

CITIZENS LEAGUE REPORT

No. 193

**City of Minneapolis
Residential Street Paving**

June 1966

CITIZENS LEAGUE
REPORT ON
MINNEAPOLIS RESIDENTIAL STREET PAVING

Approved
Citizens League Board of Directors
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TO: Citizens League Board of Directors

FROM: Residential Paving Committee, Norman E. Stewart, Chairman

SUBJECT: Review of Minneapolis City Council's Residential Paving Plan

SUMMARY

This report is an evaluation of the need for paving some or all of Minneapolis' 580 miles of oil-dirt residential streets. In addition to reaching conclusions involved in answering this basic question, the report proposes specific procedures for implementing a long-range residential paving program. The report further concerns itself with the question of whether the construction should be undertaken by the use of city employees or by contracting with private construction firms.

Although this report is concerned directly with residential paving for only Minneapolis, the questions discussed here are similar to questions which would be asked in any other locality in the Twin Cities area considering a program of paving its residential streets. St. Paul and suburbs such as Richfield, Bloomington and St. Louis Park have many miles of unpaved oil-dirt residential streets.

About 86 per cent of the residential streets in Minneapolis are unpaved, highest in percentage among several cities of its size throughout the nation. These unpaved streets have been maintained over the years by regularly oiling the dirt surface to make it somewhat impervious to water. The Minneapolis City Council within the past year has indicated it intends to undertake a program of paving all of these dirt streets. The Council's plan, still in its formative stages, represents the first serious attempt to end the traditional method of maintenance of these streets.

Initial steps the City Council has taken include charging the Capital Long-Range Improvements Committee (CLIC) with the responsibility of recommending a bonding program to finance completion of the program in 20 years, lowering the front-foot assessment to abutting property owners from two-thirds to one-fourth of the cost, and undertaking this year, 1966, the first residential paving projects of a city-wide program. Further, the City Engineer has recommended the 25 projects he believes should be undertaken during the first five years.

We believe--as does the Minneapolis City Council--that a program of paving residential streets should be undertaken, and that this program should include all 580 miles of oil-dirt streets. We also believe that the program should be completed in 20 years, if possible. (It should be remembered throughout this report that construction of paved residential streets usually includes the construction of curb and gutter, too. It should also be remembered that we are not referring in this report to municipal state-aid streets, county state-aid streets, state highways or parkways, which make up another 460 miles of roadway in the city.)

Briefly, we reached the conclusion that a total residential paving program should be undertaken for the following reasons:

--In effect, we have no choice but to pave almost 50 per cent of the oil-dirt streets because they are in such poor condition now that further maintenance on them is almost futile. In coming years, we can expect that more and more dirt streets will become like this.

--Although we will not save total tax dollars by paving (cost estimates have run as high as \$90 million, exclusive of interest), the added cost will be offset substantially by other savings:

- (a) Annual maintenance costs on residential streets can be trimmed by at least \$450,000.
- (b) The value of houses on residential streets which are paved in all likelihood will increase or at the very least will be stabilized.
- (c) Repair costs to vehicles for such items as wheel alignments, wheel balancings, spring and shock absorber work and tires will be substantially lessened because of the reduced number of chuckholes. We have not been able to determine accurately the total annual cost to vehicle owners because of these chuckholes. If we were to estimate, though, that an average amount of \$10 would be spent for repairs as a result of chuckhole damage on each of the 250,000 vehicles in Minneapolis each year, that figures out to be \$2,500,000 in vehicle repair savings annually because of paving.
- (d) Federal grants estimates at \$15 million to \$20 million would be available.

Minneapolis' residential paving program will be one of the most ambitious capital improvements programs ever undertaken in the city. It is important for the success and acceptability of this program that it be carried out in a well-planned, logical manner. Consequently, it is incumbent upon the City Council to proceed immediately to develop and adopt a long-range street paving policy, including the following:

--A declaration that the Council is abandoning its former policy of paving streets only upon petition of 51 per cent of the property owners and is proceeding to pave all streets. (This has been indicated by individual Aldermen and implied by certain actions already taken in connection with a paving program.)

--Guidelines for the City Engineer and Capital Long-Range Improvements Committee on establishing recommended priorities for paving. These guidelines should make it clear to the City Engineer and CLIC that they should not take into consideration whether an Alderman does or does not favor a paving project in his ward. That is, priorities should be established on a city-wide basis, with city-wide interests taken into consideration, since the bulk of the cost will be paid by city-wide taxation. We believe highest priority should be given to areas where federal aid would be available and second highest priority to areas with unusually high maintenance costs.

--A pledge that the City Council, upon recommendation of the City Engineer, will pave residential streets with the type or types of pavement which will be the most economical, including initial construction cost and maintenance cost, for a certain period of time, say 25 or 30 years. This means that the Council also should proceed immediately to instruct the City Engineer to prepare detailed cost estimates of the total program. As far as we can determine, adequate cost estimates have not been prepared to date. Cost estimates for a variety of types of pavement should be prepared, showing both initial construction cost and maintenance costs. From this data, the Council will be able to select the type or types of paving having the lowest cost per mile per year.

--A statement on how the cost of a paving program will be apportioned between the abutting property owners and city-wide taxation. (This step already has been taken by the City Council. The Council has voted to assess one-fourth of the cost against abutting property owners on a front-foot basis and three-fourths of the cost against city-wide taxation. Formerly, the Council assessed two-thirds of the cost against abutting property owners.)

This report also deals with some auxiliary issues of concern to us in connection with a paving program: (1) city employees versus contract, (2) code enforcement and federal aid, and (3) residential paving and safety.

City Employees. Only the City Council can decide how extensively, if at all, city employees will be used in construction of paved residential streets. We have seen no evidence to justify the use of city employees in a new program such as this. The program should be carried out by private contractors in competitive bidding unless it can be shown by clear evidence that a particular project can be done more economically by using city employees and city equipment. The Council should also see that proper accounting procedures are adopted so that a clear comparison of costs between using city employees and private contractors is possible. Currently, accounting procedures do not permit such a comparison.

Federal Aid. Millions of dollars of federal aid appear to be available to the City Council for residential paving if the Council chooses to embark on a program of enforcement of its various building, electrical, plumbing and other codes in areas of the city where 20 per cent or more of the dwellings are below standards prescribed in the codes. The Council's policy should be to proceed aggressively with code enforcement in whatever areas it is needed and not be limited by preferences of an individual Alderman as to what he may want in his ward. The Council thereby would be able to take maximum advantage of federal aid for paving.

Safety. Proper measures must be taken by the City Council to insure that residential streets when paved will not become "speedways" for arterial traffic.

RECOMMENDATIONS AND DISCUSSION

I. The Need To Pave Residential Streets in Minneapolis

Recommendation:

A. We recommend that the Minneapolis City Council proceed without delay to take all necessary steps to assure that the city's 580 miles of oil-dirt streets will be paved in an orderly program.

Discussion:

We have reviewed statements by representatives of the City Engineer's office on the need for residential paving. Many of us have personally experienced problems with oil-dirt streets for years. Our committee toured residential streets in Minneapolis and discussed the issue of paving residential streets also with engineers from St. Paul, St. Louis Park and Bloomington. Our basic conclusion is that Minneapolis cannot afford not to pave its residential streets. We reached this conclusion for the following reasons:

1. Continued patchwork maintenance is failing in many cases even to put a residential street in reasonably good driving condition. We have found that the condition of almost 50 per cent of our oil-dirt residential streets is so poor that continued maintenance of them is almost futile. These streets have been oiled and re-oiled so many times that they have become saturated and the oiling job no longer helps the streets. The process of scarifying a street (a periodic maintenance operation in which the street is broken up and smoothed out again) becomes almost impossible when the dirt is saturated with oil. We have no choice but to pave these streets. The rest of Minneapolis' oil-dirt streets eventually will become like this if they are not paved.

2. Annual maintenance savings with paved streets can be expected to average about \$750 a mile throughout the city, with the savings much greater than that in areas where maintenance expense has been unusually heavy. A savings of \$750 a mile amounts to almost \$450,000 if all oil-dirt residential streets are paved.

We have learned that average annual maintenance costs on oil-dirt streets now is between \$1,200 and \$1,300 a mile. This can be trimmed to no more than \$500 a mile if these streets are paved.

Excessive maintenance costs on oil-dirt streets was the factor which prompted initial discussion about residential paving in Minneapolis about six years ago. At that time the Street Department began pointing out that the annual street maintenance budget was becoming abnormally high because the dirt streets were getting more and more difficult to keep in good repair. The City Engineer subsequently recommended that certain streets with excessive maintenance costs should be paved. Very few of these areas have been paved so far. Thus, high maintenance costs have continued and the city has been forced to spend an excessive amount of an already tight budget for an item which can and should be substantially reduced.

