
Request for Proposals

Sludge Processing Improvements Progressive Design-Build Project

FEBRUARY 2026

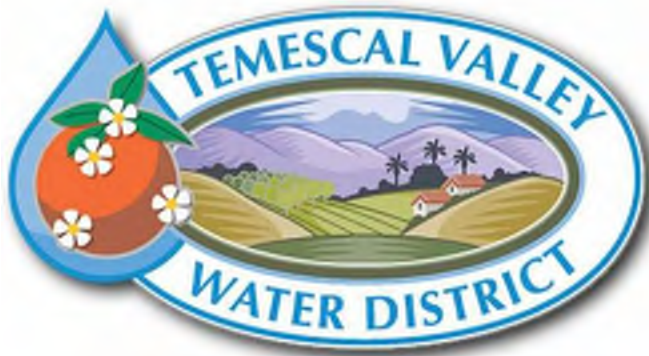
Proposals Due: April 17, 2026, 2:00 P.M.

THE TEMESCAL VALLEY WATER DISTRICT

22646 Temescal Canyon Road

Temescal Valley, CA

Contact: Jeff Pape



Jeff Pape
General Manager

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REQUEST FOR PROPOSALS FOR THE SLUDGE PROCESSING IMPROVEMENTS PROGRESSIVE DESIGN BUILD PROJECT

1 Introduction

The Temescal Valley Water District (TVWD or District) is seeking proposals from qualified design-build teams (consisting of a Professional Engineering firm and a General Contractor) to perform progressive design-build (PDB) services for the Sludge Processing Improvements Project (Project). Currently the District utilizes multiple sludge removal and drying processes. These processes include sludge drying beds, filtration bags, and centrifuge facilities. Throughout the year the District may utilize a combination of the various available processes depending on weather, chemical costs, equipment maintenance, and operator preference. During construction of the proposed project the District will coordinate with the contractor to phase construction activities to not disrupt the treatment process. The Contractor will be responsible for coordinating with the District during construction activities so the Contractor will have full access to the sludge processing building during construction and the District will process solids utilizing other facilities. The contractor shall continuously work with the District to limit the downtime of sludge processing equipment to the greatest extent possible.

In summary, the Project will include expansion of the District's existing sludge processing facilities including design and construction of:

- Two new identical (lead, standby) centrifuges capable of processing a minimum of 150 gallons per minute of waste sludge each
 - A new polymer storage and injection system. The design shall utilize a racking system for storage and utilization of polymer totes. Bulk storage tanks for polymer will not be designed as part of this project.
 - Reconfiguration of the existing sludge handling building including demolition of outdated equipment and reutilization of the existing space
 - New sludge building rooms, platforms, accessways, and components as required
 - A new processed sludge conveyor system capable of filling end-dump trailers
 - Replacement of the existing odor control system with a new odor bed sized for the new sludge process building and equipment
 - Air Resource Control Board permitting as required for the proposed facility modifications which will be applied for and obtained by the PDB Team
 - Upgrades to the electrical MCC as required to facilitate new equipment
 - Installation of new instrumentation for the proposed facilities. Design shall include integration of controls and alarms into the District's SCADA system including coordination with the District's on-call SCADA integrator
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The Project will include completion of the Project design, permits, construction services, start-up and commissioning, permitting, and project management services. The District is undertaking the proposed Project based on the requirements identified by SB991, which allows PDB on any project over \$5 million in value that stores, treats, or conveys water. Respondents to this RFP will be requested to advance the design and provide detailed input as to the design and construction of the Project, including benefits to the Project's reliability, and ease and extent of upgrades and expansion and interconnection. Award of the Design-Build Contract will be made utilizing a best value selection process and will consist of an evaluation of multiple factors as set forth in this RFP.

Once the Progressive Design-Builder has been selected and the contract executed for the Work, the Project is to be designed and constructed in three phases using the progressive design-build delivery method:

- Preconstruction phase: Develop a Basis of Design Report (BODR) which outlines the design parameters of the project. Prepare design to 60% complete, as defined in the Scope of Design-Build Services, and a guaranteed maximum price (GMP) proposal
- Construction phase: Complete design, construction, and post-construction tasks (if GMP is approved by the Owner in the preconstruction phase)
- Post-Construction phase: Startup and commissioning

1.1 Procurement Schedule

A summary schedule of the major activities associated with this solicitation process is provided below:

- RFP Release: February 23, 2026
- Pre-Proposal Meeting: March 19, 2026 @ 10:00 AM
- Question Submissions Deadline: April 3, 2026
- Proposals Due: April 16, 2026 @ 2:00 PM
- Interviews: First and second week of May
- Anticipated Selection and Award: May 26, 2026

This procurement schedule is based on the District's intent to execute a Design-Build Contract and issue a Notice to Proceed (NTP) in June 2026. The deadline is based on the District's objective to achieve substantial completion of the Facilities by February 2028. All dates are subject to change at the discretion of the District.

1.2 Contact Information

Jeff Pape
General Manager
Temescal Valley Water District
22646 Temescal Canyon Road
Temescal Valley, CA 92883
(951) 277-1414
Jeffp@temescalvwd.com

1.3 Licenses

The Company and/or its key personnel, shall hold an appropriate license for the Company's discipline and the Services on the date the Proposal is submitted.

2 Scope of work

2.1 Scope of Services Summary

The scope of services to be provided by the Respondent is generally considered to include, but is not limited to, the following tasks.

Design and Pre-Construction Services. generally consists of the following:

1. Project Management
 2. Development of Project Execution Plan, including Project schedule
 3. Development of baseline design with alternatives and associated costs that can be used with design development to arrive at the optimum design-to-budget solution
 4. Development of a Basis of Design Report which summarizes the design approach and project elements
 5. Development of Project Controls, addressing cost, schedule, and quality
 6. Preparation of all design, technical and other documents in accordance with the requirements of the Design-Build Contract including pre-procurement of equipment as necessary
 7. Topographical surveying, if required to complete the proposed design
 8. Preparation of Project Baseline Schedule and Schedule of Values in accordance with the requirements identified in the Design-Build Contract
 9. Engineering services to support design and regulatory approval requirements
 10. Preparation of cost estimates in support of the PDB process
 11. Review meetings and workshops with the District
 12. Project permitting requirements and permitting activities as required by the Design-Build Contract
 13. Completion of Design Documents, including design reviews by the District
-

Construction Services, generally consists of the following:

1. Provision of all labor, equipment, materials and incidentals necessary to construct approved facilities in compliance with all permit requirements
2. Submission of documentation required by the Design-Build Contract
3. Schedule updates as required by the Design-Build Contract
4. Coordination with the District and Owner's Advisor (OA) in evaluating changes during construction, including opportunities for value engineering or other increased value propositions
5. Provision of all plans associated with construction services, including but not necessarily limited to, inspection and testing, quality control plan, site safety plan, construction management and reporting plan, mobilization plan, demobilization plan, and other plans required by the Design-Build Contract and relevant permits
6. Quality control and material testing will be completed by the District
7. Review meetings and workshops with the District to validate design concepts and facilitate agreements on bid packages
8. Completion of equipment and technical submittals and responses to District comments required by the Design-Build Contract
9. Engineering Services during Construction including field coordination and providing additional design drawings and recommendations as required to construct a fully functional project

Start-up and Training Services, generally consist of the following:

1. Procurement of spare parts, equipment and materials required for the acceptance testing of the Facilities
 2. Transition training of District operations staff
 3. Detailed startup and commissioning plans and startup, commissioning and performance testing, completion of record drawings, final approved submittals, and complete list of provided assets
 4. Provision of warranty coverage and assurances for process and associated equipment
 5. Management, procurement, deliveries, and inventory of consumables and spare parts identified during design
 6. Organization of Operation and Maintenance (O&M) Manuals for installed assets
 7. Update of Operations Plan in accordance with regulatory requirements
 8. Facilitation of access by District staff and OA to the Facilities at all times; and coordination of onsite activities with District staff to allow for scheduled activities
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2.2 Background Documents

Background documents will be provided for informational purposes only to prospective proposers upon request. The provided documents shall not be considered an appropriate or exhaustive compilation of all the information necessary for a PDB Team to meet their obligations under the PDB Contract. These documents shall not necessarily be construed to represent the optimal and specific Project features that will be included in the PDB Contract. The District will provide PDB Teams with sufficient opportunities to visit the Wastewater Treatment Plant (WWTP), review existing surveys and reports, and perform independent surveys and/or investigations as deemed necessary by the DB Team.

2.3 Security of Performance

The Performance Bond and the Payment Bond will be required for the Construction Phase only, templates of which are provided in the attachments to this RFP for reference only. The bond amounts will be adjusted for the Construction Phase as stipulated in the Contract Documents.

Respondents are required to furnish evidence of their ability and intention to provide these security instruments. A Surety Letter of Intent shall be executed by the Respondent.

All submittal requirements associated with security for performance are further detailed in this RFP.

2.4 Interviews and Evaluation of Proposals

Following submittal of the Proposal, the District will coordinate final interviews with Respondents as required. Generally, the interviews will provide an opportunity for the Respondents to present the content of the proposal. The interview will be evaluated and scored by the Selection Committee, with the interview process, requirements and format to be established and communicated with Respondents following the submittal of the proposals.

Proposals received in response to the RFP and the interviews conducted following receipt of these documents will be evaluated and scored using the evaluation criteria and scoring method noted in this RFP.

The Selection Committee may, in its sole discretion, prepare a written request for clarification to some or all Respondents for the purpose of clarifying any information submitted in a Proposal. The request may seek written clarification from the Respondent of any ambiguities in its Proposal and additional information the Selection Committee believes is necessary to complete the evaluation process, including clarification of language in light of the fact that the Proposal will be incorporated in and become part of the definitive Design-Build Contract as Technical Appendices. In addition, the Selection Committee may, in its sole discretion, perform other due diligence investigations with respect to any information submitted in a Proposal.

