

PRELIMINARY STATEMENT
IN THE MATTER OF ROAD IMPROVEMENT DISTRICT NO. 3.

DEL MAR - ESCONDIDO PAVED HIGHWAY

January 2, 1918

Del Mar - Escondido Highway extends from Del Mar to Escondido along north slope of the River through Crescent Valley.

Length:- (a) Highway Length ----- 18.7 miles

Width:- (b) 16 ft. with 10 ft. concrete pavement.

Average Cost per Mile:- (c) Construction: Pavement --- \$7,400
 Grading ---- 3,520
 Drainage --- 1,200 \$12,120

(d) Engineering, etc. (In percentage)
 (of \$12,120)

| | |
|----------------------------|----------------------------------|
| Engineering & Inspection-- | 7 |
| Attorney Fees ----- | 1 |
| Advertising ----- | $\frac{1}{2}$ |
| Rights of Way ----- | 1 |
| Contingencies ----- | <u>5$\frac{1}{2}$</u> |
| | 15 |

Or approximately ----- \$ 1,818

(e) Per mile ----- \$13,938

Total Cost: (f) Del Mar-Escondido Highway
 (18.7 miles) ----- \$260,640

PRELIMINARY STATEMENT

In the Matter of Road Improvement District No. 3.

DEL MAR - ESCONDIDO PAVED HIGHWAY

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| | | | |
|-------------------------|-----|--|------------------|
| Sections:- | (a) | San Dieguito Valley Section consists of four divisions (1 to 4 incl.) extending from Del Mar to Escondido along north slope of the River thru Crescent Valley. | |
| | (b) | Bernardo Section consists of one division (No.5) extending from Crescent Valley to Bernardo. | |
| Length:- | (c) | (San Dieguito Section) ----- | 18.7 miles |
| | (d) | Bernardo Section ----- | 4.5 " |
| | (e) | Both Sections ----- | 23.2 " |
| Width:- | (f) | 16 ft. with 10 ft. concrete pavement. | |
| Average Cost per Mile:- | (g) | Construction:-- | |
| | | Pavement-- | \$6,200 |
| | | Grading-- | 2,520 |
| | | Drainage-- | 1,000 |
| | | | <u>\$ 9,720</u> |
| | (h) | Engineering, etc., (In percentage of \$9,720) | |
| | | Engineering & Inspection-- | 7 |
| | | Attorney Fees ----- | 1 |
| | | Advertising ----- | 1 |
| | | Rights of Way ----- | 1 |
| | | Contingencies ----- | 5 1/2 |
| | | | <u>15%</u> |
| | | Or Approximately ----- | <u>\$ 1,460</u> |
| | (i) | | <u>\$11,180</u> |
| Total Cost (23.2 miles) | (j) | Construction:- | |
| | | San Dieguito Valley Section | |
| | | Div. No. 1 ----- | \$44,200 |
| | | " " 2 ----- | 34,300 |
| | | " " 3 ----- | 49,200 |
| | | " " 4 ----- | 54,500 |
| | | | <u>182,200</u> |
| | (k) | Bernardo Section | |
| | | Div. No. 5 ----- | <u>43,300</u> |
| | (l) | Sub Total ----- | <u>\$225,500</u> |
| | (m) | 15% ----- | <u>33,825</u> |
| | (n) | | <u>\$259,325</u> |

IN THE MATTER OF ROAD IMPROVEMENT DISTRICT No. 3.

DEL MAR - ESCONDIDO PAVED HIGHWAY.

Road Survey No. 332 (Including Plans & Profile)

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May 15th, 1917

To THE HONORABLE,
THE BOARD OF SUPERVISORS,
San Diego County, California.

Gentlemen:-

Pursuant to the authority conferred upon me by Resolution of your Honorable Board, passed and adopted December 20th, 1916, and authorizing me to submit with rights of way secured plans, profiles, specifications and estimates for the work necessary to construct a paved highway thru the San Dieguito River Valley from Del Mar to Escondido with purpose to form an assessment district to be hereafter known as Road Improvement District No. 3, I hereby respectfully submit the following:

(A) Location, etc.

The construction of a paved highway along the line of Road Survey No. 332 and known as the Del Mar - Escondido Paved Highway, San Diego County, California, on file in the offices of the County Surveyor and Board of Supervisors, both of San Diego County, California, and in accord with the plans and specifications for road work made a part hereof. Said district lying and extending along the northerly slope of the San Dieguito River Valley and included within the First, Third and Fifth

Road District, surveyed and mapped March 1917 under the direction of Thos. P. Ellis, its Engineer.

(B) Rights of Way

The present county road right of way between Del Mar and the San Dieguito Rancho is available for the building of the Del Mar - Escondido Highway and likewise the County road between Crescent Valley and the Escondido City Limits. The easements necessary to complete a continuous right of way between these points together with additional rights of way obtained to straighten the alignment are listed below. These documents will be handed you under separate cover.

| No. | Name of Grantor | Location (S.B.M.) |
|-----|------------------------------|---|
| 1 | South Coast Land Company | Pt. Lots 814-815 Arden Hts.No.6. |
| 2 | Santa Fe Land Imp. Co. | San Dieguito Ranch. |
| 3 | Louis Weller & wife | Pt. Sec.22, T 13 S, R 3 W. |
| 4 | Geo. F. Staat & wife | Pt. Sec.14, T 13 S, R 3 W. |
| 5 | W. G. Henshaw | Extending between Staat & Gipps properties and thru Bernardo Ranch. |
| 6 | U. S. Government | Pt. Secs 13 & 14, T 13 S, R 3 W, and Pt Sec. 18, T 13 S, R 2 W. |
| 7 | Henrietta E. Gipps & husband | Pt Sec 32, T 12 S, R 2 W. |
| 8 | Aug. Jungnitsch | do |
| 9 | Jas. B. Carroll | do |
| 10 | Lane S. Leonard | do |
| 11 | Martin V. Leonard | do |
| 12 | Case Estate | do |
| 13 | A. L. Hager | Pt 312-313 Rincon Del Diablo. |

(C) Assessment District.

