

Sacramento Suburban Water District

Improvement Standards

Section A. Purpose and Definitions

A-1 Purpose

It is the purpose of these Improvement Standards, Technical Specifications and Standard Details to provide standards to be adhered to in the design and construction of water system improvements, which are to be conveyed to and accepted by the District for operation and maintenance.

All improvements, modifications, and repairs to the District's water system shall be planned, designed, and constructed in conformance with these Improvement Standards, Technical Specifications, Standard Details, District Regulations, plus any applicable Special Conditions that have been approved by the District.

A-2 References

This section contains references to the following documents. They are a part of these Improvement Standards as specified and modified. Where a referenced document contains references to other standards, those documents are also included as references under this section as if referenced directly.

- (a) Regulations Governing Water Service

A-3 Definitions

Whenever the following terms or titles are used in these standards, the intent and meaning shall be as herein defined:

- (a) **District** – Shall mean Sacramento Suburban Water District.
- (b) **General Manager/District Engineer/Engineer/Inspector** – Shall mean the General Manager of the District or his/her duly appointed representative.
- (c) **Consulting Engineer** – Shall mean any person or persons, firm, partnerships, or corporation duly licensed to practice engineering in the State of California who prepares or submits improvement plans and specifications to the District for approval.
- (d) **Applicant** – Shall mean any person or persons, firm, partnership, corporation, or combination thereof, financially responsible for the water system improvements.

- (e) **Development** – Shall mean the act or process of any construction on properties as well as subdivision improvement.
- (f) **Contractor** – Shall mean the person or persons, firm, partnership, corporation, or any combination thereof, who has entered into a contract with the District or the Applicant, and who is duly licensed under the laws of the State of California to do or perform such tasks as said contract may define.
- (g) **Regulations Governing Water Service** – Shall mean the latest Regulations Governing Water Service adopted by the District. This is a separate document.
- (h) **Technical Specifications** – Shall mean the latest Technical Specifications adopted by the District governing the construction of Water System Improvements.
- (i) **Standard Details** – Shall mean those drawings included herein, adopted by the District and as may be subsequently modified, revised, and added, illustrating and governing the design and construction of Water System Improvements.

Section B. General Requirements

B-1 Approved Plans Required

No work shall commence on any water system, which is intended to become attached to the District's system, unless complete plans and specifications covering all phases of the proposed construction have been submitted to, and approved by, the District in accordance with the provisions of Section B-7. Furthermore, no work shall commence after the date District approval expires, as specified in the approval signature block contained on said plans.

An exception to this requirement would be the installation or upgrade of a single item such as a water service, fire hydrant or fire service.

B-2 Plans by an Appropriate Engineer

All plans and specifications for improvements to the District's water system shall be prepared by a duly licensed Consulting Engineer of the appropriate branch of engineering covering the work.

B-3 Existing Utilities

All existing utilities shall be shown on the plans. In addition, the Consulting Engineer shall submit prints of the preliminary and approved plans to the utility companies involved. Copies of the transmittal letters to the utility companies shall be provided to the District with the initial plan submittal.

B-4 Partial Plans

Where the improvement plans submitted cover only a portion of ultimate development, the plans submitted shall be accompanied by an overall plan of the entire project showing proposed streets, lots, water, sewer, and drain systems, plus topographic features of the ultimate development at an adequate scale to clearly show the proposed improvements.

B-5 Improvement Plan Submittal

Consulting Engineers contemplating the preparation of improvement plans for a project are encouraged to discuss the design and details with the District's staff prior to final design and drafting.

The initial submittal of improvement plans to the District shall consist of the following:

- (a) Two sets of plans complete and in accordance with these Improvement Standards, Technical Specifications and Standard Details, along with any required specifications, computations, or other material requested by the District. Plans shall be clearly marked or stamped to indicate that they are Preliminary—Not for Construction.
- (b) Electronic copy of the plans in portable document file (i.e., pdf) format.
- (c) Two copies of the proposed Draft Final Map if applicable.
- (d) The name, address, and telephone number of the Applicant.
- (e) Payment of the District's current Plan Review Charge.
- (f) Copies of utility transmittal letters.

Should there be required alterations or revisions to the plans submitted, the District will return one copy with the corrections marked or indicated thereon and stamped and dated "NOT APPROVED FOR CONSTRUCTION SACRAMENTO SUBURBAN WATER DISTRICT". If the plans submitted are not prepared in accordance with these Improvement Standards and the Standard Technical Specifications, or do not meet minimum accepted engineering standards, the plans may be considered unacceptable and returned unmarked.

B-6 Improvement Plan Resubmittal

Plans being resubmitted shall consist of two complete sets of plans, and Final Map if applicable. The District may require additional sets.

Plans being resubmitted that contain revisions or alterations other than those required by the District on previously corrected plans shall require the Consulting Engineer to bring those revisions and alterations to the attention of the District by use of words and/or shapes and/or colors placed on the plan which clearly describe such revisions and/or alterations.

B-7 Plan Approval

The approval of plans will be indicated by the signature of the General Manager, or his/her authorized representative, in the District's signature block on the plans. The plans will be signed when:

- (a) All such changes, corrections, and/or additions as previously described by the District have been made to the original plans.
- (b) All applicable charges and fees have been paid to the District.
- (c) All applications, agreements, annexation forms and required easement documents have been prepared, signed, and presented to the District for acceptance.

B-8 Submittal of Approved Plans for Signature

For plan signature, the Applicant/Engineer shall provide the following items:

- (a) Original plans for signatures. Plans must be signed by the fire department prior to District signature.
- (b) A check for the calculated fees for water service.
- (c) Completed application for water main extension and/or water service application.
- (d) As necessary, signed and notarized grant of easement and right of way forms with legal description and plat map.
- (e) As necessary, signed annexation forms including legal description, maps and fees.
- (g) Electronic version of plans on CD in AutoCAD file format (Latest Version). Digital data shall be in NAD83, California State Plane, Zone II Coordinate System.

APPROVAL OF PLANS WILL NOT BE GRANTED IF ANY OF THE ABOVE ITEMS ARE NOT PROVIDED AT THE TIME APPROVAL SIGNATURE IS REQUESTED.

B 9 Re-approval of Plans after Expiration

Re-approval of plans after expiration shall require the Applicant/ Engineer to resubmit plans for review and possible revisions and/or alterations. New fees and/or additional fees shall be assessed and paid, along with all applicable required documents as stated in Section B-7, prior to re-approval. Prior fee payments will be credited to the new assessed fees.

NO WORK SHALL BEGIN UNTIL EXPIRED PLANS ARE REAPPROVED.

B-10 Final Plans Required

Following approval, one set of prints of approved plans with County approval shall be furnished to the District and one copy of final complete plans on a CD/DVD in the latest AutoCAD file format.

NO CONSTRUCTION SHALL BEGIN UNTIL THE DISTRICT RECEIVES THE ABOVE APPROVED PLANS AND THE REQUIRED SUBMITTALS AS DESCRIBED IN SECTION B-20.

B-11 Other Agency Notifications

The Applicant is responsible for obtaining the approval and necessary permits of all other governmental or municipal agencies when their facilities and/or regulatory authority are involved.

B-12 Improvement Plan Revisions During Construction

Should changes become necessary during construction, the Consulting Engineer shall first obtain the consent of the General Manager, or his/her authorized representative, and shall then resubmit the title sheet and the plan sheets affected for approval. The changes on the plans shall be made in the following manner:

- (a) The original proposal shall not be eradicated from the plans but shall be lined out.
- (b) In the event that eradicating the original design is necessary to maintain clarity of the plans, approval must first be obtained from the District.
- (c) The changes shall be clearly shown on the plans with the changes and approval noted in the revision block.
- (d) The revision number in a triangle delineated on the plans adjacent to the change and in the revision block shall identify the changes.

Minor changes which do not affect the basic design or contract may be made upon the authorization of the District, but said changes must be shown on "As Built" plans when the contract is completed.

The District may order changes in the plans in order to complete the necessary facilities. Changes in the plans ordered by the District will conform to all of the above.

In all cases where changes are made to the plans during construction, prints of the revised drawings shall be furnished to the District in accordance with Section B-9.

B-13 As-Built Plans

The Contractor shall keep an accurate record of all approved deviations from the plans and shall provide a copy of these records to the Consulting Engineer upon completion of the work. These are to be utilized by the Consulting Engineer along with the Inspector's accurate records for preparing a complete and accurate set of "As Built" plans for the permanent records of the District. One set of completed "As Built" plans shall be promptly submitted to the District or one copy on CD/DVD in the latest AutoCAD file format.

B-14 Conflicts, Errors, and Omissions

Exceptions to the required approvals or any features of the plans that are contrary to, in conflict with, or do not conform to any State law or regulation, Sacramento County Code, or District ordinance, resolution, regulation, or generally accepted engineering practice in keeping with the standards of the profession, even though such errors, omissions, or conflicts may have been overlooked in the District's review of the plans. The District will have no liability for errors of either commission or omission.

B-15 Change in Consulting Engineer

If the Applicant elects to have a registered civil engineer or licensed land surveyor other than the engineer who prepared the plans provide construction staking, the Applicant shall provide the District in writing the name of the individual or firm one week prior to the staking of the project. The Applicant continues to be responsible for providing all professional engineering and surveying services which may be required during construction, the preparation of revised plans for construction changes, and the preparation of "As Built" plans upon completion of the construction.

B-16 Work in Sacramento County Rights-of-Way, Easements, and Waterways

Any Contractor performing construction within Sacramento County rights-of-way, easements, and waterways shall be in possession of County-approved plans or a County Encroachment Permit, and shall comply with all conditions imposed therein, all at no expense to the District.

B-17 Compliance with Statutes

The Contractor shall conduct the work in compliance with all existing State and Federal safety codes and laws, and County and Municipal ordinances and regulations limiting or controlling the work in any manner.

B-18 Construction Safety

All construction of water systems intended to be connected with the District's system must be constructed in strict compliance with the statutory safety requirements of the State of California as set forth in the California Administrative Code, Title 8, and all amendments thereto. All project safety is the sole responsibility of the installation Contractor.