The Selected Respondent will be the Respondent whose Proposal receives the highest combined score based on the evaluation criteria and scoring method. The Selection Committee will forward its recommendation of the Selected Respondent to the Board of Directors for its approval. The District reserves the right, in its sole discretion, to reject the recommendation of the Selection Committee and to cancel the RFP process in its entirety if the District determines that such cancellation is in the best interest of the District.

Following Board approval, the District intends to expeditiously, to the extent possible, negotiate a Design-Build Contract. Should the District fail to successfully negotiate a Design-Build Contract with the selected (highest

ranking) Respondent, the District, at its sole discretion, may proceed to negotiate with the next highest ranked Respondent.

2.5 Detailed Proposal Requirements

The information contained in this section, and other prescriptive and narrative requirements found elsewhere in this RFP, is to be used by the Respondents for the preparation of their Proposals.

In addition to textual discussions, Respondents shall submit as necessary any drawings, diagrams and Proposal Forms as required, with textual discussions to reference these documents where practical.

Respondents are advised that, if selected, information contained in the Proposal including Proposal Forms will be included or integrated in the Design-Build Contract.

2.6 Overview of the Proposal Submittal Requirements

Respondents shall provide the information requested in this RFP in accordance with the format and content requirements outlined in this section. Failure of the Respondent to provide all the requested information and to provide it in the requested format may result in the District, at its sole discretion, determining that the Proposal is non-responsive to the requirements of the RFP. The District reserves the right to request additional information from Respondents in order to clarify issues the District determines are relevant to the selection criteria identified herein.

The Proposal shall be indexed and formatted based on the following sections:

- Part I: Transmittal Letter, Team Administrative, and Financial Capability
- Part II: Project Team, Experience, and Approach
- Part III: Technical Approach
- Part IV: Construction & Start-Up Process
- Part V: Phase 1 Cost Proposal
- Part VI: Required Forms

2.7 Proposal Format

Respondents shall submit all sections of their Proposal in a single document. Proposal must be received by the submission due date.

Except for exhibits that may be presented in tabloid format, the Proposal narratives shall be no more than 15 typed pages using a 12-point font size. The Proposal shall be a single document; however, reference information, such as required forms, cost proposal, full Project staff resumes, drawings, and the schedule may be submitted as separate Part(s) of appendices that are exclusive of the 15-page limit. Respondents shall clearly identify the contents of each part of appendices on its respective cover. The Proposal and appendices parts shall be indexed,

sectioned, and prefaced with a table of contents. The Proposal must be clear, concise, factual, and complete. Extraneous material and general marketing brochures are not to be included in the Proposal.

Three paper copies of the Respondent's proposal must be submitted to the District at the District's office on or before the date and time specified earlier in the RFP. The copies shall be bound with a removable binding and submitted in a single envelope clearly marked with the project name and the Respondent's contact information.

2.8 Evaluation Process

Proposals will be evaluated by the procedures and criteria described in this section for the purpose of determining which Proposal provides the best value to the District. The Proposals will be evaluated by the same Selection Committee that undertook the RFQ review and shortlisting.

2.8.1 Conformance Review

Prior to evaluating the Proposals based on the criteria established in this RFP, each Proposal will be reviewed for conformance with the following requirements:

1. Delivery instructions followed
2. All forms and attachments as specified
3. Sections and content of the Proposal are consistent with the requirements of this RFP
4. Requested forms are completed and signed by appropriate Respondent team members
5. No further exceptions taken to the Final Design-Build Contract

Any Proposal that is deemed non-conforming in a material way to the requirements noted above may be deemed non-responsive and, may be rejected in its entirety by the District. Should a Proposal be deemed non-responsive and rejected by the District, the entire Proposal will be returned to the Respondent, and the Respondent will not be entitled to receive the honorarium. Proposals deemed responsive to these requirements will be evaluated for receipt of the honorarium.

2.9 Evaluation Criteria Summary

With the conformance review complete, the Selection Committee will evaluate Proposals based on the criteria set forth in this subsection.

The Proposal Evaluation Criteria consists of an interview, the contract markup, and five (5) major criteria, each with multiple sub-criteria summarized in the following subsections. Each section will be evaluated by the Selection Committee based on the sub-criteria provided in this section. The maximum points that may be awarded for each criteria is summarized in the Evaluation Criteria section.

At its sole discretion, at any time during the evaluation process, the District reserves the right to the following:

1. Modify the points given to each evaluation criteria and/or consider other criteria.
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2. Request additional information necessary for completing the evaluation process.
3. Contact references and other third parties as requested
4. Visit facilities and clients associated with any team member or key personnel, and
5. Perform other due diligence investigations related to any information submitted by a Respondent.

Failure to respond in a timely manner or to comply with the format and content requirements outlined herein may be grounds for elimination of the Respondent from further consideration.

Respondents are advised that the evaluation will be based on the evaluation criteria established in this section. The following subsections further define the evaluation criteria.

2.10 Final Scoring of the Proposals

The process for the development of the Final Score, will be as follows:

1. Evaluation of written Proposal, with scores submitted
2. Development of questions from the written Proposal, for the Interview
3. Evaluation of Phase 1 Cost Proposal, with scores submitted
4. Development of questions from the Phase 1 Cost Proposal, for the Interview
5. Conduct Interview

Upon completion of the Interview, all scores will be compiled for each Respondent to determine the Final Proposal Score. The Respondent submitting the Proposal that receives the highest total number of points, from the addition of all of the scores from each member of the Selection Committee, will become the Selected Respondent. In the event of a tie (i.e., more than one Final Proposal has the highest total point value) the Selection Committee will select from one of the tying Proposals, the one that it believes is in the best interest of the District.

3 Proposal Requirements

Proposals shall be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFP. Responses should emphasize the Company's demonstrated capability to perform work of this type. Emphasis should be concentrated on completeness and clarity of content. Proposals shall adhere to the following format for organization and content. Proposals must be typed and arranged/divided in the following sequence to facilitate evaluation.

Include the following information on the cover letter: (1) name of Respondent, and (2) "Proposal for the Temescal Valley Water District for the Sludge Processing Improvements Project".

3.1 Part 1: Transmittal Letter and Team Administrative and Financial Capability

The information provided in part 1 will be evaluated as "Pass/Fail".

The cover letter shall include a brief general statement of intent to perform the services and confirm that all elements of the RFP have been reviewed and understood. The letter shall include a brief summary of Company's qualifications and Company's willingness to enter into a contract under the terms and conditions prescribed by this RFP and in the Sample Agreement. The letter must identify a single person for contact during the RFP review process.

The Proposal Transmittal Letter and all attachments thereto must be signed by a representative of the Respondent who is empowered to sign it and to commit the Respondent to the obligations contained in the Proposal. If the Respondent is a partnership, the Proposal shall be signed by one or more of the general partners. If the Respondent is a corporation, an authorized officer shall sign his or her name and indicate his or her title beneath the full corporate name.

3.2 Part 2: Project Team, Experience and Approach

3.2.1 Key Project Personnel

A complete list of Key Personnel indicating the name of the individual and their role shall be provided in this section of the Proposal. Respondent shall include identified individual's project experience, role in the project, education, and any applicable licenses.

Key Personnel shall include team members whom the District would deal with directly on all design and construction activities, and who will attend meetings associated with these services. The Respondent shall commit, as a minimum staffing requirement, all the key personnel identified below for the duration of the project. No personnel changes will be permitted without written authorization from the District.

The response to this RFP shall contain the names and background of the key project team members described above to be assigned to the Project if awarded. Personnel information shall be provided in the form of two-page resumes and include, as a minimum, the following:

1. General description of relevant experience and expertise in their respective field;
2. Educational background;
3. Certifications, licenses and association memberships;
4. Work experience with the proposing firm, and prior employers, including the duration (by dates) of employment and position(s) held;
5. Specific project experience similar to the Project and the role this team member played as well as duration of involvement in each selected project. Key relevant projects are to be listed for each person. A brief description of the project should be given including, but not necessarily limited to, the type of work performed (i.e., new construction, upgrades, expansion, etc.), type of facility (i.e. water, wastewater, reclamation, etc.), capacity of the project, cost of project, contract delivery method, project completion date, and the client contact information for whom the services were provided.
6. Three (3) references, preferably clients and individuals related to the projects identified in the Team Members and Experience section. For each reference, list the client's name, address, telephone number, email address, nature of for whom prior work was performed and include an explanation of the services provided along with project start and end dates. By submitting a statement, each design-build entity (DBE) consents to the District contacting any listed reference, and thereby waives and releases the District from any and all claims and liabilities arising out of such contact, to the extent permitted by law.

Information must be accurate, up to date, and the reference named must be able to provide direct knowledge as to the individual's performance in the role associated with a particular project on which the person worked, which should be similar in nature to the role to be assigned on the Project.

3.2.2 Team Members and Experience

The Respondent shall also highlight supplemental qualifications and experience of sub-firms in this section included as part of the Project team.

3.2.3 Project Approach

This section of the Proposal shall describe the proposed approach to the Project, including a clear statement of the Respondent's understanding of the RFP, briefly describe the Proposal, and summarize the proposed Contract Services and how the Respondent meets the requirements of the RFP and Design-Build Contract.

Specifically, the Project Approach should address the following:

1. Management of the Project Team
 - a. Composition of the Respondent's team, including identification of all Project participants (firms and individuals) and their roles during Phase One (pre-construction) and Phase Two (Construction including Start-up & Commissioning) of the Project. The description provided hereunder shall be consistent with the detailed Project Organizational Chart.
 - b. The team reporting structure, mechanisms of reporting, and internal communications plans across both Phases.
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- c. The specific responsibilities, authority, and accountability of the key personnel and how these team members will interact with each other, and other entities involved in the Project by Phase.
- d. Description of how the design and construction organizations will be integrated during all Phases to promote constructability, operability, maintainability, durability, sustainability, value engineering, and efficiency of design and construction.