The Assessment District proposed to be hereinafter assessed to pay for the cost and expenses of said work, to-wit:

All that territory shown within the boundary lines of the District set forth on map A and marked "In the Matter of Road Improvement District No. 3, Map of Assessment District", hereto

attached and made a part thereof, which said territory is more particularly described as follows:

Beginning at the intersection of the mean high tide line of the Pacific Ocean with the center line of Fifth Street, Del Mar, California, as per map No. 368, of Record in the office of the County Recorder of San Diego County, California, thence easterly along said center line and the center line produced to the south line of Section 14, Township 14 South, Range 4 West, S. B. M.;

Thence easterly along the said south line of said Section 14 to the southeast corner thereof;

Thence north along the east line of said Section 14 to the corner of Sections 11, 12, 13 and 14, said Township 14 South, Range 4 West, S. B. M.;

Thence easterly along the south line of Section 12, Township 14 South, Range 4 West, S.B.M., and continuing easterly along the south line of Section 7, Township 14 South, Range 3 West, S.B.M., to the southeast corner of said Section 7;

Thence north along the east line of said Section 7 to the east quarter corner thereof;

Thence easterly along the east and west center lines of Sections 8 and 9, Township 14 South, Range 3 West, S.B.M., to the east quarter corner of said Section 9;

Thence north to the northeast corner of said Section 9, being also the southwest corner of Section 5, Township 14 South, Range 3 West, S.B.M.;

Thence east along said south line of said Section 3 to the southeast corner thereof;

Thence north along the east line of said Section 3 to the northeast corner thereof;

Thence continuing from the northeast corner of said Section 3, Township 14 South, Range 3 West, S.B.M., easterly along the south line of Section 35, Township 13 South, Range 3 West, S.B.M., to the southeast corner thereof;

Thence northerly along the easterly line of said Section 35 to the east quarter corner thereof;

Thence easterly along the east and west center line of Section 36, Township 13 South, Range 3 West, S.B.M., and continuing easterly along the east and west center line of Section 31, Township 13 South, Range 2 West, S.B.M. to the westerly boundary line of Rancho San Bernardo, as per the patent issued by the United States of America to Marie Smock, November 17, 1874 of record in Book 2, page 462 of Patents, Records of San Diego County, State of California;

Thence southerly along said westerly boundary line to the south west corner of said Rancho San Bernardo;

Thence easterly along the south boundary of Rancho San Bernardo 117 chains more or less to the southeast corner of the Eucalyptus Culture Co. tract as per description in deed book 657, page 136 Records of San Diego County, California;

Thence northerly along the easterly boundary line of the said Eucalyptus Culture Co. tract 80 chains;

Thence South $84^{\circ} 43'$ East 49 chains more or less to the easterly boundary line of the Mary Louisa Chapman tract as set forth

in deed book 705, page 474, Records of San Diego County, California;

Thence northerly along said easterly boundary line of the Mary Louisa Chapman tract to the northeasterly corner of said tract as lying in the bed of San Dieguito River;

Thence in a northwesterly direction over and across the M. Barnett property as shown on License survey map No. 180, Records of San Diego County to a point on the north line of said property, whence the northwest corner of said M. Barnett property bears North $84^{\circ} 08'$ West 2800 feet;

Thence northwesterly over and across the George G. Prentice Tract to the southerly boundary line of Homeland Acres Addition to Escondido as per map No. 1205, Records of San Diego County, California, at its intersection with the center line of San Diego Boulevard as shown upon said map;

Thence northerly along the center line of said San Diego Boulevard to its intersection with the center line of Miller Avenue as shown on said map;

Thence northerly along the center line of said Miller Avenue to the north line of said Rancho San Bernardo;

Thence easterly along said north line to its intersection with the center line of an unnamed street lying between and adjacent to Blocks 252 and 255 of the resurvey of part of Rancho Rincon del Diablo as per map No. 725 of record in the office of the County Recorder of San Diego County, California;

Thence northerly along said center line of said unnamed street to its intersection with the center line of Idaho Avenue, said center line of Idaho Avenue being also the southerly limits of the City of Escondido;

Thence southwesterly, westerly and northerly following the traverse of the boundary of the City Limits of Escondido to its intersection with the southerly right of way line of the Atchison, Topeka and Santa Fe Railroad;

Thence in a westerly direction along the said southerly line of said Atchison, Topeka and Santa Fe Railroad right of way to an intersection with the west line of Rancho Rincon del Diablo, being also the east line of Rancho Los Vallecitos de San Marcos;

Thence southerly along said east line of said Rancho Los Vallecitos de San Marcos to the southeast corner thereof;

Thence northwesterly along the south line of said

Rancho Los Vallecitos de San Marcos to its intersection with the easterly line of the "Subdivision of Lot 9, Section 18, Township 12 South, Range 2 West, S.B.M. Also the Southeast Quarter of the Southeast Quarter of Section 18, Township 12 South, Range 2 West, S.B.M. Also a part of Lot 1, Section 17, Township 12 South, Range 2 West, S.B.M." as per map No. 555 of record in the Recorder's office of San Diego County, California;

Thence southwesterly along the easterly line of said subdivision to the Section corner of Sections 17, 18, 19, 20, Township 12 South, Range 2 West, S.B.M.;

Thence west along the north line of said Section 19 to the quarter corner between Sections 18 and 19, Township 12 South, Range 2 West, S.B.M.;

Thence southerly along north and south center line of said Section 19 to its intersection with the east and west center line thereof;

Thence west along the east and west center line of said Section 19 to the west quarter corner of said Section;

Thence south along the west line of said Section 19 and Sections 20, 31, all of Township 12 South, Range 2 West, S.B.M. to the south line of said Section 31, which is also the north line of Section 1, Township 13 South, Range 3 West, S.B.M.;

Thence west along the north line of said Section 1 to the north quarter corner thereof;

Thence south along the north and south center line of said Section 1 and Section 12 to its intersection with the east and west center line of said Section 12;

Thence westerly along the east and west center line of said Section 12 and Section 11 to the west quarter corner of said Section 11;

Thence south along the west line of said Section 11 to the southwest corner thereof which is also the northeast corner of Section 15, Township 13 South, Range 3 West, S.B.M.;

Thence west along the north line of said Section 15 to the north quarter corner thereof;

Thence south along the north and south center line of said Section 15, Township 13 South, Range 3 West, S.B.M., to its intersection with the north line of the Rancho San Dieguito produced easterly;

Thence westerly along said north line of the Rancho San Dieguito produced easterly and also the north line of the Rancho San Dieguito to Corner No. 7 of said Rancho San Dieguito;

Thence Northerly, Westerly and Southerly and following the boundary lines of the Rancho San Dieguito through its respective corners 6, 5 and 4 to the closing corner between Section 25, Township 13 South, Range 4 West, and Section 30, Township 13 South, Range 3 West, S. B. M.;

Thence south along the westerly line of said Section 30 and Section 31, both of Township 13 South, Range 3 West, S.B.M. to the southwest corner of Section 31;

Thence continuing from the Southwest corner of said Section 31, Township 13 South, Range 3 West, S.B.M., westerly along the north line of Section 1, Township 14 South, Range 4 West,

S. B. M., to the northwest corner thereof;

Thence south along the west line of said Section 1 to the west quarter corner of said Section 1;

Thence westerly along the east and west center line of Section 2 to its intersection with the north and south center line of said Section 2;

Thence South along the north and south center line of said Section 2 to the south quarter corner thereof;

Thence west along the south line of said Section 2 to its intersection with the mean high tide line of the Pacific Ocean;

Thence southerly and following the meanderings of the Pacific Ocean to the point of beginning.

(D) Grades.

The grades for the highway to be constructed within the above described district are as delineated and set forth on the profile made a part of the plans and the elevations are in feet and refer to the top of the finished concrete of the roadway at its center line and are above a datum or level as established by the United States Coast and Geodetic Survey.

The grade of the road shall conform to a uniform line of ascent and descent drawn between the grade points established on said profile except for a slight curvature immediately at the break formed at said grade line intersections where a small amount of curvature will be given so as to make said break less pronounced.

