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SECTION 100
DEFINITIONS AND ABBREVIATIONS

Whenever the words are used in this document or pronouns used in their stead occur in these specifications or other documents, they shall have the meanings here given:

Acceptance - The formal action by the District Board of Directors accepting the dedication of completed facilities.

Applicant - An owner, developer, builder, engineer, or other authorized representative who applies as the owner's official agent to the District for domestic water, sewer and, if applicable, recycled-water service.

Board - The Board of Directors of the Vallecitos Water District.

City - Incorporated area within the County of San Diego having local governing powers.

Contractor - The person, firm, or corporation entering into contract with the owner, developer, or the District for the performance of work required under said contract and the District's ordinances, rules, regulations, and specifications.

County - The County of San Diego, State of California.

Date of Acceptance - The date the District Board formally accepts the dedication of completed facilities.

District - The Vallecitos Water District, its authorized employees, Board of Directors, and agents; also known as Agency.

District General Manager - The person holding the position of the General Manager appointed by the Board of Directors acting either directly or through his/her properly authorized agents, engineers, assistants, inspectors and superintendents, acting separately within the scope of the duties assigned to them.

District Engineer - The person holding the position or acting either directly or through his/her properly authorized agents, engineers, assistants, inspectors and superintendents, acting separately within the scope of duties assigned to them.

Domestic Water (Potable Water) - That water which is pure and wholesome, does not endanger the lives or health of human beings, and conforms to the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, or other applicable standards.

Improvement District (ID) - Subarea of the District formed to set up assessments to pay for bonds sold to construct water and/or sewer facilities benefitting landowners in that subarea.

Inspector - Any person authorized by the District to perform inspection of the domestic water, sewer and recycled facilities prior to construction, during construction, after construction, and during operation.

Laboratory - The materials-testing laboratory authorized by the District to test materials and work involved in the construction governed by these specifications.

Offsite Facilities - Shall mean facilities under the control of the District; including, but not limited to: domestic water and recycled water mains, sewer mains, reservoirs, pumping stations, pressure stations, fire hydrants, manholes, valves, connections, supply inter-ties, treatment facilities, and other appurtenances and property up to the point of connection with the customer's facilities.

Onsite Facilities - Shall mean facilities under the control of the applicant, owner or customer; including, but not limited to, residential, commercial, and industrial building domestic water, sewerage and recycled water systems. For domestic water and recycled water, the onsite facilities shall be those downstream of the service connection, which shall normally be the downstream end of the meter tailpiece. For sewer, the onsite facilities shall be those facilities upstream from the sewerage service lateral connection to the sewer main, inclusive of the lateral.

Owner - Any holder of legal title, contract purchaser, or lessee of property for which service is requested from the District.

Plans – The official scale and full size detail drawings or exact reproductions thereof, adopted and approved by the District showing the location, character, dimensions and details of the work to be done and which are to be considered as a part of the contract.

Plan Checker – The person appointed by the District to review the development plans for consistency with the District Standards Specifications, and to process the Development Construction Agreement and other documents as required.

Record Drawings (As-Builts) - Drawings which show the constructed facilities, including all revisions to the original plans.

Recycled (Reclaimed) Water - Water served from the District's off-site reclaimed water facilities.

Sewer Systems - Facilities conveying sanitary sewage.

Standard Drawings - The details of standard structures, devices or instructions referred to on the plans or in specifications by title or number.

Standard Specifications - The instructions, provisions, conditions and detail requirements contained therein or therewith pertaining to the methods and manner of performing the work or to the quantities and qualities of materials to be furnished under the contract.

Water Systems - The term "water systems" includes both domestic water and recycled water facilities.

Whenever, in these specifications or upon the standard drawings, the words DIRECTED, REQUIRED, PERMITTED, ORDERED, DESIGNATED, PRESCRIBED, or words of like importance are used, they shall mean directed, required, permitted, ordered, designated, or prescribed by the District Engineer. The words APPROVED, ACCEPTABLE, SATISFACTORY, or words of such importance shall mean approved by, acceptable to, or satisfactory to the District Engineer, unless otherwise expressly stated.