2. Phase One Approach

- a. The Respondent shall describe its team's design-to-budget process and approach, including development of the baseline estimate, how design alternatives will be evaluated and vetted, equipment evaluation and selection, development and evaluation of design optimizations constructability reviews, obtaining operations team input, and identifying, tracking, and implementing design, and construction cost reduction strategies. Respondent should put forth candidate concepts and strategies they have identified to achieve the District's design-to-budget goals.
- b. Design
 - 1. Administration and oversight
 - 2. Information flow, document management and records control
 - 3. Schedule Management and District Reviews
- c. Describe how the Respondent will avoid:
 - 1. Both duplication and discontinuity in leadership between Project phases,
 - 2. Compartmentalization between design and construction, and
 - 3. Contractor or equipment supplier interests overriding engineering-based decisions.

3. Phase Two Approach

- a. The Respondent shall describe its approach to closing out the design and negotiating a GMP or Lump-sum price with the District.
 - b. The Respondent shall describe its approach to constructing the site including the layout of the site, construction laydown areas, clearing and grading, undisturbed areas, mitigation, drainage, stormwater management, roadways and traffic management, parking, site security, utilities, turnout structures, waste stream management and disposal, etc. Respondents shall show this information on the Drawings to the greatest extent possible. Drawings shall demonstrate that all Design-Build Work including staging and lay down areas shall be contained within the Site boundaries.
 - c. The Respondent shall describe its approach for startup and acceptance testing of the Facilities, particularly addressing how to fully test the Facilities in compliance with the Design-Build Contract. The Respondent's approach to timing of Acceptance Testing, staging of testing, etc., shall be
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described. The Respondent shall identify any Regulatory Approvals required for acceptance testing. This section of the Proposal shall describe the proposed approach to the Project, including a clear statement of the Respondent's understanding of the RFP, briefly describe the Proposal, and summarize the proposed Contract Services and how the Respondent meets the requirements of the RFP and Design-Build Contract.

3.2.4 Design Build Quality Control Plan

The Respondent shall provide a Table of Contents of project-specific Preliminary Design Build Quality Control Plan and a narrative that describes the measures and methods to be implemented by the Design-Build Team to achieve quality requirements and meet the specifications for design and construction of the project including:

1. Document Control
2. Records Management
3. Key Personnel responsible for quality control and assurance

3.2.5 Team Partnership Environment

The District desires that the relationship with the Respondent be conducted in a "team partnership environment." The Respondent shall describe its plan for providing a team partnership environment on the Project that includes the following elements:

1. **Schedule During Design Development** - Detailed schedule of how the Respondent intends to finalize the design for the Project, including description of design workshop agendas, and key issues for refinement and resolution.
2. **District Involvement** - District review is an essential part of the District's collaboration with the Respondent in the permitting, design, and construction of the Project. The Respondent shall describe the communications methods for facilitating District review during all phases of the Project, in order to ensure that the completed Project meets the District's requirements for performance and quality.
3. **Communication** - The Respondent shall describe the relationship and communications with the District during each phase of the Project: the meetings, progress reports, and facilitated District reviews at key points in the Project.
4. **Project Manager Role** - Describe the project manager's role on this Project and his or her authority to make decisions that are critical to the Project.

3.3 Part 3: Technical Approach

This Part shall present the technical aspects of the Respondent's plan to implement the Project. The Respondent shall define the proposed Project, the technical information necessary to convey a clear understanding of the proposed technical requirements, technical requirements that might be modified to optimize the budget along with a description of the associated trade-offs, any potential innovative solutions that may help optimize the budget. The Proposal shall be in sufficient detail so that the District can ascertain the Respondent's ability to comply with the Design Requirements as identified in this RFP. Proposal text which provides an explanation of the rationale behind

the design, including descriptions of the benefits of the proposed design shall be provided in narrative sections of the Proposal.

The following outlines the specific requirements for this section.

Capacity

Describe the installed capacity and firm capacity of the major equipment/systems, if different than those in the RFP requirements. Confirm compliance with the requirements of the Design-Build Contract. Describe any additional features that add value to the Project beyond those inherent in the design and construction requirements, which may include the following:

1. Future expansion capacity
2. Design functionality and ability to modify the treatment process

Treatment Processes, Equipment Selection & Capacity

This subsection of the Proposal shall explain the treatment process, equipment selection, and the design of the treatment facilities. Highlight aspects of the design that optimize the budget including their impact on constructability, durability, sustainability, operability, and maintainability, in addition to cost and schedule. Provide sufficient information for the District to review and demonstrate an understanding of the proposed design, and other documentation provided. Respondents shall demonstrate that their proposed design meets the requirements of the RFP and the Design-Build Contract.

Respondents shall:

1. Provide a brief listing of relevant experience in implementing the proposed treatment approach. Include specific experience related to the design-to-budget approach on other projects.
2. Discuss the anticipated useful life of the proposed systems.
3. Describe the Facility through text discussions and diagrams, describe the reliability and operational redundancy of the Project. Include treatment and process considerations of different configurations.

Non-Process Design and Auxiliary Facilities

This section shall provide narrative descriptions of components of the Project not directly related to treatment, including but not limited to, civil/site work, structural design (including seismic), building services, power supply, electrical equipment, instrumentation and control, communications systems, auxiliary facilities including chemical facilities, and other areas. Provide rationale and operating philosophy for major systems, i.e., power supply, I&C and SCADA improvements, communications, HVAC, odor control, etc. Respondents should reference drawings and diagrams, also included in Part III, as appropriate.

Power Supply & Electrical Equipment

The Proposal shall describe the approach to designing and providing all major electrical equipment and systems, including power distribution, motor control centers, lighting, and surge protection. The Respondent shall describe how its proposed work will meet or differ from the contents of the RFP.

Instrumentation & Controls

The Proposal shall describe the features of all instrumentation and control systems to be provided, including system architecture, redundancy features, ultimate expansion capacity, operating controls and operator interfaces, software, report generation capabilities, historic data storage and analysis capabilities, self-diagnostic capabilities, alarm management features, maintenance support capabilities, integration of additional equipment, and power supplies.

The Respondent shall provide a detailed description of the process instrumentation and control systems; their utilization to achieve the Respondent's Operational philosophy and their compatibility and potential interconnection with District's SCADA infrastructure.

Innovation & Design Optimization

Clearly label and illustrate the specifics of the Project facilities, including all major components, comments, recommendations, and suggested changes that will enhance operability, maintainability, durability, or constructability as well as facilitate design-to-budget.

3.4 Part 4: Construction & Start-Up Process

This Part shall present the aspects of the Respondent's plan to implement construction for the Project.

Construction Planning and Sequencing

The Proposal shall identify all schedule-constraining resources and indicate how the Respondent will manage these resources to prevent them from impacting construction progress (e.g., availability of skilled workers, materials, machinery, equipment, temporary facilities, and working capital). Construction-phase activities shall take into account resource requirements from other concurrent projects and the availability of resources from higher priority projects. The resource leveling objective shall be to reduce problems associated with the limited availability of resources.

This section should also describe the Respondents approach to self-performance, i.e., the extent of, applicability to this project, benefits to the District, etc.

Respondents shall also describe their approach to procurement and delivery of materials for the Project. Innovative and cost-effective procurement and delivery techniques should be described.

Approach to Safety

The Respondent shall describe the planning and safety measures to be used on the Site and to be communicated to all individuals near or on the Site during the Construction Period. The Respondent shall also describe their approach to minimizing the likelihood of construction related accidents and compliance with safety measures required by Applicable Law. This section shall, at a minimum, address the following items:

1. Safety goals, standards, and guidelines
 2. Designation by name of a full-time, on-site safety coordinator who is to be responsible for all safety related activities and a description of other staff positions involved in safety planning and review
-

3. A framework for a safety review process and appropriate regular meetings to address safety issues
4. Documentation of safety procedures
5. Method for tracking all personnel on Site and controlling Site access

Design-Build Schedule

The District expects to issue the Notice to Proceed in June 2026, with the scheduled Acceptance Date anticipated to be no later than February 2028. This section shall include the proposed Contract Date and shall specify the total Project duration (in calendar days) such that an anticipated Acceptance Date of February 2028 is achieved.

The Respondent shall include a Project critical path method (CPM) schedule that presents the major activities necessary to implement the Project. A minimum of 100 and not more than 500 activities shall be shown on the Project CPM schedule. The schedule should commence with the Contract Date and extend to Final Completion.

The proposed schedule shall include all proposed major activities for completing the Project, including design activities, District review activities, governmental approval activities, mobilization activities, major construction activities, ordering and delivery of equipment requiring long lead times, startup activities, acceptance testing activities, and shall identify the interrelationship between tasks, including the critical path. The schedule shall address the following:

1. Estimated Contract Date of June 2026
2. Receipt of Permit to Construct, and Construction Date
3. Receipt of all other Required Construction Date Governmental Approvals
4. Executing the Design of the Project
5. Development of the GMP
6. Start of Construction Activities
7. Key Milestones
8. Tie-ins / shutdowns
9. Long Lead time procurement items
10. Completion of Startup and Substantial Completion Date
11. Initiation and Completion of Acceptance Testing, Submittal of Acceptance Testing Report, and final Acceptance Date

The schedule shall clearly distinguish between Design/Development Period, Construction Period and Startup/Testing activities. In addition, within this section, Respondents shall identify the date(s) where receipt of Governmental Approval(s) is anticipated. The Project schedule shall clearly identify the float in the schedule should the timeframe for obtaining Governmental Approvals extend beyond the Respondent's anticipated timetable for

these tasks. Respondents shall also identify specific District responsibilities, anticipated District actions, and suggested District review periods during design consistent with the requirements of Design Contract Appendices.

During the design and construction phase of the project, the Respondent shall identify their approach to developing and providing schedule information to the District. This may include, but isn't limited to, what is contained in the monthly schedule, weekly 3-week look ahead, critical path identification and reporting, long lead time items status updates, etc.

Cash Flow

The Respondent is to provide month by month cash flow information for the duration of the project. While it is understood that these figures may change, it is expected that any significant deviations are not greater than 20%. This cash flow information should incorporate the impact of long lead time procurement items.

We anticipate that this would be presented with the Schedule of Values, with this section to include the Respondent's approach to the development of the Schedule of Values, anticipated level of details, etc.

