

Lebanon, Oregon, March 23, 1915.

To The Mayor & Common Council
of
The City of Lebanon.

Gentlemen:

There seems to be some question as to the value of establishing official grade on the various streets in Lebanon at the present time. I, therefore, beg leave to submit the following discussion on the subject:

The official grade of a street is one of the most important things about it. Its appearance when improved and, especially its drainage, depend on the grade. Improvements, such as sidewalk and curb, are done by piece-meal and at different times, and if there is not grade for the entire street, the result is, walks too high and too low. The grade is the plan, thought out before hand, to which all improvements are made to conform. The City has several examples of bad grade, or no grade at all, and the cost to the City or its citizens to correct these unsightly points will be more than the cost of having grade established over the entire City. Grade once properly fixed and recorded, is practically done forever.

Mr. Ernest McCullough, a very prominent Municipal Engineer and the author of several books on the subject, has this to say about establishing grades:

"In the establishment of grade, no block can be dealt with alone. It is necessary to study a district in order that the effects of grade on one block may not be harmful. The writer has known of cities going to an expense of many hundreds of thousands of dollars because such a study was not made in the beginning. Whenever a petition came in, the Engineer was instructed to set grade stakes for one block at a time and take into consideration only the conditions in that block. Sometimes a town is so located that grades can be established one block at a time. This is rare, however, and a careful study is best. Such work is, of course,

somewhat expensive, but once done is done for all time and the records, if kept, will be serviceable. Avoid a 'penny wise and pound foolish' policy in such matters. Future growth must be considered."

Ordinance No. 50, passed in 1899, establishes grade on several important streets, but this work is lost to the City because a map is lost. To avoid this, the grade of a street should be given at least at every block corner in terms of its elevation referred to the official City bench mark, and these elevations should be recited in the ordinance. There should then be filed with the Recorder, a grade sheet, which can be blue printed, giving the same information. The usual profile, which is the basis of all this information, should also be kept among the City Engineer's records and a blue print of the same filed with the Recorder. If this is done, and it will require but little more work than the old way, the City will get what it pays for and will not have to do the work over several times. This information and record will allow any engineer to reproduce a street grade at any time, and if in addition to this, grade pins are placed at the proper points along the street, the Street Commissioner or Marshal can in many cases give the grade.

In Book 4, Page 111, of the City Council proceedings for Oct. 21, 1910, it is stated that the grades on Oak & Third Streets and Maple & Third Streets were ordered changed. What were the grades before? Were they actually changed, and how much? What is the official grade on those streets now? All these questions arise about these streets, but not one can be answered because there is not a proper record, either by ordinance, grade plat or profile.

As pointed out by Mr. McCullough in the paragraph quoted, grade on one street depends, to a large degree, on the streets that intersect it and these, in turn, depend on others. In short the entire city, as far as practicable, should have grade fixed on it at the same time.

Since about 1911, I have fixed grade and prepared profiles for all or a part of eleven (11) different streets. Some of this work is a duplication of work done by others because the record

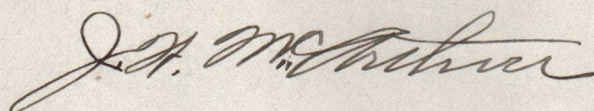
is lost. There are yet about twenty-five (25) streets, or parts of streets, that need official grade. Some of them, it is true, have grade pins over a considerable part of their length; these grade pins, however, are often hard to find, and in some cases seem to have been disturbed.

STREET LINE.

In my last annual report, attention is called to the advantage to the City of fixing the property line along the streets. This can be done by placing a permanent mark or monument on, at least, one corner of every block. If it is decided to put down grade pins, a little additional labor of placing them a definite distance from the block corner would allow them to serve the double purpose of marking the property line and giving the grade. There are now in use about the City approximately 90 pins and points marking property line, and there should be about 70 more. I have recovered many of these in the course of my work here. Not many of them are very well marked at present and it is doubtful if one, unaided, could find more than half of them. They should be better marked and recorded.

In submitting this report at this time, it is my desire to call the attention of the Council to the need of the City in this matter, and also to point out the manner in which the work should be done, in order that the benefit may be permanent. Having done this, I feel that I have only discharged a duty as your City Engineer, and as to how and what you may decide to do, that is a matter for the good judgment of the Council.

Very respectfully submitted,



City Engineer.