reviewed the foregoing report. Warrants for salaries were drawn January 16, 1914. We recommend that same be approved and that warrants be ordered drawn for the foregoing accounts.

GEO. LUTZ, ALBERT FIEGEL, THEO. F. PROCHNOW, Finance Committee.

Ald. Geo. Lutz moved the adoption of the report.

Adopted as follows: Yeas, Ald. Schultz, Fiegel, Hanselmann, A. Lutz, Prochnow, Koernke, Pipp, Sherk, Hubbard, Rash, Groves, G. Lutz, Pres. Schmid, 13. Nays, none.

Street Committee.

To the Honorable, the Common Council:

Gentlemen—Your Street committee to whom was referred the petition of John O'Mara et al., asking that Twelfth street from Ann street north to Catherine street, be closed, respectfully report that we have had the matter under consideration and recommend that the petition be not granted.

Respectfully submitted, Henry G. Pipp, Theo. F. Prochnow, Thos. Hanselmann, Albert Fiegel, G. W. Hubbard, Chas. R. Rash, Geo. Lutz, Street Committee.

Ald. Pipp moved the adoption of the report.

Adopted as follows: Yeas, Ald. Schultz, Fiegel, Hanselmann, A. Lutz, Prochnow, Koernke, Pipp, Sherk, Hubbard, Rash, Groves, G. Lutz, Pres. Schmid, 13. Nays, none.

Special Committee.

To the Honorable, the Common Council.

Gentlemen—Your committee, to whom was referred the matter of working tramp prisoners in this city, have had the same under consideration and beg to report as follows:

Your committee finds that the

state law prohibits the city from working its prisoners in streets or alleys within the city, but your committee have been advised that by getting permission from the Board of Supervisors we may be able to work prisoners on our streets, and whereas, the Board of Supervisors passed the necessary resolution October 24th, 1913, we recommend the adoption of the following resolution:

Resolved, that the Sheriff of Washtenaw county be and is hereby requested by this Council to appoint special deputies to take charge of tramp prisoners while at work on the streets or alleys of the City of Ann Arbor, the city to pay for the services of said special deputies; but at no time shall there be a deputy appointed for less than five prisoners, or more than one deputy for each ten prisoners. The city to pay all expenses connected with working said prisoners and enter into an agreement with the proper county officials to protect the county in case of any injury to any of said prisoners so worked.

Respectfully submitted, I. L. Sherk, Albert S. Lutz, E. W. Groves, Committee.

Ald. Sherk moved the adoption of the report.

Adopted as follows: Yeas, Ald. Schultz, Fiegel, Hanselmann, A. Lutz, Prochnow, Koernke, Pipp, Sherk, Hubbard, Rash, Groves, G. Lutz, Pres. Schmid, 13. Nays, none.

CITY FUNDS—Treasurer's Report for month ending Dec., 1913:

Contingent Fund—

Junk sold\$ 4.90
City scale money 13.40
Milk licenses 2.00
Peddler's licenses 32.00
Fees on taxes collected 938.89

Total\$991.19

Police Fund—

City fees (chief) 14.65
Fine money (Justice Doty) 75.60

Total\$ 89.65

Dog Lic. Fund—

From City Clerk75

Total\$.75

Bldg. Side W. Fund—

From City Clerk 79.55

Total\$ 79.55

B. C. and C. W. Fund—

From City Clerk 154.93

Total\$154.93

State Tax Fund—

Taxes collected \$46,584.64

Total\$46,584.64

COMMON COUNCIL—JANUARY 19, 1914.

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County Tax Fund—	
Taxes collected	32,947.53
Total	\$32,947.53
School Tax Fund—	
Taxes collected	77,928.84
Total	\$77,928.84
Uncollected City Tax Fund—	
Taxes collected	17,971.38
Total	\$17,971.38
B. C. and C. W. Fund—	
Transferred from Lab. Acc. Pav.	
20	1,224.37
Transferred from Lab. Acc. Pav.	
28	2,024.87
Transferred from Lab. Acc. Pav.	
29	3,412.65
Total	\$ 6,661.89
Cemetery Fund—	
From City Clerk	35.00
Total	\$ 35.00
Sprinkling Dist. No. 11—	
Taxes collected	84.34
Total	\$ 84.34
Sprinkling Dist. No. 12—	
Taxes collected	45.89
Total	\$ 45.89
Sprinkling Dist. No. 13—	
Taxes collected	21.80
Total	\$ 21.80
Rejected Tax Fund—	
Taxes collected	24.32
Total	\$ 24.32
Teachers' Meeting Tax—	
Taxes collected	757.62
Total	\$ 757.62
Total	\$184,379.32
Warrants paid	30,750.59
Total	\$153,628.73
Dec. 1, overdrafts	17,233.45
On hand Jan. 1, 1914	\$136,395.28
Condition of City Funds on the first day of Jan. 1, 1914:	
Warrants Paid—	
Contingent Fund	\$ 2,621.35
City Cemetery Fund	90.00
Fire Department Fund	2,264.71
Poor Fund	129.91
Police Fund	751.47
Street Fund	1.11
Water Fund	5,068.12
Park Fund	214.14
Street Light Fund	1,300.89
Sidewalk Fund	12.12
Bridge, Culvert and Crosswalk Fund	3,296.77
School Tax Fund	15,000.00
Total	\$30,750.59
On Hand—	
Contingent Fund	2,495.79
City Cemetery Fund	586.73
Dog License Fund	433.06
State Dog Tax Fund	100.00

Fire Department Fund	2,411.11
Poor Fund	1,600.67
Police Fund	3,716.17
Street Fund	23.77
Park Fund	122.58
Street Light Fund	4,469.17
Sidewalk Fund	184.42
State Tax Fund	46,534.64
County Tax Fund	32,947.53
School Tax Fund	62,928.84
Rejected Tax Fund	149.82
City Hall Tax	20.00
Total	\$158,777.30
Overdrawn	22,382.02
On hand Jan. 1, 1914	\$136,395.28
Overdrawn—	
Water Fund	723.65
Sidewalk Building Fund	285.68
Bridge, Culvert and Crosswalk Fund	10,563.47
Uncollected City Tax Fund	5,350.79
Delinquent Tax Fund	4,619.81
Sprinkling District No. 11	211.03
Sprinkling District No. 12	91.78
Sprinkling District No. 13	93.43
Teachers' M. Tax	242.38
Total	\$22,382.02
Warrants Outstanding—	
Contingent Fund	320.63
Fire Department Fund	101.16
Poor Fund	10.00
Police Fund	254.16
Park Fund	1.48
Bridge Culvert and Crosswalk Fund	216.07
SEWER FUNDS—Treasurer's Report for month ending Dec., 1913:	
Tax Acc. Sewer Districts—	
Taxes collected Sewer No. 32	\$ 65.79
Taxes collected Sewer No. 33	3.32
Taxes collected Sewer No. 34	161.08
Taxes collected Sewer No. 36	34.59
Taxes collected Sewer No. 38	7.71
Taxes collected Sewer No. 39	15.05
Taxes collected Sewer No. 40	11.50
Taxes collected Sewer No. 41	59.28
Taxes collected Sewer No. 44	6.63
Taxes collected Sewer No. 46	5.28
Taxes collected Sewer No. 47	4.24
Taxes collected Sewer No. 48	149.69
Total	\$ 524.16
On hand Dec. 1	11,364.50
Total	\$11,888.66
Warrants paid	3,654.53
On hand Jan. 1, 1914	\$ 8,234.13
Condition of Sewer Funds on the first day of Jan., 1914:	
Warrants Paid—	
Labor Acc. Lateral Sewer No. 49	13.93
Labor Acc. Lateral Sewer No. 55	1,176.49
Labor Acc. Lateral Sewer No. 56	1,163.25
Labor Acc. Lateral Sewer No. 61	1,300.86
Total	\$ 3,654.53
On Hand—	
Labor Acc. Lateral Sewer No. 49	43.18
Labor Acc. Lateral Sewer No. 51	480.52
Labor Acc. Lateral Sewer No. 52	69.72
Labor Acc. Lateral Sewer No. 53	891.88
Labor Acc. Lateral Sewer No. 55	303.25

Labor Acc. Lateral Sewer No. 56	6,096.90
Labor Acc. Lateral Sewer No. 60	2,611.62
Labor Acc. Lateral Sewer No. 61	2,610.55
Tax Acc. Lateral Sewer No. 27..	13.06
Tax Acc. Lateral Sewer No. 35..	252.52
Tax Acc. Lateral Sewer No. 41..	375.02
Tax Acc. Lateral Sewer No. 42..	246.05
Tax Acc. Lateral Sewer No. 43..	121.82
Tax Acc. Lateral Sewer No. 44..	167.77
Tax Acc. Lateral Sewer No. 45..	218.23
Tax Acc. Lateral Sewer No. 46..	290.04
Tax Acc. Lateral Sewer No. 47..	308.63
Tax Acc. Lateral Sewer No. 48..	146.47

Total\$15,247.23
Overdrawn 7,013.10

On hand Jan. 1, 1914\$ 8,234.13

Overdrawn—

Labor Acc. Lateral Sewer No. 42	170.03
Labor Acc. Lateral Sewer No. 43	161.63
Labor Acc. Lateral Sewer No. 44	204.26
Labor Acc. Lateral Sewer No. 45	247.32
Labor Acc. Lateral Sewer No. 46	538.53
Labor Acc. Lateral Sewer No. 47	532.71
Labor Acc. Lateral Sewer No. 48	199.27
Labor Acc. Lateral Sewer No. 50	14.12
Labor Acc. Lateral Sewer No. 54	217.44
Labor Acc. Lateral Sewer No. 57	52.91
Labor Acc. Lateral Sewer No. 58	158.51
Labor Acc. Lateral Sewer No. 59	127.98
Tax Acc. Lateral Sewer No. 32..	1,301.49
Tax Acc. Lateral Sewer No. 33..	58.68
Tax Acc. Lateral Sewer No. 34..	2,161.45
Tax Acc. Lateral Sewer No. 36..	139.79
Tax Acc. Lateral Sewer No. 37..	53.04
Tax Acc. Lateral Sewer No. 38..	29.42
Tax Acc. Lateral Sewer No. 39..	283.14
Tax Acc. Lateral Sewer No. 40..	325.93
Tax Acc. Lateral Sewer No. 49..	15.24
Tax Acc. Lateral Sewer No. 50..	19.91

Total\$ 7,013.10

Warrants Outstanding—

Tax Acc. Lateral Sewer No. 49..	15.54
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PAVING FUNDS—Treasurer's Report for month ending Dec., 1913:

Tax Acc. Paving Districts—	
Tax Acc. Paving District No. 7.	11.91
Tax Acc. Paving District No. 8.	37.92
Tax Acc. Paving District No. 12	14.15
Tax Acc. Paving District No. 14	14.65
Tax Acc. Paving District No. 15	35.83
Tax Acc. Paving District No. 16	143.72
Tax Acc. Paving District No. 17	35.92
Tax Acc. Paving District No. 18	128.57
Tax Acc. Paving District No. 19	42.75
Tax Acc. Paving District No. 20	787.12
Tax Acc. Paving District No. 21	51.08
Tax Acc. Paving District No. 24	27.99
Tax Acc. Paving District No. 25	97.57
Tax Acc. Paving District No. 27	37.85
Tax Acc. Paving District No. 28	3,546.29
Tax Acc. Paving District No. 29	2,410.41

Paving District No. 20—	
Bonds sold	2,543.40
Paving District No. 28—	
Bonds sold	2,197.44
Paving District No. 29—	
Bonds sold	3,270.81

Total\$15,435.48
Warrants paid 6,390.51

Total\$ 8,744.97
On hand Dec. 1 23,915.50

On hand Jan. 1, 1914\$32,660.47
Condition of Paving Funds on the first day of Jan., 1914:

Warrants Paid—

Labor Acc. Pavement No. 20...	1,224.37
Labor Acc. Pavement No. 28...	2,025.62
Labor Acc. Pavement No. 29...	3,440.52

Total\$ 6,690.51

On Hand—

Tax Acc. Pavement No. 5.....	1,079.01
Tax Acc. Pavement No. 6.....	76.20
Tax Acc. Pavement No. 8.....	591.62
Tax Acc. Pavement No. 11.....	789.70
Tax Acc. Pavement No. 13.....	422.41
Tax Acc. Pavement No. 14.....	952.10
Tax Acc. Pavement No. 15.....	1,130.07
Tax Acc. Pavement No. 16.....	967.72
Tax Acc. Pavement No. 17.....	582.79
Tax Acc. Pavement No. 18.....	2,363.26
Tax Acc. Pavement No. 19.....	1,490.76
Tax Acc. Pavement No. 20.....	37.81
Tax Acc. Pavement No. 21.....	1,838.56
Tax Acc. Pavement No. 22.....	167.09
Tax Acc. Pavement No. 23.....	668.22
Tax Acc. Pavement No. 24.....	140.78
Tax Acc. Pavement No. 25.....	224.25
Tax Acc. Pavement No. 26.....	72.16
Tax Acc. Pavement No. 27.....	2,703.47
Tax Acc. Pavement No. 28.....	3,546.59
Tax Acc. Pavement No. 29.....	2,410.41
Labor Acc. Pavement No. 20....	254.34
Labor Acc. Pavement No. 30....	12,526.20

Total\$35,201.32
Overdrawn 2,540.85

On hand Jan. 1, 1914\$32,660.47

Overdrawn—

Tax Acc. Pavement No. 7.....	198.69
Tax Acc. Pavement No. 9.....	1,282.28
Tax Acc. Pavement No. 10.....	799.80
Tax Acc. Pavement No. 12.....	133.93
Labor Acc. Pavement No. 31.....	126.15

Total\$ 2,540.85

Ann Arbor Mich., Jan. 12th, 1914.

To the Honorable Common Council, City of Ann Arbor, Michigan:

Gentlemen—This is to certify that there was on deposit to the credit of Chas. L. Miller, Treasurer of the city of Ann Arbor, on the 1st day of January, 1914 the sum of One Hundred Twenty-seven Thousand, Seven Hundred Forty and 79-100 (\$127,740.79).

Very Respectfully, EDW. L. SEYLER,
Cashier.

City funds on hand	\$136,395.28
Sewer funds on hand	8,234.13
Pavement funds on hand	32,660.47

Total\$177,289.88
Bank balance\$127,740.79
Cash on hand 49,549.69

Total\$177,289.88

Respectfully submitted,

CHAS. L. MILLER, City, Treasurer.

STREET COMMISSIONERS' REPORT.

Ann Arbor, Mich., Jan. 3, 1914.

Hon. Board of Public Works, Wirt Cornwall, Esq., President:

Gentlemen—The following is a report of the work done by the Street Department during the month of December, 1913:

Nov. 27-Dec. 10, Dec. 11-31; cleaning paved streets, labor	\$422.94
Cleaning crosswalks, labor	20.82
Cleaning bridges, labor	1.75
Repairs inlets, spills and gutter boxes, labor	20.77
(Repairs gutter boxes: Lawrence and Thayer, at sidewalk Ashley and Huron; Cambridge road and Lincoln; Spring st; lowering inlet alley, Liberty and Ashley and First north side; putting in gutter box east end Philip st. instead of tile; laying tile in gutter south side Madison bet. Main and Fourth ave.; repairs gutter boxes: Catherine and Clark; Kingsley and Ashley; Catherine and Detroit st.)	
Repairs Broadway sidewalk between bridges, labor	7.00
City Engr. Dept. Acct.:	
Work on sanitary sewers laying tile, labor	\$108.11
Flushing sanitary sewers, labor...	4.05
Repairs E. Washington st. storm sewer, labor	6.75
Total	\$118.91
Cleaning gutters on dirt streets, labor	3.61
(Oakland; Detroit.)	
Miscellaneous work and repairs, labor	74.20
(Driver city team, \$6.00—work on snow plows, \$2.98—work on street sweeper brooms, \$54.39—filling power house cut N. University and Washtenaw, \$2.42—removing ashes city hall, \$1.75—handling coal and hay, \$1.34—removing ashes engine house, \$1.45—repairs sidewalk Ann and Main and removing water barrel Mosely st., 0.84—clearing up, \$3.03.)	
Grading, graveling and patching dirt streets, labor	98.63
(Graveling: Cambridge road and Forest; Fountain; Madison; William; Fair Oaks Parkway; Forest; Oakland; filling with cinders: Felch; east end Philip; Baldwin; S. Main; Depot; Hill east of Oswego; E. Huron; Beakes; Elm; Geddes ave.; grading: Hill bet. Forest and Church; McKinley ave.; cor. Washtenaw ave. and Fair Oaks Parkway; patching holes in various streets.)	
Extensions and crosswalks, labor	2.17
(Repairs crosswalk Summit; leveling extension Washtenaw and Fair Oaks Parkway.)	
Grading sidewalks, labor	10.45
(removing stumps Madison bet. 5th and 7th sts.; filling cinders Catherine bet. Ingalls and Glen avenue.)	
Taking care of snow, labor—	
Cleaning snow from crosswalks, gutters, etc.	\$ 41.11
Plowing snow from gutters	1.00
Cleaning snow from Park walks...	2.18
Plowing snow from sidewalks....	51.50
Total	\$ 95.79
Grand total	\$877.04

Respectfully submitted, J. WISNER,
Street Commissioner.

ANNUAL REPORT OF BOARD OF PUBLIC WORKS.

To the Hon. Board of Public Works,
Ann Arbor, Mich.

Sirs:—I beg to submit the following report of work done, under your direction, in the Engineer's Department during the year ending Dec. 31st, 1913.

Very respectfully,

MANLEY OSGOOD.
PAVING.

All of the paving laid this year was tarred-concrete pavement, seven inches thick. The bottom five inches were mixed eight parts of bank run gravel to one part of cement. The top two inches were mixed two parts of bank run gravel, with the larger stones screened out, or of washed sand, to one part of cement. The washed sand was used in the top two inches on W. Liberty st., only, and on that street only from the Ann Arbor Railroad to Fifth st. and from Sixth st. to Seventh st. Expansion joints three-quarters of an inch wide were left along each curb and one-half inch wide transversely every fifty feet along the pavement. These were mostly filled with filler asphalt to the full depth of the pavement. Two transverse joints and about one hundred and fifty feet along the curb on the south side of W. Huron st., west of Third st., were filled, in construction, with an asphalt soaked felt filler which would save considerable in the cost of construction if it proves of merit.

Cement cost \$1.14 per bbl. net, f. o. b. cars in Ann Arbor; bank run gravel cost \$1.15 per load of about 11-13 cu. yds. delivered on W. Huron st. and W. Liberty st. and \$1.40 per load of the same size on Hill and Oswego sts.; water cost 25 cents per two hundred square feet of paving; the cheapest day labor was 25c per hour and much of it cost \$2.50 per nine hour day; teams cost 50c per hour; tar for surfacing cost five cents per gallon delivered in the City Storage Tank; asphalt filler cost \$23.00 per ton f. o. b. cars at Ann Arbor; washed sand for the top two inches of concrete and torpedo gravel for the wearing surface cost 45c per ton, or about 63c per cu. yd., f. o. b. cars in Ann Arbor.

HILL AND OSWEGO STS.—District No. 20, from Washtenaw av. to Geddes av. was completed this year. This district was started in 1911, the curbing being completed the entire length of the improvement and

the pavement completed to the east line of Oxford Road. In 1912, the remaining excavation was completed and the pavement built to about seventy-five feet east of Cambridge Road. After the completion of the excavation last year, the Common Council ordered the grade on Oswego st. raised, in part, and that portion of the street refilled. This refilling was done and the district completed this year. The itemized cost of that portion of this district completed each year, together with the itemized cost of the district as a whole, was given in my report to you dated Nov. 11, 1913. From that report, the following information is repeated:

1920 sq. yds. laid in 1911 at a cost of per sq. yd. \$.74
 1388 sq. yds. laid in 1912 at a cost of per sq. yd. 1.00
 2373 sq. yds. laid in 1913 at a cost of per sq. yd. 1.15

These costs are for pavement only, and exclusive of the cost of curbing and grading. The cost of changing the grade on Oswego st. after the excavating done in 1912 was \$775.89. There are a total of 5681.6 sq. yds. of pavement in this district and the total cost was \$7,726.41, both exclusive of work done in paving driveways from curb to sidewalk. The unit costs for the entire district were as follows:

Cost per sq. yd. complete. \$1.36
 Cost per sq. yd. for grading and paving 1.16
 Cost per sq. yd. for concrete paving, filling joints and wearing surface93
 Cost per sq. yd. for filling joints and wearing surface08
 Cost per sq. yd. for concrete pavement, only85

The cost for engineering, only, on that portion of the improvement which was built in 1913 was \$79.58 or a unit price of 31-3c per sq. yd. This includes the engineering cost for changing the grade on Oswego st. as well as all that for the paving.

The driveways in this district which were paved from the curb to the sidewalk contain 83.3 sq. yds. for which, together with the curbing and grading in same, the City will collect \$99.22.

W. LIBERTY ST.—District No. 28, from Ashley st. to the City Limits, was started about May 8th and finished early in October. As noted above, the top two inches of concrete from the Ann Arbor Railroad to Fifth st. and from Sixth st. to Seventh st. is

made with a sharp washed sand. The expansion joints are all filled with asphalt filler. The slopes from Ashley st. to First st. and from Second st. to the Ann Arbor Railroad were corrugated to give horses a foot hold.