3. Paved streets increase, or at the very least, stabilize property values in a neighborhood. In fact, the total cost of paving in front of a home on a 50-foot lot (estimated between \$500 and \$750) may be more than offset by a corresponding increase in the value of the home.

One clear indication of the increased value due to paving was a survey conducted of 30 real estate brokers in Toledo, Ohio, in 1961. A tabulation of the survey's results revealed that the median increase in value to a \$15,000 house because of paving was \$750, a 5 per cent increase; the median increase to a \$25,000 house was \$1,500, 6 per cent, and the median increase to an \$8,000 house was \$460, a 5.8 per cent increase.

Many neighborhoods in Minneapolis are located near blighted areas or are approaching blighted conditions themselves. Residential paving, we are convinced, will help upgrade the entire character of a neighborhood and the city.

4. Chuckholes in oil-dirt streets cause severe problems for motorists. Oil-dirt streets are treated regularly with a low-grade oil to make the surface somewhat waterproof. But the method is far from successful, and large holes develop in the streets each spring. The Street Department either fills these holes with a hot mix asphaltic material, or, if there are too many holes in a given area, the Department will scarify (break up and smooth out) the entire street.

There are untold vehicle repair costs in realignment of wheels and replacement of springs and shock absorbers which drivers are forced to incur as the result of hitting the numerous chuckholes. Further, a safety problem exists because a driver has difficulty controlling his vehicle after striking a chuckhole.

The chuckhole problem was especially severe in the spring of 1965 and in large measure was the reason the Minneapolis City Council took the initial steps toward a city-wide residential paving program.

We were unable to obtain accurate estimates of the extra costs suffered by vehicle owners for repairs necessary as a result of the chuckhole problem. We believe it is reasonable to estimate that about 250,000 vehicles are registered in the city of Minneapolis (the Secretary of State's office said that about 482,000 vehicles are registered in Hennepin County). If we assume that the average extra repair costs annually due to chuckhole damage is \$10 per vehicle, that amounts to a total of \$2,500,000. This savings alone, if reasonably accurate, would be more than half the cost of the annual amount of residential paving which would be undertaken.

5. Oil-dirt streets cause several problems which should not exist in a progressive, 20th century community. Any Minneapolis housewife whose home is located on an oil-dirt street knows the problems which have occurred shortly after such a street has received its regular coating of sticky oil. Children track the oil indoors. Motorists also know the problems of removing oil from tires and car bodies. Motorists also have difficulty in opening their car doors and in backing out of driveways on oil-dirt streets. This is due to the fact that these streets have abnormally high crowns (the middle of a street is its crown) so that water will drain to the gutters better.

6. Inadequate, unimproved sub-bases for oil-dirt streets result in considerable shifting in the ground so that the street surface becomes uneven. In some cases, concrete curb and gutter has all but disappeared. The shifting sub-base produces drainage problems too, because water will not flow properly down the gutters but stagnates in the street or flows over onto residents' lawns.

Recommendation:

B. The present Minneapolis City Council is to be commended for its actions in starting a city-wide residential street paving program, which will be one of the most ambitious, if not most important, city improvements ever undertaken. We believe it is crucial for the long-term success of this program that a clear long-range policy statement be adopted. This statement should set forth in considerable detail the guidelines which will be followed now and in the future. This, we believe, will give maximum assurance that the program will be carried out. We recommend that the statement incorporate the following:

(a) A declaration that the Council is abandoning its past policy of paving only upon the petition of 51 per cent of the abutting property owners and is proceeding with a city-wide paving program without waiting for petitions. (It is generally acknowledged that this is the present Council's intent, but it should be formally stated.)

(b) The reasons why the City Council believes a residential paving program is necessary.

(c) A declaration that the City Council intends to pave a certain amount of street mileage every year so that the program can be completed in as short a time as possible, hopefully 20 years.

(d) Guidelines for the City Engineer and Capital Long-Range Improvements Committee on establishing recommended priorities for paving. These guidelines should make it clear that the City Engineer and CLIC should not take into consideration whether an Alderman does or does not favor a paving project in his ward when they develop priorities. They should recommend priorities solely on the merits of which streets should be paved first, consistent with what are the best city-wide interests, since this is a city-wide program.

(e) A statement on how the cost of a paving program will be apportioned between the abutting property owners and city-wide taxation. (This action already has been taken but should be repeated in the policy statement.)

(f) A pledge that the City Council, upon recommendation of the City Engineer, will choose the type or types of paving for residential streets which will be the most economical, including initial construction cost and maintenance cost, for a period of time, say 25 or 30 years.

Discussion:

Although we are lacking informed estimates of the total cost, most estimates so far for paving all Minneapolis' residential streets are between \$75 million and \$90 million, exclusive of interest. This is no type of program to be undertaken piecemeal with no more planning than for the first year or the first five years. An overall, long-range policy is needed to provide adequate guidance for this City Council and its professional administrative staff and future City Councils and their staffs.

The sums of money involved, though spread over many years, are of such magnitude that the need for orderly planning cannot be over-emphasized. For example, the Minneapolis-St. Paul Sanitary District has proposed a \$105 million capital expansion program for the next 35 years. This program evolved from a five-year, \$500,000 study. We are not proposing such a study for paving Minneapolis' streets, but we are indicating the importance of sound procedures to be followed by the City Council.

We see the need for a formal long-range policy statement on residential paving not only to assure orderly procedures but also to provide sufficient direction for administrative officials so they can proceed to implement the program and to inform the taxpayers of Minneapolis exactly what the City Council's intention is.

For example, we are not aware of any Council policy statement now in existence which states that from now on the Council will pave streets which it believes should be paved and that the old policy of waiting for 51 per cent of the abutting property owners in an area to petition has been discontinued. The Council always has had the power to pave streets without the petition of property owners but has not chosen to do so.

A long-range policy statement, of course, would not have any legal binding effect on this City Council or subsequent City Councils. It would have substantial moral effect, though, because a City Council in the future, if it wanted to change the paving program, no doubt would recognize the need to make a formal change in the policy. Thus, unless formally changed, the policy would stay in effect. This, we believe, would provide maximum assurances that a paving program will be carried out according to an orderly long-range plan.

The City Council already has taken some actions dealing with a city-wide paving program:

(a) CLIC has been charged with recommending a bond program to finance completion of a residential paving program over the next 20 years. In this connection, CLIC also has been asked to recommend a modification of the present \$5 million per year or \$25 million per five years bond program policy in view of the residential street paving program. (Within the last few weeks a CLIC Task Force recommended a \$7.2 million bond program for 1967 but did not suggest a change in the overall policy, pointing to high interest costs and uncertainties about future needs and revenues.)

(b) CLIC has been charged with the responsibility of rating residential street paving projects, and all requests for such projects are to be referred to CLIC for rating.

(c) The City Engineer and planning staff have been directed to study and report on residential paving needs of the entire city of Minneapolis and to develop a new rating system which will permit comparative ratings of various projects as to their need to determine the priority of such projects on a current and long-range basis. (The City Engineer recently recommended 25 projects for the first five years.)

(d) The cost apportionment formula has been changed from two-thirds against abutting property owners and one-third taxation to one-fourth against the abutting property owners and three-fourths general taxation for the stated reason that a paving program was stifled when homeowners had to pay such a large amount of the cost by assessment.

The City Council is to be commended for its forthright actions on a number of fronts. However, we do not believe these actions in themselves are sufficient to assure that the residential paving program will proceed as planned. This is why we are recommending the long-range policy statement.

II. Financing a Residential Paving Program

A. Cost of the Program and Type of Paving

Recommendation:

We recommend that the City Council instruct the City Engineer to prepare as soon as possible informed estimates of the total cost of paving all oil-dirt residential streets. These estimates should include construction and maintenance costs of alternative types of paving for a certain period of time, say 25 or 30 years. This will assist the Council and the Engineer in selecting the type or types which will be the most economical for the public, that is, the type or types with the lowest cost per mile per year.

Discussion:

We have received various documents from the City Financial Analyst and the City Engineer and have discussed the cost of a paving program with them. We conclude that cost estimates developed thus far for such a program as this are totally inadequate to be of much use.

We do not have confidence in the popularly used estimate of \$75 million plus interest to pave all residential streets. This estimate was first used by the Financial Analyst in a report dated May 25, 1964, in which he stated frankly: "We are using the estimated cost of \$75 million without making any assurance that it is sufficient to complete the total residential street paving in the city."

