

S P E C I F I C A T I O N S

For the Construction of Concrete Alleys.

Resolution of Intnetion No. 400

Cross Section:

1. The work herein provided for is to be done in accordance with plans, profiles and cross sections therefor and these specifications on file in the office of the City Engineer of the City of Redlands, California, and shall consist of a course of four (4") inches in thickness. All work shall, during its progress and on its completion, conform to the lines and levels given by the City Engineer, which lines and levels shall be according to the official records of said city.

Work to be done:

1. The excavating or filling in the area upon which the pavement herein provided for is to be constructed, shall be done to such an extent and in such a manner as may be required by the plans and specifications.

2. To furnish all materials necessary to perform said work and construct the same.

3. To do whatever else is required by the specifications.

Sub-grade:

1. The sub-grade of the roadway shall be parallel to the finished surface thereof and four inches (4") below it.

Quality of Material:

1. All cement shall be of first quality Portland Cement and pass the cement testing specifications of the American Society for Testing Materials. The sand shall be clean, sharp and free from loam and clay.

2. The rock for making this pavement shall be granite limestone or equally hard stone, and of such size which will pass a two and one-half inch (2½) ring, maximum.

Grade of Foundation:

1. Grade shall include the removal of all dirt, stone or local

shall include all filling, trimming, scraping, picking down, re-filling, surfacing or other work that may be necessary to bring the surface of the alley to the sub-grade or required shape.

When mud, sand or other soft material below the sub-grade shall be encountered, it shall be taken out and the space refilled with good earth and gravel, which shall be rolled until the surface of the foundation ceases to sink or creep in front of the roller. The contractor, however, shall not be required in such cases to excavate the mud or other soft material to a greater depth than one (1) foot below the sub-grade. In places where it is necessary to bring the alley to the required sub-grade, it shall be done with good sound earth or gravel. The formation of well defined ruts is especially prohibited. No material of a spongy nature shall be used. After a block or section has been graded, as above specified, the surface shall be rolled with an engine roller until it is unyielding. The roadbed shall be thoroly watered before rolling, if necessary, to compact it. Depressions made by the roller shall be levelled up with good earth and rolled again. Such portions of the alley as cannot be reached by the roller, and all places excavated below sub-grade and refilled, and all pipe trenches and other places that cannot be properly compacted by the roller, shall be tamped solid, and in case of wet weather or soft muddy ground, making the use of the roller unsafe or impracticable, the rolling shall not be undertaken until the ground has become sufficiently dry. The contractor shall notify the street superintendent when a block or section has been brought to sub-grade, when the latter shall check the elevations of the same, and if the work is found to be in accordance with the specifications and grades given, the contractor shall proceed as hereinafter mentioned.

Laying Concrete:

1. Upon the foundation, prepared as above specified, shall be spread a four inch (4") layer of concrete. The material from which the pavement is to be made and the ingredients of the concrete shall

One part (1) pf Portland Cement
Two parts (2) sand
Four (4) parts of broken stone or gravel
of size which will pass a two
and one-half inch ($2\frac{1}{2}$) ring.
maximum.

The concrete shall be machine mixed. The concrete shall be well tamped. The surface shall be left smooth and uniform.

General Requirements:

1. The contractor shall arrange the work so as to keep the public travel and his own teams or trucks from tearing up the street or pavement while being constructed. The work shall progress from the point of beginning continuously along the street, finishing as close as possible to the grading. All work shall, in every respect, be executed in a thoro and workmanlike manner.

2. The contractor shall preserve all stakes set for the lines, levels and measurements of the work in their proper places until authorized to remove them by the City Engineer.

3. No work which may be defective in its construction or defieient in any of the requirements of these specifications shall be considered as accepted in consequence of the failure of any of the officers of the city or of the inspector connected with the work in pointing out the said defects or deficiencies during construction, and the contractor shall be required to correct any imperfect work whenever discovered before the final acceptance of the work.

4. Bidders must examine and judge for themselves as to the location of the proposed work, the nature of the excavations to be made and the work to be done. The Contractor shall give twenty-four hours notice in writing when he shall require the services of the city engineer for laying out any portion of the work. All curbs and cross-walks which must be removed shall be moved in a careful manner and must be neatly and conveniently piled upon one side of the street by the contractor.

5. The contractor shall be required to observe all ordi-

streets, keeping open passageways, and protecting the same when they are exposed and would be dangerous to the public travel.

6. In case it should be necessary to remove the property of any owner of a public utility or franchise, such owner will, upon proper application by the contractor, be notified by the street superintendent to move such property within a specified reasonable time, and the contractor shall not interfere with the said property until after the expiration of the time specified.

7. The right is reserved to owners of public utilities and franchises to enter upon the street for the purpose of making repairs or changes in their property that may be made necessary by the work. The city shall also have the privilege of entering upon the street for the purpose of repairing sewers, or making house drain connections therewith, or repairing culverts or storm drains.

8. The contractor shall notify the street superintendent when he desires the final inspection of the work, when the latter will, as soon as possible, make the necessary examination and if the work is found to be in compliance with the contract of such contractor, the street superintendent will furnish the contractor with a certificate to that effect.

9. Whenever the work "contractor" is used in these specifications it refers to the party or parties of the second part in the agreement for the construction of the work herein specified.

10. Whenever the words "street superintendent" or "City Engineer" are used in these specifications they refer respectively to the street superintendent and the city engineer of the City of Redlands, California, or his authorized agents or inspectors.

Filed Sept. 16 - 1925

Geo. S. Hinch
City Engineer.