B-19 Boring/Jacking Requirements

Any boring or jacking operation of 100 feet or greater length and involving an opening greater than 30 inches in diameter are subject to the State of California Division of Industrial Safety's tunnel safety requirements. The Consulting Engineer shall submit to the Division of Industrial Safety plans and specifications applicable to the tunnel operation with a letter requesting tunnel classification. This procedure also is recommended to avoid project delay if there is the possibility of any personnel entering the tunnel, regardless of diameter and length. The letter should identify the District as the agency responsible for the project and the District's mailing address. The plans shall identify underground utilities and tanks or areas for storing fuel and toxic gasses in the vicinity of the tunnel site. The request for classification should be submitted allowing ample time for the Division of Industrial Safety to review in order that any special requirements can be included in the project plans and specifications. The Consulting Engineer shall also attend the required pre-job safety conference.

B-20 Pre-Construction Meeting

An on-site meeting with the District Inspector, Consulting Engineer, County Inspector, and Contractor must be held at least two days in advance of beginning construction of the approved project to inspect materials, schedule inspections, and review the approved water system construction plans.

PRE-CONSTRUCTION MEETINGS WILL NOT BE SCHEDULED UNTIL ALL OF THE FOLLOWING DOCUMENTS HAVE BEEN SUBMITTED AND APPROVED:

1. DISTRICT REQUIRED COSTS AND FEES HAVE BEEN PAID IN FULL
2. THE MATERIAL LIST,
3. GUARANTEE LETTER, AND
4. GUARANTEE/MAINTENANCE BOND SUBMITTED.

B-21 Construction Requirements

Any improvement constructed in accordance with the approved plans, the Improvement Standards, Technical Specifications and Standard Details, for which it is intended that the District will assume maintenance responsibility, will be inspected during construction by an authorized representative of the District. Any improvements constructed without inspection as provided above or constructed different from the contrary of the order or instructions of the District will not be accepted by the District for maintenance purposes and permission to connect with the existing system will be denied until corrected to the satisfaction of the District.

Within ten days after receiving the request for final inspection, the District will inspect the work. The Contractor, Consulting Engineer, and Applicant shall be notified in writing as to any particular defects or deficiencies to be remedied. The Contractor shall proceed to correct any such defects or deficiencies at the earliest possible date. At such time as the work has been completed, the District will make additional inspections to verify if previously identified defects have been repaired, altered, and completed in accordance with the plans.

On assessment districts and projects where the District participates in the costs thereof, quantities shall be measured in the presence of the District, Consulting Engineer, and Contractor, and witnessed accordingly.

B-22 Statement of Final Costs

A statement of final costs of the water system, on a unit cost basis or lump sum, shall be stated in the Guarantee Letter.

NO WORK SHALL BEGIN IF THE GUARANTEE LETTER IS NOT COMPLETED INCLUDING STATING FINAL COST OF THE PROPOSED WATER FACILITIES.

B-23 Construction Approval – Temporary and Final System Acceptance

Approval of a constructed water system will be as follows:

- (a) Temporary Approval: When a water system with approved plans and specifications in accordance with the provisions of paragraph B-7, are in place and have received inspection approval in accordance with the provisions in paragraph B-20, the General Manager may grant temporary approval with interim hook-up to the District's system. This temporary approval does not mean acceptance by the District of the in-place system and is intended only as a means of permitting completion of construction of Applicant's improvements.
- (b) Final Approval: When the Applicant produces proof to the General Manager's, or his/her authorized representative's, satisfaction that all utilities required for the subject property have been approved and accepted by the County of Sacramento, and provided the in-place system has been constructed in strict compliance with the approved plans and specifications, the District will issue a written Final Approval.

B-24 Guarantee and Maintenance Bond

Prior to commencement of the work accomplished under District-approved plans, and as a condition of final acceptance herein, the Contractor shall execute and deliver to the District a guarantee of the materials, workmanship, and/or equipment that he or she shall have constructed or installed in the course of said work. This guarantee shall be in the form attached hereto and shall remain in full force and effect for a period of one year from the date upon which the District accepts the work. Should any failure of the work occur within the guarantee period, which can be attributed to faulty materials, poor workmanship, or defective equipment, the Contractor shall promptly make the needed repairs at his/her expense. A completed guarantee form shall be required before each job performed by a Contractor in the Sacramento Suburban Water District.

THE DISTRICT WILL NOT ACCEPT THE GUARANTEE LETTER AND NO WORK SHALL BEGIN UNLESS THE LETTER IS PLACED ON THE CONTRACTOR'S LETTERHEAD, SIGNED BY THE CONTRACTOR, FILLED OUT COMPLETELY AND INCLUDES THE STATEMENT OF FINAL COST OF THE WATER SYSTEM.

Prior to commencement of any work performed in Sacramento Suburban Water District, each Contractor shall be required to furnish an overall maintenance bond or corporate surety bond, payable to the District, issued by an acceptable surety company authorized to do business in the State of California, to protect the District against the results of faulty materials, poor workmanship, or defective equipment, and to guarantee the Contractor's responsibility for each completed work or project, as outlined above, for a period of one year from the date the District accepts the work or project. The bond also shall cover all subsequent jobs performed by the Contractor in the Sacramento Suburban Water District, if such works or projects are being constructed simultaneously or serially. The time limit of such bond shall begin from the date the District first accepts the bond and shall end on the anniversary date of the acceptance letter. The Contractor shall obtain the bond on forms furnished by the District in the sum of not less than \$25,000.00. It shall be the Contractor's responsibility to renew the bond on the anniversary date so as to cover all jobs that are started after initial bond submittal and so that it remains in effect for at least one year after the District accepts the last work on the project and issues an acceptance letter. Should the Contractor be unable to obtain a bond for the project, and then the Developer shall furnish a bond. Said bond shall only cover the project and shall be no less than 50% of the contract amount for water facilities and be in effect for a period of one year from the date of the District's acceptance of the work or project.

GUARANTEE

(To be submitted on Contractor's letterhead)

Sacramento Suburban Water District ("District")
3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Dear Sir or Madam:

We hereby unconditionally guarantee that the construction performed under approved plans and/or contract dated _____, 20__, for the project entitled _____ shall be constructed in accordance with the approved drawings and specifications and that work shall fulfill requirements of the guarantee included in the specifications. We agree to repair and/or replace at our sole cost and expense, and to the satisfaction of the District, any or all of our work, together with any other adjacent work which may be displaced by doing so, that may prove to be defective in workmanship or materials within a period of one year from date of acceptance of above-named project by District, without any expense to District, ordinary wear and tear excepted. We further guarantee that we will leave the site of any repair or replacement work in satisfactory working order and condition.

In the event of our failure to comply with the above-mentioned conditions, within ten (10) calendar days after being notified in writing by the District, we, collectively or separately, do hereby authorize the District to have said defects repaired and made good at our sole expense, and we will honor and pay the costs and charges therefore upon demand. In the event of such failure on our part, we further promise to pay such reasonable litigation costs, including attorney's fees and expert witness fees and costs, as a court with jurisdiction in the matter shall decide, should the enforcement or interpretation of this guarantee or any part thereof require legal action.

Company Name (print)

Address (print)

Phone Number (print)

Contractor's License Number

Contractor's Signature

Contractor's Name (print)

The contract amount for water construction only: \$ _____

**SACRAMENTO SUBURBAN WATER DISTRICT
ENCROACHMENT PERMIT / MAINTENANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS,

THAT WHEREAS _____
(hereinafter “Contractor”) as principal has applied or shall apply to the Sacramento Suburban Water District (hereinafter “District”) for the issuance of a water system encroachment permit in accordance with and subject to the provisions of the District Improvement Standards and Technical Specifications (hereinafter “District Standards”) for installing or constructing water facilities or improvements (e.g., water mains, laterals, hydrants, services) and other work within streets, roads and easements in the District.

WHEREAS, the Contractor is required under the terms of the above-referenced permit(s) and District Standards to furnish an encroachment bond to the District conditioned on compliance with the requirements of the permit(s) and District Standards in the penal sum of \$25,000.00.

NOW, THEREFORE, we, the Contractor as principal and _____
_____ (“Surety”), a corporation organized and existing under the laws of the State of California and authorized to transact business in the State of California as an admitted surety, are held and firmly bound unto the District in the penal sum of \$25,000.00, for the payment of which sum, well and truly to be made, we hereby bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT if the bounden Contractor, its heirs, executors, administrators, successors and assigns, shall (1) fully comply with the terms and conditions of the above-described permit(s) and District Standards and Technical Specifications, (2) maintain and remedy the work under the above-described permit(s) free from defects in materials and workmanship for a period of one year following completion, (3) indemnify and hold harmless the District from any and all claims, demands, lawsuits, liabilities, costs and actions of every nature, kind and description, brought for or on account of any damage or injury to the County of Sacramento or City of Citrus Heights streets, highways and easements, or any part thereof, or to any real or personal property, or to any person or persons caused by or arising out of any failure of the Contractor to comply with any of its obligations under any such permit(s) or District Standards and Technical Specifications, and (4) properly safeguard the work and the District water facilities, County and City streets, highways and easements and other structures thereon and thereof in as good condition as before the work, then this obligation shall become null and void as to the completed work; otherwise it shall be and remain in full force and effect and in the event suit is brought upon this bond by the District and it is the prevailing party, the Contractor and Surety shall pay all litigation costs incurred by the District, including reasonable attorney’s fees and expert witness fees and costs.

Notwithstanding anything in this bond to the contrary, the Surety's obligation hereunder shall continue so long as any obligation of the Contractor remains. The Surety, for value received, hereby agrees that no change, extension of time, alteration or addition to the terms of the encroachment permit or to the work to be performed thereunder shall in any way affect its obligations on this bond, and Surety hereby waives notice of any such change, extension of time, alteration or addition to the terms of the encroachment permit or to the work to be performed thereunder. The Surety hereby waives the provisions of sections 2819 and 2845 of the California Civil Code.

The address or addresses at which the Contractor and Surety(ies) may be served with notices, papers and other documents under the California Bond and Undertaking Law (Code of Civil Procedure sections 995.010 et seq.) is or are the following:

IN WITNESS WHEREOF, the principal and surety have executed and delivered this bond on _____, 20__.