In conversations with us the Financial Analyst said he developed the \$75 million estimate by taking a figure of \$66.7 million, an estimate made by the City Engineer's office in November 1960, of paving all city streets, and making "a small adjustment for increased costs." The City Engineer's office, in making the estimate of \$66.7 million in 1960 assumed that more than 200 miles of curb and gutter on existing streets could be salvaged. This is regarded as highly unlikely by personnel in the engineering department today.

The best general estimate of the cost we have received is between \$86 million and \$92 million, plus interest. This estimate is based on a cost of \$28 to \$30 per centerline foot of pavement, a figure which has been developed formally by the City Engineer. The cost per centerline foot is the total cost of construction, including engineering, testing and supervision, from one side of the street to the other, including curb and gutter on both sides. (The front foot cost would be approximately one-half of the centerline cost.) To obtain the overall estimate of \$86 million to \$92 million, we multiply the centerline foot cost by the number of feet in a mile (5,280), and that result by the number of miles to be paved (580).

Officials in the City Engineer's office say this is the best way now available to estimate the overall costs of the program.

We can appreciate that informed estimates of the costs of such a large program are difficult to obtain, but such cost estimates also are very much needed. The City Council should instruct the City Engineer to prepare all necessary cost estimates.

In our discussions with engineers from Minneapolis, St. Paul, Bloomington and St. Louis Park, we were made aware that construction cost estimates vary widely depending upon the type of paving which is used. Without a doubt, this question is highly technical. As laymen, we are not qualified to recommend a specific type of paving to the City Council. The Council must make this decision on recommendations from the City Engineer.

We do believe, though, that the City Engineer in making cost estimates for the City Council should compare costs of a variety of types of paving and that these costs should definitely include initial construction cost and maintenance costs for a certain period of time, say 25 or 30 years.

With such information available the City Council will have a much better basis for judgment as to which type or types of pavement are the most economical for the public, giving the lowest cost per mile per year.

The City Engineer has not recommended what types of paving should be considered for residential streets, but top officials in the City Engineer's office have made it absolutely clear that they prefer either a six-inch concrete paving over a gravel base, or a two-inch asphalt pavement over soil cement. Either of these two pavements will guarantee good service for 25 or 30 years, they say. The costs of these two types have been estimated at \$30 and \$28 per centerline foot, respectively. These cost estimates include concrete curb and gutter, as do all cost estimates in this report unless otherwise specified.

Officials of the Engineer's office are very dubious about the prospects of paving residential streets with a less expensive design, say two-inch or three-inch asphalt over a gravel base. Three-inch asphalt would cost about \$24 per centerline foot, they estimate. They have not made an estimate for two-inch asphalt, which they regard as totally inadequate for residential streets in Minneapolis.

We found disagreement on this issue between Minneapolis engineers and engineers from St. Louis Park, Bloomington and St. Paul. All of them stated that a two-inch asphalt mat over six inches of gravel is perfectly adequate for purely residential streets and that it is unnecessary to have higher types of pavement for such streets. Whereas Minneapolis engineers claim that you can guarantee good service for only 10 or 15 years from such pavement, the other engineers claim you can get 20 or 25 years of good service from it.

We believe the questions on length of life of pavement can be resolved if the City Engineer, in developing his cost estimates, also makes estimates on the maintenance costs over a number of years. Then an informed decision on the type of paving to be used can be made because the total cost picture--construction and maintenance--will be taken into consideration.

B. Cost Sharing--Abutting Property Owners and City-Wide Taxation

Recommendation:

We accept the action of the Minneapolis City Council in establishing a policy of assessing one-fourth of the cost of a paving project against abutting property owners and three-fourths of the cost against city-wide taxation. We have reviewed many arguments on both sides relative to equity of the new policy. Several questions can be raised that the City Council may have reduced the assessment too far in the new assessment policy. Recognizing, though, the importance of getting the paving program underway and the fact that it is extremely difficult to decide on a specific figure, we do not challenge the new formula. However, we would recommend against any effort to reduce the assessed portion below one-fourth, as has been discussed by at least one Minneapolis Alderman.

Discussion:

In understanding the new assessment formula of one-fourth assessed and three-fourths applied against city-wide taxation, it must be remembered that a benefiting property owner not only pays the one-fourth share, he also pays part of the city-wide taxation. For example, assume the total cost of the paving program is \$80 million. One-fourth of that, or \$20 million, will be assessed against benefiting property owners. The remainder, \$60 million, will be financed by city-wide taxation. Benefitting property owners, too, will pay part of the city-wide share out of their general taxes. It has been estimated by the City Coordinator's office that approximately 20 per cent of the city's assessed valuation fronts on these residential streets. This would be the amount of the benefiting property. Taking 20 per cent of \$60 million, we come up with \$12 million, which is the benefiting property owners' contribution toward the city-wide share. Adding the \$12 million to the \$20 million which is assessed directly, we come up with a total of \$32 million as the total contribution by the benefiting property owners, which is 40 per cent of \$80 million.

We have reviewed the new assessment policy of the Minneapolis City Council and compared it with the former policy of two-thirds assessed and one-third city-wide taxation. It is clear to us that the City Council's main reason for changing the policy was that acceptance by homeowners of a paving program did not appear to be possible when two-thirds of the cost would be borne by the abutting property owner. We have determined, however, that there are other reasons also to justify a change in policy. They are as follows:

1. The former policy imposed an unreasonable share of the cost of residential paving upon the abutting property owners. On arterial streets of the city, which are paved and by which many homes as well as businesses and industries are located, no assessment is imposed against the abutting property owners. (The no-assessment policy on arterial streets has been in effect since 1957, when the state constitutional amendment providing state aid for municipal and county arterials went into effect. Some assessments along these arterials, which had been imposed prior to the effective date of the amendment, still were being paid off after 1957.)
2. The assessment against abutting property owners is a front foot assessment. That is, it does not take into consideration differences which exist in the value of property or uses of property. Thus, the owner of a \$10,000 house pays the same assessment as the owner of a \$30,000 house, if both lots are the same size, and an apartment owner, regardless of the number of tenants, will pay the same assessment as a homeowner if his apartment building is on the same size lot.
3. As we noted earlier in this report, we are convinced that substantial city-wide benefit accrues to a program of paving all residential streets. It is

sound public policy that a substantial portion of the total cost be assumed by the city at large, since, in fact, this is a city-wide project and the abutting property owner will have no choice but to have his street paved.

4. With a substantial portion of the paving program being paid by general taxation it is much easier for the City Council to plan a paving program according to city-wide needs rather than according to the preferences of a specific neighborhood. For example, with a high assessment against abutting property owners, the feelings of these owners for or against a paving project have a major effect in the City Council's deciding whether to go ahead with the project. This could be true despite the fact that an area has very poor streets which require much maintenance (which is paid for largely by city-wide taxation.) However, with a low assessment against abutting property owners, the City Council need no longer feel bound to consider the wishes of a specific area. The city-wide benefit is more important. Thus, with a low assessment plan the City Council can go ahead with a paving project if it feels such a project is in the best interests of the city at large.

Although we support the City Council's plan to assess one-fourth of the cost of a paving program against abutting property owners, we are opposed to reducing the assessment to zero (and placing the entire cost on city-wide taxation) for the following reasons:

1. Residential paving represents a clear benefit to the abutting property owners, not only in general neighborhood appearance but in uplifting property values, as we have noted earlier. Therefore, it is reasonable that some of the paving cost should be assessed.

2. We cannot ignore the fact that only 20 per cent of the total assessed valuation of the city of Minneapolis fronts on the 580 miles of oil-dirt streets which would be paved. This means, of course, that 80 per cent of the assessed valuation of the city would not experience direct benefit from paved streets, though, as we mentioned earlier, there would be indirect benefits. Under a plan by which city-wide taxation would pay the full burden of a paving program, 80 per cent of the total cost would be imposed upon these non-benefiting property owners.

3. In some localities in the Twin Cities area and elsewhere in the nation, it is not unusual for 100 per cent of the costs of a paving program to be paid by benefiting property owners. For example, we understand that the assessment is 100 per cent in St. Paul, Omaha, New Orleans, St. Louis, and Louisville; 95 per cent in Des Moines, and 90 per cent in Seattle. We think that such high percentages are unfair to abutting property owners, but it does indicate the prevailing attitude in many areas that residential paving should be paid by the property owners who receive the direct benefit. The above figures were taken from a survey conducted by the Minneapolis City Engineer early in 1965. That survey revealed that among 14 major cities throughout the nation, only two assessed less than 50 per cent of the cost against abutting property owners. They were the Oakland-San Francisco area and San Diego, California, where none of the cost is assessed.