Whenever used in these specifications, the following abbreviations shall refer to the agency shown:

<u>Abbreviation</u>	<u>Agency</u>	<u>Address</u>
AWWA	The American Water Works Association, Inc.	6666 West Quincy Avenue Denver, CO 80235
ASTM	The American Society for Testing and Materials	1916 Race Street Philadelphia, PA 19103
ANSI	The American National Standards Institute	1430 Broadway New York, NY 10018
CPEM	Clay Pipe Engineering Manual	National Clay Pipe Institute, Western Regional Office Los Angeles, CA
UL	Underwriters' Laboratories, Inc.	333 Pfingsten Road Northbrook, IL 60062 1207 W. Imperial Highway Brea, CA 92621
NSF	National Sanitation Foundation	3475 Plymouth Road P.O. Box 1468 Ann Arbor, MI 48106
SSPWC	Standard Specifications for Public Works Construction	BNI Building News 1612 S. Clementine St. Anaheim , CA 92802

END OF SECTION

SECTION 200
SCOPE AND CONTROL OF WORK

200.1 RESPONSIBILITY FOR FURNISHING MATERIAL AND INSTALLATION

It will be the responsibility of the applicant to furnish all materials that meet the following contained material specifications and all labor and equipment to install facilities in conformance with approved plans and contained specifications.

200.2 GUARANTEE

The applicant shall guarantee the work against leaks and breaks due to defective materials or workmanship furnished by the contractor, against settlement of backfill, and damage to resurfacing for a period of one year from the date of completion and acceptance by the District. Arrangements shall be made for a warranty bond to be enforced for a period of one year after the date of final acceptance to cover this guarantee. Damage or leaks due to acts of God, from sabotage, and/or vandalism are specifically excepted from this guarantee.

The date of acceptance by the District will commence when completion of the entire tract, commercial, or industrial complex is final and approved at a regular meeting of the Board of Directors. Partial releases are not considered to relieve applicant of responsibilities under this section.

When defective material or workmanship discovered in the work requires repairs to be made under this guarantee, the applicant shall be notified by telephone and shall make all repairs at its own expense within three calendar days after receipt of such telephoned notice. This telephone notice shall be followed up by written correspondence. Should the applicant fail to repair the damage within the three days, the District may make the necessary repairs and charge the applicant with the actual cost of the repairs. In emergencies demanding immediate attention, the District shall have the right to repair the defect or damage and charge the applicant with the actual cost of all labor and material required.

200.3 LICENSES, PERMITS, AND FEES

The contractor shall have a valid Class A, C-16, C-34, or C-42 contractor's license depending on the particular project or work application. The contractor or applicant shall obtain all permits, pay all fees, obtain business licenses, and give all necessary notices required for the construction of the work.

200.4 PLANS AND SPECIFICATIONS

200.4.1 General

The contractor shall keep at the worksite a copy of the approved plans and specifications to which the District shall have access at all times.

200.4.2 Shop Drawings

When shop drawings or other drawings are required by the plans, specifications, or the District, they shall be prepared in accordance with current modern engineering practice and at the contractor's expense. Drawings shall be of a size and scale to show clearly all necessary details and shall be transmitted by letter to the District for review at least 30 days before the drawings will be required for commencing the work.

Materials shall not be furnished or fabricated nor any work done for which drawings are required before review of the drawings is completed and approved by the District.

200.5 WORK TO BE DONE

All work shall be performed in a thorough workmanlike manner in accordance with the plans, profiles, and specifications that have been approved by the District. All work shall conform to the lines, elevations, and grades shown on these plans and profiles.

The District's approval of the plans prepared by the applicant denotes agreement with the plans as prepared and is not an acceptance of responsibility as to their accuracy or completeness. The applicant shall be responsible for any error, coordination with other facilities, and interpretation of the plans. The intent is to obtain a completed facility that shall be in conformance with the approved plans and in accordance with the District's requirements and these specifications. All revisions and changes in the plans must be approved by the District prior to commencement of work.

200.6 RIGHT-OF-WAY

Rights-of-way or easements for the waterlines or sewer lines as shown on the plans will be provided by the applicant, if a private development project. Unless otherwise provided, the contractor shall make arrangements for, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The contractor shall indemnify and hold the District harmless from all claims for damages occasioned by such actions.

END OF SECTION

**SECTION 300
CONTROL OF MATERIALS**

300.1 MATERIALS AND WORKMANSHIP

All materials, parts, and equipment furnished by the contractor shall be new, high grade, and free from defects. Workmanship shall be in accordance with generally accepted industry standards. Materials and workmanship shall be subject to the District's approval.