(E) Statement of the Work

The following is the Engineer's estimate of date, May fifteenth, A. D. Nineteen Hundred Seventeen, of the amount of each kind of construction required in the work, per item complete in place, upon which prices are asked, and upon this statement all bids will be canvassed. No provision is made for the taking up or relaying the driven steel pipe of the South Coast Land Company, a portion of which must be removed before laying the pavement, or for abnormal prices that may occur hereafter or for maintenance after the construction period.

DIVISION NO. 1.

Item # 1 - 23,300 cubic yards Excavation without Classification.
" # 2 - 312 lineal feet 12" corrugated metal pipe.
" # 3 - 132 " " 15" " " "
" # 4 - 44 " " 18" " " "
" # 5 - 44 " " 24" " " "
" # 6 - 21 cubic yards Class "A" Concrete Headwalls.
" # 7 - 3,912 " " Class "B" " Pavement.
" # 8 - 1 Special Reinforced Concrete Culvert Sta. 4+59.

DIVISION NO. 2.

Item # 1 - 24,800 cubic yards Excavation without Classification.
" # 2 - 26 Lineal Feet 8" Corrugated Metal Pipe.
" # 3 - 354 " " 12" " " "
" # 4 - 228 " " 15" " " "
" # 5 - 140 " " 18" " " "
" # 6 - 24 " " 24" " " "
" # 7 - 88 " " 30" " " "
" # 8 - 33 Cubic Yards Class "A" Concrete Headwalls.
" # 9 - 2,608 " " " "B" " Pavement.
" # 10 - 1 Special 5'x7" Reinforced Box Culvert.

DIVISION NO. 3.

- Item # 1 - 38,800 Cubic Yards Excavation without Classification.
- " # 2 - 308 Lineal Feet 8" Corrugated Metal Pipe.
- " # 3 - 252 " " 12" " " "
- " # 4 - 66 " " 15" " " "
- " # 5 - 124 " " 18" " " "
- " # 6 - 134 " " 24" " " "
- " # 7 - 126 " " 30" " " "
- " # 8 - 96 " " 36" " " "
- " # 9 - 2,150 Cubic Yards Class "B" Concrete Pavement.
- " #10 - 42 " " " "A" " Headwalls & Slabs.
- " #11 - 42 " " Rubble Masonry Headwalls, Abutments, etc. (Alternate)
- " #12 - 131 " " Dry Rubble Wall.
- " #13 - 1,000 Pounds of Reinf. Steel complete in place (Alternate)
- # #14 - 1 - 30 ft. Trussed Beam Bridge complete in place.
(a) With wooden wings and abutments (Alternate)
(b) With Rubble masonry wings and abutments.

DIVISION NO. 4.

- Item # 1 - 30,800 Cubic Yards Excavation without Classification.
- " # 2 - 188 Lineal Feet 8" Corrugated Metal Pipe.
- " # 3 - 409 " " 12" " " "
- " # 4 - 413 " " 15" " " "
- " # 5 - 147 " " 18" " " "
- " # 6 - 160 " " 24" " " "
- " # 7 - 280 " " 30" " " "
- " # 8 - 3,865 Cubic Yards Class "B" Concrete Pavement.
- " # 9 - 53 " " " "A" " Headwalls & Slabs.
- " # 10 - 63 " " Rubble Masonry Headwalls, Abutments, etc., (Alternate)
- " #11 - 100 " " Dry Rubble Wall.
- " #12 - 1,000 Pounds of Reinf. Steel Complete in place (Alternate)
- " #13 - 8,000 Feet of Barbed Fencing.
- " #14 - 3 - 5'x7' Cattle Passes.
- " #15 - 2 - 20 ft. Bridges.
(a) With Wooden wings & abutment (Alternate)
(b) With Rubble masonry wings & abutment.

DIVISION NO. 5.

- Item # 1 - 23,200 Cubic Yards Excavation without Classification.
- " # 2 - 40 Linsal Feet 8" Corrugated Metal Pipe.
- " # 3 - 600 " " 12" " " "
- " # 4 - 296 " " 15" " " "
- " # 5 - 154 " " 18" " " "
- " # 6 - 118 " " 24" " " "
- " # 7 - 170 " " 30" " " "
- " # 8 - 154 " " 36" " " "
- " # 9 - 3,101 Cubic Yards Class "B" Concrete Pavement.
- " #10 - 58 " " Class "A" Headwalls & Slabs.
- " #11 - 58 " " Rubble Masonry Headwalls, Abutments, etc., (Alternate)
- " #12 - 50 " " Dry Rubble Wall.
- " #13 - 1,000 Pounds of Reinf. Steel Complete in place (alternate)
- " #14 - 1,700 Sq. Yds. 4" Mesh #6 Gage Reinf. Wire in Conc. Ford.
- " #15 - 1 - 30 ft. Trussed Beam Bridge Complete in place.
- (a) With wooden wings and abutments (Alternate)
- (b) With rubble masonry wings & abutments.

The bids upon each separate division of the road (Items marked "Alternate" excluded) must not exceed the following:

(A copy to be included in the Contract and Specifications).

| | |
|---------------------------|-----------|
| Road Division No. 1 ----- | \$ 44,200 |
| Road Division No. 2 ----- | 34,300 |
| Road Division No. 3 ----- | 49,200 |
| Road Division No. 4 ----- | 54,500 |
| Road Division No. 5 ----- | 43,300 |

Or a total bid of (\$9,720 x 23.2 miles)-- \$ 225,500

Which amount is the estimate of the Engineer. The addition to this amount necessary to cover Engineering, Inspection, Attorneys Fees, Advertising Right of Way Cost and Contingencies will be approximately Fifteen percent (15%).

Making the total net amount necessary to organize District Two Hundred Fifty-nine Thousand Three Hundred Twenty-five (\$259,325) Dollars.

Thos. P. Ellis

Engineer,

Road Improvement District. #3.

Tabulation Showing

Average Estimated Cost Per Mile in Each Paved Road Division.

| Division No. | Miles | Station | Estimate | Per Mile |
|--------------|-------|-------------|----------|----------|
| 1 | 6 | 0 316+80 | 44,880 | 7,480 |
| 2 | 4 | 528+00 | 34,336 | 8,584 |
| 3 | 3 | 686+40 | 49,192 | 16,397 |
| 4 | 5.7 | 980+64 | 54,490 | 9,560 |
| 5 | 4.5 | Bernardo | 43,285 | 9,620 |
| 5 | 23.2 | | 225,523 | 9,720 |

Approximately \$5,200 per mile included for pavement.

Approximately \$2,500 per mile included for grading.

Approximately \$1,000 per mile included for drainage.

Bridges & Special Water Ways.

| | |
|---|-------------|
| 17 - 30" Cor. I. Culverts with headwalls complete | \$ 3,144.40 |
| 7 - 36" " " " " " " " " " " | 1,470.15 |
| 1 - 36" Reinf. Conc. Culverts Sta. 4+59 | 198.64 |
| 1 - 5"x7" Conc. Box Culverts Sta. 4+5+00 | 592.20 |
| 3 - 8"x7' Cattle Passes | 1,220.21 |
| 2 - 20 ft. Bridges | 1,200.00 |
| 2 - 30 ft. Trussed Bridges | 1,859.10 |
| | \$ 9,465.00 |

Embankment and culverts were substituted for bridges wherever possible.