4. Transferring the full cost of a paving program to city-wide taxation and leaving nothing to assessment against abutting property owners would be contrary to past practice on a number of public improvements in Minneapolis where benefit is directly attributable to the abutting property owners. These improvements include construction of curb and gutter (when installed alone, without paving) and alleys and sidewalks, all 100 per cent assessed.

C. Financing the City-wide Share of the Paving Program

Recommendation:

We recommend that the Minneapolis City Council finance the city-wide share of a paving program by floating general obligation bonds. We also recommend that the Board of Estimate and Taxation modify its annual bonding policy, if necessary, so that the paving program can proceed on schedule.

Discussion:

The Minneapolis Board of Estimate and Taxation has final authority over annual bonding by the city of Minneapolis. The Board of Estimate has power to reduce total bond funds each year, but it cannot increase the amount.

Since 1959, the Board of Estimate has had a policy that general obligation bonds average no more than \$5 million a year over a five-year period, with the maximum city net debt of \$30 million and a long-range objective of further reducing the debt. Other aspects of the policy are that the debt service tax rate is to be stabilized at 12.8 mills, bond maturities are to be as short as possible within limits set by debt service tax rate, and bonds are to be issued for capital improvements only.

An exception to the \$5 million bond policy has been made in the last two years for completion of the Minneapolis Auditorium, but the Board of Estimate has not yet formally changed its policy.

General obligation bonds finance such capital projects as the Minneapolis Auditorium, parks and playgrounds, storm drains and sanitary sewers, libraries, and residential paving.

The City Council has indicated it intends to use general obligation bonds to finance the city-wide share of the paving program. It has asked the Capital Long-Range Improvements Committee (CLIC) to recommend a bonding program which would enable the city to complete the paving program in 20 years. The Council has also directed CLIC to recommend a modification in the present policy of limiting average annual bonding to \$5 million to take into consideration a 20-year residential paving program.

We believe a modification in the present bond limit policy, if necessary for the paving program's success, is sound. Based on the information we have received from city officials, we conclude that the city's AAA credit rating would not be endangered if additional bonds were sold to finance a paving program.

Although we do not yet have accurate cost estimates of the residential paving program, and although substantial federal assistance may be forthcoming for the program, it still appears that a minimum of \$2 million in city funds, and probably more, will have to be raised each year for 20 years to finance the city-wide share of the paving program. If general obligation bonds are used, at least \$2 million would have to be sold yearly for 20 years. This means that if the demand for other capital projects in the city continues at the same rate it has in the past, the total amount of general obligation bonds issued annually would have to increase at least from \$5 million to \$7 million. It may well be, though, that with the completion of the Minneapolis Auditorium, demand for bond funds for other capital projects may not be as great.

The amount of bond funds necessary for residential paving could be greater than \$2 million annually, depending upon two factors. First, the amount could be greater if the City Council does not take maximum advantage of federal funds which would be available. Second, it could be greater if the overall cost of the paving

program is in excess of \$75 million. A report from the Financial Analyst to the City Council in October 1965 estimated that \$2.8 million in bonds would have to be sold annually for 20 years to finance the city-wide share, assuming the total cost were \$75 million and assuming no federal aid. With maximum use of federal aid, this should be reduced to \$2 million annually. But if the total cost of the paving program is more than \$75 million, as has been estimated, then more bond funds would be necessary.

Current plans of the City Council call for retiring the bonds which are sold annually for residential paving over a 15-year period. If \$2.8 million in bonds were sold annually for 20 years, and if the bonds were retired over a 15-year period, the millage necessary to retire the bonds would increase to a maximum of 8.66 mills in 1983 and then decrease to the year 2000 when the last of the bonds would be paid off, according to a schedule prepared by the Financial Analyst.

We would expect that no paved residential street would have to be rebuilt for 35 or 40 years, though maintenance expense would increase in later years. The Minneapolis City Engineer has stated that we can expect 25 or 30 years of good life from a paved residential street, but officials in the City Engineer's office acknowledge that such an estimated life is conservative. Therefore, if the paved residential streets do last 35 years, then at least all streets could be paved and the bonds retired before any streets would have to be rebuilt. Consequently, bonding would be a feasible method of financing.

There are other possible methods of financing the city-wide share of a paving program. They include parking meter fees, a wheelage tax, gasoline tax, street parking permits and increased allocation of state highway user funds. These alternatives were listed in a report to the City Council in May, 1965.

Our committee did not explore the possibility of using these other revenue sources. We are well aware of the financial problems facing the city and that discussions now are underway for alternative sources other than the property tax for financing additional city services. The question of alternative sources of revenue has implications for other financing problems facing city government and for other localities in the metropolitan area and was beyond the scope of our assignment.

III. Construction Priorities

Recommendation:

A. We recommend that the Minneapolis City Council give highest priority to those residential paving projects which can receive substantial federal assistance (see page 17) for a detailed discussion of the federal aid possibilities.) Next in priority should be projects in areas with high maintenance costs on the oil-dirt streets. (The City Engineer's recommendations for priorities during the first five years of the program were made shortly before this report was issued. A preliminary examination of the priorities indicates that areas of potential federal aid and areas of high maintenance generally are being considered for high priority.)

Discussion:

We have received comments made to us by representatives of the City Engineer's office and by the Financial Analyst regarding priorities for residential paving. In addition, we have reviewed the priorities for a paving program which has been scheduled to get underway in 1961 but which never developed.

Priorities which were established in 1960 and 1961 were based primarily upon the fact that certain oil-dirt streets had high maintenance costs and needed to be replaced with paved streets so that maintenance costs could be reduced. These priorities no longer are in effect, though preliminary information we have received indicated that the City Engineer's office, in submitting its recommendations for the first five years of a residential paving program to CLIC, will include essentially the same areas as were covered in 1960 and 1961 which have not yet been paved. Consequently, it would appear that high maintenance costs continue to be the main factor in establishment of priorities today.

It appears to us, though, that Aldermanic influence still plays a major part in the recommendations for priorities as are being developed by the City Engineer's office. For example, in 1961, an area just east of Powderhorn Park was rated very high for paving because the oil-dirt streets in that area are very expensive to maintain. However, residents of the area were strongly opposed to this paving project and successfully influenced their Alderman to have the paving proposal withdrawn. Apparently, there is some feeling that this opposition still exists. The City Engineer's office has not recommended this area in the first five-year program, even though it normally would receive one of the highest priorities. It appears to us that the City Engineer should not base his recommendations on the feelings of an individual Alderman or neighborhood. It is perfectly legitimate for the Alderman to oppose a paving project and attempt to have it stricken from the program. But this action should not be taken by the City Engineer in advance of a formal rejection by the Alderman or the Council.

We commend, though, the City Engineer for making high maintenance costs a major factor in determining paving priorities. Without the prospect of federal assistance, we would recommend that areas with high maintenance costs be given the highest priority in construction. However, the factor of federal aid--which may or may not continue for the next 20 years or so--must be acknowledged and its potential taken advantage of to the maximum extent possible, even though certain areas with high maintenance costs will not be paved for a few years longer. It is unfortunate that in Minneapolis the areas of high maintenance costs in general do not coincide with the areas where federal assistance appears possible.

Also to be considered in establishing priorities is that wherever feasible residential streets should be paved in conjunction with underground utility construction which requires that the street be torn up anyway. This is especially pertinent as it relates to widespread storm sewer construction now underway.

Recommendation:

B. We recommend that wherever possible the City Engineer recommend high priority for paving those oil-dirt streets where curb and gutter have been installed in recent years. If much of this curb and gutter can be salvaged, the cost of paving can be reduced substantially in an area.

Discussion:

Based on the information we have received, we conclude that the running-foot cost of residential paving can be reduced by \$7.50 to \$10.00 if curb and gutter do not have to be torn out and replaced.

We have been informed that about 200 miles of curb and gutter have been installed since World War II on oil-dirt streets and are in fairly good shape. However, there are two factors which could limit the amount of curb and gutter which

can be salvaged, we were warned. These are as follows: (1) Sub-soil beneath the curb and gutter may be inadequate. If the sub-soil is removed for the pavement, but not for the curb and gutter, the alignment between the pavement and the curb and gutter could be disturbed. (2) Curb and gutter has been installed in scattered locations throughout the city. In some cases it may be cheaper to remove the curb and gutter rather than attempt to work around it.

