

SECTION 5: CONTROL OF WORK

5-01 AUTHORITY OF ENGINEER. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner or performance and rate of progress of the Work; all questions which may arise as to the interpretation of the Contract Documents; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor, and all questions as to compensation. The Engineer's decision shall be final, and Engineer shall have authority to enforce and make effective such decisions and orders which the Contractor fails to carry out promptly.

5-02 PLANS AND WORKING DRAWINGS. The Plans furnished consist of general drawings and show such details as are necessary to give a comprehensive idea of the construction contemplated. All authorized alterations affecting the requirements and information given on the Plans shall be in writing.

The Plans shall be supplemented by such working drawings prepared by the Contractor as are necessary to control the Work adequately. No changes shall be made of any plan or drawing after the same has been approved by the Engineer, except by Engineer's direction.

Working drawings for any structure shall consist of such detailed plans as may be required for the prosecution of the Work, and are not included in the Plans furnished by the Engineer. They shall include masonry layout diagrams, and bending diagrams for reinforcing steel, which shall be approved by the Engineer before any work involving these plans is performed. Plans for form work will be required and shall be subject to approval, unless approval is waived by the Engineer; these plans will be subject to approval insofar as the details affect the character of the finished work, but other details of design will be left to the Contractor, who shall be responsible for the successful construction of the Work.

It is expressly understood, however, that approval by the Engineer of the Contractor's working drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details, or for mutual agreement of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of Contractor's working drawings with the Contract Documents.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefor.

5-03 TRENCH EXCAVATION SAFETY PLANS. In advance of excavation of any trench more than five feet (5') in depth, the Contractor shall submit a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for

worker protection from the hazard of caving ground during the excavation of such a trench. If the plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and signed by a registered civil or structural engineer. No such plan shall allow shoring, sloping or a protection system less effective than that required by the Construction Safety Orders of the State Division of Occupational Safety and Health.

No excavation shall be commenced until the Contractor has obtained a permit from the State Division of Occupational Safety and Health. Their office is at 455 Golden Gate Avenue, 10th Floor, San Francisco, California, 94102; telephone number: (415) 703-5100. A copy of the permit shall be submitted to the Engineer.

5-04 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS. Work and materials shall conform to the lines, grades, cross-sections, dimensions and material requirements, including tolerances, indicated in the Contract Documents. Although measurement, sampling and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Contract Documents, and Engineer's decision as to any allowable deviations therefrom shall be final.

5-05 COORDINATION AND INTERPRETATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS. These Standard Provisions, the Plans, Special Provisions, Standard Specifications and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is binding as though occurring in all. They are intended to be cooperative; to describe and provide for a complete work. In the case of a conflict between one or more of these documents, the governing order of precedence among the documents shall be (1) Special Provisions, (2) Plans, (3) these Standard Provisions and Standard Details, and (4) Standard Specifications.

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to the same as part of the Contract, so far as may be consistent with the original Contract Documents. In the event of any doubt or question arising respecting the true meaning of the Contract Documents, reference shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct. Detail drawings shall prevail over general drawings.

5-06 ORDER OF WORK. When required by the Contract Documents, the Contractor shall follow the sequence of operations as set forth therein. Full compensation for conforming to such requirements will be considered as included in the prices

paid for the various contract items of work and no additional compensation will be allowed therefor.

5-07 SUPERINTENDENCE. The Contractor shall designate in writing before starting work, an authorized representative who shall have the authority to represent and act for the Contractor.

When the Contractor is comprised of two or more persons, firms, partnerships or corporations functioning on a joint venture basis, said Contractor shall designate in writing before starting work, the name of one authorized representative who shall have the authority to represent and act for the Contractor.

Said authorized representative shall be present at the site of the Work at all times while work is actually in progress on the contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

Failure to maintain a superintendent on the site of the Work may be grounds for termination of Contract in accordance with Paragraph 8-07, "Termination of Contract," of these Standard Provisions.

Any order given by the Engineer, not otherwise required in the Contract Documents to be in writing, will, on request of the Contractor, be given or confirmed by the Engineer in writing.

5-08 LINES AND GRADES. Such stakes or marks will be set by the Engineer as he/she determines to be necessary to establish the lines and grades required for the completion of the work specified in the Contract Documents.

When the Contractor requires such stakes or marks, Contractor shall notify the Engineer of Contractor's requirements a reasonable length of time in advance of Contractor's starting operations that require such stakes or marks.

Stakes and marks set by the Engineer shall be carefully preserved by the Contractor. In case such stakes and marks are destroyed or damaged by reason of the Contractor's operation, the cost of replacing or restoring them will be deducted from any moneys due or to become due the Contractor. Staking for City projects will be performed by the City or its authorized representative, unless specified otherwise in the Special Provisions.

5-09 INSPECTION. Inspection will be performed by the City.

The Work shall be done under the direct supervision and to the complete satisfaction of the Engineer, and in accordance with the requirements of the City.

The Engineer shall at all times have safe access to the Work during its construction and shall be furnished with every reasonable facility for ascertaining that the stock and materials used and employed, and the workmanship, are in accordance with the requirements and intention of the Contract Documents. All work done and all materials furnished shall be subject to Engineer's inspection and approval. In the event the Contractor elects to work on a Saturday, Sunday or legal holiday, the Contractor shall notify the Engineer in advance in order that inspection may be performed. The Contractor shall pay City's expense of providing such special inspection on a Saturday, Sunday or legal holiday. Also, should the Contractor work more than eight (8) hours on any given work day, the Contractor shall be charged for the cost of overtime for City inspection. Normal working hours for City Inspectors are 7:30 a.m. to 4:00 p.m., Monday through Friday. The cost of overtime for City inspection will be charged to the Contractor if the Contractor works before 7:30 a.m., after 4:00 p.m. or on Saturday, Sunday or legal holidays. The minimum charge for overtime worked on Saturdays, Sundays or legal holidays will be for four (4) hours per Inspector.