IN THE MATTER OF ROAD IMPROVEMENT DISTRICT NO. 2

San Diego County, Board of Supervisors.

STATE OF CALIFORNIA

SPECIFICATIONS

No. _____

THIS AGREEMENT, made this _____ day of _____, 191____, between the County of San Diego, State of California, the first party hereinafter called the County, and _____, the second part _____, hereinafter called the Contractor.

WITNESSETH:-

The Contractor, in accordance with the terms of this contract and specifications, agrees to do and complete at his own expense in a proper, thorough and workmanlike manner, all the work required to be done, and to furnish all the materials required to be furnished by him in the following specifications:

SPECIFICATIONS

1. Location:-

The work referred to herein is to be done in San Diego County, California, on the Del Mar - Escondido Paved Highway as delineated and set forth on the plans and profiles accompanying survey number 332 on file in the office of the Board of Supervisors of San Diego County, California, and that particular Division of work shown thereon as Division No. _____ existing and included between

survey station _____ and survey station _____.

2. Plans:-

The work herein specified is to be done in accordance with the plans, profiles and sections therefor on file in the office of the Board of Supervisors of San Diego County, hereby made a part of these specifications and designated as follows:

File No. _____

Office of the Board of Supervisors.

Survey No. Three Thirty-two, Records of the San Diego County Surveyors office.

3. Definitions:-

The word "County", when used in these specifications and contract, shall mean the County of San Diego, California.

The words "Board of Supervisors" shall mean, the Board of Supervisors of said County.

The word "Engineer" shall mean the Road Engineer for said County, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

The word "Contractor" shall mean the party or parties contracting to perform the work covered by these specifications, or his or their legal representatives.

4. Work to be Done:-

The work to be done consists of the following, viz:

To furnish all labor, implements, tools, machinery and materials, except as herein otherwise specified, required to construct and put in complete order for use the said road, including bridges, culverts, fences, and other appertaining structures, and to leave the grounds in a neat condition. Said structures shall be

constructed by the Contractor where shown by the plans or where directed by the Engineer. All work shall be done in a proper, thorough and workmanlike manner, in accordance with the plans and these specifications and to the satisfaction of the Engineer.

5. Quantities:-

The following is an estimate of the quantities of the work to be done and materials to be furnished; the quantities are to be considered as approximate only, and the Engineer may increase or decrease them, as may be deemed necessary or expedient. The Contractor shall not be entitled to any compensation for anticipated profits by reason of such change in quantities. Bids will be compared on the basis of these estimated quantities:

(See attached letter for these quantities)

6. Materials Furnished:-

Materials to be used under this contract will be furnished as follows:

(a) The County will furnish to the Contractors, California Corrugated Iron Pipe and Riverside Portland Cement, f.o.b. Del Mar or Escondido, at the usual factory prices prevailing at these places at that time.

(b) Unless otherwise stated, the materials above specified shall be delivered to the Contractor upon the public railroad freight sidings, if in carload lots, or at the railroad freight stations, if in less than carload lots, nearest to the places where they are to be used. They shall be unloaded and hauled to

the site of the work by the Contractor at his expense. The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are used.

(c) The Contractor will be held responsible for all materials delivered to him, and deductions will be made from any moneys due him to make good any shortages and deficiencies, from any cause whatsoever, which may result after such delivery, or for any demurrage charges due to delinquency in unloading.

(d) When cement is delivered in cloth bags, the Contractor shall, at his expense, prepare for shipment and deliver to the railroad all such bags. He will be held responsible for all cloth bags in which cement is delivered to him, and deductions will be made from any moneys due him to make good any shortages or damages, from any cause whatsoever, which may result after such delivery.

7. Commencement and Completion of the Work, General Provisions:-

(a) The work to be commenced within fifteen (15) days after the approval of the contract by the Board of Supervisors, and it is to be diligently prosecuted to completion in such order as may be prescribed by the Engineer.

The work shall be prosecuted at least as fast as indicated by the following schedules, the percentages of completion being the percentages of the total amount of the bid which the total value of all contract items at any time may be.

If the whole contract is to be completed in 150 days, 5 per cent shall be completed in 25 days, 15 per cent in 50 days,

40 per cent in 75 days, 65 per cent in 100 days, 90 per cent in 125 days, and 100 per cent in 150 days.

If the whole contract is to be completed in 250 days, 3 per cent shall be completed in 25 days, 9 per cent in 50 days, 19 per cent in 75 days, 31 per cent in 100 days, 43 per cent in 125 days, 57 per cent in 150 days, 71 per cent in 175 days, 83 per cent in 200 days, 93 per cent in 225 days, and 100 per cent in 250 days.

If the whole contract is to be completed in 450 days, 3 per cent shall be completed in 50 days, 13 per cent in 100 days, 30 per cent in 150 days, 47 per cent in 200 days, 63 per cent in 250 days, 72 per cent in 300 days, 78 per cent in 350 days, 91 per cent in 400 days, and 100 per cent in 450 days.

On existing roads the surface of the traveled way shall not be disturbed, except for the construction of culverts or except with the written consent of the Engineer, for more than one half mile in advance of the completed roadway.

(b) The Contractor is to furnish free of charge all stakes and such temporary structures as may be necessary for marking and maintaining points and lines given by the Engineer, and is to give the Engineer such facilities and materials and furnish common labor for giving said lines and points as he may require; and the Engineer's marks must be carefully preserved.

(c) If any person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Engineer, and such person shall not again be employed on

the work. Whenever the Contractor is not present on any part of the work where it may be desired to give direction, orders will be given by the Engineer, and shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the orders are given.

(d) The Contractor shall, at his own expense, preserve and protect from injury such roadside trees as the Engineer shall specify, and, if so directed by the Engineer, he shall cover the trunks with burlap or drive stakes around them in a manner satisfactory to the Engineer. All trees which the Engineer shall consider to be useful for shade or other purposes shall be cared for by the Contractor as the Engineer shall direct, and no trees within the limits of the right of way of the road shall be cut or otherwise removed without the consent in writing of the Engineer.

All fences along the said highway shall be protected by the Contractor, and if they are injured or destroyed they, and any other property injured by the Contractor, his employees or agents, shall be restored to a condition as good as it was when he entered upon the work.

(e) The Contractor shall examine all bridges and culverts on or near the work or over which he shall move his implements or equipment, and shall properly strengthen such structures where necessary before he uses them. He will be held responsible for any and all damage to such bridges and culverts caused by steam road rollers or other implements and equipment.

(f) The Contractor shall provide and maintain such fences, barriers, "Road Closed" signs, red lights and watchmen and other

means as may be necessary to prevent accidents to the public. He shall place, at the points designated by the Engineer, such warning signs as may be furnished by the Commission, and he shall provide white lights as may be necessary for illuminating the said signs.

(g) After the completion of the work, the Contractor shall remove all temporary structures built by him and all surplus materials of all kinds from the site of the work and leave the whole clean and presentable.