There are 15,612.5 sq. yds. of pavement and 8,562.7 lin. ft. of curbing in this district. The total cost, as shown in my report to you dated Nov. 17th, was \$20,836.90 and the unit costs were as follows:

Cost per sq. yd. complete \$1.335
 Cost per sq. yd. for grading and paving 1.19
 Cost for concrete pavement, filling joints and wearing surface, per sq. yd.984
 Cost per sq. yd. for filling joints and wearing surface.. .082
 Cost per sq. yd. for concrete pavement, only902

The cost for engineering, only, in this district was \$380.06 or a unit cost of \$0.024 per sq. yd. This includes all preliminary surveys, plans, profiles, estimates, staking out, reports and boundaries for assessment district, and includes all portion of my own time properly chargeable to this account.

The driveways in this district which were paved from the curb to the sidewalk contain 516.3 sq. yd. of paving and 697.3 lin. ft. of curbing for which, together with the grading in same, the City will collect \$680.98.

W. HURON ST.—District No. 29, from Ashley st. to the Junction of Huron st. with Jackson av. and Dexter av., was started about May 3d and finished shortly after the middle of October. The work in this district was considerably delayed by the D. J. & C. Ry. who would not proceed with their part of the work at the proper time. Their delay also made it necessary for the City to chop off the end of a majority of their cross ties, which labor imposed an extra expense of \$112.05 on this district. This amount our City Attorney will collect, if possible, from the D. J. & C. Ry.

The expansion joints of this street are mostly filled to their full depth with filler asphalt, except, as noted above, just west of Third st. on the south side where prepared felt was used. The slopes from First st. to the Ann Arbor Railroad and west of Third st. were corrugated to give a foot hold for horses.

There are 14,130.6 sq. yds. of pavement and 8,912 lin. ft. of curb-

ing in this district. The total cost, as shown in my report to you dated Nov. 17th, was \$19,257.61 and the unit costs were as follows:

Cost per sq. yd. complete	\$1.36
Cost per sq. yd. for grading and paving	1.205
Cost per sq. yd. for concrete pavement, filling joints and wearing surface	1.01
Cost per sq. yd. for filling joints and wearing surface .....	.09
Cost per sq. yd. for concrete pavement, only .....	.92

The cost for engineering, only, in this district was \$380.53 or a unit cost of \$0.0269 per sq. yd., including all items as above.

The driveways in this district which were paved from the curb to the sidewalk contain 830.2 sq. yds. of paving and 730.1 lin. ft. of curbing for which, together with the grading in same, the City will collect \$1,043.28.

CHURCH ST.—District No. 30, from Washtenaw av. to Prospect st. was commenced about Aug. 6th, and the curbing was completed in October. No excavating or paving was done this season, but extension walks were built and repaired and crosswalks repaired to put the street in condition for over winter. The cost of this improvement to date has been as follows:

Curbing	\$1,489.11
Setting inlets (chargeable to B. C. & C. fund)	49.93
Engineering	133.03

Total

HILL ST.—District No. 31, from State st. to Washtenaw av., was curbed from Church st. to Forest av. at the same time the curbing was built on Church st. This is in conformity with a resolution of the Common Council ordering this block on Hill st. paved at the same time Church st. is paved. The preliminary survey for this entire district was also made. The total cost to date for this work has been as follows:

Curbing	\$151.80
Engineering	33.71

Total

RESURFACING PAVEMENTS —

The total labor and superintendence cost for resurfacing of pavements done under the City Engineer's Department was \$615.26. The itemized and unit costs on the several streets were as follows:

Ashley St.—Catherine st. to Wil-

liam st., District No. 27, built and surface in 1912, Ann Arbor Tarred concrete:

Labor and superintendence...	\$199.16
Tar, Approx. 2,500 gal. at 5c.	125.00
Sand, 29 loads at 83c.....	24.07
Wood for heating tar.....	2.25

Total

This pavement has a surface of 7,702 sq. yds. and was entirely resurfaced, making the cost of resurfacing 4.5c per sq. yd. The cost of labor and superintendence was 2.55c per sq. yd., the cost of tar and heating was 1.65c per sq. yd. and the cost of sand was 0.32c per sq. yd.

Fourth Ave.—Ann st. to Huron st. District No. 13, built and surfaced in 1910, spots repaired in 1911. Ann Arbor Tarred-Concrete:

Labor and superintendence....	\$34.22
Tar, approx. 400 gal. at 5c....	20.00
Sand, 2 loads at 83c	1.66
Wood for heating tar .....	.50

Total

This pavement has a surface of 1,159 sq. yds. and was entirely resurfaced, making the cost of resurfacing 4.85c per sq. yd. The cost of labor and superintendence was 2.95c per sq. yd.

East Washington St.—From the Merchant's Delivery Barn to Twelfth st. District No. 15, built and surfaced in 1910, spots repaired in 1911. Ann Arbor tarred-concrete pavement:

Labor and superintendence...	\$180.91
Tar, approx. 2,200 gal. at 5c..	110.00
Sand, 11 loads at 83c	9.13
Wood for heating tar	2.00

Total

The surface retarred was approximately 5,000 sq. yds., making the cost of resurfacing about 6c per sq. yd. The cost for labor and superintendence was about 3.6c per sq. yd.

East Liberty St.—State st. to Main st., District No. 7, built in 1903, first coated with tar in 1910. Asphalt block pavement:

Labor and superintendence...	\$200.97
Tar, approx. 3,000 gal. at 5c..	150.00
Sand, 57 loads at 83c.....	47.31
Wood for heating tar	3.00

Total

The surface tarred was approximately 8,000 sq. yds., making the cost for resurfacing about 5c per sq. yd. The cost for labor, and superintendence was about 2.5c per sq. yd.

In all of the resurfacing done under the direction of this Department, the

tar was heated to a temperature which would drive off all of the water and lighter oils before it was applied to the surface of the pavement. The surface of the pavement was thoroughly cleaned and all conditions were made as favorable as possible to good results. The labor cost for this work could be very materially reduced by the purchase of modern machinery with which to heat and apply this tar coating.

Other resurfacing of pavements was done by the Street Commissioners Department and reported upon by him.

GENERAL—For preliminary engineering work on Division st. pavement \$14.83 was expended and on Jefferson st. pavement \$7.89 was expended. For completing drawings and office records of Mary st. pavement, District No. 26, \$2.70 was expended and for the same work on Ashley st. pavement, District No. 27, \$6.90 was expended this year. The cost of relaying asphalt block at the northwest corner of the University of Michigan campus in a way to care for storm water was \$33.75. After the completion of the pavement on the south side of West Huron st. at the First st. intersection, it was necessary to cut out and replace a small section, where forms had been set above the stakes, at a total cost of \$9.18. For tools for paving work, including one ten barrel asphalt kettle, \$312.30 was expended through

this office but such items are fully recovered to the City in the ten cents per sq. yd. charged against each paving district for engineering superintendence, tools, etc.

A summary of paving work done this year is given in table No. 1 on the following page.

Statement of Kinds of Pavement In Ann Arbor—

Brick on concrete.....	23,265	sq. yds.
Brick on sand	1,589	sq. yds.
Asphalt block on sand.....	34,846	sq. yds.
Bitulithic	7,519	sq. yds.
Ann Arbor Tarred-Concrete:		
Laid in 1909.....	1,883	sq. yds.
Laid in 1910.....	16,557	sq. yds.
Laid in 1911.....	64,089	sq. yds.
Laid in 1912.....	11,537	sq. yds.
Laid in 1913.....	33,463	sq. yds.

Total Ann Arbor Tar-

Concrete.....	127,529	sq. yds.
Total of all kinds of paving	194,748	sq. yds.

The total original cost of paving done in Ann Arbor to date, exclusive, as above, of macadamizing Detroit st. and S. University av. is \$311,559.26. The outstanding paving bonds, including those issued for Church st., now practically amount to the \$150,000.00 which, according to a charter provision, may not be exceeded. After the completion of Church st., then, the total cost of paving done in any one year must not exceed the face of the bonds redeemable in that year.

SUMMARY OF PAVING COMPLETED IN 1913.

Streets and Limits	District	Width	Kind of Pavement.	Nature of Work Done	Total Cost.....	City to Pay.....	Property to Pay...	Sq. Yds. P'vnt....	Lin. Ft. Curb.....	Cost of Excavation	Total Cost Per.... Sq. Yd.....	Cost Paving only Per Sq. Yd...
Hill and Oswego Sts. from Wash- tenaw Av. to Geddes Av.	20	24	Ann Arbor tar-concrete	New Paving	7726.41	2681.69	5044.72	5682	3962	1120 30	\$1.36	.93
			In 1913, from 75 feet East of Cambridge to Geddes		2762.63	.....	.....	2373	1279	.....	.....	1.15
W. Huron St., Ashley to Forks....	29	38	Ann Arbor tar-concrete	New Paving	19257.61	6049.60	13208.01	14131	8912	2323.48	1.36	1.01
W. Liberty, Ashley to City Limit	28	30	Ann Arbor tar-concrete	New Paving	20836.90	6409.02	14427.88	15612	8563	2752.60	1.34	.98
Church St., Washtenaw to Prospect	30	28	Ann Arbor tar-concrete	Curbing	1672.07	.....	.....	.....	.....	.....	.....	.....
Hill St., State to Washtenaw.....	31	38	Ann Arbor tar-concrete	Curbing	185.51	.....	.....	.....	.....	.....	.....	.....
Ashley St., Catherine to William..	27	42	Ann Arbor tar-concrete	Resurfacing	350.48	.....	.....	7702	.....	.....	0.045	...
Fourth Av., Ann St. to Huron St...	13	..	Ann Arbor tar-concrete	Resurfacing	56.38	.....	.....	1159	.....	.....	0.048	.....
Washington St., W. of State to Twelfth	15	..	Ann Arbor tar-concrete	Resurfacing	302.04	.....	.....	5000	.....	.....	0.06	.....
Liberty St., State St. to Main St.	7	..	Asphalt Block	Resurfacing	401.28	.....	.....	8000	.....	.....	0.05	.....

Note— Other repairing, resurfacing and patching of wearing surface on tar-concrete and asphalt block pavements done by Street Commissioner's Department.

SANITARY SEWERS.

Twelve new sanitary sewer districts were established this year, the plans, profiles and estimates prepared and the work let to contract. Several of these districts have been completed and the work is proceeding on some of those remaining. The districts, with the cost of each to date, are as follows:

District No. 51. Summit st. sanitary sewer from Main st. to Spring st. is an eight inch vitrified tile sewer emptying into the sewer which runs east on Summit st. from Main st. The work in this district was let to Mr. E. L. Schneider and the costs to date have been as follows:

Amount paid to contractor..	\$879.48
Laying tile and inspecting....	58.10
Engineering, etc.	38.67

Total\$976.25

This sewer is not as yet completed in a condition for final estimate. Connections were not run to the curb line but Ys were placed in the sewer line to receive the four inch connection from each building site.