CONTRACTOR

[Seal]

By: _____

_____ *[name]*

_____ *[title]*

SURETY

[Seal]

By: _____

_____ *[name]*

_____ *[title]*

Section C. Plan Sheet Requirements

C-1 Paper Details

All improvement plans shall be prepared on sheets 22" x 34" in size. Scales permitted are: horizontal 1" = 20', 40', or 50', and vertical 1" = 2', 4', or 5'; and only the scale for which the sheet was intended shall be used.

C-2 Computer Aided Drafting Standards

Drafting standards are necessary to produce legible and subsequent prints. All line work must be clear, sharp, and reproducible. Letters and numerals must be 1/8-inch minimum height, well formed, and sharp. Station grid lines shall not bisect numerals showing profile elevations. Sharp solid arrowheads shall terminate dimension lines.

C-3 Title Block

Each sheet within the set of drawings shall have an approved title block showing the sheet title, number, date, scale, the Consulting Engineer's name, signature, and license number; the street address or Assessor's Parcel Number, and the name of the subdivision project or assessment district.

C-4 General Information Requirements

- (a) The following information shall be shown on the cover or title sheet of plans, or on the first sheet if there is no title sheet:
 - (1) Location map
 - (2) Index of sheets
 - (3) Legend of symbols

- (b) In addition, the following information shall be shown on the water plan and/or the title sheet:
 - (1) The entire subdivision or parcel and project
 - (2) District boundary
 - (3) Assessment District limits
 - (4) Street names and widths
 - (5) Adjacent subdivisions, including lot lines and lot numbers
 - (6) Signature blocks in the lower right hand corner of the sheet for approval by the District and the responsible fire district.

C-5 Required Notes

District “WATER SYSTEM CONSTRUCTION NOTES” (Standard Detail 1) shall be required and placed on a sheet in the plans.

C-6 Plan Details

In addition to the other requirements of these Improvement Standards, the following details shall be shown on water plans submitted for approval. This does not in any way exempt the Consulting Engineer from the responsibility of preparing neat, accurate, and comprehensive plans in keeping with the standards of the profession.

- (a) **Right-of-Way** – Right-of-way lines, the boundaries of lots, easements, section lines and corners, land grant lines and temporary construction easements, both existing and proposed, shall be shown on the plans. All right-of-way and easement lines shall be properly dimensioned.
- (b) **Topography** – All pertinent topographic features shall be shown, such as street lines, medians, driveways, curbs, sidewalks, high water and frequent inundation levels, water lines, gas lines, telephone conduits, other underground utilities, existing structures, houses, trees (6” and larger) and other foliage, traffic signals, street lights and pull boxes, underground electrical conduits, drainage ditches, utility poles, fire hydrants, retaining walls, masonry structures, and all other features of the area which may affect the design requirements. When a potential utility conflict exists, “As Built” elevations of the utilities shall be verified by the Consulting Engineer.
- (c) **Profiles** – Plans shall include profiles of proposed water mains whenever the pipeline diameter shall be 16 inches or greater, or whenever the cover over the pipeline shall be less than 30 inches or more than 6 feet. The District may also require profiles if it determines that conditions require them or as required by the County.

When profiles are required, the proposed pipeline shall be shown, together with all crossing and closely paralleling sewers, drains, and utilities. The ground line over the pipeline shall be shown, except where pipeline is to be located within an improved street, in which case either the street centerline or the gutter flow line may be shown.
- (d) **Stationing and Orientation** – The stationing on plan and profile shall read from left to right. Sacramento County stationing shall be used whenever possible. Stationing shall increase from south to north or from west to east. Plans shall be so arranged that North arrow points toward the top or upper 180 degrees, insofar as practical.
- (e) **Bench Marks** – The benchmarks and datum shall be clearly delineated on the plans both as to location, description, and elevation. The datum shall be California Coordinate System of 1983 (CCS83). Consulting Engineers shall contact Sacramento County for location and elevation of the nearest official benchmark.

- (f) **Special Notes and Details** – Shall be employed wherever necessary in order to clearly convey the design intent. The District’s standard details may be reproduced and included, but are not required, within the plans.

Section D. Design Standards

D-1 Design Criteria

The wells, pumps, and distribution system shall be designed to supply and maintain an adequate positive pressure in all parts of the system at all times with an economical loss of head, keeping in mind that the systems must be designed to provide emergency as well as normal flow.

- (a) Water Quality

- (1) California Health and Safety Code, Division 5, Part 1; Chapter 7
- (2) California Administrative Code, Title 17, Chapter 5, Subchapter 1, Group 4
- (3) California Administrative Code, Title 22, Chapters 15 and 16
- (4) Standards of Minimum Requirements for Safe Practice in the Production and Delivery of Water for Domestic Use (California Section of the AWWA).
- (5) Sacramento County Ordinance No. 508.

- (b) Water Supply

The system or facilities shall be designed to deliver water at a rate adequate to supply the total requirements of all consumers served by the system or facilities under the more extreme of the following two conditions:

- (1) Peak Hour Demand; or
- (2) Maximum Day Demand plus Fire Flow

Care must be used in estimating fire flows, which are discussed in (c) below.

Special consideration shall be given to the design of systems to supply multiple family dwelling projects, commercial, and/or industrial developments. Computations for the design of such systems shall be submitted with the plans and specifications. Each system, subdivision, or development shall have a sufficient number of independent well systems or production facilities to maintain maximum consumption and fire flow at the required pressures with one well out of service. The District will prepare detailed plans and specifications of wells and pumping plants. Sites for wells or production facilities will be located and sized by the District, and conveyed to the District by the Applicant at no cost to the District.

- (c) Required Fire Flows

The design of the system shall provide for the delivery of fire flows in accordance with the determination by the responsible Fire District.

(d) Pressure Requirements

Under Maximum Day plus applicable Fire Flow requirements, the static pressure shall not be less than 35 pounds per square inch (psi) in water mains and not be less than 30 psi at service connections. Service connection shall be the outlet side of meter setter, curb stop, or meter. Static pressure shall not exceed 75 psi.

(e) Velocity Requirements

The velocity of flows in transmission and distribution pipelines shall not exceed seven (7) feet per second (fps) under any design condition. Flow velocity in excess of 7 fps may be considered by the District and is subject to final District approval.

All requested variances from the maximum flow velocity of 7 fps will require an independent hydraulic analysis which will be completed by the District or its consultant. Costs for such analysis will be borne entirely by Applicant.

D-2 Minimum Water Main Size

The minimum size for water distribution mains necessary to adequately deliver domestic and public fire protection water to all new developments and construction of whatever kind or size shall be determined with reference to the Real Property Use Zones established by the County of Sacramento, including any variance granted thereto, and specifically in compliance with the following provisions:

Real Property Use Zone	Minimum Water Main Size (inches)
Industrial (MP, M-1, M-2)	16
Commercial (BP, SC, LC, GC, AC, TC, C-O)	12
Mixed Use (NMC, CMC, CMZ)	12
Mobile Home Park (MHP, RM-1, RM-2)	12
Residential, High Density (RD-20, RD-30, RD-40, and greater)	12

Public (O, Schools, Parks, etc.)	12
Quasi-Public (Hospitals, Churches, Meeting Halls, etc.)	12
All Other Zoning *	8
* Exception: Cul-de-sacs – Single Family (Non Fire-Hydrant Req. or as determined by District)	6

Larger sized mains may be required to adequately handle design flows, as determined solely by the District.

D-3 Location of Water Mains

All water mains and pipelines shall be constructed and installed within improved streets, between curbs. Alternate locations may be permitted with specific approval of the General Manager and may require a dedicated easement.

The minimum width for a dedicated water line easement shall be 20-feet. The General Manager may, on a case-by-case basis, approve an easement or portion of an easement of lesser width.

D-4 Separation of Water Mains from Sewer and Storm Drain Pipelines

Separation between water and non-potable (sanitary sewer and storm) facilities shall comply with the requirements of the State Water Resources Control Board, Division of Drinking Water and meet the following minimum installation requirements:

1. Parallel Construction Requirements

- (a) All water lines shall be installed in separate trenches from other utilities.
- (b) All water lines shall be installed with a minimum horizontal separation of ten (10) feet from nearby non-potable facilities.

2. Crossing Construction Requirements

- (a) All new water line crossings of existing non-potable pipelines shall include a minimum separation of twelve (12) inches above the top of a sewer pipe and eighteen (18) inches above a storm pipe. A full-length water pipeline shall be centered over the crossed pipe.
- (b) Installation of new water lines under existing non-potable pipelines is prohibited without special permission of the District.

D-5 Distribution System

(a) Layout of Mains

The distribution system shall be in a grid or looped configuration so that pressures throughout the system tend to equalize under varying rates and locations of fire flow drafts. The distribution system shall be gridded with 12-inch or larger cross-connecting mains at intervals of approximately 1,300 feet, with intermediate 8-inch or larger mains as required.

Dual mains (one main on each side of the street) shall be installed in streets for which the right-of-way width is 80 feet or greater. The minimum size of main shall be as required in Section D-2 herein. Larger sized mains may be required to serve multiple-family residential, commercial, or industrial projects or areas, as determined by an analytical evaluation of the anticipated requirements.

Dual mains shall be interconnected (“cross-tied”) with pipe of the same diameter at intervals of not more than 800 feet and at each cross street.

Dead-end water mains shall be avoided whenever possible. When unavoidable, dead-end mains shall be provided with a blow-off connection or other means of flushing acceptable to the District. See Standard Details No. 8 and 9.

(b) Valves

The distribution system shall be designed with a sufficient number of valves so located that no single shutdown shall result in either: a) shutting down a transmission main; or b) the shutdown of a distribution main for a distance of more than 500 feet.

No more than 20 customers shall be without service from any single shutdown.

In no case shall more than two (2) fire hydrants be out of service from any single shutdown.

The valves shall be so located that any section of main can be shut down without going to more than three locations to close valves.

Valves shall be installed in conformance with Standard Detail No. 5.