8. Fences:-

(a) When ordered by the Engineer, the property fences along the right of way of the old road shall be removed to the new highway and set to the lines and grades given by the Engineer.

(b) The price to be paid for all work done hereunder shall include the cost of taking down the fences, moving them to their new locations, resetting them, and replacing all portions of the fences which are injured or damaged, by reason of their removal, with new materials of kind and quality equal to that in the fences before their removal, to the intent that, when replaced, such fences shall be equal in all respects to the present fences.

(c) When ordered by the Engineer, new property fences shall be constructed along the highway to the lines and grades given by the Engineer.

(d) The new fences will consist of two types, viz:
About one thousand eight hundred fifty (1,850) lineal feet of No. 1047-A, American Woven Wire, forty-seven (47) inches high, with two strands of barbed wire on posts spaced ten (10) feet apart.
About two thousand three hundred fifty (2,350) lineal feet of

Universal Fence, fifty-eight (58) inches high with two strands of barbed wire, on posts spaced sixteen (16) feet apart, with tops beveled at forty-five (45°) degrees. All fence posts will be set two and one-half (2½) feet into the ground. All fences shall be built in a substantial and workmanlike manner, with all wire or woven wire fences well and tightly stretched.

The price to be paid for new fences shall include all handling and hauling of material, building the fences, and all incidental work.

9. Clearing and Grubbing:-

(a) All trees, stumps, roots and vegetation within the roadbed and slopes shall be grubbed out and removed, and all trees or shrubbery on the highway reserved by the Engineer shall be suitably protected by the Contractor, as the Engineer may direct.

(b) No additional payment will be made for above mentioned work, it being understood that the contract price for grading covers the same.

10. Grading:-

(a) Grading will include all embankments and excavations of whatever nature the materials may be, required for the construction of the roadway, waterways and ditches, borrow-pits, road and driveway intersections, foundation pits for culverts and other structures, changing of streams and highways, and all other grading incidental to the construction of the finished highway. All grading shall be true to the lines and grades given and in conformity with the plans, profiles and sections therefor.

(b) Each Division of road shall have but one excavation price for all classes of materials encountered in grading. That is, the price for all grading will be the flat price bid per cubic yard for excavation. The quantity "borrow" shall have the same rate as excavation and all borrow which make up the item excavation is included in the quantities.

(c) All soft or unsuitable material shall be removed and the space refilled with good earth or gravel, as directed by the Engineer. The contract price for excavation will be allowed both for the excavation below sub-grade and for the refilling.

(d) The Contractor shall grade, according to the Engineer's directions, a safe, proper and workmanlike connection with each intersecting public or private road or driveway.

(e) Ditches shall be excavated by the Contractor in such places and of such dimensions as the Engineer may direct, at the contract price for excavation.

(f) All material from cuts shall be placed in embankment as directed by the Engineer. It shall be optional with the Engineer to allow the Contractor to waste material from cuts and construct embankments from borrowed material, in lieu of the same, but in such cases the work shall be estimated for payment the same as if the material had been hauled from excavation to embankment as above contemplated.

(g) Where the amount of material excavated from the roadway is insufficient to make the embankments, the extra material required shall be furnished by the Contractor from borrow-pits. If borrow-pits are located within the right of way, their location,

cross-section and grades shall be as approved by the Engineer.

(h) Where the quantity of excavation exceeds that required to make embankments, the surplus shall be used to widen the embankments or be wasted, as the Engineer may direct.

(i) Embankments shall be formed of suitable material and carried up full width, in layers not to exceed one foot in thickness, and the teams shall be made to travel as evenly as possible over the whole surface of each layer, both going and coming.

(j) All clods or hard lumps of earth shall be broken up before being placed in the fill, if, in the opinion of the Engineer, it is necessary in order to obtain a dense embankment or a smooth, even surface.

(k) The entire roadway shall be plowed and broken up where directed by the Engineer, to allow new and old material to bond together. Slopes too steep to be plowed shall be benched, as directed by the Engineer.

(l) Embankments shall be carried to such height above grade and in such increased width as the Engineer may deem necessary for shrinkage and compression, and they must be maintained by the Contractor to their proper height, dimensions and slope until the work is finally accepted.

(m) After fills and cuts are graded, the entire width of the roadway shall be thoroughly watered and rolled with a roller weighing not less than 200 pounds per inch width of tire, until the surface is smooth and unyielding. Depressions below the required grade and cross-section shall be filled with fresh material and rolled as before.

(n) Excavations and embankments shall be finished with all

slopes cut true and straight, in conformity with the lines and grades of slope directed by the Engineer, and all slopes, whether old or new, shall be left with neat and even surfaces.

(o) The length of a gross haul shall be determined by the distance from the center of any mass in place before excavation to the center of the same mass after being deposited in proper place in embankment. When such distance is 1,000 feet or less, no payment for overhaul shall be made, it being understood that a "free haul" of 1,000 feet is covered by the contract price for excavation. The "overhaul" shall be the gross haul less 1,000 feet.

(p) The contract price per cubic yard for excavation shall include the excavation, loading, transportation, and deposit of the material in accordance with these specifications, and also all grubbing and clearing, culvert excavation, ditching, and all other work incidental to the grading.

(q) Quantities to be paid for shall be computed by the method of average end areas, and all measurements of earthwork shall be made in excavation. Excavation in excess of the cross-section authorized by the Engineer shall not be paid for.

(r) Excavation for culverts, bridges or other structures shall be estimated to include one foot beyond the outside limits of the footings or walls and with vertical slopes.

(s) Excessive blasting or "over-shooting" will not be permitted, and the Contractor will be required to remove at his own expense any material outside the authorized cross-section that may be shattered or loosened by blasting.

(t) Overhaul shall be paid for at the rate of one cent

per cubic yard per 100 feet of overhaul.

(u) The Contractor shall protect from injury and provide for continuous service all gas or water pipes, buildings, bridges, tracks and other construction that may be encountered, and promptly repair any damage done them during the progress of the work, and shall remove all rubbish or debris immediately after the completion of the work in each road division.

(v) Bridge footings and the like shall be carried to the substantial depths and shall be placed upon undisturbed material. If excavations are carried below grade, no backfilling under footings will be permitted, and the footings must be extended to undisturbed material at the expense of the Contractor. After the abutments and piers are in place, all excavations around them shall be back-filled to substantially the original ground line, with such allowance for shrinkage as the Engineer may direct.

(w) The roadway near footing mentioned in (v) shall be backfilled to conform to the grade and cross-section of the adjacent road, the cost being included in the contract price for the bridge.

(11. Shoulders:-

(a) Shoulders of the dimensions shown on the plan, or of such dimensions as the Engineer shall specify, shall be built on both sides of the paved way.

(b) If the Engineer shall so direct, any material which he shall select from the excavation of the present road bed shall be stacked in piles, saved for use on the shoulders and used therefor when directed by the Engineer.

(c) The shoulders shall be dressed to conform to the proposed cross-section and shall be rolled with a roller of weight and pattern approved by the Engineer and to his satisfaction. When the roadway is completed the shoulders shall be smooth and hard and shall conform to the proposed cross-section.