Because about 25 per cent of the cost of a paving program can be in curb and gutter, we believe it is very important for the City Engineer to investigate all possible ways to preserve curb and gutter which is in good shape.

Recommendation:

C. We recommend that in establishing priorities for residential paving the City Council wherever possible try to pave an entire neighborhood at one time, even though part of the neighborhood might otherwise have a lower priority. Preliminary information we have received indicates that several city officials support the neighborhood concept of paving.

Discussion:

Because soil conditions can vary considerably even within one neighborhood, it is very possible that some oil-dirt streets in a given neighborhood may be badly deteriorated and demand a high priority for paving while other dirt streets may be in fairly good shape and rate low on the priority list. It would not be sound, we believe, to select only the areas of a given neighborhood which are in the worst shape for paving. The City Financial Analyst has said that area or grid projects are the most efficient and economical method of carrying out the program. Isolated skips and gaps should not be allowed where they will entail higher costs of current maintenance or future construction.

It also would be improper to pave the entire length of one or two residential streets going through several neighborhoods rather than paving all streets in one neighborhood. Paving the entire length of a residential street at one time could have the effect of turning the street into an arterial street.

IV. City Employees Versus Contract

Recommendation:

We recommend that the City Council adopt a formal policy that residential street paving will be carried out by private contractors in competitive bidding unless it can be shown by clear evidence that a particular project can be done more economically by using city employees and city equipment. Except for such cases city employees should be used only for maintenance of residential streets.

Discussion:

We have discussed with members of the City Engineer's office the question of whether the residential paving program should be accomplished by private contractors or by the city doing the work itself, with city employees and city equipment (commonly known as the day labor system). Further, we have received comments on this issue from City Engineers from St. Paul, Bloomington and St. Louis Park and from the Hennepin County Highway engineer. We have been informed by the Minneapolis City Engineer that when the paving program is in full swing more than half of the work

will be done by contractors. In 1966 about one-third is being done by contract.

We believe that the contract system has some built-in controls which are lacking when the city does the work with its own forces. Specifically, with the contract system there is competition to establish the construction cost and an initial commitment on the final cost of a project. With city forces there is no initial commitment to the cost of the project and there is no cost control.

The proposed residential paving program will result in a large increase in the amount of paving to be done each year as compared to what has been done in the past. If this paving is to be done efficiently with city forces it will undoubtedly require a large capital investment by the city in new paving machinery. We do not believe the city should invest in such equipment unless it can be demonstrated clearly that this investment will result in more economical paving. A similar question can be raised as to whether the city should expand its permanent work force for the paving program. We do not believe the city should expand its work force unless it can be clearly shown that this is the most economical way of accomplishing the paving program.

We have received no convincing evidence that Minneapolis can save money using city forces for the paving program, though representatives of the City Engineer's office have consistently maintained that it is cheaper to do so rather than using private contractors for paving. The City Engineer has not prepared figures which compare the cost of paving by one system versus the other. The City Engineer has developed specific estimates for the cost of paving with private contractors, using the unit cost method. (With the unit cost method a specific cost is estimated for each portion of a paving job, such as excavation, surfacing, curb and gutter, etc.) He has said that it is difficult to prepare unit cost estimates for the use of city forces because of cost accounting problems.

The reason that it is so difficult to compare the cost of using city forces with private contractors' costs is the inadequate cost accounting methods used by the city of Minneapolis. We believe the City Council should instruct the proper administrative officials to develop accounting methods which are in accord with generally accepted practices applicable to the construction industry.

We have attempted to make our own comparison of city forces versus contract costs utilizing what limited information is available. We have obtained some unit cost estimates by utilizing the charges which the city of Minneapolis has made to Hennepin County when the city has paved county highways for the Hennepin County Highway Department. It is difficult to compare these estimates with contract estimates for residential paving in Minneapolis because the standards for a county highway are different from those for a residential street. Furthermore, we have no knowledge of whether the charges made by the city to the county represent the actual costs of using city forces for paving projects. Nevertheless, these are the only unit costs for city forces we have been able to obtain. On the other hand, we were able to obtain very specific cost estimates for contract from the City Engineer's office. Utilizing these estimates we came up with the following results:

--Some unit costs by the use of city forces were higher than contract unit costs and vice versa.

--Overall it was difficult to determine whether one method is cheaper than the other. Therefore, we concluded there is no information available which would indicate that the use of city forces for paving is cheaper than contract.

Representatives of the City Engineer's office have told us that projects done with forces cause less inconvenience to residents of the city because city employees are much more inclined to be concerned about such inconveniences than private contractors. We believe, though, that private contractors can be required to take whatever action would be necessary--such as completing a job promptly--to minimize inconvenience to residents.

Representatives of the City Engineer's office have told us that it is important to maintain a sizeable labor staff in the summer to make maximum use of city equipment, such as trucks. These trucks, used for snow removal in the winter time, also can be used for projects such as residential street paving in the summer. We acknowledge the advantages of maintaining a year-round labor force for this reason, but this can be used to justify using city forces for residential paving only to the extent that it has shown that the actual result is cheaper.

Representatives of the City Engineer's office claim that it costs less to supervise a project under city labor than it does under contract. A private contractor might be inclined to attempt to cut corners. Consequently, inspectors have to keep a closer eye on the private contractors. If this is true, the City Engineer's office should be able to develop unit cost figures to prove it.

We are aware of no other city of comparable size to Minneapolis where city forces are used so extensively in capital improvement projects. The residential paving program represents a sizeable increase in the capital improvement program of Minneapolis. We think that it is sound public policy to require that the city clearly justify expansion of its capital investment in paving equipment and expansion of its permanent labor force before it undertakes a paving project with city forces. In the absence of such justification we believe the program should be accomplished by using private contractors where competitive bidding can be used to keep costs within control.

V. Relationship of Federal Financing to Residential Paving

Recommendation:

We recommend that the Minneapolis City Council take maximum advantage of the provisions of the Housing and Urban Development Act of 1965 which can result in substantial federal assistance for residential paving in this city (the code enforcement program.) This means that the City Council should not be limited by individual ward considerations in taking advantages of this federal assistance. The Council should undertake a code enforcement program in whatever areas of the city such a program is needed, regardless of whose ward is affected.

Discussion:

We have reviewed the pertinent sections of the Housing and Urban Development Act of 1965 and have discussed its provisions with officials of Minneapolis city government.

The Act provides that up to two-thirds of the cost of certain community improvement projects, including residential paving, will be paid for by federal grants in areas of a city in which at least 20 per cent of the dwellings need improvement to meet existing municipal codes and if the city agrees to enforce its codes against property owners who have been in violation.

Although we did not review the implications of the Act in detail, its re-

quirements do not seem to be unreasonable, because all a community is asked to do is that which should already be done, enforcement of existing building, zoning, plumbing, electrical, fire prevention, housing and other codes.

We conclude that if Minneapolis would embark on a code enforcement program in all areas of the city where such a program is needed, between 30 per cent and 40 per cent of the residential streets in the city could be paved with two-thirds federal assistance. This area is roughly between 42nd Street on the south and Lowry Avenue on the north, with the exception of property south of 28th Street near the Mississippi River and property around the Lake of the Isles-Cedar Lake area. In addition, code enforcement grants may be possible in the Field School area and east of the Crystal Lake Cemetery north of Lowry Avenue.

If the total cost of the city-wide paving program is \$75 million, we can estimate that up to 40 per cent of that cost, \$30 million, will be in code enforcement areas. Additional, non-paving costs are incurred in code enforcement areas to pay for other improvements and to pay for whatever inspection is necessary. It appears reasonable to expect that these additional costs would increase the total another 50 per cent, making the total cost in code enforcement areas \$45 million. The federal government will pay two-thirds of this cost, \$30 million, leaving \$15 million as the local share.

If we view code enforcement as a device utilized only to get some of the paving costs absorbed by the federal government, we can conclude that the city must pay \$15 million in order to get \$30 million worth of paving. But if we allocate some of the \$15 million in city costs to the non-paving aspects of code enforcement, then the city will be paying less than \$15 million to get \$30 million worth of paving.

We do not doubt that many property owners would face a serious financial burden if they were forced to make certain improvements to bring their property up to standards of code enforcement. However, it must be noted that the Federal Act provides direct grants up to \$1,500 and low interest (3 per cent) loans to homeowners who would have difficulty paying for the improvements.