Valves at junction shall be flange-connected to tees or crosses, or as specified on plans.

(c) Fire Hydrants

Fire hydrants shall be “Wet Barrel” type, constructed in accordance with Standard Detail No. 6 and installed at locations specified by the responsible Fire Agency or as specified herein.

Fire hydrants shall be located to minimize the hazard of damage by traffic when practical. They shall have a maximum normal spacing of 500 feet in residential areas and 300 feet in commercial and industrial areas, measured along the street frontage, or as determined by the Fire Agency.

Hydrants shall be set with the lowest outlet a minimum of 18 inches above ground level, with the "Steamer Outlet" facing the street or point of Fire Agency's engine access, as determined by the responsible Fire Agency. Wet Barrel outlets shall be within 10 feet of the engine access point.

Fire hydrants shall be located and spaced to provide the required fire flows as set forth under Section D-1 (c) herein.

Fire hydrants shall be placed at four (4) feet from property lines and/or back of sidewalk and/or curbs. Unobstructed access and ability to see the fire hydrants and/or fire service apparatus shall be maintained at all times as provided in Sacramento Metropolitan Fire District's Code Sections 503.4, 503.2.1, 503.3, 507.5.4 and 507.5.5.

Blue reflective hydrant markers shall be installed per local fire department standards immediately upon being placed into service.

(d) Service Lines

A separate water service connection must be installed for each lot, parcel, or premises and shall be a minimum of one-inch diameter unless otherwise specified on the approved water plan. Each water service meter box shall be staked for location and finished grade by a licensed surveyor or civil engineer or District representative.

Service lines from the water main to the property line shall be installed at the time the main is constructed to avoid frequent cutting of the street. No service connection shall be permitted within 20 feet of a blow-off assembly.

Service lines in sizes up to and including 2 inches in diameter shall be polyethylene coated copper tubing, Type K soft tempered, meeting ASTM 688, and shall be equipped with a service saddle and corporation stop at the main, and a meter setter, meter and meter box at the property line. Residential service lines shall be installed in the middle one-third of the lot frontage, but not less than 10 horizontal feet from any sewer. Installation of service lines shall conform to Standard Detail Nos. 14 and 15.

Service lines larger than 2 inch shall be per Standard Detail.16- 20 or as approved by the District Engineer.

No new connections to service lines shall be permitted, and the water system cannot be approved or accepted until permanent property corner markers are in place and the location and installation of service connections in accordance with District Standard Specifications have been verified by the District, as well as the payment of all fees and the satisfaction of all requirements.

Any existing service that is relocated as a result of a District project shall be connected to the nearest front yard main.

(e) Thrust Blocks

Thrust blocks of Class “B” concrete shall be cast in place at all horizontal and vertical bends of four (4) degrees or more, behind each plug, tee, or cross which is valved or plugged in such a manner that it can act as a tee or elbow, and at the back of each fire hydrant.

The thrust block shall extend from the fitting to undisturbed soil, and shall be kept clear of joints. All bolts, valves, and flanges shall be covered with plastic wrap, 4-mil thick minimum, prior to pouring concrete thru. Size of thrust block shall be in accordance with Standard Detail No. 10.

(f) Meters

When required by the District, meters will be installed in conformance with Standard Detail Nos. 14, 15, 16, 17, 18, 19, and 20.

(g) Backflow Prevention Devices

Certain services require a reduced pressure backflow prevention assembly as noted in the District’s Regulation No. 14.

Backflow devices shall comply with guidelines set forth in the State of California Health and Safety Code, Section 116875, subdivision (a) and AB1953, which prohibits the use of any pipe or plumbing fitting or fixture, solder or flux that is not “lead free”, in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption.

Backflow devices shall be approved by the State of California Division of Drinking Water and be on the most recent List of Approved Backflow Prevention Assemblies published by the Foundation for Cross-Connection Control and Hydraulic Research, a Division of the University of Southern California.

Backflow prevention devices shall be installed at the point of delivery within five (5) feet downstream of the meter to the Applicant or Customer. Backflow devices shall be installed per Sacramento County Standard Drawings. The devices shall be owned, maintained and tested by the Customer. Due to potential theft and freezing during inclement weather, the District recommends the Customer place wire cages and protective freeze bag (Polar Bag) over the device.

Existing backflow devices shall be upgraded as required on all improvement projects. Upgrade may include replacement per current State Water Resources Control Board, Division of Drinking Water standards.

Final acceptance and permanent water service shall be granted after the Applicant or Contractor has delivered to the District a certified test report stating the satisfactory operation of the device after installation.

(h) Private Fire Service

Double detector check valve assembly shall be required with each private fire service. Single check assemblies are not allowed. All devices shall be installed above ground per Sacramento County or Fire Department Standard Drawings.

D-6 Final Acceptance Criteria

Prior to final acceptance, the Applicant or Contractor shall demonstrate to the satisfaction of District the following:

- (a) Water facilities have been installed completely as per approved improvement plans and District's latest set of improvement standards and details.
- (b) All outstanding fees and costs have been satisfactorily paid to the District and other responsible agencies.
- (c) The Applicant has remedied any deficiencies on the water facilities to the satisfaction of the District and other responsible agencies.
- (d) A passing hydro-test has been completed on the main.
- (e) A satisfactory bacteriological test has been taken with results meeting State limits.
- (f) A certified backflow test report stating satisfactory operation of all devices after installation delivered to District.
- (g) As-built drawings have been submitted by the Consulting Engineer and approved by District.

Contracting Requirements

Section E. Bid Process

E-1 Bid Advertisement

As a County Water District (Water Code 30000, et seq.), the Sacramento Suburban Water District (“SSWD” or the “District”) is not required by law to require competitive bidding on public works contracts. There is no legal requirement for the District to place bid advertisements. The District may invite selected list of contractors to provide proposals on a project based on past performance on a District project or on similar projects carried out by other public agencies. Whenever appropriate, the District will utilize generally accepted methods to acquire competitive pricing to achieve this objective. The District may, depending on the project and type of funding, place bid advertisements in the local newspaper or local plan holder centers to notify qualified contractors of upcoming projects and maximize the number of potential bidders.

E-2 Pre-Proposal or Pre-Bid Meeting

At the discretion of the District, a mandatory pre-proposal or pre-bid meeting shall be scheduled no later than 10 days after SSWD issues a bid notice or request for proposals. The purpose of the meeting is to provide information about the project to prospective consultants or contractors to ensure that bids are submitted with the best possible understanding of conditions and circumstances surrounding the project. The meeting shall be used to address any questions related to bidding requirements and District technical standards, field questions by the proposers or bidders, and to provide any other related information about the proposed project.

E-3 Construction Qualifications

The District will award a contract only to a bidder who furnishes satisfactory evidence that the bidder has the requisite authority and capacity to contract with SSWD. The bidder shall also be required to demonstrate that it has the experience, ability, and sufficient capital, facilities and plant to enable the bidder to prosecute the work successfully and to complete the work within the time stated in the contract.

Contractors shall be licensed under the provisions of Chapter 9; Division 3, of the Business and Professions Code by the California Contractors State License Board to perform the work contemplated on the project, and shall be skilled and regularly engaged in the general class or type of work called for in under the contract. Each bidder shall provide its contractor’s license number and license classification to the District.

All subcontractors engaged to perform portions of the work shall be licensed under the provisions of Chapter 9, Division 3 of the Business and Professions Code to do the type of work for which they are subcontracted and shall be skilled and regularly engage in the general class or type of work called for under their subcontracts. Subcontractor’s license number(s) and classification(s) shall be provided to the District.

The District may not award a contract to the apparent low bidder if the bidder's contractor's license cannot be verified at the time of award.

E-4 Bid Opening

The District shall open bids on the date and time specified in the bid documents. Any bids received after the date and time shall be deemed to be non-responsive, rejected and returned unopened to the bidder. Sealed bids shall be opened shortly after the expiration of the deadline specified in the bid documents for the receipt of all bids. . All opened bids shall be visually checked to verify that all items of information are properly completed, the proposal or bid is signed, and that all addendums have been acknowledged. The District shall read each bid by first stating the name of the contractor, whether all addendums have been acknowledged, and the total price bid for the project as printed on the bid form. This procedure shall continue until all bids are read. At the completion of reading all bids, the District shall state the name and company information of the apparent low bidder and amount of its bid and that all bids will be thoroughly tabulated.

E-5 Bid Evaluations

The District will review all sealed bids that are timely submitted. District staff or the engineer shall check all unit prices to determine whether cost extensions and totals in dollars are accurate. References shall also be checked to verify past experience in performing projects similar to the proposed work, including information on performance, scheduling, and completion of project, change orders, and overall evaluation of the work provided.

E-6 Bid Award/Rejection

The District reserves the right to accept or reject any and all bids during the time for awarding the contract, and to waive any informality or irregularity in any bid. No bid can be withdrawn during the time for awarding the contract. The District will notify the successful bidder in writing of the award of the contract within thirty (30) days after opening of bids.

Before a bid is considered for award, the District may, in addition to the Experience Qualifications form, require a bidder to submit a statement of facts and detail as to its business, technical organization and financial resources and equipment available and to be used in performing the work. Additionally, the District may require evidence that the bidder has performed other work of comparable magnitude and type. The District expressly reserves the right to reject any bid if it determines that the business and technical organization, equipment, financial and other resources or other experience of the bidder (including the bidder's subcontractors) is not sufficiently qualified for the work bid upon and, therefore, justifies such rejection. The award of the contract, if it is awarded, shall be to the lowest responsible and responsive bidder (the "Contractor") whose bid complies with the requirements of the documents comprising the entire contractual agreement for the project (the "Contract Documents").

Section F. Project Management

F-1 Notice to Proceed

After submittal of signed Contract Documents, including bonds, evidences of insurance coverage's, and other contract items as required by the District, the District shall execute the contracts and return a fully signed copy to the contractor with a "Notice to Proceed" with the work. The contractor shall, within ten (10) days, call for a pre-construction meeting with the District representatives to discuss the schedule of work.