12. Corrugated Iron Culverts:-

(a) Corrugated iron culverts shall be laid where directed by the Engineer.

(b) All corrugated iron pipe shall be laid true to the lines and grades furnished by the Engineer.

(c) Nothing but fine material, free from large stones, shall be placed around and under the pipe, and all material placed under and about the pipe shall be thoroughly tamped in place by a thin iron tamping bar.

(d) The ends of pipe culverts must be protected by concrete walls as shown on the plan.

(e) The price per foot paid for pipe laid as above shall include the cost of trenching and back-filling, and all incidental work except the masonry ends; provided, however, that when the depth of the trench exceeds five (5) feet, all excavation necessary below five feet shall be paid for by the cubic yard at the regular contract price for excavation.

13. Concrete Culverts, End Walls, etc.:-

(a) Concrete culverts, end walls, drop inlets and retaining walls shall be constructed where ordered by the Engineer to the lines and grades given by him and in accordance with the standard or special

designs shown on the plan; using therefor Class A, Class B or Class C concrete (as specified in Section 17 of these specifications) as the Engineer shall elect. All concrete used for such purposes shall be mixed and placed as provided in said section.

(b) All culvert masonry shall be measured in accordance with the dimensions shown on the plan, and no allowance shall be made for coffer dams, pumps, labor, etc., which may be necessary on account of water. The price paid for general concrete work shall not include the hauling and placing of the steel reinforcement, but it will include all other incidental work. The hauling and placing of the steel reinforcement will be included in the cost in place for steel alone.

14. Shaping Sub-Grade:-

(a) Before the pavement of shoulder material is placed, the roadbed shall be graded to a true cross-section conforming to the grades given by the Engineer and the section called for on the plan.

(b) It shall be thoroughly watered and rolled until the surface is smooth and unyielding.

(c) Depressions shall be filled with fresh material and the watering and rolling continued as before.

(d) Where a uniform and unyielding surface can not be otherwise obtained, the surface shall be cultivated and again puddled with water and rolled until a true and firm foundation is secured.

(e) No surfacing material shall be applied until the sub-grade is in condition acceptable to the Engineer.

(f) The cost of shaping and preparing the sub-grade shall be considered as included in the price quoted for the concrete pavement

15. Timber Headers:-

(a) Timber Headers of 2" by 4" planks placed on edge and securely nailed inside of supporting stakes shall be placed along each edge of the pavement and at the beginning and end of each section thereof and they shall conform to the lines and grades for the edge of the finished pavement.

(b) They shall have square top edges, square butt joints against stakes and shall not contain enough knots or imperfections to impair their strength.

(c) The stakes shall be sufficient in size and number to support the concrete base until the work is finished. The headers shall remain in place until the concrete has hardened to the satisfaction of the Engineer.

(d) All stakes shall be set with a sawed top conforming to the surface of the finished pavement.

(e) The expense of the headers and placing them shall be considered as included in the price for the concrete.

16. Concrete Pavement:-

(a) Upon the sub-grade as hereinbefore specified, and while it is thoroughly damp and firm, there shall be laid a concrete pavement of the thickness, width and form shown on the typical cross-section composed of Class "B" cement concrete, mixed and placed as specified under the heading "Concrete", section 17 of these specifications.

Unless otherwise provided by special letter from the Engineer, no embankment over three feet in depth shall have pavement placed thereon until the drying out of the embankment after one winter's rain has taken place.

(b) The upper surface of the pavement shall be finished parallel to the profile grade by thorough tamping until the mortar

flushes freely to the surface. Special care must be given to the tamping of the concrete adjacent to expansion joints. In striking off the top of the concrete the template must be moved away from the expansion joint, not toward it, and the surplus concrete removed. "Split floats" spanning the expansion joints shall be used for finishing the surface of the concrete adjacent thereto to insure that the concrete on both sides of each joint shall be at the same elevation. When a straight edge ten (10) feet long is laid on the finished surface of the concrete, and parallel with the line of the road, the surface shall in no place vary more than one-quarter of an inch from the lower edge of the straight edge. All grade breaks as shown on the profile are construed to require a small vertical curve in the concrete to eliminate any sharp line of demarcation showing on the surface of the pavement.

(c) Expansion joints one-quarter (1/4) to three-eighths (3/8) of one (1) inch thick, shall be constructed at intervals of forty-five (45) feet. They shall be vertical, straight, and at right angles to the center line of the pavement. Steel templates of the dimensions shown for the road crown on the plan, shall be placed in position for the expansion joints prior to the concrete being poured adjacent thereto. The steel templates shall remain in place not less than twelve (12) hours following the pouring of the concrete, and shall then be removed and the spaces filled with 40° to 50° penetration asphalt up to the level of the top of the pavement. The spacing of the expansion joints may be changed at the discretion of the Engineer, provided the total number of said joints is not increased.

(d) The Contractor shall supply crown grade templates for use as directed by the Engineer, and he shall supply enough expansion joint steel templates for a full days run. Templates

which become defective must be replaced immediately.

(9a) The concrete shall be protected from direct rays of the sun after being placed and shall be so protected and kept wet for a period of at least ten (10) days. The concrete shall also be protected against traffic until thoroughly set.

17. Concrete:-

(a) The cement shall conform to the standard specifications for Portland cement adopted by the American Society of Testing Materials, August 16, 1909, with subsequent amendments.

(b) All tests shall be made in accordance with the methods specified in the Final Report of the Special Committee on Uniform Tests of Cement of the American Society of Civil Engineers, presented January 17, 1912, with subsequent amendments.

(c) The cement shall be suitably protected from exposure to moisture until used, and shall be so piled as to permit of access for tally, inspection and identification of each shipment. It shall be delivered in the original package, with the brand and the name of the manufacturer plainly marked thereon.

(d) All cement, the samples of which do not pass the above specifications, and all cement which may have become damaged by exposure to moisture shall be immediately and permanently removed from the work.

(e) The fine aggregate shall consist of an approved material of siliceous, granitic or igneous origin, hard, durable and free from mica in excess of five (5) per cent by weight. It shall be free from oil or organic matter, and must not contain more than six (6) per cent by weight of clay, silt and other mater-

ial passing a No. 100 Standard Sieve. It shall all pass a No. 4 Standard Sieve, and at least fifty (50) per cent, but not more than eighty-five (85) per cent by weight, shall be retained on a No. 30 Standard Sieve.

(f) The coarse aggregate shall be sound gravel or broken stone, having a specific gravity of not less than 2.6, which shall be clean and free from all foreign matter, uniformly graded, and shall range in size from one-fourth inch up to one and one-half inches for Class "A" concrete, and from one-fourth inch up to two and one-half inches for other classes of concrete.

(g) The water used in mixing the concrete shall be clean, free from oil, acid, alkalies or vegetable matter.

(h) CLASS A CONCRETE shall consist of one cubic foot (94 lbs.) of Portland cement, two cubic feet of fine aggregate and four cubic feet of coarse aggregate, the several ingredients being measured separately before mixing.