Materials and workmanship not conforming to the requirements of these specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the contractor at its expense, when so directed by the District.

300.2 PROTECTION OF WORK AND MATERIALS

The contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the work. Stored materials shall be reasonably accessible for inspection. The contractor shall also adequately protect new and existing work and all items of equipment for the duration of the contract.

300.3 INSPECTION REQUIREMENTS

Unless otherwise specified, inspection is required at the jobsite for such typical materials and fabricated items as pipe, valves, fittings, service materials, structural concrete, welding, and protective coating application.

Before incorporation in the work, the contractor shall submit samples of materials and deliver the samples for testing at the place and the designated time, as required by the District, at the expense of the contractor. Unless otherwise provided, all initial material testing and a reasonable amount of retesting shall be performed under the direction of the District at the expense of the District. If the contractor is to provide and pay for material testing, the specifications will so state. For private contracts, the testing expense shall be borne by the permittee.

END OF SECTION

SECTION 400 UTILITIES

400.1 LOCATION

The applicant shall be responsible for searching utility records and delineating the location of utilities on the plans.

At least two working days before beginning the work, the contractor shall request all utility owners to mark or otherwise indicate the location of their substructures, by calling Underground Service Alert (USA). It shall be the contractor's responsibility to determine the true location and depth of all utilities and service connections. The contractor shall also be familiarized with the type, material, age, and condition of any utility that may be affected by the work.

400.2 PROTECTION

No unauthorized person shall operate, break, damage, deface, uncover, or tamper with any structure, appurtenance, equipment, or other property which is part of the District Water or Sewer Systems. No manhole, valve, meter box or appurtenance shall be covered or made inaccessible. If required by changes in surface grade, manholes, valve covers and meter boxes shall be reconstructed to per the VWD standard drawings and these specifications. Violators of this provision shall be subject to the penalties provided by law.

The contractor shall not interrupt the service function or disturb the supporting base of any utility without authority from the owner and ordered by the District.

Where protection is required to ensure support of utilities, the contractor shall furnish and place the necessary protection at its expense. The contractor shall maintain a minimum of 12 inches separation between District facilities and other utilities, unless expressly approved by the District.

The contractor shall immediately notify the District and the utility owner if he disturbs, disconnects, or damages any utility. In the event of necessary repair work on a District facility, the District has the right to hire another contractor to do the repair work. The project contractor will be responsible for the cost of the repair.

END OF SECTION

SECTION 500
SCHEDULE, PROGRESS, AND PROSECUTION OF WORK

500.1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK

Prior to start of any work, the contractor shall submit a proposed construction schedule to the District for approval. Construction of water facilities will not commence until curb and gutter have been completed.

Before starting construction on any jobs within the District, a preconstruction conference shall be held at which the District, the owner/developer or agent, the contractor's foreman and/or superintendent for that job, and the applicant's tract superintendent shall be present. The District inspector shall review job plans and the contractor's work schedule, answer any questions regarding District specifications, verify that all permits have been obtained, and check the contractor's license. Evidence of a performance bond, signed agreement, and applicable District-signed plans shall be available to the District before the preconstruction conference is scheduled.

If the contractor desires to make a major change in the method of operations after commencing construction or if the schedule fails to reflect the actual progress, the contractor shall submit to the District a revised construction schedule before beginning revised operations.

500.2 PROSECUTION OF WORK FOR OFFSITE CONSTRUCTION

To minimize public inconvenience and possible hazard, the contractor shall diligently prosecute the work to completion; therefore, restoring streets and other work areas to their original condition and former state of usefulness as soon as practicable.

As soon as possible under the provisions of these specifications, the contractor shall backfill all excavations and restore to usefulness all improvements existing before the start of the work.

END OF SECTION

SECTION 600
RESPONSIBILITIES OF CONTRACTOR IN CONDUCT OF WORK

600.1 SUPERVISION

The contractor shall designate and keep on the work at all times during its progress a competent superintendent, who shall not be replaced without written notice to the District's representative. The superintendent will be the contractor's representative at the site and shall have authority to act on behalf of the contractor. All communications given to the superintendent shall be as binding as if given to the contractor. During periods when the work is suspended, the contractor shall make appropriate arrangements for any emergency work which may be required.