F-2 Project Management Authority

The District will designate a representative (the "Engineer"), who shall have full authority to interpret the Contract Documents, to conduct the construction review and inspection of the Contractor's performance, and to decide questions that arise during the course of the work. The Engineer's decisions on these matters shall be final and conclusive. The Engineer has the authority to reject all work and materials that do not conform to the Contract Documents, and has the authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the work.

If at any time the Contractor's work force, tools, plant or equipment, job site security and safety appear to the Engineer to be insufficient or inappropriate to secure the required quality of work or the proper rate of progress, the Engineer may order the Contractor to increase its efficiency, to improve the character or augment the number or substitute other personnel, or employ new tools, plant or equipment, as the case may be. The Contractor shall comply with such order as soon as practicable. Neither the failure of the Engineer to demand such increase of efficiency, number, or improvement, nor the compliance by the Contractor with the demand, shall relieve the Contractor of its obligation to provide quality work or a safe work environment at the rate of progress necessary to complete the work within the time specified in the Contract Documents.

The Engineer shall have the authority to make minor changes in the work, not involving extra costs, and not inconsistent with the purposes of the work. Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing shall, on request of the Contractor, be given or confirmed by the Engineer in writing. Whenever work, methods of procedure, or any other matters are made subject to direction or approval, the Engineer shall give such direction or approval.

F-3 Project Monitoring

The Contractor shall designate in writing before starting the work an individual to act as its authorized representative, who shall have the authority to represent and act for the Contractor in all matters involving the work. This authorized representative shall be present at the site of the work at all times while work is actually in progress. 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 that may be required.

The Contractor is solely responsible, at all times, for the monitoring and supervision of the work and for its safety and progress.

Whenever the Contractor's authorized representative is not present on any particular part of the job site where the Engineer may desire to give direction, orders given by the Engineer shall be received and obeyed by the Contractor's superintendent or foreman who may have charge of the particular work in reference to which the orders are given. Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing, shall on request of such superintendent or foreman, be given or confirmed by the Engineer in writing.

F-4 Pre-Construction Conference

Before commencement of construction, a pre-construction conference shall be held with the Contractor's designated representative, superintendent and other key personnel, and the Engineer and appropriate District representatives to discuss all phases of construction scheduling and operations.

The Contractor shall submit the following at the pre-construction meeting:

- a. An overall project schedule clearly indicating all critical path items leading to the specified time of completion.
- b. A three-week (3) schedule detailing all pertinent operations including submittals, procurements and planned construction activities during that period.
- c. An overall schedule of shop drawing submittals, if applicable.
- d. A list of permits to be obtained by the Contractor, as required.
- e. An approved preliminary Traffic Control Plan (TCP), if required.

F-5 Mobilization/Demobilization

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site.

Demobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the removal of personnel, equipment, supplies, and incidentals from the project site.

Measurement and Payment

All costs connected with mobilization for Contractor's operations as described in Section 01505 of the Technical Specifications shall be paid for at the price stated in the Contract Documents ("Contract Price") as follows:

- 50 percent of the bid item price for mobilization or 5 percent of the original Contract Price, whichever is less, shall be paid to the Contractor when the monthly partial payment estimate of the amount earned for the other items of work is 5 percent or more of the original Contract Price.
- 75 percent of the bid item price for mobilization or 7.5 percent of the original Contract Price, whichever is less, shall be paid to the Contractor when the monthly partial payment

estimate of the amount earned for the other items of work is 10 percent or more of the original Contract Price.

- The remaining 25 percent or other amount owing for mobilization shall be included in the final payment after completion of all contract work and removal from the site of all plant and equipment and final cleanup of the project site.
- Costs for the project identification signs shall be paid as part of mobilization or as specified.
- Construction staking shall be paid as part of mobilization.
- Costs associated with obtaining permits, access to private property and staging areas, and for traffic control shall be paid for as part of mobilization.
- Costs for pothole excavations shall be paid as part of mobilization or as specified.
- Cost for demobilization shall be paid as part of mobilization.

If the Engineer determines that the price for mobilization does not bear a reasonable relation to the entire Contract Price, the Engineer may require the Contractor to produce cost data to justify the bid item price for mobilization. Failure to justify such price to the Engineer's satisfaction shall result in payment of all actual mobilization costs, as determined by the Engineer, as part of the final payment. The determination of mobilization costs by the Engineer is not subject to appeal.

F-6 Work Zone Management

The Contractor shall be responsible for the care of all work until its completion and final acceptance. The Contractor shall, at its own expense, replace damaged or lost material and repair damaged parts of the work or the same may be done at its expense by the District and the Contractor and its sureties shall be liable for such costs as provided in the Contract Documents. The Contractor shall make its own provisions for properly storing and protecting all material and equipment against theft, injury, or damage from any and all causes. Damaged material and equipment shall not be used in the work. The Contractor shall take all risks from floods and casualties except as provided by law, and shall make no charge for the restoration of such portions of the work as may be destroyed or damaged by flood or other casualties or because of danger from flood or other casualties or for delays from such causes. The Contractor may, however, be allowed a reasonable extension of time on account of such delays, subject to the conditions specified in the Contract Documents.

The Contractor shall effectively secure and protect adjacent property and structures, and vegetation. If applicable, the Contractor shall open fences on or crossing the right-of-way and install temporary gates of sound construction thereon so as to prevent the escape of animals and to permit reasonable access by landowners affected by the work. Adjacent fence posts shall be adequately braced to prevent the sagging or slackening of the fencing. Before such fences are opened, the Contractor shall notify the owner or tenant of the property and, when practicable, the opening of the fence shall be in accordance with the direction of said owner or tenant. The Contractor shall be responsible that no loss or inconvenience shall accrue to the owner or tenant by virtue of its fences having been opened or the gate not having been either shut or attended at all times. Where special types of fences are encountered, the Contractor shall install temporary gates made of similar materials and of suitable quality to serve the purposes of the original fences. In

all cases when the Contractor removes fences to obtain workroom, it shall provide and install temporary fencing as required, and on completion of construction shall restore the original fence to the satisfaction of the Engineer and any affected landowner. All costs of providing, maintaining and restoring gates and fencing shall be borne by the Contractor. The Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

The Contractor shall use extreme care during construction to prevent damage from dust to vegetation and adjacent property. The Contractor, at its own expense, shall provide adequate dust control for the right-of-way and take other preventative measures as directed by the Engineer.

The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor, subcontractors and their employees in the course of the work, or anyone directly or indirectly employed by any of them, whether such trespass was committed with or without the consent or knowledge of the Contractor.

The Contractor shall see that the work site is kept drained and free of all groundwater and any other water, which may impede the progress or execution of the work. The Contractor shall be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas.

In an emergency affecting the safety of life, or of the work, or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at its discretion to prevent such threatened loss or injury, and it shall so act without appeal if so instructed or authorized by the Engineer or the District. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final and conclusive. Any claims for compensation made by the Contractor on account of emergency work shall be determined as specified under section B-10.

Except as provided by California Government Code section 4215, the Contractor shall be responsible for the removal, relocation and protection of all public and private utilities located on the project site if and to the extent that the same are identified in the Contract Documents; and the Contractor shall not be entitled to any extension of time or claim for damages for extra compensation in connection therewith. If and to the extent that such utilities or facilities are not identified in the Contract Documents, as between the Contractor and the District, the District will be responsible for the cost of their removal, relocation or protection, but the Contractor shall perform any such work in conformance with applicable provisions of section B-10, if so directed by the Engineer. In such situation, the Contractor shall not be responsible for delay in completion of the project caused by the failure of the District or the owner of the utility to provide for such removal or relocation. If the Contractor, while performing the Contract, discovers utility or irrigation facilities not identified by the District in the Contract Documents, it shall immediately notify the Engineer in writing.

When the work to be performed under the Contract crosses or otherwise interferes with existing streams, watercourses, pipelines, drainage channels, or water supplies, the Contractor shall provide for the protection of such watercourses or pipelines and shall perform the work so that no damage

shall result to either public or private interests; and the Contractor shall be liable for all damage that may result from failure to so provide during the progress of the work.

F-7 Inspection

Unless otherwise provided, all equipment, materials, and work shall be subject to inspection and testing by the Engineer. The Engineer shall observe the progress and quality of the work and determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. The Engineer shall not be required to make comprehensive or continuous inspections to check the quality of the work, and the Engineer shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work and to furnish proper materials, labor, equipment and tools. In addition, visits and observations made by the Engineer shall not relieve the Contractor its obligation to perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

The Contractor shall perform the work during the hours set forth in the Contract Documents. Whenever the Contractor desires to vary the period during which work is carried on each day, it shall give due notice to the Engineer and the Engineer shall approve such change in work hours so that proper inspection may be provided. Any work done in the absence of the Engineer shall be subject to rejection. The Engineer and other District representatives shall at all times have access to the work wherever it is in preparation or progress. Proper facilities for safe access for inspection to all parts of the work shall at all times be maintained for the necessary use of the Engineer and other agents of the District at all reasonable hours for inspection by such agencies to ascertain compliance with laws and regulations.

One or more inspectors may be assigned to observe the work and to act in matters of construction in accordance with the Contract Documents. It is understood that inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work, to furnish proper materials, labor, equipment and tools, and perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract Documents. The District assumes no obligation to inspect every portion of the work, and the District's failure to inspect any portion of the work does not waive or excuse the Contractor from its obligation to deliver satisfactory and timely work under the Contract Documents.

If the Specifications, the Engineer's instructions, laws, ordinances, or any public authority require any material, equipment or work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the District, of the time fixed for inspection. Inspections by the Engineer shall be made promptly and, where practicable, at the source of supply or location of the work.

Work performed without inspection may be required to be removed and replaced under proper inspection and the entire cost of removal and replacing, including the cost of District-furnished materials used in the work, shall be borne by the Contractor, regardless of whether or not the work exposed is found to be defective. The Engineer may order examination of questioned work, other

than that installed without inspection, and, if so ordered, Contractor must uncover the work. If such work is found to be in accordance with the Contract Documents, the District will pay the cost of re-examinations and replacement. If such work is found to be not in accordance with the Contract Documents, the Contractor shall pay such cost unless it can show that another contractor caused the defect in the work, and in that event the District will pay such costs.