The Contractor shall notify the Engineer at least two (2) working days prior to commencing work so that inspection can be arranged. If the Contractor's work is suspended or no work has been prosecuted for three (3) days, at least two (2) days notice shall be given to the Engineer prior to performing additional work.

The inspection of the Work shall not relieve the Contractor of any of Contractor's obligations to fulfill Contractor's Contract as prescribed. Defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such defective work and materials have been previously overlooked by the Engineer and accepted or estimated for payment.

5-09.01 Differing Site Conditions. Differing site conditions shall comply with Section 5-1.116 of the Standard Specifications.

5-10 DUST CONTROL. Attention is directed to Section 30, "Water for Construction," of these Standard Provisions. At all times during construction and until final completion and acceptance of the Work, the Contractor shall prevent the formation of an airborne dust nuisance by oiling or watering as required by the Engineer, to treat the site of the Work in such a manner that it will confine dust particles to the immediate surface of the Work. The Contractor shall perform such treatment within two (2) hours after notification by the Engineer that the airborne nuisance exists. If the Contractor fails to remove the nuisance within two (2) hours, the City may order that the treatment of the site be done by City personnel and equipment or by others. All expenses incurred in the performance of this treatment shall be charged to the Contractor. The cost shall be paid for by the Contractor separately or be deducted from the periodic payments to the Contractor as such costs are incurred by the City.

5-11 EXISTING UTILITIES.

5-11.01 Location of Existing Utilities. The locations of the existing major utilities are indicated on the Plans. Minor lines such as water, gas and sewer services may not be indicated. It shall be the sole responsibility of the Contractor to determine the exact location and depth of all major utilities shown on the Plans and all minor lines, whether indicated or not.

If existing major utilities are not shown on the Plans or not found to be within reasonable proximity as shown on the Plans, the Contractor may be compensated for extra work involved in relocating the utility. The Engineer shall be judge as to whether or not compensation will be allowed.

5-11.02 Notification of Utility Companies. The Contractor shall notify Pacific Bell, Pacific Gas and Electric Company, the California Water Service Company, TCI Cablevision of California, and/or any other operator of a utility at least two (2) working days prior to excavating near their facilities. The Contractor shall note that NOT all utility operators are represented by Underground Service Alert. See Section 10, "General Requirements and Information," for additional notification requirements.

5-11.03 Damage to Existing Utilities. The Contractor shall bear full responsibility for all damages and costs of repairs to existing utilities that are damaged as a result of the Contractor's carelessness, neglect, failure to notify the utility owners to locate their utilities prior to beginning construction work near the damaged utility, or failure to locate the utility as required in the Contract Documents. All expenses of whatever nature arising from the restoration of the said damaged utility to its original service shall be borne by the Contractor and no additional compensation will be allowed.

5-11.04 Maintenance of Utilities. Unless otherwise indicated in the Contract Documents, the Contractor shall maintain all water, gas and sewer lines; lighting, power, cable television and telephone conduits; structures; house connection lines and other surface or subsurface structures of any nature that may be affected by the Work. If the Contractor fails to maintain and protect such facilities, the City reserves the right if requested by the utility company to permit the utility company to move or maintain the utility at the Contractor's expense.

5-11.05 Rerouting or Disconnecting of Existing Utilities. Should it become necessary in the performance of the Work to disconnect or reroute any underground utility due to a direct conflict with the new work, disconnection or rerouting will be paid for as Extra Work in accordance with Paragraph 4-03, "Extra Work," of these Standard Provisions, unless otherwise specified in the Contract Documents. If the utility is non-City-owned, it will be disconnected or rerouted by the utility company involved.

5-12 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK. All Work that has been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such removal or replacement. Any Work done beyond the lines and grades shown on the Plans or established by the Engineer, or any extra work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply within two (2) working days of any order the Engineer made under the provisions of this article, the Engineer shall have authority to cause defective work to be remedied or removed and replaced, unauthorized work to be removed, and to deduct the costs from any moneys due or to become due the Contractor.

5-13 EQUIPMENT AND PLANT. Equipment not suitable to produce the quality of work required will not be permitted to operate on the project.

Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity and of such character to insure the production of sufficient material to carry the Work to completion within the time limit.

The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer, shall remove unsuitable equipment from the Work and discontinue the operation of unsatisfactory plants.

All vehicles used to haul materials over existing highways shall be equipped with pneumatic tires. All vehicles operating on the construction site shall be equipped with backup warning devices in accordance with State and Federal safety standards (OSHA and CAL/OSHA).

5-14 FINAL INSPECTION. The Engineer will not make the final inspection until the Work provided and contemplated by the Contract has been completed and the final cleaning up performed.

5-15 PROJECT SITE MAINTENANCE. Throughout all phases of construction, including suspension of Work, the Contractor shall keep the street and work site clean and free from rubbish and debris. The Contractor shall remove materials and equipment from the site as soon as they are no longer necessary. Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned up. The work site shall be kept in a clean and neat appearance to the satisfaction of the Engineer. An unclean work site that causes an excessive and unreasonable nuisance to the public or is a hazard to the workers or public shall not be permitted.

When ordered by the Engineer, the Contractor shall clean up the work site within two (2) days after receiving notice. If the Contractor fails to clean up the work site within two (2) days after receiving notice, the City, at its own option, may clean up the site and charge the Contractor the full cost of the cleanup. The cost shall be paid for by the Contractor separately or be deducted from the periodic payments to the Contractor as such costs are incurred by the City. All cleanup costs shall be considered as paid for in other items of work and no further compensation shall be allowed.