We see considerable benefit to the city from a code enforcement program aside from the fact that grants for residential paving will be made available. Code enforcement represents an admirable attempt to half blight before it has reached serious proportions where such drastic measures as rehabilitation or redevelopment would be needed. Thus, we can conclude that code enforcement need not be undertaken simply as a way to get some money for residential paving. Code enforcement should be undertaken because it stands on its own as a good program.

Here is an example of how project costs in a code enforcement area would be distributed (assuming a \$600,000 paving requirement and \$300,000 for code enforcement activities):

Abutting Property Owners		
Direct Assessment	\$150,000	(\$150,000)
Portion of general tax	30,000	(90,000)
All other general taxpayers	120,000	(360,000)
Federal government	<u>300,000</u>	
		<u>(\$600,000)*</u>
Total:	\$600,000	
plus federal government contribution for code enforcement:	<u>300,000</u>	
Total:	\$900,000	

* The additional figures in parenthesis show the breakdown of a \$600,000 paving job where no federal aid and code enforcement expenses are included.

VI. Residential Paving--Traffic Control and Safety

Recommendation:

We recommend that the Minneapolis City Council charge the City Engineer and the Minneapolis City Planning Commission with developing a circulation plan for each residential area to be paved that will make judicious use of traffic control measures. This is necessary to prevent paved residential streets from becoming speedways and endangering the safety of residents, to prevent residential streets from becoming loaded with non-residential traffic and lowering property values, to restrict access to arterial streets, thereby making arterial streets safer, and to divert traffic bound for recreational areas, such as Minneapolis' many lakes, from residential streets.

Discussion:

Several traffic control measures are possible, including crosswalks, cul de sacs, narrow pavement widths at intersections and traffic signs. We see familiar with the crosswalks which were installed with residential paving in the Pershing Field area to prevent through traffic. We are aware that these crosswalks were both praised and condemned by residents and others. We are convinced, though, that traffic control devices are absolutely necessary in some neighborhoods with paved residential streets and that the paving program should be viewed as an opportunity to improve neighborhood circulation as well as surfacing.

If residential streets cannot continue to be, in fact, residential in character after they are paved, pressure will be imposed upon City Hall to discontinue the paving program. There is no doubt that too many crosswalks or stop signs in a neighborhood would be improper and unnecessary, but something has to be done to protect the neighborhood residents.

It should be acknowledged, though, that if the regular arterial street system in the city were more workable fewer motorists would try to use residential streets. Paving projects should be coordinated where possible with arterial improvements and new freeway construction.

The circulation plan recommended will assist in segregating through and local traffic by integrating the residential street system with the arterial and freeway network.

VII. Parkways

Recommendation:

We recommend that the Citizens League Board of Directors activate a research committee to review whether and how parkways, now under control of the Minneapolis Park Board, not the City Council, should be repaved or rebuilt.

Discussion:

The issue of what to do with the parkways of the city was not part of our assignment. Nevertheless, we were struck by the fact that approximately 50 miles of parkways are 45 years old or older and serious questions are being raised about whether they should be repaved. These parkways are not part of any state aid system and consequently would be financed out of general obligation bonds of the city--the same as residential streets. Several questions were raised as to whether certain parkways might merit a higher priority than paving certain residential streets.

SCOPE OF THE REPORT

The Citizens League Residential Paving Committee was formed in September 1965 and assigned by the League Board of Directors to review the need for a permanent residential street paving program for Minneapolis and the methods of financing and priorities to be followed in such a program. The Board of Directors made the assignment in light of recent actions by the Minneapolis City Council that it is moving toward a paving program.

COMMITTEE MEMBERSHIP

Twenty-five members actively participated in the deliberations of this committee. Committee chairman was Norman E. Stewart, an attorney and former 13th Ward Alderman in Minneapolis. Other active members were Norton Armour, Lester M. Bolstad, John Cummings, Gilbert R. Falk, William Hempel, F. S. Hird, K. A. Hirschey, Henry Hoffinger, Wells Jewett, James Jorgenson, Duane Kullberg, J. M. Leadholm, Ralph Laurens, Justin E. Midthun, Fred R. McComb, Dan McCoy, Robert C. Olson, John M. Prins, Robert Richter, Delano H. Siewert, Richard Schall, David Stanley, J. D. White and Glendon Timm. The committee was assisted by Paul Gilje, Citizens League Research Director.

NATURE OF COMMITTEE ACTIVITY

The committee met 15 times between September 30, 1965, and March 28, 1966,

including four lengthy evening meetings.

The committee first received a general picture of the residential paving issue from Hugo G. Erickson, City Engineer (now retired). Then the committee took an all-afternoon tour of residential streets in the city, accompanied by Thomas A. Thompson, Operations Engineer (Thompson has since been named City Engineer, as a result of Erickson's retirement); Lawrence W. Pratt, Street Maintenance Superintendent (now retired), and Perry Smith, a public works engineer in the Planning and Programming Division of the Engineering Department. On this tour, the committee viewed the condition of some of the worst dirt streets and the newly paved areas of Pershing Field and the Luella Anderson addition.

After the tour the committee met for two successive meetings with Thompson to receive detailed information on various aspects of a paving program. Then the committee discussed financing of the program with Einar Olson, City Financial Analyst, and the possible impact of federal funds for the program with Lawrence Irvin, City Planning Director.

The next committee move was to discuss paving issues with Grege Beckett, local improvements engineer for the City of St. Paul, and Sam Hobbs, City Engineer of Bloomington, and Ray Folland, City Engineer of St. Louis Park.

Following the appearance of these men, the committee met for a lengthy evening session with Thompson, Clayton A. Sorenson, head of the Planning and Programming Division of the Minneapolis Engineering Department, and Smith. Points raised by Beckett, Hobbs and Folland were discussed at this meeting, plus a memorandum on paving costs presented by Sorenson to the Minneapolis City Council.

Edward Braddock, Chief Engineer for the Minneapolis Park Board, also appeared before the committee to discuss the problems of maintenance of the City's parkways.

Because the question of paving costs with city employees as against private contractors had been raised frequently with the committee, an attempt then was made--based on information available from the Minneapolis City Engineer--to compare costs.

The committee then proceeded to its internal deliberations to develop the conclusions and recommendations in this report.

Throughout the time this committee was meeting all city officers were most cooperative in providing information, some of which had to be prepared specifically upon the committee's request. This report would not have been possible without their cooperation. Perry Smith of the City Engineer's office was especially helpful.

BACKGROUND AND RECENT DEVELOPMENTS

The great majority of residential streets in Minneapolis have never been paved. There are about 580 miles of unpaved residential streets. When these streets were first built--many of them before the turn of the century--they were really only hard worn dirt paths. The City's first maintenance on them was to sprinkle them with water regularly to hold down the dust. Later the City began to apply petroleum products, first kerosene and then low-grade oil, at regular intervals to make the streets also somewhat waterproof. The oiling process still takes place. Coarse,

dry sand is applied over a street after it has been oiled.

When chuckholes appear in the dirt streets, caused by the freeze-thaw cycle in the spring breakup, the city patches the holes with a hot mix asphaltic material. Some of the dirt streets have so many chuckholes that it does no good to patch the holes. Then the city proceeds to "scarify" the street. That is the process by which the entire length of the street is broken up and then smoothed out again. City maintenance officials have tried to be on a cycle of scarifying a street once every seven years, but some streets have to be scarified yearly, and in a few cases as many as three times a year.

In the late 1950's city maintenance officials began pointing out that the condition of some of these oil-dirt streets was becoming so bad that normal maintenance no longer was doing an adequate job. So much oil had been placed on these streets over the years that the ground was saturated with oil and therefore was so gummy that scarifying was almost impossible. It was obvious that the old oil-dirt program may have been adequate for the streets of the past, but it leaves much to be desired for modern-day vehicular traffic. Further, annual maintenance costs were becoming abnormally high for certain streets, city maintenance foreman began pointing out.

The City Council then directed the City Engineer to prepare a study on paving residential streets in Minneapolis. That study was completed late in 1960.

A summary of that study was published in a CLIC Newsletter dated November 8, 1960. It included the following table:

Total Street Mileage open to traffic:	1002 miles
Streets Paved with Heavy Paving	328 miles
Streets To Be Paved with Heavy Paving	100 miles
Streets To Be Paved with Light Load Residential Type Paving	502 miles
Streets in Undeveloped Areas	72 miles

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Mileage of Residential Streets needing Curb, Gutter and Paving	264 miles
Mileage of Residential Streets with Paving Only	238 miles

* * * * *

Cost of Streets with Street Paving Only	\$16,350,000
Cost of Streets with Curb, Gutter and Paving	<u>35,800,000</u>
<u>Total:</u>	\$52,150,000

Current Expense, 5% Engineering, 12% Pension, 15% Overhead	<u>\$14,602,000</u>
<u>Total:</u>	\$66,752,000
Annual Cost, 20-year program (excluding interest)	\$3,337,600
Annual Cost, 15-year program (excluding interest)	\$4,450,133

The City Engineer also listed the areas of the city with high maintenance and prepared a map showing a proposed paving schedule through the year 1968 to pave these high maintenance areas first.