The inspection of the work shall not relieve the Contractor of its obligation to fulfill the Contract as herein prescribed, or in any way alter the standard of performance provided by the Contractor; and defective work shall be made good and unusable materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work or any part thereof shall be found defective, Contractor shall, within ten (10) calendar days, make good such defect in a manner satisfactory to the Engineer. If the Contractor shall fail or neglect to make ordered repairs of defective work or to remove the condemned materials from the work within ten (10) calendar days after direction by the Engineer in writing, the District may make the ordered repairs, or remove the condemned materials, and deduct the cost thereof from any monies due the Contractor.

The Contractor shall furnish promptly without additional charge all facilities, labor and materials reasonably needed by the Engineer for performing all inspection and tests. Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.

Where any part of the work is being done under an encroachment permit or building permit, or is subject to Federal, State, County or City codes, laws, ordinances, rules or regulations, representatives of the relevant governmental agencies shall have full access to the work and shall be allowed to make any inspection or tests in accordance with such permits, codes, laws, ordinances, rules, or regulations. If advance notice of the readiness of the work for inspection by a governmental agency is required, the Contractor shall furnish such notice to the appropriate agency.

F-8 Materials Testing

The Contractor shall perform at its expense all tests specified or required by the Specifications. The Engineer shall perform such tests, as he deems necessary to determine the quality of work or compliance with Contract Documents. The Contractor shall furnish promptly without additional charge all facilities, labor, and material reasonably required for performing safe and convenient tests as may be required by the Engineer, as further provided in Section A-7 above. All tests by the Engineer shall be performed in such a manner as shall not unnecessarily delay the work. The Contractor shall not be required to reimburse the District for tests performed by the District or Engineer. If samples of materials are submitted which fail to pass the specified tests, the Contractor shall pay for all subsequent tests.

The Engineer may inspect the production of material, or the manufacture of products at the source of supply. Plant inspection, however, shall not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer or his/her authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished

free of charge to make the necessary inspection. The District assumes no obligation to inspect materials at the source of supply.

The Contractor shall notify the District of the time and place of any factory tests and submit test procedures for approval ten calendar days (10) in advance or as otherwise agreed by the Engineer for any such test. The Contractor shall report the time and place or preparation, manufacture or construction of any material for the work, or any part of the work, that the District wishes to inspect.

F-9 Measurement and Payments

Where the Contract provides for payment on a lump sum price basis, no measurement of quantity shall be made. Where the Contract provides for payment on a unit price basis, the Engineer, on the basis of measurements taken by the Engineer, shall compute the quantities of work performed, and these measurements shall be final and conclusive. The Engineer shall base all quantities of work computed under the Contract upon measurements taken according to standard United States units of measurement and weight. Methods of measurement are specified within the Contract Documents.

The Contractor shall accept the compensation provided in the Contract Documents as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract Documents. Full payment shall compensate for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the District and for all risks of every description connected with the prosecution of the work. In addition, the full payment shall also compensate for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the Specifications and Plans. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material. No compensation shall be made in any case for loss of anticipated profits. Increased or decreased work involving supplemental agreements shall be paid for as provided in such agreements.

For each calendar month while the work is in progress, the Contractor shall prepare a progress estimate of all work performed. Within the first ten (10) days of each succeeding calendar month, the Contractor shall prepare in writing and certify to the District, an estimate which in the Contractor's opinion is a fair approximation of the value of all work done under the Contract, including any amounts due the Contractor for extra work and change orders. In arriving at the value of the work done, the Engineer shall give consideration to the value of labor and materials which have been incorporated into the permanent work by the Contractor during the preceding month. Consideration shall not be given to preparatory work done or for materials or equipment on hand. In order to assist the Engineer, the Contractor shall furnish the Engineer with copies of invoices for all such items delivered to the job site and incorporated into the work.

Unless otherwise provided for at a different rate in the Contract Documents, the District will pay the Contractor ninety-five percent (95%) of the amount of each properly submitted and undisputed progress payment request. Five percent (5%), or any higher rate specified in the Contract

Documents, of the amount of each payment request shall be retained by the District until final completion and acceptance of all work under the Contract; provided, however, that if the Engineer, at any time after fifty percent (50%) of the work has been completed, finds that satisfactory progress is being made, the District may, in its sole discretion, pay any or all of the remaining progress payments in full or at a lower retention. In no case shall the District make a progress payment to the Contractor that exceeds one hundred percent (100%) of the value of the work actually completed to the date of the payment request.

The Contractor may invoice the District for no more than seventy-five percent (75%) of the cost of materials and equipment stored onsite, as long as the material or equipment has been inspected and approved by the Engineer or the District's representative, the quantity of material or equipment can be determined to the District's satisfaction after Contractor delivery of a paid invoice for such materials or equipment, and the materials or equipment are properly stored and protected in accordance with the manufacturer's recommendations. The Contractor retains liability for any damage, stolen, missing materials or degradation of the quality of stored materials and equipment, until after they are incorporated into the work and the work is approved by the District in accordance with the applicable requirements of the Contract Documents.

In accordance with California Public Contract Code section 20104.50, a written payment request from the Contractor shall be reviewed by the Engineer as soon as practicable in order to determine whether it is proper. If it is determined not to be a proper payment request suitable for payment, then the Engineer shall return it to the Contractor with a written explanation of the deficiencies as soon as practicable, but not later than 7 days after receipt of the payment request. If the payment request is determined to be properly submitted and is undisputed, the Engineer shall certify the payment as provided above and the District shall make the payment to the Contractor within 30 days after receipt of the payment request. If a properly submitted and undisputed payment request is not paid within this 30-day period, then the District shall pay interest on the overdue amount to the Contractor at the legal rate set forth at California Code of Civil Procedure section 685.010. This section shall not apply if District funds are not available for payment of the payment request or if the financial officer of the District delays payment due to an audit inquiry.

The Contractor may, in accordance with California Public Contract Code section 22300, substitute securities for any monies that the District may withhold to insure performance under the Contract Documents. Alternatively, on written request of the Contractor and at its expense, the District shall make payments of the retention earnings directly to an escrow agent pursuant to an escrow agreement entered into consistent with the terms of Public Contract Code section 22300.

When, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when in his/her judgment the total amount of the work done since the last estimate amounts to less than \$1,000, no pay estimate shall be prepared and no progress payment shall be made.

No progress estimate or payment shall be considered to be an approval or acceptance of any work, materials or equipment. Estimated amounts and values of work done and materials and equipment incorporated into the work shall be conformed to actual amounts and values as they become available in subsequent progress estimates, progress payments and the final estimate and payment.

All estimates and payments shall be subject to correction in subsequent progress estimates and payments and the final estimate and payment.

It is mutually agreed between the District and the Contractor that no payments made under the Contract Documents, including progress payments and the final payment shall be evidence of the performance of the Contract Documents, either wholly or in part, and no payment shall be construed to be an acceptance of any defective or incomplete work or improper materials.

The District reserves the right to make payments jointly to the order of the Contractor and to any of its subcontractors or suppliers that might have a right to file a stop notice with the District. The District shall have no obligation to pay or to ensure the payment of money to a subcontractor or supplier, except as may otherwise be required by law.

F-10 Change Orders

F-10.1 General - The District reserves the right to make such alterations, deviations, additions to, deletions or omissions from the plans and specifications, including the right to increase or decrease the quantity of any item or portion of the work, as may be deemed by the Engineer to be necessary or advisable and to require such extra work as may be determined by the Engineer to be required for the proper completion or construction of the scope of work contemplated. Such changes, no matter how many, shall be within the scope of work contemplated in the Contract Documents and shall not be the basis for a compensable delay or a claim for lost profits.

F-10.2 Minor Changes - The Engineer shall have the authority to order minor changes in the work not involving any increase or decrease in the Contractor's cost of, or time required for, performance of the Contract. Such minor changes shall be performed by written order of the Engineer, and the Contractor shall carry out such written orders promptly. If the Contractor disagrees with the Engineer's determination that a change is minor and does not involve any increase or decrease in the Contractor's cost of, or time required for, performance of the Contract, then the Contractor may file and pursue a claim pursuant to Section B-14. The written claim must be submitted to the Engineer within 15 days after the date of the Engineer's written order. If the Contractor believes that any such work is beyond the scope of the contract documents, the Contractor shall provide a written "Daily Extra Work Report" documenting the alleged extra work, which shall be submitted to and verified by the Engineer or the District's representative at the end of the day the work was performed.

F-10.3 Change Orders - If any change in the work ordered by the Engineer causes an increase or decrease in the Contractor's cost of, or time required for, performance of the Contract, an adjustment and modification of the Contract shall be made in the form of a "Change Order," which shall set forth (a) the changes, additions and/or deductions in the work to be done, (b) the increase or decrease in compensation due the Contractor, if any, or the method by which the increase or decrease, if any, shall be calculated, and (c) the adjustment in the time of completion of the work, if applicable. A Change Order may be issued to the Contractor at any time.

F-10.4 Change Order-Cost Adjustment - The compensation to be paid for any work addressed in a Change Order shall be determined in one or more of the following ways as shown in the Change Order:

- By unit prices
- By an agreed-upon lump sum
- By the cost plus basis pursuant to Section B-10.9

F-10.5 Cost Records - Contractor shall keep full and complete records of the cost of any work addressed in a Change Order in the form and manner prescribed by the Engineer and shall permit the Engineer to have access to such records as may be necessary to assist in the determination of the compensation payable for such work.

F-10.6 Cost Reduction for Deductive Change Order - With respect to a Change Order involving the deletion or reduction of work, the Engineer shall determine the appropriate reduction in the contract price based on the lump sum and/or per unit prices in the bid schedule for the items of work deleted or reduced by the Change Order. The Contractor shall not be entitled to claim damages for anticipated profits on any portion of the work that may be deleted.

F-10.7 Proposed Change Order - Upon receipt of a Change Order signed by the Engineer, the Contractor shall forthwith proceed with the ordered work, unless otherwise directed by the Engineer. If the Contractor agrees with the terms and conditions of the Change Order, then it shall sign the Change Order.