(i) CLASS B CONCRETE shall consist of one cubic foot (94 lbs.) of Portland cement, two and one-half cubic feet of fine aggregate, and five cubic feet of coarse aggregate, the several ingredients being measured separately before mixing.

(j) CLASS C CONCRETE shall consist of one cubic foot (94 lbs.) of Portland cement, three cubic feet of fine aggregate, six cubic feet of coarse aggregate.

(k) The ingredients of the concrete shall be thoroughly mixed, sufficient water being added to obtain the desired consistency, and the mixing continued until the materials are uniformly distributed, and each particle of fine aggregate is thoroughly coated with

cement, and each particle of coarse aggregate is thoroughly coated with mortar.

(l) Where a mechanical mixer is used, the materials must be proportioned dry in separately measured batches, and all deposited at the same time. The mixer must produce a concrete of uniform consistency and color, with the stones thoroughly mixed with the water, sand and cement.

(m) Sufficient water shall be added during the process of mixing to produce a wet, plastic mixture which will flush readily under light tamping, but which can be handled without causing a separation of the coarse aggregate from the mortar. The quantity of water used shall be modified, as directed by the Engineer, to meet the conditions of the work being placed.

(n) All concrete shall be used while fresh and before it has taken an initial set. Retempering with additional water, any concrete that has partially hardened, shall not be permitted.

(o) The forms shall be smooth, tight, true to the required lines and grade, and of sufficient strength to resist springing out of shape during the placing of the concrete. All mortar and dirt shall be removed from forms previously used; they shall be thoroughly moistened immediately before concrete is placed against them; they shall remain in place until the Engineer authorizes their removal, and they shall be removed in such order as he may direct.

(p) Concrete, when mixed, shall be immediately deposited without any separation of its ingredients, and thoroughly rammed and tamped or spaded in layers not more than six inches in depth, until it is thoroughly compact and until free mortar appears on the

surface and all voids are filled. It shall not be permitted to fall from any considerable height.

(q) It shall not be placed under water except with the consent of the Engineer, and in such event, shall be deposited in a compact mass in such manner that the cement and fine aggregate will not be separated from the stones. Concrete shall not be laid in running water.

(r) Any voids discovered in the surface of the concrete shall be repaired by removing the defective work and refilling the space with one to one cement mortar. Exposed surfaces shall be finished smooth and uniform by removing all form marks and imperfections. A neat cement grout shall be applied over the entire surface, as directed by the Engineer.

(s) When joining new concrete with concrete already set, the surface shall be cleaned, roughened, thoroughly watered and coated with a thin mortar, composed of neat cement.

(t) The concrete in each floor slab or girder shall be placed continuously. Concrete in arches shall be placed in a manner acceptable to the Engineer.

(u) Reinforcing rods shall be placed as shown on the plan, wired at intersecting rods and held firmly in place until embedded in concrete. The price of the concrete alone for all reinforced structures is the same as if the structures were without reinforcement. In addition, however, will be added the price bid for reinforcement in place. The sum of the two prices going to make up the total price of the reinforced concrete.

(v) During the first ten days after placing the concrete

shall be kept wet and protected against injury until it has thoroughly set.

(w) ALL cement used under these specifications shall be furnished by the Board and delivered to the Contractor upon the railroad freight sidings nearest to the places where it is to be used. It shall be hauled by the Contractor to the site of the work at his expense. The Contractor will be held responsible for the cement delivered to him, and deductions will be made from any moneys due him to make good any shortages and deficiencies, from any cause whatsoever, which may result after such delivery.

18. Asphaltic Oil Wearing Surface:-

No asphaltic wearing surface, other than that included in the price for bridges complete in place, is asked for under this contract; if it is necessary that any great amount should be provided at a later date, the State Highway Specifications are recommended.

19. Oiling:- (For bridges, etc.)

(a) The oil shall be at least 90% asphaltic and applied at a temperature of not less than two hundred fifty (250) degrees Fahrenheit, nor more than five hundred (500) degrees Fahrenheit.

(b) In no case shall live steam or water be injected into or allowed to enter the oil after it has been received by the Contractor.

In the process of oiling, oil must not be allowed to fall on any concrete head walls, curbs, walks or guard rails.

(c) Before any tank of oil is applied, it must be inspected by said Engineer to determine its quantity and temperature

(d) All wagon tanks used for the distribution of oil shall first be submitted to the Engineer, who will gauge and mark the capacity in gallons of said tanks.

20. Maintaining Traffic:-

(a) All traffic shall be barred from that portion of the width of roadway which is being paved. The Contractor, however, must arrange to take care of the existing traffic so as to inconvenience the general public as little as possible. Residents along the road must be provided for as far as practicable. Convenient access to driveways, houses and buildings along the line of the work must be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition where required by the Engineer.

(b) After the sub-grade has been prepared, or after the concrete foundation has been laid, it shall be protected from traffic and the contractor shall be required to repair any damage which may occur.

(c) No traffic shall be allowed upon the unfinished roadway except by permission of the Engineer.

21. Dry Rubble Retaining Walls.

(a) Retaining walls of dry rubble shall be constructed where shown on the plans or where ordered by the Engineer, and of the shapes and dimensions ordered by the Engineer.

(b) The stones shall be hard and durable, and free from seams or other imperfections. Selected stones with flat faces as nearly parallel as practicable shall be used. At least seventy-five

(75) per cent of the stones shall be one-man stones or larger.

(c) The different sizes of stones shall be evenly distributed over the whole face of the wall, generally keeping the largest stones in the lower part of the wall. The work shall be well bonded, using as many large long stones as can be obtained, and shall present a reasonably true and smooth surface, free from large holes or projections. The wall shall be built ahead of the embankment, and shall be self-sustaining.

(d) The price per cubic yard for dry rubble shall include furnishing and placing the stones and all incidental work.

22. Guard Rails:-

(a) Guard rails shall be built in accordance with the plans, located at the points shown, and at such other points as may be directed by the Engineer.

(b) Posts shall be six (6) feet total length, embedded in the earth to a depth of two and one-half (2½) feet. They shall be square redwood posts 6" by 6", finished dimensions, surfaced four (4) sides, and spaced eight (8) feet on centers.

(c) The rails shall consist of 2" by 6" by 16' Oregon pine, surfaced four (4) sides. The ends shall be properly squared so as to make a neat joint. Rails shall break at joints on alternate posts. Each rail shall be securely fastened to the posts with not less than two (2) fifty-penny steel wire nails at each end and at the center.

(d) The completed guard rail shall be painted with two (2) coats of pure white lead mixed in oil in proper proportions. The first coat shall be thoroughly dry before the second coat

is applied.

(e) All timber must be of first quality redwood and Oregon Pine, free from sap, shakes, loose or rotten knots, or other defects that would impair its strength or durability, and thoroughly seasoned.