District No. 52. Hiscock st. sanitary sewer from Fountain st to Miner st. is an eight inch vitrified tile sewer emptying into the sewer of the same size and material which runs south on Fountain st. The work in this district was let to Mr. E. L. Schneider, who has completed same and was allowed a final estimate on Sept. 2d, 1913. The cost has been distributed as follows:

Amount paid to contractor ..	\$274.28
Laying tile and inspecting ..	20.73
Engineering, etc.	8.96

Total\$303.97

The 5 per cent retained for one year amounts to \$14.44 and is payable Sept. 2d, 1914. Connections were not run to the curb line but Ys were placed in the sewer line to receive the connections from each building site.

District No. 53. Crest ave. and West Washington st. sanitary sewers furnish sewerage for the entire Huron Crest Subdivision and that part of W. Washington st. between Ninth st. and Huron Crest Subdivision. It is an eight inch vitrified tile sewer emptying into the sewer of the same size and material running east on Washington st. from Ninth st. The work in this district was let to Mr. E. L. Schneider and the costs to date have been as follows:

Amount paid to contractor..\$2,296.12

Laying tile and inspecting ..	96.40
Engineering, etc.	37.56

Total\$2,430.08

This sewer is not yet completed in a condition for final estimate. A four-inch connection for each building site was extended to the curb line.

District No. 54. W. Liberty st. sanitary sewer extension from its former west end to the west City limits was constructed on account of the building of pavement on that street. It is an eight inch vitrified tile sewer with a four inch connection for each building site extended to the curb line. The work in this district was let to Mr. E. L. Schneider who has completed the same and was allowed a final estimate on Nov. 3d, 1913. The cost has been distributed as follows:

Amounts paid to contractor..	\$1,015.44
Laying and cementing tile	
and inspecting	21.73
Engineering, etc.	10.93

Total\$1,048.10

The 5 per cent retained for one year amounts to \$53.44 and is payable Nov. 3d, 1914.

District No. 55. Austin ave. and Washtenaw ave. sanitary sewer extends on Washtenaw ave. from 150 ft. northwest of the northwest line of Berkshire Road, where it intersects Washtenaw ave., to the City limits on Washtenaw ave., draining from both directions to Austin ave.; thence down Austin ave. and across the private property of Mr. L. D. Carr to empty into the Granger ave. sewer two hundred feet west of Ferdon Road. It is an eight inch vitrified tile sewer with eight by four inch tees in the line of sewer to receive the connection from each building site. The sewer on Granger ave. into which this sewer empties is of the same size and material. The work in this district was let to Mr. E. L. Schneider and the costs to date have been as follows:

Amounts paid to contractor..	\$2,852.01
Laying tile and inspecting..	121.98
Engineering, etc.	132.33

Total\$3,106.32

This sewer is not yet completed in a condition for final estimate.

District No. 56. This district is in the Third ward and furnishes sewerage for Brooks st. from Miller ave. to Pearl st., for Gott st. and Miner st. from Felch st. to Pearl st., for Felch st. from Fountain st. to Gott

st., for Hiscock st. from Miner st. to Brooks st., and for Summit st. from Spring st. to Brooks st. The sewer on Felch st. from Fountain st. to Miner st. is ten inch vitrified tile and all of the remainder of this district is eight inch vitrified tile. Plain tees and, more recently, sanitary tees with four inch openings have been placed in the line of these sewers to receive the connection from each building site. Mr. E. L. Schneider was awarded the contract for this district and the costs to date have been as follows:

Amounts paid to contractor..	\$2,665.03
Laying tile and inspecting..	145.89
Engineering	170.25

Total	\$2,981.17
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Work in this district has progressed on Brooks st., Felch st., Gott st., Hiscock st. and Summit st., but the district is not yet completed.

District No. 57. Geddes ave. sanitary sewer extension from Oswego st. east as far as possible on account of the slope of the ground, is an eight inch vitrified tile sewer with a four inch extension for each building site extended to the curb line. It empties into the Geddes ave sanitary sewer of the same size and material running west from Oswego st., where the flushtank at its former east end was changed to a manhole. Mr. E. L. Schneider was awarded the contract in this district and the costs to date have been as follows:

Amount paid to contractor..	\$349.15
Laying tile and inspecting..	16.48
Engineering, etc.	14.20

Total	\$379.83
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This sewer is not yet completed in a condition for final estimate.

District No. 58. W. Huron st. sanitary sewer extension from its former west end, where the flush tank was changed to a manhole, to beyond the end of the pavement at the junction of Jackson ave. and Dexter ave. with W. Huron st. was constructed on account of the building of the pavement on West Huron st. It is an eight inch vitrified tile sewer with a four inch connection for each building site extended to the curb line. The work in this district was let to Mr. E. L. Schneider, who has completed the work and was allowed a final estimate on Nov. 3, 1913. The cost has been distributed as follows:

Amount paid to contractor..	\$158.51
Laying tile and inspecting....	11.95

Engineering, etc.	8.26
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Total	\$178.72
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The 5 per cent retained for one year amounts to \$8.34 and is payable on Nov. 3d, 1914.

District No. 59. Ann st. sanitary sewer, between Fourteenth st. and Observatory st. is an eight inch vitrified tile sewer with eight by four inch tees placed in the line of the sewer to receive the connection from each building site. It empties into the sewer of the same size and material running west from Fourteenth st. on Ann st. Mr. E. L. Schneider was awarded the contract in this district. He has completed the work and was allowed a final estimate on Nov. 3d, 1913. The cost has been distributed as follows:

Amount paid to contractor..	\$701.84
Laying tile and inspecting..	14.18
Engineering, etc.	12.65

Total	\$728.67
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The 5 per cent retained for one year amounts to \$36.94 and is payable Nov. 3d, 1914.

District No. 60. Plans for an eight inch sanitary sewer on Brown st. and on Fourth av. from Hill st. to Phillip st. and on Phillip st. from Fourth av. to Main st. have been prepared and the contract for building same let to Mr. E. L. Schneider. The contractor has done no work in this district. The engineering cost to date has been \$31.49.

District No. 61. Plans for eight inch sanitary sewers on Detroit st. from Catherine st. to Division st., on Catherine st. between Fourth av. and First st., and on N. Fourth av. from Ann st. to Catherine st. have been prepared. The contract for this district has been let to Mr. E. L. Schneider who has completed that part on Detroit st. from Catherine st. to Division st. Connection for each building site in this district will be run to the curb line. The costs to date have been as follows

Amounts paid to contractor..	\$2,156.55
Laying tile and inspecting..	73.33
Engineering, etc.	71.43

Total	\$2,301.31
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The district is not completed but work has stopped for the winter.

District No. 62. East Catherine st. sanitary sewer extension from Clark st. as far east as possible on account of the slope of Catherine st. to the eastward, is an eight inch vitrified tile sewer emptying into the

sewer of the same material and size running west on Catherine st. from Clark st. Eight by four inch Ys were left in the line of the sewer to receive the connection from each building site. Hochrein & Reimold were awarded the contract in this district and their successors, Hochrein & Co., have practically completed the work although it has not yet been inspected for final estimate. The engineering cost to date has been \$4.54.

GENERAL: On sewers completed in 1912 and reported upon in my report for last year, the following additional amounts have been expended: District 48, Murray av., 5 per

cent retained\$48.46

District 49, Olivia av., 5 per

cent retained 13.93

District 50, Myrtle st.—

Engineering\$ 2.79

Laying tile 17.25— 20.04

Total\$82.43

The above item of \$17.25 for laying tile on Myrtle st. was paid subsequent to my 1912 report.

The Common Council has directed that plans be prepared for Sanitary

Sewers on Sixth st., Seventh st., and Eighth st. between Washington st. and Liberty st. with an outlet sewer running down the Valley to empty into the sewer on Murray av. This work has been nearly completed and a preliminary report has been made to the Sewer Committee of the Council. The Engineering cost to date has been \$76.21.

Maintenance of existing sanitary sewers has cost \$349.14 during the year, including amounts paid to the Ann Arbor Water Co. for water for flushing and the amounts shown on the St. Commissioner's rolls. The distribution of cost has been as follows: Flushing\$154.59 Cleaning and repairing..... 194.55

Total\$349.14

The greatest cause for cleaning and repairing has been the entrance of roots through joints. Such cleaning, or repairing, or both, has been necessary in twenty-two separate places scattered in all parts of the city.

A summary of sanitary sewer work done this year is given in Table 2 on the following page:

SUMMARY OF SANITARY SEWERS BUILT DURING 1913.

Streets and Limits.	District	No. House Connections	Total length House Connections.....	Length of Main.....	Manholes	Flush Tanks	Light Holes	Total Cost	City to Pay	Property to Pay	Amount of Contract	5 Per Cent Retained on Contract	When Due.	Contractors
Hiscock St., Fountain to Miner	52	*14	372	1	1	1	1	318.41	25.48	292.93	288.72	14.44	Sept. 2, 1914	L. Schneider
W. Liberty St. to City Limit	54	24	334	464	1	1	1	1101.54	10.93	1090.61	1068.88	53.44	Nov. 3, 1914	L. Schneider
W. Huron St., to end of Pavement	58	3	12	75	1	1	1	187.06	8.26	178.80	166.85	8.34	Nov. 3, 1914	L. Schneider
Ann St., Clark to Observatory	59	*18	610	1	1	1	1	765.61	69.80	695.81	738.78	36.94	Nov. 3, 1914	L. Schneider
Summit St., Main to Spring	51	not completed	not completed	not completed	not completed	not completed	not completed	976.25	(Cost to Date)	(Cost to Date)				L. Schneider
Crest Av. and W. Washington	53	not completed	not completed	not completed	not completed	not completed	not completed	2430.08	(Cost to Date)	(Cost to Date)				L. Schneider
Austin Av. Sanitary Sewers	55	not completed	not completed	not completed	not completed	not completed	not completed	3106.32	(Cost to Date)	(Cost to Date)				L. Schneider
Third Ward, San. Sewers	56	not completed	not completed	not completed	not completed	not completed	not completed	2981.17	(Cost to Date)	(Cost to Date)				L. Schneider
Geddes Av., Oswego to 210 ft. E.	57	not completed	not completed	not completed	not completed	not completed	not completed	379.83	(Cost to Date)	(Cost to Date)				L. Schneider
Brown St., Phillip St.	60	not completed	not completed	not completed	not completed	not completed	not completed	31.49	(Cost to Date)	(Cost to Date)				L. Schneider
E. Catherine, Detroit and Fourth	61	not completed	not completed	not completed	not completed	not completed	not completed	2301.31	(Cost to Date)	(Cost to Date)				L. Schneider
E. Catherine, Clark to 100 ft. E.	62	not completed	not completed	not completed	not completed	not completed	not completed	4.54	(Cost to Date)	(Cost to Date)				L. Schneider
Total								14,583.61						Hochrein & Reimold

*Branches only.