Approach to Start-Up & Testing

The Respondent shall describe the team's approach to start-up and testing, including incorporating these considerations into the design and construction process, how issues will be resolved during those phases, key personnel involved, steps to minimize the duration of resolution, and approach to key start-up and testing issues.

Acceptance and Training Period Approach

The Respondent shall describe how the requirements related to the Acceptance and Training Period will be approached, including development of related documents as identified in the Scope of Services Section. In addition, the Respondent shall explain the approach to training and transition to District staff.

3.5 Part 5 – Phase 1 Cost and Fee Schedule

All proposals submitted shall have a stated dollar bid amount for providing the services outlined in the Scope of Services. The total shall be an all-inclusive maximum price and to contain all direct and indirect costs including all out-of-pocket expenses with a full and complete breakdown of all said costs, and proposed fees including but not limited to hourly rates, reimbursable expenses and/or rates, mileage and/or travel cost, miscellaneous fees, etc.

In addition, a statement must be included in this section that if the proposer is charging travel costs, the proposer's charges invoiced to the District for travel, lodging and subsistence shall not exceed the current IRS rates.

A Proposal submitted in response to this RFP must contain a Phase 1 Cost Proposal, under a separate cover that fully conforms to the breakdown provided in this RFP. In evaluating and scoring the Phase 1 Cost Proposal, the Selection Committee will apply the price evaluation criteria and scoring method set forth within the section below.

Respondents shall submit a rate schedule that shall be used during this Contract as a basis for change orders. The rate schedule will not be considered in the evaluation criteria. Changes in the rate schedule will not be allowed without prior approval by the District.

Proposal Bid Bond

No Proposal will be read unless a Proposal Bid Bond is included in the form of a certified check, cashier's check or surety bond, for an amount not less than 20% of the Respondent's Phase 1 Cost Proposal as a guarantee that the Respondent will enter into the Design-Build Contract. The District will return the certified check, cashier's check or surety bond to the Respondents whose Proposals are not accepted, and to the Selected Respondent upon the execution of the Design-Build Contract and the receipt of satisfactory Payment and Performance Bonds and Required Design-Build Period Insurance required by the Design-Build Contract.

3.6 Part 6: Required Forms

Surety Letter

The Respondent shall include in their proposal a Surety Letter of Intent.

Evidence of Insurance

In addition, the Company shall provide evidence of possession of insurance in the coverage and amounts listed in the Sample Agreement.

The District requires that licensees, lessees, and vendors have an approved Certificate of Insurance (not a declaration or policy) or proof of legal self-insurance on file with the District for the issuance of a permit or contract. Within ten (10) consecutive calendar days of award of contract, successful Proposer must furnish the District with the Certificates of Insurance proving coverage as specified in the sample agreement.

The proposed team shall be required to provide its own insurance at the levels set forth in the RFP. The insurances required will be as follows:

- General Liability - Commercial General Liability (CGL) - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least ten million dollars (\$10,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to Temescal Valley Water District) or the general aggregate limit shall be twice the required occurrence limit.
 - Automobile Liability - Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
 - Workers' Compensation Insurance - The Contractor shall provide workers' compensation coverage as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease. Waiver of Subrogation (also known as Transfer of Rights of Recovery Against Others to Us): The Contractor hereby agrees to waive rights of subrogation to obtain endorsement necessary to affect this waiver of subrogation in favor of the Temescal Valley Water District, its directors, officers, employees, and authorized volunteers, for losses paid under the terms of this coverage which arise from work performed by the Named Insured for the Temescal Valley Water District; this provision applies regardless of whether or not the Temescal Valley Water District has received a waiver of subrogation from the insurer.
-

- Builder's Risk - (Course of Construction) if necessary- insurance utilizing an "All Risk" (Special Perils) coverage form with limits equal to the completed value of the project and no insurance penalty provision.
 - Professional Liability - with limits no less than \$2,000,000 per occurrence or claim, and \$4,000,000 policy aggregate.
 - Professional Liability Claims Made Policies – include the following provisions. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
 - Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
 - If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of ten (10) years after completion of contract work.
 - Contractors' Pollution Liability and/or Asbestos Liability and/or Errors and Omissions (if project involves environmental hazards) - with limits no less than \$2,000,000 per occurrence or claim, and \$2,000,000 policy aggregate. If the Contractor maintains broader coverage and or/higher limits than the minimums shown above, the Temescal Valley Water District requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum of insurance and coverage shall be available to the Temescal Valley Water District.
-

Provide the following form as an attachment to the primary proposal

Type of Business (Circle One)

C Corporation

S Corporation

Limited Liability C Corporation

Partnership

Limited Liability Partnership

Sole Proprietor/Individual

Other

Type your Legal Company Name

State your Company's Name. This will be verified against the California Secretary of State's Website.

Provide the following form as an attachment to the primary proposal

DEBARRED, SUSPENDED, DISQUALIFIED QUESTIONNAIRE

Has the Company, any officer of the Company, or any employee of the Company who has proprietary interest in the Company, ever been debarred, suspended, disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or safety regulation? (Circle one)

Yes

No

DEBARRED SUSPENDED DISQUALIFIED QUESTIONNAIRE CONTINUED

If stated "Yes" above, please explain the circumstances in the following space, or state "None."

4 Pricing Proposal

Notes: The Phase 1 Cost is binding and will be incorporated directly into the DB Contract. The subtotals that comprise the Phase 1 Cost are for information purposes only, however, the District may use the cost breakdown during their review of the Preliminary Schedule of Values to be prepared by the DBE. The Phase 1 Cost contract shall be Time and Materials Not to Exceed. The PDB Team shall provide a breakdown of the proposed effort with associated hours and billings rates.

Provide the following form and hours breakdown as a separate attachment to the primary proposal in a separate sealed envelope

Line Item	Description	Total Cost
1	Kickoff Meeting and Workshop	
2	Progress Meetings/Workshops and Reports (Assume 6)	
3	Project Management, Status Reports, and Invoices	
4	Preliminary Design Report (PDR)	
5	30% Preliminary Design Submittal	
6	60% Design Submittal	
7	Permitting Support	
8	Development of the Guaranteed Maximum Price (GMP)	
	Total:	

5 Evaluation Criteria

The District reserves the right to amend, withdraw, and cancel this RFP. The District also reserves the right to reject all responses to this RFP at any time prior to agreement execution. Furthermore, the District reserves the right to request additional information about any and all Proposals, that in the District's opinion, is necessary to assure that the Company's competence, number of qualified employees, business organization, experience, and financial resources are adequate to perform the Services.

All Proposals shall be reviewed to verify that the Company has met the minimum requirements as stated in this RFP. Proposals that have not followed the rules, do not meet minimum content and quality standards, and/or do not provide references will be rejected as non-responsive.

Responsive proposals will be evaluated on the basis of the criteria below. If needed, interviews will be conducted by the same members on the proposal evaluation panel. Dates, times, and a location will be coordinated at that time if interviews are deemed necessary after the evaluation of responsive proposals. If interviews are deemed necessary, candidates who have submitted the highest scoring proposals within a competitive range as determined by the District will be invited to participate in the interview process.

The selected Company shall then enter into exclusive negotiations with the District to formalize the Scope of Service and Compensation. Recommendation for award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Proposers unless an agreement is reached. If the District is unable to obtain a fair and reasonable price or cannot reach an agreement regarding the terms for the Scope of Services, then the District will end negotiations with that Company and begin negotiations with the next Company which best meets the needs of the District, and so on until a district and the Company reach agreement.

The District intends to select the Company that offers the best value to the District based on the criteria outlined above.

5.1 Evaluation Criteria and Scoring

Project Team Experience and Approach; Total Points: 25 (25% of Total)

- Project Team / Org Structure
- Key Personnel
- Project Experience
- Project Management Approach
- Coordination and Communication
- Permit Requirements and Updates
- Quality Management Plan

Technical Approach; Total Points: 25 (25% of Total)

- Treatment Process Selection and Capacity
- Selection Elements
- Non-Process Design Facilities
- Innovation and Design Optimization

Construction and Start-up Process; Total Points: 20 (20% of Total)

- Construction Planning and Plant Integration
- Approach to Safety
- Design-Build Schedule
- Cash Flow
- Approach to Start-up
- Acceptance and Training

Cost; Total Points: 10 (10% of Total)

The Lowest Phase 1 Cost takes the full 10 points. Scoring of other Respondents' cost proposals will be reduced proportionally by 1 point for every \$50K difference. The DB Agreement will incorporate markups per Labor Surcharge and Equipment Rental Rates (California Department of Transportation Caltrans).

Interview; Total Points: 20 (20% of Total)

The interview will provide each DB Team the opportunity to present to the Selection Committee. The interview process is expected to be a 30-minute presentation, and 30-minute Q&A. The contents of the presentation will be left to each DB Team but should resemble the Evaluation Criteria as much as possible.

More details may be provided following submittal of the Proposal.

6 Terms and Conditions

6.1 Contract Terms and Conditions

The successful company will be required to execute the District's Professional Service Agreement ("Agreement"). A sample is attached herein. The successful company must meet all insurance requirements in the Agreement. All terms and conditions of the Agreement are non-negotiable. Failure to execute the Agreement and furnish the required insurance within the required time period shall be just cause for the rescission of the award. If any of the successful Companies refuse or fail to execute the Agreement, the District may award the Agreement to the next most qualified Company.

6.2 Public Records

All Proposals submitted in response to this RFP become the property of the District and pursuant to the Public Records Act (Gov. Code, § 6250 et seq.) are public records, and as such may be subject to public review at least 10 days before selection.

The Company must notify the District in advance of any proprietary or confidential materials contained in the Proposal and provide justification for not making such material public. The District shall have sole discretion to disclose or not disclose such material subject to any protective order that the Company may obtain. Note that under California law, price proposal to a public agency is not a trade secret.

Submission of a proposal shall indicate that, if Proposer requests that the District withhold from disclosure information identified as confidential, and the District complies with the Proposer's request, Proposer shall assume all responsibility for any challenges resulting from the non-disclosure, indemnify and hold harmless the District from and against all damages (including but not limited to attorney's fees that may be awarded to the party requesting the Proposer information), and pay any and all costs and expenses related to the withholding of Proposer information. Proposer shall not make a claim, sue, or maintain any legal action against the District or its directors, officers, employees, or agents concerning the disclosure, or withholding from disclosure, of any Proposer information. If Proposer does not request that the District withhold from disclosure information identified as confidential, the District shall have no obligation to withhold the information from disclosure and may release the information sought without any liability to the District.