The City Engineer recommended three residential paving projects for the year 1961, Pershing Field, located southwest of Lake Harriet, Powderhorn, located east and south of Powderhorn Park, and Field, located east of 2nd Avenue South to Chicago Avenue and between 40th Street and 50th Street.

Other areas listed by the City Engineer as needing to be paved by the year 1968 were Linden Hills, Como South, West Lynnhurst, Harrison (Urban Renewal) Washburn, Keewaydin, Lake Harriet School, Waite Park, W. Diamond Lake, West Crystal Lake, Seward (Urban Renewal), E. Windom Park, W. Lake of the Isles, Whittier, E. Lake Nokomis, St. Anthony (Urban Renewal), E. Diamond Lake, Kenwood-Lowry Hill, Northeast Minneapolis east of Johnson Street and north of St. Anthony Blvd., and south of West Crystal Lake area to West Broadway.

Only Pershing Field, two Urban Renewal areas (Harrison and St. Anthony), the Luella Anderson addition (a new housing development), and Hoyer Heights, a small area on the northern boundary of Minneapolis, have been paved to date. Three others are scheduled for paving in 1966, Seward, Como South and West Lynnhurst. Paving in Urban Renewal areas is undertaken as part of the total Urban Renewal program.

Why didn't the City Council pave the other areas as recommended? Essentially, Aldermen were unwilling to pave any areas without favorable petitions from the affected property owners. Also, many persons felt that the policy of assessing two-thirds of the cost of a residential paving project against the abutting property owners was imposing too great a share of the cost upon these owners.

The paving program remained at a stalemate, although debate on its merits and the financing continued, until 1965. During this period at least two pertinent reports were issued by personnel in city departments. In October 1963, the City Engineer issued a report comparing the cost of maintenance on paved streets with the cost on oil-dirt streets. That report revealed that in 1962 the average overall cost per mile of maintenance of oil-dirt streets was \$1,278. The average cost per mile of maintenance of paved residential streets was \$757. The City Engineer noted that the paved streets were from 20 to 47 years old. He stated that if the paving were 20 years of age or newer the maintenance cost per mile would be about \$500, which would represent a savings of \$778 under the cost of maintenance for oil-dirt streets.

"The total expenditure for oil-dirt maintenance for 1962 was \$744,435," the City Engineer stated. "If the \$500 per mile maintenance cost for newly paved streets is assumed, this accounts for a yearly cost of \$295,000. This readily points out an annual savings of \$449,435."

In May 1964, the City Financial Analyst prepared a report for the City Council which estimated the cost of a residential paving program at \$75 million, the first time this estimate had been made. But he emphasized that this estimate was being made without any guarantee that it would be sufficient to complete a paving program. He said he made the estimate by taking a figure of \$66.7 million as the cost estimate made in 1960 and adjusting that figure for increased costs in the four-year period. The increase represents a 12 per cent increase in costs, about 3% a year.

In this report the Financial Analyst also set forth implications of changing the assessment against abutting property owners from two-thirds to a lower amount for a paving program. He pointed out that roughly 20 per cent of the city's assessed valuation fronts on the unpaved residential streets.

Reports such as these and continued discussion among city officials kept the question of residential paving alive, though no action was being taken.

Early in 1965 two incidents occurred which brought out more discussion of residential paving than any time before. In the first place, the spring breakup of the residential streets was especially severe, with an abnormal number of chuckholes appearing. Secondly, an Aldermanic election campaign was underway, with residential paving one of the key issues.

Another pertinent development early in 1965 was a survey conducted by the Minneapolis City Engineer of residential paving in various cities. The results showed Minneapolis had the highest percentage of unpaved streets among cities in the survey. Following is a compilation of the results:

City	Residential Mileage	% Unpaved	Cost per Front Foot	Years To Pay	% Assessed
Pittsburgh, Pa.	830	6%	16.00	20	80%
Oakland & San Francisco	-	0	-	-	0
Milwaukee	887	16%	9.00 - 16.00	6	75%
Omaha	837	15%	10.00	10	100%
New Orleans	1370	43.5%	10.00	15	100%
Des Moines	745	36.0%	12.00	10	95%
St. Louis	700	14.3%	20.00	6	100%
Columbus, Ohio	1062	31.4%	13.00	10	80%
Cincinnati, Ohio	400	5%	10.00 - 12.00	10	Varies
Toledo, Ohio	700	14.3%	8.00	20	Varies
Denver, Colorado	1500	4%	8.50	10	
Louisville, Ky.	777	40.6%	(7.60) .08 sq.ft.	6	100%

City	Residential Mileage	% Unpaved	Cost per Front Foot	Years To Pay	% Assessed
San Diego, Calif.	1588	11.5%	-	-	0%
Seattle	2330	54.0%	9.00 - 10.00	10-15	90%
Dayton, Ohio	563	31.0%	12.00	-	50%
Akron, Ohio	829	39.0%	18.00	10	60%
Minneapolis	672	86.8%	13.00*	10	25%

After the June 1965 election a new City Council took office, with many of the Aldermen committed to residential paving. The Council took the following actions:

1. The assessment against abutting property owners for residential paving was reduced from two-thirds to one-fourth.
2. The City Engineer and Planning Staff were directed to study and report on residential paving needs of the entire city and develop a new priority rating system for residential paving.
3. The Como and Lynnhurst areas, in addition to the Seward Urban Renewal area, were earmarked as the first projects in a city-wide program, with construction to take place in 1966.
4. The City Planning Director was instructed to report on possible financing methods available in connection with the Community Improvements Program. (In a report to the Council he subsequently pointed out that two-thirds of a paving project could be paid for with federal aid in certain areas of the city.

The Council ordered a report on comparative paving costs between Minneapolis and St. Paul and the suburbs by Booz, Allen and Hamilton, management consultants for the City Council. This report has not yet been completed.

* * * * *

While the Council was moving toward a residential paving program in 1965, considerable controversy was developing over the cost of the program and whether it should be done by day labor or contract forces or a combination of both.

This controversy was heightened when the Associated General Contractors of Minnesota issued a report through a group known as the Minneapolis Free Enterprise Committee which alleged that Minneapolis could save \$45.5 million if it used the contract system rather than city employees.

The AGC report attempted to show that paving costs in St. Paul and a number of suburbs were almost half as much as costs in Minneapolis. The report laid the higher cost estimates in Minneapolis to the fact that city employees rather than private contractors did the work.

The AGC report was issued about the same time the Citizens League Residential Paving Committee began meeting. The Citizens League Committee made an attempt

* Based on actual assessments for residential paving done in 1962. (Pershing Field)

to establish the authenticity of the AGC's claim and learned that in order to compare paving costs accurately from one locality to another, the unit cost method is the best way. Under this method an estimate is made of all the individual items of work in a project, such as excavation, backfill, curb and gutter, paving base, catchbasins, manholes and others. The Committee was unable to obtain detailed unit cost estimates which would enable an accurate comparison of costs between the city and suburbs

However, the Committee did receive from the Minneapolis City Engineer's office a report which was aimed indirectly at answering the AGC's claims. This report was submitted to the Committee of the Whole of the Minneapolis City Council. It does not provide any cost estimates for using city employees, but it does provide estimates for paving via the contract system. The report explains how paving estimates are made and points out specifically all the items which are included in a paving estimate. Costs for three different kinds of paving are estimates, six-inch concrete; six-inch soil cement with a two-inch asphalt mat, and three-inch asphalt mat over six inches of gravel.

"We ask a contractor to bid in terms of unit prices for work performed," the report, written by Clayton A. Sorenson, planning and design engineer, states, "A detailed set of plans is prepared and an estimate is made of all the individual items of work in the project. Examples of such work items are lineal feet of curb and gutter, cubic yards of excavation, number of catch basins to be removed, number of catch basins to be constructed, tons of asphaltic concrete, square yards of base, lineal feet of sewer pipe and many others. The contractor is asked for a unit price bid on each of the items. Each unit price is then multiplied by the estimated number of units of that item to arrive at the estimated bid for that item. The sum of each of these item bids then constitutes the bid for the project." There are about 25 different items.