STORM SEWERS AND CARE OF STORM WATER.

W. Huron St. and W. Liberty St.: Storm sewers were constructed this year on West Huron st. from Allen's Creek to the junction of W. Huron st. with Jackson av. and Dexter av. and on West Liberty st. from Allen's Creek to the westerly City Limits. Both of these sewers were built by City Force Account and not let to contract. Report on the W. Huron st. storm sewer was made to you under date of Dec. 1st, 1913, showing the total cost to be \$4,420.37, and on the W. Liberty st. storm sewer under date of Dec. 2d, 1913, showing the total cost to be \$4,077.47. Both of these reports are in detail.

Exclusive of the cost of these new storm sewers on W. Huron st. and W. Liberty st., the cost of caring for storm water in connection with the paving work on these streets was as follows:

At the corner of W. Liberty st.
and First st. \$103.46
On W. Huron st. at the corner
of First st. and in the low
point under the Ann Arbor
R. R. 62.75

Total \$166.21

At the west end of these two streets, where the pavement was built on a clay sub-grade, tile drains were constructed on either side of each street just inside and below the curbing. These empty into storm sewer inlets and are to prevent water from standing and freezing underneath the pavement. The cost for this work was:

On W. Liberty st. \$ 84.53
On W. Huron st. 34.50

Total \$119.03

East Washington St. Early in the season, a storm sewer was built on E. Washington st. from the low point in front of the new University Power House to the Cat Hole near the corner of Twelfth st. and Washington st. This sewer was built to care for water which was formerly emptied onto private ground belonging to the University of Michigan and which formed quite a lake in Washington st. after the former outlet was filled up by the University in the course of building the power house and before the sewer was built to the present outlet. The emptying of this storm water into the "Cat Hole" is only a temporary relief to be used until a storm water sewer shall be built down Glen av. to care for this district. This

sewer on E. Washington st., also, was built by City Force Account and the cost was as follows:

Labor	\$260.52
Superintendence	20.00
Tile	120.00
Manhole top	5.50
Inlet grates	3.75
Brick	4.00
Cement	5.56
Depreciation on lumber, tools, etc.,	10.00
Engineering	9.62

Total \$438.95

Hill and Oswego Sts. In connection with the paving done on Hill and Oswego sts. a broken inlet was replaced and other repairs were made to the storm water sewer at a total cost of \$14.74.

Storm Sewer Repairs: The tile in the twenty-four inch storm sewer on W. Huron st. just east of Allen's Creek was found, during the course of paving W. Huron st., to be badly cracked and broken for a distance of about 150 feet, extending from the Creek to east of the Ann Arbor Railroad. It was repaired, by replacing some of the most badly broken tile and encasing the whole in concrete throughout the length damaged, at a cost of \$118.29.

The storm sewer on W. Jefferson st. just west of the Ann Arbor Railroad was found to be in similar condition for about fourteen feet distance and repaired at a cost of \$13.95.

The storm sewer constructed this season on E. Washington st. and reported upon above was broken by the contractors in constructing the concrete tunnel from the new University Power House to the Campus. This was repaired at a cost of \$39.88, for which a bill has been rendered against the University of Michigan.

General: For the care of storm water in other parts of the city, including the care of water dripping from the standpipe at the corner of Hill st. and E. University av., \$30.53 was expended through this department. The 5 per cent paid to Hochrein & Reimold one year after the completion of Willard St. Storm Sewer amounted to \$8.04. Cleaning storm sewer manholes and inlets cost \$15.00. For the completion of Church st. storm sewer records, \$1.20 was expended, and the 5 per cent paid to Hochrein & Reimold one year after the completion of this sewer amounted to \$133.00.

Under the direction of the Common

Council and the Sewer Committee of the same, surveys and plans and estimates were made for the construction of storm and sanitary sewers across private property and down Glen av. from the low point in Washington st. between Twelfth st. and Fourteenth st. to the Huron River and the Main Sanitary Sewer, respectively. The total cost of this work was \$60.66.

Under the same direction, surveys and estimates were made for the extending of the storm sewer on W. Jefferson st, one, two or three blocks west from Second st. These surveys and estimates cost \$32.04.

Hauling and handling tile which were rejected from those purchased for storm sewer work cost \$25.53. These tile were returned to the American Sewer Pipe Co. at Jackson, Mich., and a bill was rendered this company

for the expense above.

Lumber and tools bought for use in the construction of storm sewers cost \$168.33. The tools are on hand for further use and the lumber was used for other purposes after the completion of the sewers. An amount was charged against each sewer for depreciation on this lumber and tools.

Table No. 3, on the following page, is a summary of storm sewer work done this year.

NEED FOR STORM SEWERS: Many parts of our city are very badly in need of storm water sewerage, for the extension of the storm sewer system has not kept pace with other public improvements nor with the needs of the growing city. These conditions should be remedied as rapidly as possible.

SUMMARY OF STORM SEWERS BUILT DURING 1913.

Streets and Limits.	Length of main.	Manholes.	Inlets.	Total cost.	Built By
W. Huron st., Allen's Creek to Forks	3,435	11	22	\$4,420.37	City Force Account.
W. Liberty st., Allen's Creek to City Limit	3,773	14	26	4,077.47	" " "
E. Washington st., between 12th and 14th sts.....	280	1	2	439.95	" " "
W. Huron st., east of Al- len's Creek		1	4	62.75	" " "
W. Liberty st., corner of First st		0	9	103.46	" " "
				\$9,104.00	Total.

SUMMARY OF PUBLIC IMPROVEMENTS.

The total cost of pavements and sewers completed in Ann Arbor to date is divided among such improvements as follows:

Pavements\$311,559.26
Sanitary sewers..... 182,479.57
Storm sewers 60,406.38

Total\$554,445.21

The total cost of pavements and sewers completed in Ann Arbor to date is divided according to the year of completion as follows:

Prior to 1900.....\$176,616.21
1900 28,372.81
1901 3,704.93
1902 36,850.85
1903 34,229.39
1904 5,024.40
1905 18,744.79

1906	12,986.96
1907	34,931.94
1908	10,489.40
1909	11,867.30
1910	24,166.12
1911	82,089.30
1912	20,022.31
1913	54,348.50

Total\$554,445.21

In addition to the above, \$13,987.15 was expended this year for public improvements which are not as yet completed. This makes the total expended this year for public improvements \$68,335.55.

Using the engineer's approximate estimate of the cost of such public improvements not yet completed and the actual cost of those completed, the total cost of sewers and pavements for which surveys, designs and estimates

COMMON COUNCIL—JANUARY 19, 1914.

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2	Washington, E. of main sewer.....	1894	No record.....							6,831	09	
3	Hill St. Dist., E. of main sewer.....	1895	No record.....							27,912	80	
4	Huron, E. of main sewer.....	1895	No record.....							4,303	19	
5	William, E. of main sewer.....	1896	No record.....							8,454	98	
6	Detroit	1897	No record.....							12,587	00	
7	W. Liberty to near Seventh.....	1897	1804	5	1	5	1804	66	998	1,887	84	
8	E. Catherine, Division to State..	1900	631	1	1	1	631	22	256	527	43	
9	Ann, Huron, 13th and 14th.....	1901	1370	4	2	1	1370	50	988	2,163	46	
10	14th and Volland	1901	1263	3	1	1	1266	35	630	1,541	47	
11	First, Madison to Jefferson....	1903	918	3	1	1	613	305	27	508	1,169	51
12	W. William St.	1903	1527	4	1	1	583	944	40	678	2,083	02
13	Beakes, 4th Av., 5th Av. Kingsley	1904	4204	8	7	1	2706	1498	137	2316	5,024	40
14	N. Main, main sewer to Catherine	1905	1393	3	2	1	1393	69	1444	2,322	48	
15	Cambridge, Washtenaw, Vinewood Ferdon	1905	1487	4	2	1	1487	28	707	1,735	64	
16	W. Liberty extension to city limits	1906	1352	3	1	1	1352	40	726	1,265	68	
17	3rd, William to Jefferson	1905	602	1	1	1	602	19	328	590	84	
18	W. Huron	1906	3509	8	1	1	2942	567	102	2056	4,111	52
19	Church	1906	444	1	1	1	444	22	376	574	76	
20	Miller Av.	1906	2224	9	1	1	1737	487	57	987	2,147	27
21	Spring, Miller to Hiscock.....	1907	1252	4	1	1	688	564	*32	1,070	92	
22	W. Washington and 3rd.....	1907	2834	8	2	1	2834	*88	2,369	03		
23	S. Division	1906	200	1	1	1	200	8	160	250	00	
24	Geddes Av., Hill and Oswego....	1907	1730	5	2	1	1730	*30	1,530	70		
25	State and Dewey Av.	1907	3134	9	2	1	2882	242	*88	2,186	67	
26	Broadway and Wall St.	1907	5682	20	2	1	3571	2111	*143	4,989	01	
27	Second Ward	1908	11470	24	13	1	3540	1930	*337	8,035	98	
28	Belser, Observatory, Volland....	1907	2380	4	3	1	2380	*39	1,895	50		
29	Spring St. extension	1908	896	3	1	1	896	*26	632	32		
30	E. Catherine and Clark	1908	1498	3	2	1	1498	*38	1,148	36		
31	Fuller and Elizabeth	1907	1080	2	2	1	1080	*22	943	60		
32	S. Main, Mosley, Ashley	1909	3679	8	3	1	3108	571	*98	2,229	03	
33	Arch, White, McKinley	1909	1458	3	1	1	1458	*58	513	49		
34	Packard, Granger, Ferdon	1909	10128	27	7	1	7030	3098	*376	6,300	06	
35	Second William to Liberty.....	1909	321	1	1	1	321	*12	240	69		
36	N. 5th Av. and E. Summit.....	1910	891	2	2	1	891	*27	741	30		
37	Cambridge, Washtenaw to Hill..	1910	1200	3	2	1	1200	*34	911	39		
38	Hill, Division to Main	1910	1320	3	1	1	1320	*40	1,037	00		
39	Fuller, Glen to State	1910	1197	3	1	1	1197	*19	815	93		
40	Ashley, Kingsley to Ann.....	1910	771	2	1	1	771	*30	667	77		
41	Feleb, Fountain, Hiscock, Chapin and Cherry	1910	4070	8	6	4	3328	742	*122	3,229	79	
42	No. Main, Summit to A. A. R. R.	1911	651	2	1	1	651	17	230	680	14	
43	4th Av., Beakes to Summit.....	1911	869	2	1	1	869	*31	646	55		
44	Depot, 4th Av. to Main.....	1911	335	1	1	1	335	*9	204	26		
45	White and McKinley	1911	345	1	1	1	345	*18	247	32		
46	Olivia Av. and Minerva Rd.....	1911	733	2	1	1	733	*29	538	53		
47	E. Ann, Glen to Ingalls	1911	655	1	1	1	655	*28	532	71		
48	Murray Av., Washington to Lib- erty	1912	724	4	1	1	738	27	350	982	94	
49	Olivia Av. N. of Minerva Rd.....	1912	157	1	1	1	166	8	102	298	62	
50	Myrtle, Oswego to city limits..	1912	651	1	1	1	668	17	370	1,795	69	
51	Summit St., Main to Spring		Not completed									
52	Hiscock St., Fountain to Miner..	1913	372	1	1	1	346	*14	288	72		
53	Crest Av. and W. Washington..		Not completed									
54	W. Liberty to City Limit	1913	464	1	1	1	420	24	334	1,068	88	
55	Austin Av. San. Sewers		Not completed									
56	Third Ward San. Sewers		Not completed									
57	Geddes Av., Oswego to 210 ft. E.		Not completed									
58	W. Huron St. to end of par't..	1913	75	1	1	1	72	3	12	166	85	
59	Ann St., Clark to Observatory..	1913	610	1	1	1	574	*18	738	78		
60	Brown St., Phillip St.		Not completed									
61	E. Catherine, Detroit and Fourth		Not completed									
62	E. Catherine, Clark to 100 ft. E..		Not completed									
Total										\$182,370.	18	