The District reserves the right to make use of any information or idea contained in the Proposal. All materials, ideas and formats submitted in response to this RFP will become the property of the District upon receipt.

6.3 Conflict of Interest

The Proposer warrants and represents that it presently has no interest and agrees that it will not acquire any interest which would present a conflict of interest under California Government Code sections 1090 et seq., or sections 87100 et seq., during the performance of services under any Agreement awarded. The Proposer further covenants that it will not knowingly employ any person having such an interest in the performance of any Agreement awarded. Violation of this provision may result in any Agreement awarded being deemed void and unenforceable.

6.4 Rejection of Proposals

The District may reject any/or all Proposals and may waive any immaterial deviation in a Proposal. The District's waiver of an immaterial defect shall in no way modify this RFP or excuse the Company from full compliance with this RFP and/or the Contract Documents if awarded the Contract. Proposals that include terms and conditions other than District's terms and conditions may be rejected as being non-responsive. The District may make investigations as deemed necessary to determine the ability of the Company to perform the work, and the Company shall furnish to the District all such information and data for this purpose as requested by the District. The District reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Company fails to satisfy the District that such Company is properly qualified to carry out the obligations of the Agreement and to complete the work described herein.

6.5 Protect Procedures

Failure to comply with the rules set forth herein may result in rejection of the protest. Protests based upon restrictive specifications or alleged improprieties in the proposal procedure which are apparent or reasonably should have been discovered prior to receipt of proposals shall be filed in writing with the RFP Facilitator at least 10 calendar days prior to the deadline for receipt of proposals. The protest must clearly specify in writing the grounds and evidence on which the protest is based.

Protests based upon alleged improprieties that are not apparent or which could not reasonably have been discovered prior to submission date of the proposals, such as disputes over the staff recommendation for contract award, shall be submitted in writing to the RFP Facilitator, within forty-eight (48) hours from receipt of the notice from the District advising of staff's recommendation for award of contract. The protest must clearly specify in writing the grounds and evidence on which the protest is based. The RFP Facilitator will respond to the protest in writing at least three (3) days prior to the meeting at which staff's recommendation to the District's Board of Directors will be considered. Should the Proposer decide to appeal the response of the RFP Facilitator, and pursue its protest at the Board of Director's meeting, it will notify the RFP Facilitator of its intention at least two days prior to the scheduled meeting.

The procedures and time limits set forth in this section are mandatory and are the Respondent's sole and exclusive remedy in the event of protest. Failure to comply with these procedures will constitute a waiver of any right to further pursue the protest, including filing a Government Code claim or legal proceedings.

6.6 Cancellation

The District retains the right to cancel this RFP at any time, should it be deemed to be in the best interest of the District. No obligation either expressed or implied exists on the part of the District to make an award based on the submission of any proposals.

Appendix A

Draft Progressive Design-Build Contract

**PROGRESSIVE DESIGN-BUILD CONTRACT BETWEEN THE
TEMESCAL VALLEY WATER DISTRICT AND
[***INSERT DBE NAME***]
FOR THE SLUDGE PROCESSING IMPROVEMENTS PROJECT**

This Progressive Design-Build Contract ("Contract") is made and entered into this day of _____, 2025 by and between the **Temescal Valley Water District**, (hereinafter referred to as "Agency") and **[***INSERT DBE NAME***]** (hereinafter collectively referred to as "Design- Build Entity" or "DBE"). Agency and DBE are sometimes individually referred to as "Party" and collectively as "Parties."

RECITALS

- A. Agency desires to enter a single project for the turnkey design and construction for the Sludge Processing Improvements project ("Project") as set forth in this Contract. Because of the unique nature of the Project, Agency desires to engage a single design-build entity to engineer and implement the Project.
- B. The DBE submitted a Proposal for the Project, which was selected as providing the best-value for the Project.
- C. DBE desires to perform and assume responsibility for the provision of the design and construction services, and such other services as required by the Agency on the terms and conditions set forth in this Contract and DBE represents that it is experienced in providing professional planning, design, and construction services to public entities, is appropriately licensed in the State of California to perform such services, and is familiar with the Scope of Work.

TERMS

1. Incorporation of Contract Documents.

The above referenced recitals are true and correct and are incorporated into this Contract by this reference. This Contract includes and hereby incorporates in full by reference the following Contract Documents, including all exhibits, drawings, specifications and documents therein, and attachments and addenda thereto:

- (a) Design-Build Contract
- (b) Attachment 1 to this Contract – Scope of Services
- (c) Attachment 1-1 to this Contract – Proposal
- (d) Attachment 2 to this Contract - General Conditions
- (e) Attachment 3 to this Contract – Special Conditions
- (f) Attachment 4 to this Contract – Performance Bond
- (g) Attachment 5 to this Contract – Payment Bond
- (h) Attachment 6 to this Contract – Rate Schedule
- (i) Attachment 7 to this Contract – Workers' Compensation Certification
- (j) Request for Proposal ("RFP") and all addenda, attachments and appendices

- (k) Request for Qualifications ("RFQ") and all addenda, attachments and appendices
- (l) Design-Build Entity Statement of Qualifications in response to Request for Qualifications
- (m) Agency approved Change Orders
- (n) Completed and approved Construction Documents in accordance with the General Conditions

2. **The DBE's Basic Obligations: Compensation**

The DBE promises and agrees, at its own cost and expense, to furnish to the Agency all design and construction services, labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately complete the Project as described in the Contract Documents (hereinafter the "Scope of Work" of "Work").

2.1 **Construction Document Phase**

For the Construction Document Phase, DBE shall receive compensation, including authorized reimbursements, at the rates set forth in Attachment 6. The total compensation for this phase of work shall not exceed [****INSERT AMOUNT****] without written approval of Authority's Representative. Additional Work may be authorized, and if authorized, said Additional Work will be compensated at the rates and manner set forth in this Contract. For the purposes of this Contract, the billing rates will remain effective through the entire term of this Contract. The level of completion required for the Construction Document Phase is defined in Attachment 1 Scope of Services.

The Contract Price and Guaranteed Maximum Price ("GMP") for the Construction Phase shall be developed during the Construction Document Phase on an "open-book" basis. The Contract Price and GMP for the Construction Phase shall be determined no later than at 60% completion of the Construction Documents. The DBE shall submit a proposal to the Agency (the "Proposal") for completion of the design and construction of the Project as part of the Construction Phase for the Contract Price and GMP. The Proposal and its requirements are discussed herein.

2.2 **Construction Phase**

The Construction Phase shall consist of DBE completing the design and performing all construction services, labor, materials, tools, equipment, services, engineering and incidental and customary work necessary to fully and adequately complete the Construction Phase as defined in Attachment 1 Scope of Services.

3. **The Proposal**

3.1 The Proposal shall include the following:

(a) **The Contract Price.**

(i) The Contract Price shall be equal to the DBE's Fee, as defined herein, and the estimated cost of the Construction Phase Work, as defined herein, subject to a GMP and any adjustments made in accordance with the Contract Documents. Except as otherwise provided in this Contract, the DBE shall assume the risk of all costs in excess of the

GMP in the performance the Work and to provide a fully completed and successfully operational Project, complete in every detail according to the provisions of the Contract Documents and shall not be entitled to additional payments because of such excess costs.

(ii) The estimated cost of the Construction Phase Work may include the DBE's contingency. The contingency shall cover all additional and unforeseen expenses that DBE may incur in performing the Construction Phase and as a result of all conditions and events which do not entitle DBE to a Change Order. DBE shall not be entitled to draw against the contingency without Agency's prior written approval, which consent shall not be unreasonably withheld.

(b) Basis for the Contract Price and GMP

(i) A list of the drawings and specifications, including all addenda, used as the basis for the Contract Price and GMP; and

(ii) A list of the assumptions, exceptions, and clarifications made by DBE in the preparation of the Proposal, which list is intended to supplement the information contained in the drawings and specifications; and

(iii) The DBE's proposed GMP, including a statement of the estimated cost and a schedule of values organized by trade categories, allowances, contingency, and other items and the DBE's fee that comprise the GMP for the Construction Phase Work; and

(iv) Any other information required by the Agency.

3.2 Review of the Proposal.

(a) Upon receipt of DBE's Proposal for the Construction Phase, the Agency may enter into negotiations with DBE on the Contract Price and GMP to achieve a mutually acceptable basis on which to proceed. The determination of the Contract Price and GMP shall be by written Change Order duly executed by the Parties. Unless otherwise expressly stated by the Parties in writing, the Change Order shall not modify any portion of this Contract except establishing or confirming the final Contract Price for the Construction Phase.

(b) If the Parties are unable to reach an agreement on DBE's Proposal, the Agency and DBE shall meet and confer as to how the Project shall proceed, with the Agency, in addition to any other options allowed by the Contract Documents, having the following options;

(i) Allow the DBE to complete the Construction Document Phase, if not yet completed, and once completed, the Agency may terminate the Contract for convenience. The Agency shall pay DBE only for the compensation agreed to for the Construction Document Phase. All deliverables including but not limited to documents, engineering, budget costs, preliminary design, schedule and data shall become the exclusive property of the Agency.

(ii) Allow the DBE to complete the Construction Document Phase, if not yet completed, and authorize the DBE to complete the Construction Documents as Additional Work at the rates set forth in Attachment 6 by written Change Order duly executed by the Parties. All deliverables including but not limited to documents, engineering, budget costs, design, schedule and data shall become the exclusive property of the Agency upon receipt of

payment. The deliverables shall include the complete Construction Documents. Once this work is complete, the Contract shall be deemed complete.