23. Extra Work:-

(a) The Contractor shall do such extra work and furnish such materials as may be required by the Board of Supervisors for the proper completion or construction of the whole work herein contemplated; and he shall make no claim for extra work unless it shall have been done in obedience to a written order from the Engineer. All bills for extra work done in any month shall be filed in writing with the Engineer before the fifteenth of the following month; and failing to file such claims within the time required, all rights for pay for such extra work shall be forfeited. The Contractor shall receive for such extra work the actual cost of all materials furnished by him, as shown by his paid vouchers. For such labor and teams as are necessary he shall receive the current prices in the locality, which shall have been previously agreed to in writing by the Engineer and by the Contractor, plus fifteen (15) per cent.

24. Changes:-

The right is reserved by the Board of Supervisors to make, by a two-thirds vote of their number, such changes in the form or character of any of the work as may, at any time during the progress of the work, be recommended by the Engineer; pro-

vided, however, that in case such change increases the cost of the work, the Contractor shall be remunerated at rates based on prices allowed on the same character of work under these specifications, and in case it shall diminish the cost of the work, no allowance will be made for anticipated profits.

Such changes shall in no wise invalidate the contract for the performance of the work nor the security therefor.

25. Damages:-

The Contractor shall take all responsibility of the work and shall take suitable measures to protect the work and prevent accidents during construction. He shall provide and maintain all necessary barriers, lights, danger signs and watchmen as hereinbefore set forth.

All loss or damage arising from any unforeseen obstruction or difficulties which may be encountered in the prosecution of the work, or from any action of the elements or from any act or omission not authorized by these specifications, on the part of the Contractor or any agent or person employed by him, shall be sustained by the Contractor. He shall have no claim against the County for damages on account of any delay caused by accidents or delays on the part of any transportation company.

If the Contractor shall claim compensation for any damage sustained by reason of any act or omission of the County, or any agent thereof, he shall, on or before the 15th day of the calendar month succeeding that in which such damage shall have been sustained, file with the Board of Supervisors, a statement of the nature of damage sustained, showing the details and amount of

such damage, and unless such statement shall be made as thus required, his claim for compensation shall be forfeited and invalidated, and he shall not be entitled to payment on account of any such damage, but the presentation of a claim for damage in accordance with the foregoing provisions shall not be deemed evidence of any liability therefor by the County or said agents.

26. Specifications and drawings:-

Anything mentioned in the specifications and not shown in the drawings, or vice versa, shall be done as though shown and mentioned in both. Should the drawings and specifications conflict as regards the same detail, the Engineer's written decision as to which is correct shall be final and binding.

27. Staking Out Work:-

The Contractor shall give at least forty-eight (48) hours notice when he shall require the services of the Engineer for laying out any portion of the work. He shall dig all stake holes necessary to give lines and levels, and shall preserve in their proper places all surveyor's stakes or monuments. The expense of replacing said stakes or monuments which the Contractor or his employees may have failed to preserve, shall be borne by the Contractor.

28. Default of Contractor:-

If the work under the contract shall be abandoned or if at any time the work or any part thereof is unnecessarily or unreasonably delayed, or if the Contractor has violated any of the provisions of these specifications, then upon recommendation of

the Engineer, the County may notify the Contractor to discontinue all work or any part thereof. Thereupon the Contractor shall discontinue such work or such part thereof as the County may designate and the County may thereupon, by contract or otherwise, as it may determine, complete the work or such part thereof, and charge the entire expense of so completing the work or part thereof to the Contractor; and for such completion the County, for itself or its contractors, may take possession of and use or cause to be used in the completion of the work or part thereof any of such materials, animals, machinery, implements and tools of every description as may be found upon the line of said work. All expenses charged under this paragraph shall be deducted and paid by the County out of any moneys then due or to become due the Contractor under the contract or any part thereof; and in such accounting the County shall not be held to obtain the lowest figure for the work of completing the contract or any part thereof, or for insuring its proper completion, but all sums actually paid therefor shall be charged to the Contractor. In case the expenses so charged are less than the sum which would have been payable under this contract if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference; and in case such expense shall exceed said sum, the Contractor shall pay the amount of the excess to the County upon completion of the work, without further demand being made therefor.

29. Delay of Completion:-

Time shall be of the essence of this contract. If the

Contractor fails to complete the work embraced herein, within the time fixed for such completion, he shall become liable to the County for liquidated damages in the sum of twenty-five dollars (\$25.00) for each and every day during which said work shall remain uncompleted beyond such time for completion or lawful extension thereof, and the amount of the liquidated damages may be deducted by the Board of Supervisors from moneys due the Contractor hereunder, at the time of completion, and such Contractor and his sureties shall be liable for any excess.

30. Defective Work:-

Defective work shall be made good, and unsuitable materials furnished by the Contractor may be rejected, notwithstanding the fact that such work and materials have been previously overlooked by the Engineer. If the work, or any part thereof, shall be found defective before the final acceptance of the whole work, the Contractor shall forthwith make good such defects in a manner satisfactory to the Engineer. If the Contractor refuses or neglects to replace any such defective work, it may be removed and replaced by the County at the Contractor's expense.

31. Supervision of Work.

The work shall be under the supervision of the Engineer. The Contractor shall furnish the Engineer reasonable facilities for obtaining such information as may be necessary to give him full information at all times respecting the progress and manner of the work and the character of the materials.

It shall be the duty of the Engineer to examine and inspect the work done or to be done under this contract and to see that the same is properly performed and when completed to file his written approval thereof with the Board of Supervisors.

The Engineer or an assistant in charge of the work shall have authority to stop the work whenever the provisions of these specifications are not being complied with, and the Contractor shall instruct his employees accordingly.

The Contractor shall give his personal attention constantly to the faithful prosecution of the work, shall keep the same under his personal control and shall not assign or sub-let the work or any part thereof without the previous written consent of the Board of Supervisors.

Whenever the Contractor is not present on any part of the work where it may be desired to give directions, orders may be given by the Engineer, and shall be received and obeyed by the Superintendent or foreman who may have charge of the particular work in reference to which the orders are given.

32. Payments:-

The Engineer shall, once in each month, during the progress of the work and as soon as practicable after the completion of the contract, make an estimate in writing of the value of all work done (at the unit prices named in the contract) to the date of said estimate. The County shall retain twenty-five (25) per cent of said estimated value and from the balance shall be deducted the amount of all previous payments to the Contractor and any

demurrage charges or other amounts which the County may be lawfully entitled to retain. Said estimates and deductions shall be certified to the Board of Supervisors by the Engineer and thereupon the amount remaining after the last mentioned deductions, will be paid to the Contractor upon the warrant of the County Auditor in the manner provided by law for the allowance of claims against the County.

The said progress estimates shall not be conclusive upon the County that the work covered thereby has been done according to the contract, but the final acceptance of said work shall be by the Board of Supervisors.

At the expiration of thirty-five (35) days after the final acceptance of said work, the Contractor shall be paid the balance due under the contract after deducting therefrom any demurrage charges or other amounts which the County may be lawfully entitled to retain which have not been previously deducted.

Ed Fletcher Papers

1870-1955

MSS.81

Box: 36 Folder: 10

Business Records - Reports - Ellis, Thomas P - "Report to the Board of Supervisors, San Diego County, California. In the matter of Road Improvement District No. 3 with plans & specifications for proposed paved highway extending from Del Mar to Escondido"



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