Whenever the contractor's superintendent is not present on any particular part of the work where the District's representative may desire to inform the contractor relative to interpretation of the plans and specifications or the disapproval or rejection of materials or work performed, the District's representative may so inform the foreman or other worker in charge of the particular part of the work in reference to which the information is given. Information so given shall be as binding as if given to the superintendent.

600.2 NO PERSONAL LIABILITY

The Board of Directors, an officer, an authorized assistant, or an agent, or employee of the District shall not be personally responsible for any liability arising out of the work performed.

600.3 RESPONSIBILITY FOR DAMAGE

The District shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any material or equipment used in performing the work; or for injury or damage to any person or persons, workmen, or the public; or for damage to adjoining property from any cause whatsoever during the progress of the work or at any time before final acceptance.

600.4 LEGAL RELATIONS AND RESPONSIBILITY

The contractor shall keep himself fully informed of all laws, ordinances, and regulations that in any manner affect those engaged or employed in the work or the materials used in the work, or that in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or other documents in relation to any such law, ordinance, regulation, order, or decree, the contractor shall forthwith report the same to the District in writing. The contractor shall at the time observe and comply with all such existing and future laws, ordinances, resolutions, regulations, orders, and decrees and shall protect and indemnify the District against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree.

The owner and contractor shall hold harmless, indemnify, and defend the District from any and all liability claims, losses, or damages, including attorney's fees, arising or alleged to arise from the performance of the work, provided, however, that if the loss or damage is ultimately determined to be the proximate result of the sole negligence of one or more of the aforesaid, this indemnification shall not apply.

The owner and contractor shall also indemnify and hold the District harmless from all costs, losses, expenses, damages, attorney's fees, and other costs of defense that may incur with respect to the failure, neglect, or

refusal of contractor to faithfully perform the work and obligations under the contract. Such costs, expenses, and damages shall include all costs incurred by the District to defend against any claims, stop notices, or lawsuits based thereon in which any of them are made a party.

The contractor shall, in general, observe the rules and regulations of the State of California, Department of Industrial Relations Division of Industrial Safety (CAL/OSHA) and, in particular, rules and regulations relating to shoring of trenches and excavations and confined spaces.

600.5 STORAGE OF EQUIPMENT AND MATERIALS IN PUBLIC STREETS

Construction materials may not be stored in streets, roads, or highways for a period longer than that authorized by the agency having jurisdiction over said street, road, or highway.

Construction equipment shall not be stored at the worksite before its actual use on the work or for a period longer than that authorized by the agency having jurisdiction over said worksite, street, road, or highway.

600.6 STREET CLOSURES, DETOURS, BARRICADES

The contractor shall comply with all applicable state, county, and city requirements for closure of streets. The contractor shall provide barriers, guards, lights, signs, temporary bridges, flagmen, and watchmen advising the public of detours and construction hazards that may arise during construction and promptly remove all signs and warning devices upon completion of the work. The contractor shall also be responsible for compliance with additional public safety requirements that may arise during construction.

At least two working days, or per requirements of the agency having jurisdiction, before closing, partially closing, or reopening of any street, alley, or other public thoroughfare, the contractor shall notify the jurisdictional agencies involved and comply with their requirements. Deviations must first be approved in writing by the District Engineer with concurrence of the agency having jurisdiction. Traffic control shall generally be in accordance with the "Work Area Traffic Control Handbook" (WATCH). Local agency requirements shall govern.

600.7 SAFETY

The Contractor shall be solely and completely responsible for inspecting and correcting all onsite safety hazards during all aspects of construction. In addition, the Contractor's project manager or construction manager shall have primary, specific authority to order the correction of all onsite safety hazards during the construction period. The Contractor shall be considered the controlling employer or correcting employer having specific authority to correct any and all violative safety conditions which may exist at the job site during construction consistent with Labor Code section 6400, et. seq. The Contractor shall instruct any subcontractors that the Contractor's project manager or construction manager is the designated source of information regarding safety hazards which may exist at the job site.

600.7.1 Safety Orders

The contractor shall have at the worksite copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industrial Safety Orders as issued by the State Division of Industrial Safety. The contractor shall comply with provisions of these and all other applicable laws, ordinances, and regulations.