(c) The Parties acknowledge that Agency's ability to successfully complete the Project may be significantly impacted if Agency elects to terminate DBE's services at the end of the Construction Document Phase, rather than proceeding to the Construction Phase, and certain design subconsultants are not available to continue working on the Project. Consequently, DBE hereby agrees that if Agency terminates DBE for any reason, Agency shall have the right to contract directly with such design subconsultants for design-related services on this Project, and DBE shall take such steps as are reasonably necessary to enable Agency to implement such relationship. DBE shall provide in any design subconsultant agreements that Agency shall have the right to negotiate directly with such design subconsultants for the continuation of their services with respect to the Project, and that any provisions with respect to copyright or the ownership of instruments of service confirm such right of Agency.

4. **Establishment of Contract Price: Guaranteed Maximum Price**

The following shall be used in establishing the Contract Price and GMP.

4.1 **DBE's Fee.**

(a) The DBE's Fee shall be [REDACTED] percent ([REDACTED]%) of the cost of the Construction Phase Work. The DBE's Fee shall compensate the DBE for all field and home office overhead, profit, and other costs and expenses not specifically included in the cost of the Construction Phase Work.

4.2 **Cost of the Construction Phase Work.**

(a) The cost of the Construction Phase Work include all costs necessarily and properly incurred by the DBE to design, construction, test, and commission the Project ("Reimbursable Costs"), which is defined as all costs reasonably and properly incurred in performing the Work at competitive rates, including: wages paid for direct labor; contributions applicable to the DBE's payroll; fringe benefits; payroll taxes; contributions for unemployment; social security, disability, and similar payments and assessments; salaries of clerical, supervisory and other personnel at the job site or in the field and employed in the construction of the Project; travel and subsistence; materials, supplies, and equipment incorporated or consumed in the Work; the cost of subcontracts; temporary facilities and hand tools consumed in the Work; reasonable equipment rental charges whether the equipment is owned by or rented to DBE; power, utility, and telephone charges; permits, licenses and inspections for which the DBE is required by the Contract Documents to pay, other than those permits for which Agency pays directly; sales and use taxes incurred about the Work; fees of testing laboratories for tests required by the Contract Documents, except those related to nonconforming Work; premiums for bonds and insurance the DBE is required by the Contract Documents to maintain; demolition, clean-up and removal costs; professional fees of consultants, engineers, designers or schedulers that the DBE is required by the Contract Documents to employ; and all other costs properly and reasonably incurred in the performance of the Work.

4.3 **Cost of the Construction Phase Work Not Reimbursable.**

(a) The cost of the Construction Phase Work does not include: compensation for the DBE's personnel stationed at the DBE's principal or branch offices; overhead and

general expenses except those provided for in Reimbursable Costs; the cost of the DBE's capital used in the performance of the Work; costs that would cause the GMP to be exceeded; Discounts and rebates and the salvage value of tools and equipment consumed in the Work; costs incurred in performing call-back, repair and warranty work; discounts and rebates and the salvage value of tools and equipment consumed in the Work; costs due to the negligence, error, or omission of the DBE or to the failure of the DBE to fulfill a specific responsibility to the Agency set forth in this Contract Document; costs incurred as a result of a delay which does not constitute compensable delay under the General Conditions; costs incurred in the performance of the Construction Document Phase; any cost not specifically and expressly described as a reimbursable cost; and costs DBE is required to bear as a result of DBE's failure to perform in accordance with the Contract Documents.

4.4 Guaranteed Maximum Price

(a) DBE guarantees that the Contract Price shall not exceed [REDACTED] Dollars (\$ [REDACTED]) (the "Guaranteed Maximum Price" or "GMP"), subject to any additions or deductions as provided in the Contract Documents. Except as otherwise provided in this Contract, the DBE shall assume the risk of all costs in excess of the GMP in the performance of the Work and to provide a fully completed and successfully operational Project, complete in every detail according to the provisions of the Contract Documents and shall not be entitled to additional payments because of such excess costs. Should the DBE believe that it is entitled to additional compensation, whether money or time, it must request such compensation pursuant to the General Conditions.

(b) Inasmuch as DBE has been involved in the Construction Document Phase of the Project, DBE agrees, for itself and on behalf of its subcontractors and suppliers, that no increase in the GMP will be made to pay for work that DBE could otherwise claim as a Change Order unless DBE establishes that the additional cost is the result of one of the following: (a) an affirmative change in the scope of work initiated by the Agency; (b) a change required by regulatory authorities (including inspections) that was not reasonably ascertainable from the Contract Documents and not reasonable inferable from local practices or circumstances; or (c) unforeseen subsurface or latent physical conditions, as defined in the General Conditions.

(c) The GMP includes and assumes that from time to time, DBE will encounter delays and difficult site conditions arising from limited access to work areas, other interference, or conditions at the Project site. DBE assumes full responsibility for its examination, investigation and understanding of the difficulties which may be encountered and has included in its GMP the cost of any Work associated with such difficulties.

(d) Adjustments to the GMP on account of changes in the Work shall be determined by Article 9 of the General Conditions. In calculating adjustments to the GMP, the allowed costs shall mean the Reimbursable Costs and the allowed mark-up shall mean the DBE's Fee.

(e) If the final Contract Price is less than the Guaranteed Maximum Price, as such Guaranteed Maximum Price may have been adjusted pursuant to the Contract Documents, the difference (savings) shall be shared as follows: fifty percent (50%) to the DBE and fifty percent (50%) to the Agency.

(f) DBE acknowledges that the Contract Price is to be administered on an open book arrangement relative to the costs of the Work. With each Application for Payment, the DBE shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the DBE to demonstrate that cash disbursements already made by the DBE on account of the cost of the Work equal or exceed (1) progress payments already received by the DBE; less (2) that portion of those payments attributable to the DBE's Design and Construction Fee; plus (3) payrolls for the period covered by the present Application for Payment.

5. **Standard of Care.**

The DBE's performance shall be consistent with the standards set forth in the Contract and the General Conditions. The DBE warrants to Agency that all Design Work will be performed in accordance with the highest professional standards and degree of care applicable to those design professionals who specialize in designing and providing services for projects of the type, scope, quality and complexity of the Project utilizing the Design-Build contracting mode. The DBE warrants to Agency that all labor, materials, equipment and furnishings used in, or incorporated into, the Construction Work will be of good quality, new (unless otherwise required or permitted by the Contract Documents), and all work will be free of liens, claims and security interests of third parties; that the work will be of the highest quality and free from defects and that all work will conform with the requirements of the Contract Documents. The DBE shall supervise, inspect, and direct the Project competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Project in accordance with the Contract Documents. The DBE shall be solely responsible for the means, methods, techniques, sequences, and procedures of design and construction of the Project. DBE shall perform, at its own cost and expense and without reimbursement from the Agency, any services necessary to correct errors or omissions which are caused by the DBE's failure to comply with the standard of care provided for herein.

6. **Period of Performance; Liquidated Damages.**

Time is of the essence. The DBE shall commence the Construction Document Phase after receipt of Agency's Notice to Proceed and complete the Construction Document Phase work within 180 days of the Notice to Proceed date.

The DBE guarantees that it shall perform and complete all Work required by the Contract Documents for completion by the Project Completion Date. The Project Completion Date shall be 365 days from the commencement date stated in the Notice to Proceed with Construction.

The DBE agrees that it shall be liable to the Agency for liquidated damages in an amount of **Five Hundred Dollars (\$500)** per day for each and every calendar day beyond the Project Completion Date that completion of the Project has not been achieved at the Project Site. If not completed by the Project Completion Date, it is understood that the Agency will suffer damage, and that it is and will be difficult and/or impossible to ascertain and determine the actual damage which the Agency will sustain in the event of and by reason of the DBE's failure to complete the work, and therefore the DBE shall pay to the Agency the stipulated sum as fixed and liquidated damages and not as a penalty. Any money due or to become due the DBE may be retained to cover liquidated damages.

In compliance with the provisions of California Public Contract Code section 7102, the

DBE will be compensated for damages incurred due to delays in completing the Work by the Project Completion Date due solely to the fault of the Agency, where such delay to the critical path is unreasonable under the circumstances and not contemplated by the parties, and such delay is not the result of Additional Work. The DBE and Agency agree that determining actual damages is impracticable and extremely difficult. As such, the DBE shall be entitled to the appropriate time extension and to payment of liquidated damages in an amount of **Five Hundred Dollars (\$500)** per day for each and every calendar day in excess of the Project Completion Date. Such amount shall constitute the only payment allowed and shall necessarily include all overhead (direct or indirect), all profit, all administrative costs, all bond costs, all labor, materials, equipment and rental costs, and any other costs, expenses and fees incurred or sustained as a result of such delay. The amount of reverse liquidated damages shall be reduced by DBE's concurrent delays. The DBE expressly agrees to be limited solely to the liquidated damages for all such delays as defined in this Article.

7. **Approval of Design: Commencement of Construction.**

(a) DBE shall submit the following to Agency for approval:

- (i) Basis of Design Report; and
- (ii) 60% Construction Documents; and
- (iii) 100% Construction Documents.

(b) The Agency's review and approval of the design shall not relieve the DBE from its responsibilities under the Contract. Such review shall not be deemed an approval or waiver by the Agency of any deviation from, or of the DBE's failure to comply with, any provision or requirement of the Contract Documents, unless such deviation or failure has been identified as such in writing in the document submitted by the DBE and approved by the Agency. The Agency Representative, or an Agency Engineer designated to review and approve Construction Documents, shall be authorized to approve the Construction Documents and any amendments or changes to the design.

(c) The Contract Schedule shall indicate the time for the Agency to review the proposed Construction Documents and shall provide a reasonable time for review of same, not less than **Twenty-One (21)** days. DBE shall not be entitled to damages, liquidated or otherwise, for any delays during the Construction Document Phase.

(d) DBE shall not commence construction until the Agency executes a Change Order for the Contract Price and GMP, approves the completed Construction Documents and issues a Notice to Proceed with Construction. DBE may request a Notice to Proceed with Construction prior to completion of the 100% Construction Documents, and Agency may issue same, provided that DBE shall not construct any portion of the Project until the design of such portion has been approved. The Project Completion Date shall run from the Notice to Proceed with Construction even if issued prior to completion of the 100% Construction Documents.