F-10.8 Contractor Protest Against Change Order - Should the Contractor disagree with any terms or conditions set forth in a proposed Change Order, it shall submit a written protest to the Engineer within 15 days after the receipt of the proposed Change Order. The protest shall state the points of disagreement, addressing, if applicable, the quantities and cost involved and the adjustment of time for completion.

F-10.8.1 – If a written protest is not timely submitted by the Contractor, then the proposed Change Order including all cost and time adjustment provisions, if any, that was submitted to the Contractor shall be deemed final and acceptable to the Contractor even if not signed by the Contractor. Any payment under an unprotested Change Order’s cost adjustment provisions shall constitute full compensation for all work included in or required by the Change Order.

F-10.8.2 - If the Contractor timely protests a proposed Change Order, it shall nevertheless proceed with the ordered work pending resolution of the protest.

F-10.8.3 – If the Contractor timely protests a proposed Change Order, the Engineer shall render in writing its determination of the protest. If the Contractor disputes the determination, then the Contractor may file and pursue a claim pursuant to section B14. The written claim must be submitted to the Engineer within 15 days after the date of the Engineer’s written determination on the protest. If the Contractor does not timely file a claim, then the proposed Change Order (as may have been revised by the Engineer’s determination on the protest), including all cost and time adjustment provisions, if any, shall be deemed final and acceptable to the Contractor even if not signed by the Contractor. Any payment under such a Change Order’s cost adjustment provisions shall constitute full compensation for all work included in or required by the Change Order.

F-10.8.4 - If the Contractor refuses to accept a Change Order, the District may issue it unilaterally. The Contractor shall comply with the requirements of the Change Order. The District shall provide for an equitable adjustment to the Contract, and compensate the Contractor accordingly. If the Contractor does not agree that the adjustment is equitable, it may submit a claim in accordance with Section B-14.

F-10.9 Cost Plus basis of Payment on Change Orders - The following shall constitute the cost plus basis of payment:

F-10.9.1 Direct Labor Cost - Charges for all of the labor furnished and used by the Contractor shall be made for manual classifications up to and including general foreman. It shall not include charges for assistant superintendents, superintendents, office personnel, timekeepers and maintenance mechanics. The time charged to work shall be subject to the daily approval of the Engineer and evidence of such approval shown on approved Daily Extra Work Reports shall be submitted with the billing. Labor rates used to calculate the costs shall be those basic wages including current employer contributions for fringe benefits and federal and state surcharges and including applicable subsistence and travel allowances, all as actually paid to workers under collective bargaining agreements or as a regular practice of the employer. No time or charges shall be allowed except when the workers are actually engaged in the proper, efficient and diligent performance or completion of the work as authorized. Overtime shall not be worked without prior approval of the Engineer.

F-10.9.2 Equipment Cost - Charges for the rental and operation of the equipment furnished and used by the Contractor shall be made for all prime construction and automotive equipment. It shall not include charges for listed equipment or major tools with a new cost of \$500 or less. Equipment time charges shall be itemized on a Daily Extra Work Report, subject to the daily approval of the Engineer and evidence of such daily approval shall be submitted with the billing. The equipment rental and operation rates used shall be those agreed upon by the Engineer and the Contractor prior to commencement of the work and shall include an approved allowance for depreciation. The cost for each type of approved equipment (active or standby) shall be no greater than the amount allowed in the latest edition of the Caltrans Standard Equipment Rates. Time and charges shall be allowed only when equipment is actually being used for the proper and efficient performance or completion of the work as authorized.

F-10.9.3 Material Costs - Charges for the cost of materials furnished by the Contractor shall be allowed only for materials furnished according to a specific authorization in the work order and their actual use verified by the Engineer. Charges shall be net cost to the Contractor delivered at the job, including all applicable sales taxes; and a vendor's invoice must accompany the billing, together with verification by the Engineer of the use of such materials.

F-10.9.4 Tools, Supplies, Supervision, Overhead and Profit - A charge for major tools, supplies, overhead, supervision and profit shall be allowed in the amount of 15% of the total direct labor costs, equipment costs, and material costs, as defined above at sections B-10.9.1 to B-10.9.3.

F-10.9.5 Work by Subcontractor - When all or any part of the work is performed by any of the Contractor's subcontractors, the markup percentage established in section B-10.9.4 shall be applied to the subcontractor's actual cost of such work (determine as above at sections B-10.9.1 to B-10.9.3), to which a markup of 5% on the subcontracted portion of the extra work may be added by the Contractor.

F-10.10 Lump Sum Change Orders - Lump sum change orders shall include all work and costs associated with the change work item(s) and shall be agreed to and signed by both the Contractor and the Engineer prior to commencing the work.

F-10.10.1 - Tools, Supplies, Supervision, Overhead and Profit - A charge for major tools, supplies, overhead, supervision and profit shall be allowed in an amount no greater than 15% of the total direct labor, equipment, and material costs.

F-10.10.2 Work by Subcontractor - When all or any part of work is performed by any of the Contractor's subcontractors, the markup percentage established in section B-10.10.1 shall be applied to the subcontractor's actual cost of such work, to which the Contractor may add a markup of no greater than 5% on the subcontracted portion of the extra work.

F-10.11 Effect of Change on Bond Sureties - The consent of the Contractor's bond sureties shall not be required as to any change or extra work ordered by the District, and the liability of the Contractor's bonds and sureties shall be increased or decreased accordingly without notice to the sureties.

F-10.12 Right to Use Other Contractors - The District reserves the right to contract with any person or firm other than the Contractor for any or all-extra work.

F-10.13 Increase Quantity of Contracted Items - If the total pay quantity of any item of work required under the Contract to be paid at a unit price exceeds the item as bid by more than 25 percent, then in the absence of an executed contract change order specifying the compensation to be paid, the work in excess of 125 percent of such estimate may, at the District's discretion, be paid for by a cost plus basis of payment as described at section B-10.9, instead of at the unit price.

F-10.14 Differing Site Conditions - Any extra work related to differing site conditions shall be addressed in accordance with the provisions of Public Contract Code Section 7104 and as further provided in the Contract Documents. No claim of the Contractor based on a claim of differing site conditions shall be allowed unless the Contractor has promptly given the notice required before any such claimed conditions are disturbed.

F-11 Acceptance and Final Approval

Within ten (10) days after the date of completion, the District will file in the office of the Sacramento County Recorder, a Notice of Completion of the work completed by the Contractor per the Contract Documents. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion, the difference between said final estimate and all payments previously made to the Contractor shall be due and payable to the Contractor, subject to any requirements

concerning the furnishing of a maintenance bond, and excepting only such sum or sums as may be withheld or deducted in accordance with the provisions of the Contract Documents and applicable law. All prior certifications, upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate. In accordance with California Public Contract Code section 7107(c), in the event of a dispute between the District and the Contractor, the District may withhold from the final payment an amount not to exceed 150% of the disputed amount.

Final payment to the Contractor in accordance with the final estimate is contingent upon the Contractor furnishing the District with a signed written release of all claims against the District arising by virtue of the Contract. The Contractor may specifically exclude disputed Contract claims in stated amounts from the operation of the release. The release shall be in substantially one of the following forms:

UNCONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASE LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: \$ _____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

CONDITIONAL WAIVER AND RELEASE UPON FINAL PAYMENT

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant: _____
Name of Customer: _____
Job Location: _____
Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: _____
Amount of Check: \$ _____
Check Payable to: _____

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: \$ _____

Signature

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

F-12 Guaranteed Work and Warranty Period

Contractor unconditionally guarantees all materials and workmanship furnished under the Contract Documents, and agrees to replace at its sole cost and expense, and to the satisfaction of District, any and all materials which may be defective or improperly installed. Contractor shall repair or replace to the satisfaction of District any or all such work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other work, which may be damaged or displaced in so doing. This guarantee shall remain in effect for one year from the date of District's acceptance of the work. This guarantee does not excuse Contractor for any other liability related to defective work discovered after the guarantee period. Contractor shall transfer to District all manufacturer and supplier warranties relating to the work, if any, upon completion of the work and prior to final payment. Any products/completed operations insurance coverage shall be maintained after completion of the project for the full guarantee period.

In the event of Contractor's failure to comply with the above stated conditions within a reasonable time, District may have the defect repaired and made good at the expense of Contractor who shall pay the costs and charges for such repair immediately upon demand, including any reasonable management and administrative costs, and engineering, legal and other consultant fees incurred by District in enforcing this guarantee.

F-13 Record Drawings

The Contractor shall prepare as-built plans after completion of the project. The Contractor shall be responsible to prepare and monitor the construction of the project according to the plan for the project. Deviations and/or changes to the work shall be noted and recorded for future revisions to the project plans. As built (record drawings) shall be prepared, completed and submitted to the District within 10 days of the filing of the "Notice of Completion".

F-14 Conflict Resolution

F-14.1 General - The District and the Contractor shall agree that differences between the parties, arising under and by virtue of the Contract Documents, be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled during the course of the work, if possible, or other appropriate action promptly taken.

F-14.2 Waiver - Contractor shall agree that it shall not be entitled to any additional time to complete work or the payment of any additional compensation for any claim, cause, act, failure to act, or happening of any event, thing or occurrence, unless it shall have given the Engineer timely and due written notice of the claim pursuant to this Section B-14, provided, however, that compliance with this section shall not be a prerequisite as to matters within the scope of the protest provisions in Subsection B-10.8 to these Contracting Requirements. The Contractor shall not be entitled to any additional compensation for claimed extra work until and unless either a Change Order has been issued pursuant to Section B-10 or a claim has been timely filed and approved pursuant to this Section B-14. If the Contractor fails to file a written claim within the claim deadline of Subsection B-14.5 below, then the Contractor agrees that it shall have waived any right or remedy to thereafter pursue the claim against the District in any administrative, arbitration or litigation proceeding.

F-14.3 Definition - A claim for purposes of this Section B-14 means a separate demand by the Contractor for (a) a time extension, (b) payment of money or damages arising from work done by, or on behalf of, the Contractor and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (c) the amount of a payment that is disputed by the District.