The engineer said he used contractor's low bid prices on projects accomplished within the corporate limits of Minneapolis. Where such prices were not available, the engineer said he received advice from others experienced in this field.

To each of the estimates a 15 per cent charge is added to cover the cost of plan preparation, construction engineering, laboratory testing and supervision. The engineer said this percentage is typical of the costs incurred by the Minnesota Highway Department and by Hennepin County for this type of work and is also typical in the limited experience Minneapolis has had with contract paving.

On top of this another 2½ per cent charge has been made, because this is a charge against all construction funds for transfer to the city's current expense fund. (Within the last months of preparation of this report, though, the City Council's Ways and Means Committee decided to eliminate the 2½ per cent charge against various construction budgets, a move recommended by the City Attorney and the Board of Estimate and Taxation.)

Using the above method of figuring paving costs, the Engineer estimated the cost of paving as follows:

<u>Type of Paving</u>	<u>Cost per centerline foot</u>
Three-inch asphalt on gravel base	\$21.26
Six-inch soil cement with two-inch asphalt mat	\$24.73

<u>Type of Paving</u>	<u>Cost per centerline foot</u>
Six-inch concrete with integrant curb and gutter	\$26.05
Six-inch concrete, with separate curb and gutter	\$27.70

The engineer recommended that \$3 be added to the centerline foot cost for each type of paving to cover the cost of unexpected items such as tree removal, drive-ways and additional excavation.

This would make the range of cost between \$24.26 (three-inch asphalt) and \$30.70 (six-inch concrete with separate curb and gutter) per centerline foot.

The cost per centerline foot means the total cost of one lineal foot of pavement from one side of the street to the other, including curb and gutter on both sides of the street. The report deals only with centerline foot costs. It does not estimate the total cost of a residential paving program.

The effect of the City Engineer's report in answering the AGC's claims is this: the City Engineer is stating that his cost estimates are for paving done by contract, not city employees. The implication is further given that the cost estimates in Minneapolis include many items which are not included in the suburban and St. Paul cost figures as presented in the AGC report.

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Citizens League Comparison of Paving Costs with City Employees Versus Private Contractors

Recognizing the importance of the city employees-private contractors controversy, the Citizens League Residential Paving Committee attempted to make a comparison of costs, given the sketchy figures available.

Unit cost estimates for residential paving under the contract system were easy to obtain since they are listed in detail in the above mentioned report of the City Engineer. But estimates for paving with city employees were more difficult to find. The committee obtained some unit cost estimates for proposed construction work by the city's labor forces for Hennepin County in 1966 for paving Franklin Avenue (a county highway) from Nicollet Avenue to Chicago Avenue. This, of course, is not a residential street and, therefore, some of the items in the construction work are not parallel. However, many of the items can be compared provided the engineering specification number for each item of work is the same.

Using the above cost estimates the League Committee developed the following comparison of costs for soil cement paving of a two-block stretch of residential street. It will be noted that costs for work by city employees are not available for all the various items. Where costs are not available, we have included an "x". But for purposes of preparing complete totals, we have taken the liberty of using contract costs where the city employee costs are not available.

<u>Spec. No.</u>	<u>Item</u>	<u>Quantity</u>	<u>Unit Price</u> <u>Contract</u>	<u>Unit Price</u> <u>City Forces</u>	<u>Total</u> <u>Contract</u>	<u>Total</u> <u>City Forces</u>
2104.502	Remove Pavement	21 Sq. yd.	\$ 2.00	\$ 1.60	\$ 42.00	\$ 33.60
2104.503	Remove Curb, Gutter	1,828 ft.	.80	.80	1,462.40	1,462.40
2104.506	Remove Sidewalk	73 Sq. yd.	.70	.60	51.10	43.80
2104.511	Remove Manholes	4	24.00	20.00	96.00	80.00
2105.501	Class "A" Excavation	1,667 cu. yd.	1.20	1.70	2,000.40	2,833.90
2105.510	Topsoil Covering	64 cu. yd.	3.50	3.50	224.00	224.00
2116.504	Gravel Back- fill Inplace	1,171 cu. yd.	2.00	2.00	2,342.00	2,342.00
2206.501	Soil Cement Base	3,020 sq. yd.	.44	x	1,328.80	x
2206.502	Cement	252 barrels	4.00	x	1,008.00	x
2206.516	Bituminous Curing Material	302 gallons	.20	x	60.40	x
2206.521	Sand Cover	22 tons	6.50	x	143.00	x
2351.502	Bituminous Material for Tack Coat	151 gallons	.18	.20	27.18	30.02
2351.504	Asphalt Cement	20 tons	29.50	34.00	590.00	608.00
2351.509	Asphaltic Concrete Wearing Course	333 tons	8.50	9.65	2,830.50	3,213.45
2356.505	Bituminous Material for Seal Coat	756 gallons	.20	.22	151.20	166.32
2356.507	Seal Coat Aggregate	29 cu. yd.	12.00	13.00	348.00	377.00

<u>Spec. No.</u>	<u>Item</u>	<u>Quantity</u>	<u>Unit Price Contract</u>	<u>Unit Price City Forces</u>	<u>Total Contract</u>	<u>Total City Forces</u>
2503.512	F. & I. Sewer 12" Class II	100 ft.	\$ 5.00	\$ 4.80	\$ 500.00	\$ 480.00
504.694	Adjust Stop Boxes	2	35.00	x	70.00	x
2506.509	Construct Catch Basins	4	150.00	145.00	600.00	580.00
2506.511	Reconstruct Manhole	7 ft.	35.00	35.00	245.00	245.00
2506.521	Install Castings	7 assbly.	15.00	20.00	105.00	140.00
2506.522	Adjust Frame and Ring Cast- ings	1 assbly.	25.00	30.00	25.00	30.00
2521.501	Construct 3½" Concrete Walk	661 sq. ft.	.50	.50	330.50	330.50
2531.501	Curb and Gutter, B-624	1,828 ft.	2.60	2.65	4,752.80	4,844.20
2531.507	Conc. Drive- way, 8" Thick, Std.	21 sq. yd.	6.30	7.20	<u>132.30</u>	<u>151.20</u>
<u>TOTAL</u>					\$19,465.58	\$20,825.59
Add 15% Engineering, Testing & Supervision					<u>2,919.84</u>	<u>3,123.84</u>
					\$22,385.42	\$23,949.43
Add 2.5% Current Expense					<u>559.64</u>	<u>598.74</u>
<u>GRAND TOTAL</u>					<u>\$22,945.06</u>	<u>\$24,548.17</u>
<u>DIFFERENCE</u>					\$ 1,603.11	(7.0%)

We are well aware of many problems in connection with this comparison and the comparison should be weighed in this light. The comparison is made of two different types of paving. The unit price for certain items can fluctuate considerably depending upon the volume of paving in a project. Further, we have been informed that when city forces do work for Hennepin County, that Hennepin County only allows a flat 10 per cent for engineering, testing and supervision and current expense above the cost of the project.

The comparison does indicate, though, that claims by city officials that paving costs are cheaper using city employees are not sustained here.

Possibilities for Federal Aid

The federal Housing and Urban Development Act of 1965 authorizes a new program of federal assistance to localities in enforcing their housing, building, plumbing, electrical, fire prevention and related codes. The rationale behind the program is that if dwellings can be brought up to proper code enforcement levels, a locality may be able to prevent more drastic measures of Urban Renewal such as rehabilitation or redevelopment.

The Act provides that up to two-thirds of the cost of a concentrated code enforcement program will be paid for by the federal government. To be eligible for a code enforcement grant an area must be predominantly residential, at least 20 per cent of the buildings in the area must be in need of code enforcement and there must be reasonable expectation that the buildings in the area can be brought up to code standards within three years.

The Act also provides that the cost of planning, installing, constructing, reconstructing or repairing eligible public improvements may be included in the code enforcement program cost. Expenditures for the following public improvements are eligible when the improvements are necessary to arrest the decline of the area: streets (except freeways and expressways and other limited access streets), curbs, gutters, sidewalks, traffic lights and signs, street name signs, street lighting, street tree planting, and stationary fire and police communication systems. It is under this language, of course, that Minneapolis would be able to receive federal aid for paving residential streets.

The City Planning Director has estimated that between 30 per cent and 40 per cent of the city's residential paving program could be undertaken as part of a code enforcement program and therefore be eligible for two-thirds federal grants.

Minneapolis has made one application for federal assistance under this program, for the Como South area, which is scheduled for paving this year.