8. **Agency's Representative.**

The Agency hereby designates **Jeff Pape** or his or her designee, as the person to act as its representative for the performance of this Contract ("Agency's Representative"). The

Agency's Representative shall be authorized to act as liaison between Agency and the DBE in the administration of this Contract and all work on the Project. The Agency's Representative shall have the power to act on behalf of the Agency for all purposes under this Contract, including for the purpose of approving the design. Agency may designate new and/or different individuals to act as Agency's Representative from time to time upon written notice to the DBE.

9. **DBE's Representative.**

The DBE hereby designates [***INSERT NAME***], or his or her designee, to act as its representative for the performance of this Contract ("DBE's Representative"). DBE's Representative shall have full authority to represent and act on behalf of the DBE for all purposes under this Contract. DBE's Representative shall supervise and direct all work on the Project, using his best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the work pursuant to this Contract.

10. **DBE's Contractor's License and Registration.**

The DBE shall have only appropriately licensed contractors performing work on the Project as required by the Business and Professions Code. The DBE (**License No. CA# [REDACTED]**) shall act as the licensed contractor for the Project. DBE shall perform all services required under the Contract Documents in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals qualified to perform such services in the same discipline in the State of California, and the DBE shall be fully responsible to the Agency for any damages and/or delays to the Project as specified in the Contract. The licensed contractor shall be registered with the Department of Industrial Relations to perform public work (**DIR Registration No. [REDACTED]**).

11. **DBE's Design Professional.**

The DBE shall name a specific person to act as the Design Professional as described in the General Conditions, subject to the approval of the Agency. The DBE hereby designates [***INSERT NAME***] (**License No.: CA# [REDACTED]**) to act as the Design Professional for the Project. DBE's Design Professional shall perform all services required under the Contract Documents in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals qualified to perform such services in the same discipline in the State of California, and the DBE shall be fully responsible to the Agency for any damages and/or delays to the Project as specified in the indemnification provisions of the Contract. Any change in the Design Professional shall be subject to the Agency's prior written approval, which approval shall not be unreasonably withheld. The new Design Professional shall be of at least equal competence as the prior Design Professional. In the event that Agency and DBE cannot agree as to the substitution of a new Design Professional, the Agency shall be entitled to terminate this Contract as described in the General Conditions.

12. **Authority of Signatories.**

The persons executing this Contract on behalf of their respective Parties represent and warrant that they have the authority to do so under law and from their respective Parties.

[SIGNATURES CONTINUED ON NEXT PAGE]

Entered into as of the Effective Date first above written, the Parties hereby execute this Design-Build Contract, as follows:

Temescal Valley Water District

*****INSERT NAME OF DBE*****

By: _____
Jeff Pape
GENERAL MANAGER

**[IF CORPORATION, TWO SIGNATURES,
PRESIDENT OR VICE PRESIDENT AND
SECRETARY OR TREASURER REQUIRED]**

By: _____

Its: _____

ATTEST:

Printed Name: _____

By: _____
[INSERT NAME]

**[DELETE THE FOLLOWING SIGNATURE
LINE IF NOT REQUIRED]**

By: _____

Its: _____

Printed Name: _____

APPROVED AS TO FORM:

By: _____
David Saunders,
GENERAL COUNSEL

Contractor's License Number

DIR Registration Number

**ATTACHMENT 1
SCOPE OF SERVICES**

*****INSERT CONSTRUCTION DOCUMENT PHASE AND CONSTRUCTION
PHASE SCOPE OF SERVICES***]**

**ATTACHMENT 1-1
PROPOSAL**

ATTACHMENT 2 GENERAL CONDITIONS

ARTICLE 1 -DEFINITIONS AND TERMINOLOGY

1.1 Defined Terms.

- A. Wherever used in the Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined below, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. Act of God -- Act of God is an earthquake of magnitude 3.5 or higher on the Richter Scale or a tidal wave.
 2. Additional Work -- New or unforeseen work will be classified as "Additional Work" when Agency's Representative determines that it is not covered by the Contract.
 3. Applicable Laws -- The laws, statutes, ordinances, rules, codes, regulations, permits, and licenses of any kind, issued by local, state or federal governmental authorities or private authorities with jurisdiction (including utilities), to the extent they apply to the Work.
 4. Application for Payment -- The form acceptable to Agency's Representative which is to be used by the Design-Build Entity during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 5. Architect of Record or Engineer of Record ("A/E") -- The individual, partnership, corporation, joint venture, or other legal entity named as the Design Professional in the Contract or any succeeding entity designated by Agency.
 6. Bridging Documents -- Includes, but is not limited to, the portions of the Contract Documents which constitute an outline of design requirements, Work, Project Program, Performance Specifications and schematic drawings.
 7. Certificate for Payment -- The form signed by Agency's Representative attesting to the Design-Build Entity's right to receive payment for certain completed portions of the Work on the Project in accordance with Article 12.
 8. Change Order ("CO") -- A document that authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Project Completion Date, issued on or after the Effective Date of the Contract, in accordance with the Contract Documents and in the form contained in the Contract Documents.
 9. Change Order Request ("COR") -- A request made by the Design-Build Entity for an adjustment in the Contract Price and/or Project Completion Date as the result of a Design-Build Entity-claimed change to the Work.

10. Claim -- A demand or assertion by Agency or Design-Build Entity seeking an adjustment of the Contract Price or Project Completion Date, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
11. Construction Documents -- The plans and Technical Specifications prepared by the Design-Build Entity for the Project and approved by Agency. The Construction Documents shall set forth in detail all items necessary to complete the construction (other than such details customarily provided by others during construction) of the Project in accordance with the Contract Documents. Following commencement of the Construction Phase, Construction Documents become part of the Contract Documents upon their completion and approval by Agency. All amendments and modifications to the Construction Documents must be approved by Agency in writing.
12. Construction Documents Phase -- The first phase of the Work and will commence with the issuance of the Notice to Proceed.
13. Construction Phase -- The second phase of the Work and will commence upon final approval of the Construction Documents by Agency and a Notice to Proceed with Construction.
14. Construction Work -- That portion of the Work on the Project consisting of the provision of labor, materials, furnishings, equipment and services in connection with the construction of the Project as set forth in the Contract Documents.
15. Contract -- The entire integrated written agreement between Agency and Design-Build Entity concerning the Work. "Contract" may be used interchangeably with "Agreement" in the Contract Documents. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral, and includes all Contract Documents.
16. Contract Documents -- The documents listed in Section 1 of the Contract. Some documents provided by Agency, including but not limited to reports and drawings of subsurface and physical conditions are not Contract Documents.
17. Contract Times -- The number of days or the dates stated in the Contract Documents and Project Schedule to achieve defined Milestones, if any, and to complete the Work so that it is ready for final payment.
18. Critical Supply Shortage -- An unusual shortage in materials that is (a) supported by documented proof that Design-Build Entity made every effort to obtain such materials from all available sources; (b) such shortage is due to the fact that such materials are not physically available from single or multiple sources or could have been obtained only at exorbitant prices entirely inconsistent with current and standard rates taking into account the quantities involved and the usual industry practices in obtaining such quantities; and (c) such shortages and the difficulties in obtaining alternate sources of materials could not have been known or anticipated by Design-Build Entity at the time it submitted its bid or entered the Contract. Market fluctuations in prices of materials, whether or not resulting from a Force Majeure Event, does not constitute a Critical Supply Shortage.

19. Daily Rate – The Reverse Liquidated Damages amount stipulated in the Contract Documents as full compensation to the Design-Build Entity due to Agency's unreasonable delay to the Project that was not contemplated by the parties.
20. Day -- A calendar day of 24 hours measured from midnight to the next midnight.
21. Defective Work -- Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referenced in the Contract Documents.
22. Demobilization – The complete dismantling and removal by the Design-Build Entity of all of the Design-Build Entity's temporary facilities, equipment, and personnel at the Site.
23. Design-Build Entity -- The individual or entity with which Agency has contracted for performance of the Work.
24. Design-Build Entity Representative -- The person or firm identified as the primary contact person and representative of the Design-Build Entity as designated in the Contract and who shall not be changed without prior written consent of Agency.
25. Design Materials -- Any and all documents, shop drawings, electronic information, including computer programs and computer generated materials, data, plans, drawings, sketches, illustrations, specifications, descriptions, models and other information developed, prepared, furnished, delivered or required to be delivered by, or for, the Design-Build Entity: (1) to Agency under the Contract Documents or; (2) developed or prepared by or for the Design-Build Entity specifically to discharge its duties under the Contract Documents.
26. Design Professional -- The individuals or entities who will provide the Design-Build Entity with the required architectural, engineering, and other professional services required for the coordinated design of the Project and the administration of construction.
27. Design Work -- The portion of the Work on the Project consisting of the Design services and design deliverables required to be provided in connection with the Design of the Project as set forth in the Contract Documents.
28. Drawings -- The graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work to be done on the Project, generally including plans, elevations, sections, details, schedules, and diagrams prepared as part of the Design Materials. The Drawings are listed in the List of Drawings.
29. Effective Date of the Contract – The date indicated in the Contract on which it becomes effective, but if no such date is indicated, it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.