F-14.4 Informal Claims Resolution - The parties agree to strive to resolve all disputes amicably and in an informal manner. Any dispute resolved informally shall be documented by the Engineer, and if the dispute resolution involves a change in the work, increase or decrease in the compensation due the Contractor, and/or adjustment in the time of completion of the work, then the informal dispute resolution shall be confirmed by a Change Order pursuant to Section B-10. Informal discussions and/or negotiations with the Engineer or other District representatives concerning informal resolution of a dispute shall not toll or suspend the claim filing deadlines provided below, unless so provided by the Engineer in writing.

F-14.5 Deadlines for Filing of Claim - Subject to the terms, conditions and deadlines of this Section B-14, the Contractor may file a claim with the Engineer. A claim must be submitted to the Engineer as follows: (a) if a deadline is set forth in the Contract Documents for filing of the particular claim, then the claim must be filed by the specified time; (b) if the claim relates to extra, additional or unforeseen work for which the Contractor intends to demand additional compensation or a time extension, notice shall be given to the Engineer prior to the time that the Contractor commences performance of the work giving rise to the potential claim for additional compensation or time extension, and Contractor shall not proceed with said work until so directed by the Engineer; and (c) for all other claims not included within subsections (a) and (b), the claim must be filed on or before 15 days after occurrence of the event giving rise to the claim. In no event shall claims be filed later than the date of final payment.

F-14.6 Emergency Work - In the event of an emergency endangering life or property, or of the work, or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is permitted to act at its discretion to prevent such threatened loss or injury, and it shall so act without appeal if so instructed or authorized. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final and conclusive. Any claims for compensation made by the Contractor on account of emergency work shall be determined and paid as specified under Section B-10. After completion of the necessary emergency work, the Contractor shall present to the Engineer an accounting of labor, materials and equipment in connection therewith.

F-14.7 Tort Claims - The provisions of this Section B-14 apply only to contract claims and not apply to tort claims, and nothing in these sections is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

F-14.8 Required Contents of Claim - A claim must be in writing and shall set forth in detail the reasons for which the Contractor believes additional compensation or a time extension shall or

may be due, the nature of the costs involved, and, insofar as possible, the amount of the claim. The claim shall also include the documents necessary to substantiate the claim.

F-14.9 Contract Work Pending Claim Resolution - Unless otherwise directed in writing by the Engineer, pending resolution of a claim under this Section B-14, the Contractor shall continue to diligently prosecute the Contract work in accordance with the Contract Documents and the instructions of the Engineer.

F-14.10 Processing of Claims by District - Except as otherwise specifically provided in the Contract Documents, the Engineer shall initially decide all claims of the Contractor and all disputes arising under and by virtue of the Contract. All such decisions of the Engineer shall be final unless disputed by the Contractor in accordance with Subsection B-14.12 or Subsection B-14.15.2 of this Section B-14, as appropriate. If the Contractor fails to dispute the Engineer's decision on the matter in accordance with Subsection B-14.12 or Subsection B-14.15.2, then Engineer's decision shall be final, conclusive and binding, and the Contractor shall be deemed to have waived all its rights to further protest, judicial or otherwise. Any claim for a time extension or claim for money or damages of less than \$375,000 (i.e., any claim subject to Public Contract Code section 20104) shall be processed by the District and resolved in accordance with Subsections B-14.14.11 to B-14.14.14. Any claim for money or damages of more than \$375,000 (i.e., any claim not subject to Public Contract Code section 20104) shall be processed by the District and resolved in accordance with Subsection B-14.15.

F-14.11 District's Response to Claim

F-14.11.1 – For a claim for a time extension or claim for money or damages of less than \$50,000, the Engineer shall respond in writing to any written claim within 45 days of receipt of the claim by the Engineer, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim that the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this section, upon mutual agreement of the Engineer and the Contractor. The Engineer's written response to the claim, as further documented, shall be submitted to the Contractor within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

F-14.11.2 - For claims of over \$50,000 and less than or equal to \$375,000, the Engineer shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this section, upon mutual agreement of the Engineer and the Contractor. The Engineer's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

F-14.12 Meet and Confer - If the Contractor disputes the Engineer's written response, or the Engineer fails to respond within the time prescribed, the Contractor may so notify the District, in writing, either within 15 days of receipt of the Engineer's response or within 15 days of the Engineer's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute.

F-14.13 Government Code Claim - Following the meet and confer conference, if the claim or any portion remains in dispute, the Contractor may file a claim as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits a timely written claim pursuant to Subsection B-14.5 until the time that the claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process; provided that if the Contractor fails to demand a meet and confer conference within the applicable 15 day period, then the Contractor shall be deemed not to dispute the Engineer's written response to the claim and any tolling of the running of the period of time within which a Government Code claim must be filed (see Public Contract Code section 20104.2(e)) shall cease upon expiration of the applicable 15 day period.

F-14.14 Special Litigation Provisions - The following procedures shall apply to all civil actions filed to resolve claims subject to Public Contract Code section 20104 (i.e., any claim for a time extension or claim for money or damages of less than \$375,000).

F-14.14.1 Mediation - Within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, and the mediation shall be commenced within 30 days of the submittal and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

F-14.14.2 Arbitration

F-14.14.2.1. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding section 1141.11 of that code. The Civil Discovery Act (commencing with section 2016) of Title 4 of Part 4 of the Code of Civil Procedure shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

F-14.14.2.2. Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and

expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

F-14.14.2.3. In addition to Chapter 2.5 (commencing with section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who, after receiving an arbitration award, requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that Chapter, pay the attorney's fees of the other party arising out of the trial de novo.

F-14.14.3 Witnesses – The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

F-14.14.4 Payment of Undisputed Claims – The District shall not fail to pay money as to any portion of a claim that is undisputed except as otherwise provided in the Contract Documents.

F-14.14.5 Interest - In any suit filed under this Section B-14.14, the District shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

F-14.15 Large Claim Resolution - For any claim for money or damages of more than \$375,000 (i.e., any claim not subject to California Public Contract Code section 20104), the following requirements apply:

F-14.15.1 District Response to Claim - The Engineer shall respond in writing to the written claim within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim that the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this section, upon mutual agreement of the Engineer and the Contractor. The Engineer's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days after receipt of the further documentation.

F-14.15.2 Meet and Confer - If the Contractor disputes the Engineer's written response, or the Engineer fails to respond within the time prescribed, the Contractor may so notify the District, in writing, either within 15 days of receipt of the Engineer's response or within 15 days of the Engineer's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute.

F-14.15.3 Lawsuit on the Claim - Following the meet and confer conference, if the claim or any portion remains in dispute, the Contractor may, within six (6) months from the date of the last meet and confer conference, file a lawsuit on the claim. If the Contractor fails to demand a meet and confer conference as described in Subsection B-14.15.2 above, the Contractor may, within six (6) months from the date of the Engineer's written response,

file a lawsuit on the claim. If the Contractor fails to file a lawsuit within the applicable six-month period, then the District's written response to the claim shall be final, conclusive and binding on the Contractor, and the Contractor agrees that it thereafter shall be barred from filing a lawsuit on the claim.

Section G. Permitting Requirements

G-1 Permit Issuance

All work performed within the public-right-of-ways require an encroachment permit from the governing agency having jurisdiction to protect against damage and unsafe conditions, ensure proper placement of facilities and equipment and Contractor operations, provide access to underground facilities, guarantee that all work is done in accordance with all applicable standards and controls governing construction and encroachments on the surface of or within public-rights-of-way.

G-2 Permitting Responsibility

The Contractor shall be responsible for the permitting application process and fees associated with obtaining permits to work within any public right-of-way, for the construction of related facilities connected to the District system including, but not limited to, any work that may cause the discharge of construction water into the local drainage system, or any other permits as required for the commencement and prosecution of the work.

Once a permit has been issued by a governing agency, the Contractor shall be responsible to adhere to all conditions of the permit, including notification to the permitting body of pending work.

In lieu of the Contractor or in addition to the District may obtain the encroachment permit for the project. Should the District obtain and provide the permit for this project, the Contractor shall be required to adhere to all conditions of the permit once received, including notification to the governing agency of pending daily work.

G-3 Regulations and Permitting Information

Copies of the Sacramento Suburban Water District's "Ordinance 2004-03; Regulations Governing Water Service" and "Improvement Standards, Technical Specifications, and Standard Details" can be found on the District's website at: www.sswd.org.

G-4 Permit Process

Plans submitted for permits shall be designed according to and comply with guidelines set forth by the governing agencies in jurisdiction for work performed within the right-of-ways.

Before a Contractor shall be permitted to connect to the District's water system, the Contractor shall comply with the District's applicable ordinances, regulations, Improvement Standards, and policies.

G-5 One-Call Center Coordination

The types, locations, sizes and/or depths of existing underground utilities as shown on the contract drawings were obtained from sources of varying reliability. The Contractor is cautioned that only actual excavation shall reveal the types, extent, sizes, locations and depths of such underground utilities. The District recommends that the Contractor pothole before excavating. A reasonable effort has been made to locate and delineate all known underground utilities. However, the District can assume no responsibility for the completeness or accuracy of its delineation either of such underground utilities or for the existences of other buried objects or utilities that may be encountered but that are not shown on such drawings.

Sacramento Suburban Water District is a member of the Underground Service Alert North (U.S.A.) one-call program. The Contractor shall contact the U.S.A. a minimum of two working days in advance of performing any excavation work by calling the toll free number 1-800-227-2600.

G-6 Utility Marking Guidelines and Color Code

The Sacramento Suburban Water District uses the American Public Works Association (APWA) standard color code and utility marking guidelines to promote consistency in identifying underground utilities.

G-7 Pavement Cut Restoration

All existing curbs, gutters, sidewalks, driveways, road shoulders, pavement and similar items removed, damaged or displaced during the work shall be restored by the Contractor, unless otherwise directed or required by the District or the governing agency. Restoration shall be done using the same types of materials as in the original construction and to not less than the original dimensions, subject to minimum requirements as shown in the governing agency's specifications, or as directed by the governing agency. Unless otherwise directed, all work shall be constructed to current standards and shall match the appearance of the existing improvements.