Note—District No. 23 never accepted by the City the above data being from the Engineer's approximate estimate. In District No. 50 one 8 in. house connection, 28 ft. long, is included in above table.

*Branches only

Summary of Pavements In The City of Ann Arbor.

District No.	Street.	When Laid	No. Sq. Yds.	Total Cost	Total Cost Per Sq. Yd.	Cost Per Sq. Yd. Pavement only.	Kind.
1-2	Main	1898	12730	\$ 31,375.15	\$2.46	\$1.64	Brick on concrete
3	Washington, Ashley to.. 5th Av.	1899	5140	11,645.17	2.27	1.73	Brick on concrete
4	Huron, Ashley to State	1900	10791	27,845.38	2.58	2.17	Asphalt bl'k on sand
5	State, Huron to Monroe...	1902	12484	31,778.98	2.55	2.16	Asphalt bl'k on sand
6	Ann, Main to 4th Av.....	1902	1589	2,860.70	1.80	1.39	Brick on sand
7	Liberty, Ashley to State..	1903	9140	24,486.06	2.68	2.19	Asphalt bl'k on sand
8	Fourth Av., Huron to Liberty	1903	2431	6,490.80	2.67	2.19	Asphalt bl'k on sand
9	William	1907	7519	19,092.01	2.54	2.03	Bithulithic
10	N. University	1905	5045	10,720.16	2.03	1.63	Brick on concrete
11	Alley	1908	350	672.74	1.92	1.50	Brick on concrete
12	Maynard	1909	1883	1,930.13	1.03	.78	A. A. tar-concrete
13	N. 4th Av., Huron to Ann	1910	1159	1,351.34	1.17	.88	A. A. tar-concrete
14	E. Huron and Twelfth....	1910	6765	6,685.50	.99	.76	A. A. tar-concrete
15	Washington, 5th Av to 12th	1910	8633	8,189.73	.95	.71	A. A. tar-concrete
16	Washtenaw Av.	1911	12092	12,392.81	1.03	.78	A. A. tar-concrete
17	State, Packard to Arch....	1911	2587	2,672.49	1.03	.84	A. A. tar-concrete
18	S. Main and Packard....	1911	20826	23,172.05	1.11	.78	A. A. tar-concrete
19	N. Main, Catherine St. N.	1911	10117	11,110.86	1.10	.82	A. A. tar-concrete
20	Hill and Oswego	1913	5682	7,726.41	1.36	.93	A. A. tar-concrete
21	Fifth Av.	1911	10483	11,678.31	1.12	.84	A. A. tar-concrete
22	Alley	1911	293	314.84	1.07	.84	A. A. tar-concrete
23	Alley	1911	920	1,029.38	1.12	.77	A. A. tar-concrete
24	Arch and Thayer	1911	1833	1,747.35	.95	.77	A. A. tar-concrete
25	State, Monroe to Packard..	1911	3158	3,181.57	1.01	.78	A. A. tar-concrete
26	Mary	1912	2407	2,703.08	1.12	.89	A. A. tar-concrete
27	Ashley	1912	7711	9,071.92	1.18	.91	A. A. tar-concrete
28	W. Liberty St., Ashley to city limits	1913	15612	20,836.90	1.34	.98	A. A. tar-concrete
29	W. Huron St., Ashley to Forks	1913	14131	19,257.61	1.36	1.01	A. A. tar-concrete
	Totals		193510	312,019.43			

Note—The pavement between the rails of the street car track on Washtenaw Av. and between the rails and for a distance of 18 in. out on either side of the track on Packard and Main Sts., is of brick on concrete, and is not included in the above statement.

SUMMARY OF STORM SEWERS IN THE CITY OF ANN ARBOR.

Date.	Sewer.	Cost.	
Built prior to 1900.....		\$26,411.72	1911, Packard st., Hill st. to Monroe st.
1902, State st.	1,667.22		868.97
1902, Ann st.	543.95		1911, Hill st., Cambridge Rd. to Oswego st. (includes work done in 1913)....
1905, N. University av.....	361.00		340.66
1905, E. William st.....	3,014.67		1911, N. Main st.
1906 and 1907, Roosevelt av. and across Judson's land	1,710.41		207.47
1906, E. Washington st....	3,781.82		1911, Mary st. and Benjamin st. (includes work done in 1912)
1909, Hill st. and Washtenaw av.	653.90		884.78
1910, Washington st. east of State st.	536.37		1911, Church st., Washtenaw av. to S. University av. ..
1911, Ann st. and Alley in B. 1 N., R. 4 E.....	443.14		1,291.44
1911, Alley in B. 3 S., R. 3 E.	250.92		1911, Concrete culvert on State, Arch, White, McKinley and Packard
1911, Hill st., Oxford Rd. to Cambridge Rd.	116.87		3,422.95
			1911, Other storm sewer work, including the sewer on Packard st. at Dewey av.
			1,552.01
			1912, Church st., S. University av. to Roosevelt av....
			2,776.43
			1912, Willard st., Church st.,

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144 ft. W.	168.53	point in street to Cat Hole	439.95
1912, Ashley st. in connection with pavement	267.00	1913, Liberty st. and First st. in connection with Liberty st. pavement	103.46
1912, W. Liberty st., inlet in alley west of Ashley st..	30.15	1913, W. Huron st., east of Allen's Creek, in connection with Huron st. pavement	62.75
1913, W. Liberty st., Allen's Creek to City Limits.....	4,077.47		
1913, W. Huron st., Allen's Creek to Forks.....	4,420.37		
1913, E. Washington st., low		Total	\$60,406.38

STREET COMMISSIONER'S REPORT.

Office of Street Commissioner, Ann Arbor, Mich., Jan. 6, 1914.

To the Hon. Board of Public Works: Wirt Cornwell, Esq., President:

Gentlemen—I herewith submit to your honorable body the annual report of the work done by my department during the year ending December 31, 1913, including the care of streets and sidewalks, construction and repair of culverts, inlets, etc., sidewalk extensions and crosswalks, street paving, storm water sewers (labor acct.) and the cement, gravel and other materials purchased under your direction and used during the year:

STREET WORK—

Cleaning paved streets, labor.....	\$4,846.36	
Add city team and driver 9 months at \$78.5575....	707.02	\$ 5,553.38

Cleaning alleys, labor	29.30
Sprinkling paved streets, labor	2.25
Cleaning leaves from paved streets, labor.....	344.71

Taking care of snow, labor—

Cleaning snow from crosswalks, gutters and inlets	\$ 434.01	
Plowing snow from sidewalks.....	434.62	
Cleaning snow from State street and adjoining streets	25.01	
Plowing snow from gutters.....	14.50	
Clearing snow, ward polling places.....	1.50	
Cleaning snow from park walks.....	16.44	
Sanding sidewalks and extensions.....	4.75	
2 bbl. salt for clearing inlets, etc.....	2.50	933.33

Repairs concrete and block street pavements and laying brick at intersections to match with new paving work, labor	\$ 620.07	
2597 paving blocks at \$20.50 M.....	53.23	
34 sacks cement, 8.5 bbl. at \$0.92.....	7.82	
441 sacks cement, 110.25 bbl. at \$1.14.....	125.69	133.51
6 lds sand at \$0.25	1.50	
21 lds gravel at \$0.25.....	\$ 5.25	
11-4 cars gravel (Chilson)	27.83	33.08
		841.39

(Includes \$23.50, C. E. Dept. acct. relaying pavement corner campus, N. University and State street.)

Tarring concrete pavements, labor—

City Engr. Dept., abt. 24,000 sq. yds.....	\$ 573.01	
Str. Com. Dept., abt. 49,500 sq. yds.....	646.85	
	\$1,219.86	
Tar, 11,714.11 gals at \$0.05.....	585.71	
191-6 cars gravel (Chilson)	426.61	
Heating city tar tank, labor.....	9.49	2,241.67