600.7.2 Use of Explosives

Explosives may be used only when authorized in writing by the District Engineer. Explosives shall be handled, used, and stored in accordance with all applicable regulations.

The District Engineer's approval of the use of explosives shall not relieve the contractor from his liability for claims caused by blasting operations.

600.8 CAL OSHA REQUIREMENTS

The following are Cal/OSHA requirements as of the printing of these District standard specifications. The requirements are listed for information purposes only; work must be in compliance with the current Cal/OSHA requirements. Requirements for construction work for Cal/OSHA are listed in Title 8, Division 1, Chapter 4, of the California Code of Regulations.

600.8.1 Trench Work

Division of Occupational Safety and Health (DOSH) requires a DOSH permit for construction of trenches or excavations 5 feet or more in depth into which a person is required to descend.

Each employee in an excavation shall be protected from cave-ins by an appropriate protective system.

A competent person will make daily inspections of excavations, adjacent areas, and protective systems for potential cave-in, failure of protective systems, hazardous atmospheres, or other hazardous conditions.

A competent person must demonstrate:

1. Knowledge of current safety orders pertaining to excavation and trenching
2. Knowledge of soil analysis and classification
3. Knowledge of design and use of protective systems
4. Authority to take prompt corrective action when conditions change
5. Ability to recognize and test for hazardous atmospheres

Protective system design will be based on soil classification: Type A, B, or C soils (refer to Section 1541(b) Title 8).

Sloping or benching for excavations greater than 20 feet deep shall be designed by a registered professional engineer.

Determine the location of underground utilities and notify the owners.

Inspect the area for hazards from moving ground.

Inspect the excavation after every rainstorm, earthquake, or other hazard-increasing occurrence.

Inspect the face, banks, and top daily when workers are exposed to falling or rolling material.

Shore, bench, slope, shield, or use equivalent methods to protect workers in excavations 5 feet deep or more.

Locate spoil, materials, and equipment at least 2 feet from the edge of excavation.

In trenches 4 feet deep or more, provide safe access within 25 feet of any work area.

Install walkways or bridges with standard guardrails when employees or equipment are required or permitted to cross over.

Do not excavate beneath the level of adjacent foundations, retaining walls, or other structures until a qualified person has determined that the work will not be hazardous.

Shore, brace, or underpin structures when their stability is threatened. Inspect structures daily.

Erect barriers around excavations in remote work locations. Cover or barricade all wells, pits, shafts or caissons.

Note: Upon District's request, a shoring detail shall be designed by a registered professional engineer.

600.8.2 Confined Space

A confined space has the following characteristics:

1. Its size and shape allow a person to enter it
2. It has limited openings for workers to enter and exit
3. It is not designed for continuous occupancy

All entries into or work within confined spaces to be conducted in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health [DHHS (NIOSH)] Publication No. 87-113, A Guide to Safety in Confined Spaces.

The contractor shall notify in writing the District inspector 48 hours prior to performing work in a District facility classified as a confined space.

600.8.3 Permit-required Confined Space

A permit-required confined space has one or more of the following characteristics:

1. Contains or has potential to contain a hazardous atmosphere
2. Contains a material that has the potential for engulfing an entrant
3. Has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section
4. Contains any other recognized serious safety or health hazard

All entries into or work within permit-required confined spaces to be conducted in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health [DHHS (NIOSH)] Publication No. 87-113, A Guide to Safety in Confined Spaces.

No one shall enter a District facility that is classified as a permit-required confined space without a District inspector being present. The contractor shall submit the permit to the District inspector 48 hours prior to doing work in a District confined space facility.

An entry permit is a written or printed document that is provided by the contractor to allow and control entry into a permit-required confined space and that contains, but is not limited to, the following information:

1. Specific permit space identification
2. Purpose and date of entry
3. Duration of authorization
4. Authorized entrants by name
5. Names of authorized attendant and entry supervisor
6. Actual hazards of the identified space
7. Control and isolation methods to be used
8. Acceptable entry conditions
9. Results of initial and periodic atmospheric testing
10. Rescue and emergency services to be summoned
11. Communication procedures authorized between attendant and entrants
12. Equipment to be provided
13. Other information as necessary
14. Other permits, such as hotwork

An example of a confined space entry permit is shown in the California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 108, Appendix D-2. The contractor may use this permit or any other permit adequate for the work being done.

END OF SECTION