Grading street with scraper, labor.....	145.63
Grading streets with street drag, labor.....	133.52
Grading, graveling and patching dirt streets in the	

several wards, labor	\$3,006.49	
1542 loads gravel	497.80	3,504.29
1465 loads gravel at \$0.25.....	\$472.75	
60 loads gravel at 0.10.....	6.00	
4 loads gravel at 1.25.....	5.00*	
6 loads gravel at 1.00.....	6.00*	
7 loads gravel at 1.15.....	8.05*	
	<u>\$497.80</u>	
(*) Includes hauling.		
Cleaning gutters on dirt streets, labor.....		3,240.54
Cleaning leaves from gutters on dirt streets, labor...		497.60
Deepening gutters west side East University, Monroe to Hill street and north side Hill, E. University west to stand-pipe, labor		32.58
Cutting weeds in streets and from lawn exten- sions in the several wards, labor.....		267.73
Grading Ann street between Clark and Observatory streets, labor	\$ 720.42	
Graveling same, labor	164.67	
137 loads gravel at \$0.25.....	34.25	919.34
Filling Oswego street from Hill to Geddes av., and rolling sub-grade, labor.....		<u>413.41</u>
Total Street Work		\$19,100.67
CULVERTS—		
Cleaning culverts and Allen's creek, labor.....	\$ 14.00	
Cleaning culverts Hill and Division, labor.....	6.59	
Cleaning culverts Miner and Hiscock, labor.....	1.63	
Cleaning culverts Madison street, labor.....	13.63	\$ 35.85
Repairs Culverts—		
Mili road culvert, labor.....	\$ 80.43	
66 sacks cement, 16.5 bbl. at \$0.92.....	15.18	
13 loads gravel at \$0.25.....	3.25	98.86
Extending wing wall east side culvert Fifth st. north and south, labor	\$ 9.42	
19 sacks cement, 4.75 bbl. at \$1.14.....	5.42	
2 1-2 loads gravel at \$1.13.....	2.83	17.67
Posts and railing Seventh street culvert between Miller av. and Huron st., labor.....	\$ 8.17	
7 sacks cement, 1.75 bbl. at \$1.14.....	1.99	
Iron posts	3.50	13.63
Total Culvert Work		\$ 166.04
SIDEWALKS—		
Grading for sidewalks in the several wards, labor....		\$ 1,304.29
Repairs sidewalks, labor.....	\$ 10.53	
1-2 load gravel at \$1.13.....	0.57	
12 1-2 sacks cement, 3.125 bbl. at \$1.14.....	3.56	
1 load cinders (del.) cor. William and Ashley....	1.00	15.66
Relaying fire engine house sidewalk, labor.....	\$ 42.31	
51 sacks cement, 12.75 bbl. at \$1.14.....	14.54	
6 loads gravel at \$0.25.....	1.50	
1 load washed gravel.....	1.13	59.48
Sidewalks built by city under contract—		
Property owners Acct.—		
Cement—C. M. Thompson & Son—		
810 E. Huron 57 ft. 8 in by 5 ft., 288.333 sq. ft. at \$0.10		\$ 28.83

Tar—C. M. Thompson & Son—

East side Baldwin bet. Wells and Cambridge road:		
66 ft. front 4 rods at \$5.00.....	20.00	
50 ft. front 3.0303 rods at \$5.00.....	15.15	
West side Chapin bet. Huron and Miller ave.—		
36 ft. 7 in. front, 2.7171 rods at \$5.00.....	11.09	
West side Cambridge road bet. Hill and Wash-		
tenaw ave.—		
198 ft. front, 12 rods at \$5.00.....	60.00	
East side Olivia bet. Minerva and Cambridge rd—		
43.32 ft. front, 2.6254 rods at \$5.00.....	13.13	
43.32 ft. front, 2.6254 rods at \$5.00.....	13.13	
232.8 ft. front, 14.10909 rods at \$5.00.....	70.55	
West side Hill, bet. 4th and 5th ave.—		
11 ft. 11 in. front, 0.7222 rods at \$5.00.....	3.61	
46 ft. 6 in. front, 2.8181 rods at \$5.00.....	14.09	
66 ft. front, 4 rods at \$5.00.....	20.00	
South side Madison bet. 5th and 7th St.—		
132 ft. front, 8 rods at \$5.00.....	40.00	
218 ft. 11 1-2 in. front, 13.2702 rods at \$5.00..	66.35	
Sidewalks repaired and built for Ann Arbor Rail-		
road company—		
North side Miller ave, 1st to railroad bridge,		
raised, 264 ft. front, 16 rods at \$3.00....	48.00	
South side Miller ave., culvert to railroad		
bridge, repaired, 109 ft. 6 in. front,		
6.5363 rods at \$1.00.....	6.64	
New walk: North side Hill bet. 4th and 5th ave—		
60 ft. front, 3.6363 rods at \$5.00.....	18.18	448.75
<hr/>		
City Acct.—Cement—		
2 alley frontages, 16 ft. and 46 ft. 2 in., Madi-		
son bet. 5th and 7th st.....\$	38.15	
Philip st., south side, 4th ave. east, 327 ft.		
front, (Ordered by council and paid by		
city)	163.50	
Sidewalk raised and relaid on Packard cor-		
ner Mary street, 22 ft. 11 in. front.....	111.46	313.11
<hr/>		
Total Sidewalk Work		\$ 2,141.29
Sidewalk work done during season—		
Total sidewalks laid, tar, 15; cement, 5—20		
For property owners, tar, 15; cement, 1—16		
For city Acct., tar, 0; cement, 4—4 20		

CROSSWALKS, SIDEWALK EXTENSIONS, STORM WATER GUTTERS, REPAIRS BRIDGES, ETC.—

Building crosswalks, sidewalk extensions, storm watter gutters at street intersections in the several wards, including 9 new crosswalks, 114 extensions, 2 crosswalks relaid, 3 storm water gutters, 1 brick sidewalk raised and rebuilt (west side 1st st. north of Liberty street), 6 crosswalks repaired and 8 extensions repaired:

Labor	\$ 963.18	
18 loads gravel at \$0.25.....	4.50	
2 loads gravel at 1.40.....	*2.80	
4 loads gravel at 1.15.....	*4.60	
5 loads gravel at 1.5 (from pav'g No. 28).....	*5.75	
3 loads gravel at 0.85.....	*2.55	
4 1-5 cars gravel (Chilson)	97.97	
(Total gravel acct., \$118.17)		
(*) Includes hauling.		
12 loads filling at \$0.25	3.00	
Lumber, Gill Co., \$5.93; Luick, \$3.39.....	9.23	
885.5 sacks cement, 221.375 bbls at \$1.14.....	252.37	
Crossing irons and grate, Seybold & Esslinger.....	20.75	
Water Co., bill	13.02	

1 load sand		0.25
3203 brick at \$20.50 M. (Old brick from crosswalk torn up for paving was used for balance of work)		65.66
Total		<u>\$1,445.63</u>
Sidewalk extension laid by contract, total, 5' —		
Jno. Cooper. N. W. cor. 4th av. & Ann.....\$	14.52	
C. M. Thompson & Son, S. E. cor. Ashley & Washington	13.61	
C. M. Thompson & Son (2) N. E. cor. Vinewood and Washtenaw	12.07	
M. G. Richmond, S. E. cor. Washtenaw and Fair- oaks Parkway	7.94	48.14
Repairs bridges, labor (sidewalk No. 1 bridge).....		0.51
Cleaning cross walks, labor		104.98
Unloading cars cement, gravel, brick, etc., handling and shipping empty cement sacks, labor—		
Unloading gravel, brick, etc.....\$	171.40	
Unloading cars cement and handling.....	396.21	
Foreman city yard and handling empty cement sacks	273.78	
Hauling tile and unloading asphalt (City Engr. Dept. Acct.)	13.64	855.03
Building brick platform at standpipe for sprinkling, Hill, near East University avenue, labor (old brick used)		11.42
Cleaning bridges, labor		28.18
Filling around house N. E. corner Liberty and First street and building cement walls at basement windows, labor	\$ 21.31	
5 sacks. 1.25 bbl. cement at \$1.14.....	1.43	
1-2 load gravel at \$0.25.....	0.13	
7 pieces 4 in. tile at \$0.15.....	1.05	23.92
Total Crosswalk, Etc. Work.....		<u>\$2,517.81</u>
INLETS, STORM WATER SEWERS, ETC.—		
Repairs and cleaning inlets, spills and gutter boxes, laying tile in gutters, etc., labor.....\$	348.63	
16.5 sacks cement, 4.125 bbl. at \$1.14.....	4.70	
1-2 load gravel at \$1.13	0.57	
Tile	39.05	\$ 392.95
Koch, 4-5, 7 pc 18 in. at \$1.21.....\$	8.47	
Rohde, 6-30, 6 pc 4 in. at \$0.15.....	0.90	
Rohde, 6-4, 11 pc 12 in. at \$0.59.....	6.49	
Rohde, 10-21, 3 pc 10 in. S.; 1 pc 10 in. L.	2.49	
Rohde, 10-27, 15 pc 10 in. at \$0.54.....	8.10	
Rohde, 11-21-25, 30 pc 8 in.; 1 pc 8 in. C.	12.60	
	<u>\$39.05</u>	
Cleaning inlets, labor		27.24
City Engr. Dept. Acct.—		
Storm water sewers E. Washington, W. Liberty and W. Huron, labor acct.....\$	4,521.68	
Flushing sanitary sewers, labor.....	42.18	
Setting inlets, repairs storm water sewers, laying drain tile, laying tile new sani- tary sewers, labor	882.14	5,446.00
Total Inlets, Etc.		<u>\$5,866.19</u>
GENERAL WORK AND REPAIRS—		
Repairs and building snow plaws, repairs and mak- ing street sweeper brooms and repairs wagons, labor		\$ 161.01
(Snow plows, \$12.76; street sweeper brooms,		

\$96.23; repairs and painting wagons and carts,
\$52.02.)

Repairs cement mixers, steam road roller, city tar
tank, etc., labor 83.66

Work at city yard, piling lumber, taking care of ma-
terials, etc., labor\$ 60.25
Driver city team 54.22 114.47

Miscellaneous work and repairs at different points in
city, labor—

Various small jobs\$ 25.21
Digging graves 1.34
Putting up voting booths, etc..... 2.34
Work at Argo dam (search for drowned stu-
dents) 17.16
Unloading coal for Poormaster..... 9.76
(City Engr. Dept. Acct.) Work on Steere farm
(work of street dept. men for city engineer's
department) 141.73
Work at fair ground, flooding, etc..... 7.75
Removing ashes from basement city hall..... 14.87
Cleaning up broken trees after storm....\$18.65
Less charged to Park department..... 15.26 3.39 223.55

Total General Work \$ 582.69

PAVING—

Paving to the amount of 33,462.72 square yards has been done under
direction of your Honorable Board during the past season as follows:

Paving Dist. No. 20, Hill and Oswego.....\$ 2,762.63
Paving Dist. No. 28, West Liberty..... 21,517.88
Paving Dist. No. 29, West Huron..... 20,300.89
Paving Dist. No. 30, Church St..... 70.20 \$44,651.60

Paving Yardage—

District No. 20 2373.1 square yards
District No. 28 16128.82 square yards
District No. 29 14960.8 square yards

Total 33462.72 square yards

SUPPLIES, REPAIRS, ETC.—

Supplies, repairs, etc., except as included in forego-
ing statement \$1,271.40

Total Supplies, Etc. \$1,271.40

RECAPITULATION.

Street work \$19,100.67
Culverts 166.04
Sidewalks 2,141.29
Crosswalks, extensions, bridges, etc..... 2,517.81
Inlets, storm water sewers, etc.,..... 5,866.19
General work 582.69
Paving 44,651.60
Supplies 1,271.40

Total \$76,297.69

No. of culverts repaired..... 3
No. of crosswalks built 9
No. of crosswalks relaid 2
No. of sidewalk extensions built (City)..... 114
No. of sidewalk extension built (by contract) 5
No. of sidewalks city property (by city) 1
(Front alleys), city property (by contract) 2
(Philip st.) paid by city, (by contract) 1—4
No. sidewalks raised and rebuilt, (Packard and Mary), (by contract)... 1
No. of storm water cement gutters at intersections 3
(Abt. 111 lineal ft.)

No. of crosswalks repaired.....	6
No. of extensions repaired.....	8
No. of sq. yds. street pavement laid.....	33,462.72
No. of sidewalks built by city under contract	20
(Tar, 15; cement, 5.)	
Square feet cement, 2,304.832; 669.752 lineal ft.	
Rods tar, 95.69039; 1,578.763 lineal feet.	
No. of notices served to repair sidewalks	19
No. of notices served to remove obstructions in streets	24
No. of notices served to fill holes in streets	7
No. of notices served to cut weeds, 2; clean snow, 1.....	3
No. of notices served to pub. service corporations regarding paving work, etc.	8
Total number of notices served.....	61

ACCIDENT INSURANCE.

For several seasons previous to 1913 you board had carried accident insurance on the men engaged in paving work. By the passage of Act. No. 10, of Public Acts, Extra Sessions, 1912, known as the workmen's compensation law, all employes of the city came automatically under its provisions and the board decided to take out accident insurance for all workmen, including street and sewer men.

There were 9 accidents reported during the past season, of which 5 were slight and 4 serious, one of the latter resulting in death, as follows: Reported, allowed and payment made:

Street cleaning	3
Paving (grading, 1; tarring, 2).....	3
Sewer work	2—8
Reported but not allowed by industrial board:	
Paving (grading)	1—9

The amount of the accident insurance premiums paid was\$ 736.41

The payments made were as follows, the amount being determined by the act and the city reimbursed by the accident insurance company when the payments were made by it

Wages of men, 21 weeks, 2 days.....\$ 134.61

*Doctor's bills, including hospital and X-ray, (partly estimated) 1.50

Death 1,800.00 \$2,016.11

(*) Doctor's bills were frequently sent direct to insurance co. and settled by them, without passing through this office.

GRAVEL ACCOUNT.

Streets:		LOADS.
Graveling and patching in the several wards	1,525	
Graveling and patching (including hauling)	17	1,542
Crosswalk and extension work.....	129.5	
Crosswalk and extension work (includes hauling)	14.	143.5
Pavement repairs		52
Culverts		15.5
Sidewalks, repairs, inlets, etc.,.....		1
W. Huron paving and sewer repairs.....	2	
W. Huron paving and sewer (including hauling).....	10	12
Tarring old pavements.....		479
Total		2,245
Paving work:		
Dist. No. 20.....	465	
Dist. No. 28.....	2,798	
Dist. No. 29.....	2,741	
Tarring in above districts	185	6,189
Total number of loads.....		8,434

COST OF GRAVEL.

Cost of gravel (not including paving work) 1542 loads on streets	\$497.80	
703 loads extensions, paving repairs, culverts, sidewalks, repairs, inlets, tarring old pavements, etc.,	601.46	\$1,099.26

CEMENT ACCOUNT.

Following is a detailed statement of the cement bought under order of the Board and the purposes for which it was used: BBLs. BBLs.

On hand Jan. 1, 1913.....		25
Bought on contract:		
April	145	
May	700	
June	2,635	
July	3,770	
August	3,050	
September	2,345	
	<hr/> 12,645	
Bought locally	16	
	<hr/> 12,661	
Deduct short and injured by water.....	8.25	12,652.75
		<hr/> 12,677.75

Used as follows:

Paving—	BBLs.	BBLs.
No. 20, Hill and Oswego.....	823.75	
No. 28, W. Liberty	5,273.75	
No. 29, W. Huron	5,089.75	11,187.25
Curbing—		
No. 29, Richmond.....	262.5	
No. 28, Thompson.....	126.25	
No. 28, Richmond	162.	
No. 30, (Church) Richmond.....	221.5	
No. 31, (Hill) Richmond.....	22.5	
No. 20, Thompson	39.25	834

SACKS.

Storm sewers, etc., (City Engr. Dept.).....	405.5
Extensions, crosswalks and cement gutter boxes	890.5
Sewer and inlet work (Str. Dept.).....	16.5
Pavement repairs	475
Steere farm (City Eng. Dept.).....	31
Culverts	92
Sidewalk building and repairs.....	63.5
Exter. and sidewalk work by contract.....	300
Sold (Water Co., 2; Schaffer, 252).....	254

	2,528 sks	632	
On hand Jan. 1, 1914.....		24.5	
		<hr/> 24.5	12,677.75

Respectfully submitted,

J. WISNER,

Street Commissioner.

INVENTORY—STREET DEPARTMENT.

2 pumps	\$ 10.00
1 pair bobs	20.00
2 street sweepers	350.00
Stencil and alphabet	1.00
1 hack	5.00
2 road scrapers	100.00
18 snow plows	270.00
1 steel snow plow.....	25.00
1 team horses	150.00
1 double harness, \$20.00; blankets, \$4.00	24.00
1 steam roadroller	1,000.00

1 50-gal. gasoline can	4.00
1 60-gal. oil can	4.00
5-gal. and 2 gal. oil and gasoline cans	1.00
5 1-gal oil cans	1.00
Tools for filling brooms for sweepers	9.00
4 pails	1.00
1 sidewalk building outfit	8.00
1 large tar tank on wheels	45.00
1 sand wagon	25.00
1 small tar tank on wheels	225.00
1 tar tank and equipment at Broadway and river	1,200.00
1 stone fork .....	.60
2 paving hammers	1.00
150 feet hose	12.00
1 street drag	20.00
12 wood horses for blocking streets	12.00
1 lot sewer jacks	25.00
1 rooter	8.00
6 bdl. bamboo splints	13.50
7 street brushes	6.65
5 steel trowels	2.50
7 wood trowels	2.00
1 stencil for marking cement, and letters	6.00
1 lot empty barrels	20.00
2 ladders	2.00
11 street sweeper brooms	110.00
3 canvass for covering cement	11.25
20 lbs. bolts	1.00
Paint brushes and paint	2.00
1 spindle for street sweeper broom	3.00
1 large plow	14.00
2 sand screens	4.00
1 cross cut saw, 1 one-man saw	2.50
1 sprinkling wagon	150.00
3 carts	90.00
2 dump wagons	200.00
1 bolt cutter	1.00
2 bits and brace	3.00
17 red lanterns	11.05
3 levels (1 iron; 2 wood)	1.50
Bag carrier	2.50
12 steel wheelbarrows	48.00
17 grub hoes	8.50
4 scythes and handles	4.00
10 handles for scythes	2.50
1 sidewalk roller	5.00
1 iron vice and bench	3.00
1 set platform scales	150.00
1 lot sewer rods	75.00
1 tool box on wheels	20.00
1 batch cement mixer	25.00
2 slip scrappers	10.00
7 mauls	3.50
5 old pails .....	.50
1 two-wheeled scraper	25.00
1 mixing board	3.00
2 hand saws	2.00
3 tool boxes	9.00
1 mortar box	1.50
5 scoop shovels	2.50
5 cement shovels	3.75
4 tamps (iron) \$2.50; two pounders (wood) \$1.00	3.50
9 iron crow bars	4.50
5 hammers, \$2.50; two wrenches, 75c	3.25
3 hatchets, \$2.25; 2 axes, \$1.00	3.25
23 shovels	13.80

27 picks and handles	16.20
2 Foote continuous cement mixers.....	1,200.00
1 grindstone, \$2.00; 4 closets, \$16.00.....	18.00
9 street shovels	4.50
1 lot rope, \$4.00; tar cans, \$7.50.....	11.50
1 lot 3-4-in. and 1-in. gal. iron pipe and fittings	50.00
3 garbage wagons	
2 Knowell's street scrapers	5.00
3 steel ice cleaners, \$1.50; 3 Berry str. brushes, .50	4.00
1 tar kettle	10.00
1 lot wire fence	5.00
5 bbl. tar or pitch	5.00
1 20th century grader	135.00
2 injectors for steam mixers.....	10.00
1 tar wagon, distributor attachment.....	200.00
3 large hose nozzles	5.00
6 lanterns frames	3.00
3 rakes	1.00
4 iron rods for red lights.....	2.00
2 cold chisels, \$1.00; 2 small crowbars, 75c	1.75
4 pliers	3.00
2 long handled shovels	1.00
2 post hole diggers	1.00
1 pitchfork, 50c; 2 bent forks, \$1.00.....	1.50
1 lot casting for steam mixers.....	15.00
Total	\$6,353.80

Correct,

J. WISNER,

Street Commissioner.

INVENTORY, BUILDING MATERIAL—STREET DEPARTMENT.

24.5 bbl. cement	\$ 27.93
6,000 ft. old bridge timbers.....	40.00
15 turned posts	7.50
50 12 ft. wing bars for culverts.....	17.00
1 1-2 kegs nails and spikes.....	4.00
400 ft. 4-in. by 4-in. pine lumber.....	6.00
35 old iron crosswalk grates	70.00
1 lot old sewer pipe, 30-in, 20-in, 23-in, 18-in. and 15-in.....	50.00
1 lot new 12-in, 15-in, 18-in, etc., tile (abt.)	65.00
1 lot 4-in, 6-in, etc., tile.....	20.00
300 wood paving blocks	5.00
One-half ton old bridge iron	4.00
3 pc. 8-in. iron pipe.....	10.00
14 old manhole frames	70.00
1 inlet frame and grate.....	4.50
1 lot cobble and fence stone.....	10.00
2,500 ft. oak plank	65.00
800 brick	16.40
1,000 ft. 10-in, pine plank.....	20.00
Total	\$511.73

Correct,

J. WISNER,

Street Commissioner.

Officers' Report.

Justice Thomas' quarterly reports ending October 4th, 1913, and January 4th, 1914, received and ordered on file. Street Commissioner's report for month of December, 1913; Treasurer's report for month of December, 1913; and Board of Public Works annual report received, ordered printed and filed. City At-

torney presented report on abstracts of title to water works property and also on outside stairway for Goodspeed building which were ordered on file.

By Ald. Sherk:

Resolved, that the City Attorney prepare an amendment to the city charter to be submitted to the electors at our next charter election,

providing for a municipal court.

Adopted as follows: Yeas, Ald. Schultz, Fiegel, Hanselmann, A. Lutz, Prochnow, Koernke, Pipp, Sherk, Hubbard, Rash, Groves, G. Lutz, Pres. Schmid, 13. Nays, none.

By Ald. Schultz:

Resolved, that George J. Mann be and he is hereby appointed to the office of water commissioner to fill

vacancy caused by the resignation of Joseph Wellman

Adopted as follows: Yeas, Ald. Schultz, Fiegel, Hanselmann, A. Lutz, Prochnow, Koernke, Pipp, Sherk, Hubbard, Rash, Groves, G. Lutz, Pres. Schmid, 13. Nays, none.

The Council adjourned.

ROSS GRANGER, Clerk.