30. Equipment Manufacturer -- Any Separate Contractor that fabricates and/or supplies any of Agency's provided equipment which is installed in the Project by the Design-Build Entity.
31. Force Majeure Event -- An event that materially affects a party's performance and is one or more of the following: (1) Acts of God or other natural disasters occurring at the Site; (2) terrorism or other acts of a public enemy; (3) orders of governmental authorities (including, without limitation, unreasonable and unforeseeable delay in the issuance of permits or approvals by governmental authorities that are required for the Work); (4) pandemics, epidemics or quarantine restrictions; (5) strikes and other organized labor action occurring at the Site and the effects thereof on the Work, only to the extent such strikes and other organized labor action are beyond the control of Contractor and its Subcontractors, of every Tier, and to the extent the effects thereof cannot be avoided by use of replacement workers; and (6) a Critical Supply Shortage. For purposes of this section, "orders of governmental authorities," includes ordinances, emergency proclamations and orders, rules to protect the public health, welfare and safety, and other actions of the Agency in its capacity as a municipal authority.
32. Governmental Approvals -- Those governmental actions required to be obtained by Agency and necessary for the completion of the Project.
33. Hazardous Materials -- Any substance: the presence of which requires investigation or remediation under any federal, state or local law, statute, regulation, ordinance, order, action, policy, or common law; which is or becomes defined as a "hazardous waste," "hazardous substance," pollutant, or contaminant under any federal, state or local law, statute, regulation, rule or ordinance, or amendments thereto, including, without limitations, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. ("CERCLA"), as amended, or the Resource, Conservation and Recovery Act, as amended, 42 U.S.C. Section 6901 et seq. ("RCRA"); which is petroleum, including crude oil or any fraction thereof not otherwise designated as a "hazardous substance" under CERCLA including, without limitation, gasoline, diesel fuel, or other petroleum hydrocarbons; which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, or otherwise hazardous and is or becomes regulated by any regulatory agency or instrumentality of the United States; the presence of which on the Site causes or threatens to cause a nuisance upon the Site or to the adjacent properties or poses or threatens to pose a hazard to the health or safety of persons on or about the Site; the presence of which on adjacent properties could constitute a trespass by the Design-Build Entity or the Agency; or as defined in the California Health and Safety Code. For the purposes of this Contract, "Hazardous Materials" shall also include, but are not limited to, "Underground Storage Tanks." "Underground Storage Tank" shall have the definition assigned to that term by Section 9001 of RCRA, 42 U.S.C. Section 6991, and also shall include: any tank of one thousand one hundred (1,100) gallons or less capacity used for storing motor fuel; any tank used for storing heating oil for consumption on the premises where stored; any septic tank; and any pipes connected to the above items.

34. Holidays -- Holidays occur on:

New Year's Day - January 1
Martin Luther King Jr. Day – Third Monday of January
President's Day – Third Monday of February
Memorial Day - Last Monday in May
Independence Day - July 4
Labor Day - First Monday in September
Veteran's Day - November 11
Thanksgiving Day - Fourth Thursday in November
Friday after Thanksgiving
Christmas Eve – December 24
Christmas Day - December 25

If any Holiday listed above falls on a Saturday, Saturday and the preceding Friday are both Holidays. If the Holiday should fall on a Sunday, Sunday and the following Monday are both Holidays.

35. Liens – Charges, security interests, or encumbrances upon Project funds, or personal property, including without limitation Stop Payment Notices.
36. Milestones – A principal event specified in the Contract Documents associated with a required completion date or time prior to Completion of all the Work. Failure to achieve Milestones may result in Liquidated Damages as described in the Contract Documents.
37. Notice of Award – The written notice by Agency to the Design-Build Entity stating that upon timely compliance by the Design-Build Entity with the conditions precedent listed therein, Agency will sign and deliver the Contract.
38. Notice of Completion – The form which may be executed by Agency and recorded by the county where the Project is located constituting final acceptance of the Project.
39. Notice to Proceed -- A written notice given by Agency to the Design-Build Entity fixing the date on which the Design-Build Entity may proceed with the Work and when Contract Time will commence to run.
40. Partial Utilization – Use by Agency of a substantially completed part of the Work prior to Completion of all the Work.
41. Performance Specifications -- That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto included within the Bridging Documents.
42. Project -- The total design and construction of which the Work performed under the Contract Documents may be the whole, or a part, and which may include separate design or construction work performed by Agency or by Separate Contractors for the Project.

43. Project Completion Date -- The date by which the Design-Build Entity agrees that all Work described in the Contract Documents shall be completed. The Project Completion Date is set forth in the Contract.
44. Project Schedule -- The graphical representation of a practical plan to complete the Work on the Project within the Project Completion Date and other Contract Times. The detailed requirements for the Project Schedule are stated in Article 6.
45. Proposal -- The proposal submitted by the Design-Build Entity in response to the Request for Proposal for this Project.
46. Request for Proposal ("RFP") -- The request for proposal issued by Agency for the Project and includes all documents, exhibits, attachments, and addenda thereto.
47. Samples -- Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
48. Separate Contractor -- A person, or firm, under separate contract with Agency performing other work at the Project site which may affect the Work.
49. Shop Drawings -- All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Design-Build Entity and submitted by Design-Build Entity to illustrate some portion of the Work.
50. Site -- Lands or areas indicated in the Contract Documents as being furnished by Agency upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Agency which are designated for the use of Design-Build Entity.
51. Stop Payment Notice -- A written notice as defined in Civil Code section 8044.
52. Subcontractor -- An individual or entity that has a contract with the Design-Build Entity or with a Subcontractor of the Design-Build Entity to perform a portion of the Work on the Project. Unless otherwise specifically provided, the term Subcontractor includes Subcontractors of all tiers.
53. Submittal - Written or graphic information and physical samples prepared and supplied by the Design-Build Entity demonstrating various portions of the Work.
54. Supplier -- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Design-Build Entity or with any Subcontractor to furnish materials or equipment used in the performance of the Work or to be incorporated in the Work.
55. Technical Specifications -- All documents developed by the Design-Build Entity and which are ready for final construction.

56. Tier -- The contractual level of a Subcontractor or supplier or consultant with respect to the Design-Build Entity. For example, a first tier Subcontractor is under subcontract with the Design-Build Entity, a second tier Subcontractor is under subcontract with a first tier Subcontractor, and so forth.

57. Warranty A written guarantee provided to Agency by the Design-Build Entity that the Work remain free of defects and suitable for its intended use for the period required by the Contract Documents or the longest period permitted by the law of this State, whichever is longer.

58. Work -- The entire design and construction, or the various separately identifiable parts thereof, required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such design and construction, and furnishing, installing, and incorporating all materials and equipment into such design and construction, all as required by the Contract Documents.

1.2 Terminology.

A. The words and terms below are not defined but, when used in the Contract Documents, have the indicated meaning.

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Project site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. Regardless of whether "furnish," "install," "perform," or "provide" is used in connection with services, materials, or equipment, an obligation of Design-Build Entity is implied.

B. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning

ARTICLE 2 -PRELIMINARY MATTERS

2.1 Delivery of Contract Documents.

A. Within fifteen (15) Days after receipt of the Notice of Award and before Agency will execute the Contract, the Design-Build Entity shall furnish and file with Agency a signed Contract in duplicate and the necessary Performance Bond, Payment Bond, Certificates of Insurance and Endorsements, Escrow Agreement (if used) and Tax

Identification Number, as well as any other documents specified in the Contract Documents. Notwithstanding the foregoing, if the Contract Price has yet to be established at Notice of Award, then the Performance Bond and Payment Bond may be provided after establishing the Contract Price and prior to the Construction Phase.

2.2 Bonds.

- A. Design-Build Entity shall submit the bonds on the forms provided with the Contract Documents, duly executed by a responsible corporate surety admitted to transact surety business in the State of California, as defined in Code of Civil Procedure section 995.120, and listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to Agency conditioned upon the faithful performance by the Design-Build Entity of all requirements of the Contract Documents. Each of the bonds shall be in a sum no less than one hundred percent (100%) of the Contract Price.

2.3 Evidence of Insurance.

- A. Design-Build Entity shall obtain, at its sole cost and expense, all insurance required by Article 5. Certificates of such insurance and copies of the insurance policies and endorsements shall be delivered to Agency within fifteen (15) Days after receipt of the Notice of Award and before execution of the agreement for construction by Agency.

2.4 Execution of Contract.

- A. Upon receipt of the required Contract Documents, Agency will execute the Contract, establishing the Effective Date of the Contract.

2.5 Commencement of Contract Times; Notice to Proceed with Construction.

- A. The Agency will not issue a Notice to Proceed until after the Effective Date of the Contract. Construction Work shall commence within fifteen (15) Days of the date stated in Agency's Notice to Proceed with Construction. No Construction Work shall be done at the Site prior to the date on which the Contract Time commence to run. Nothing herein shall affect the Project Completion Date.

2.6 Copies of Documents.

- A. Agency will furnish to Design-Build Entity one (1) copy of the Bridging Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.7 Preconstruction Conference; Designation of Authorized Representatives.

- A. Before any Work at the Project site is started, a conference attended by Agency, Design-Build Entity, Agency's Representative, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to herein, procedures for handling Shop Drawings

and other submittals, processing Applications for Payment, and maintaining required records.

2.8 Initial Acceptance of Schedules.

- A. At least ten (10) Days before submission of the first Application for Payment, a conference attended by Design-Build Entity, Agency's Representative, and others as appropriate will be held to review for acceptability to Agency's Representative the schedules submitted, as required by the Contract Documents. Design-Build Entity shall have an additional ten (10) Days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Design-Build Entity until acceptable schedules are submitted to Agency's Representative. Acceptance of the schedules by Agency's Representative will not impose on responsibility for accuracy, for sequencing, scheduling, or progress of the Work, or compliance with the Contract Documents. Acceptance will not interfere with or relieve Design-Build Entity from Design-Build Entity's full responsibility therefor.

ARTICLE 3 -CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Intent.

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be designed and constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Agency. Clarifications and interpretations of the Contract Documents shall be issued by Agency's Representative as provided in these General Conditions.
- B. If utilities to equipment/fixtures are not shown but are necessary to operate the equipment/fixtures, the utilities service installation is considered to be part of the Work. The implied Work will conform to the appropriate sections of the Contract Documents.
- C. Organization of the Contract Documents into divisions, sections, and articles, and arrangement of drawings shall not control the Design-Build Entity in dividing Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

3.2 Reference Standards.

- A. Standards, Specifications, Codes, Laws, and Regulations.
 - 1. Reference to federal specifications, federal standards, other standards, specifications, manuals, or codes of any technical society, organization, or association, or to Applicable Laws, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Applicable Laws in effect at the time of opening of proposals (or on the

Effective Date of the Contract if there were no proposals), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual, or code, or any instruction of a supplier, shall be effective to change the duties or responsibilities of Agency, Design-Build Entity, or Agency's Representative, or any of their Subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Agency or Agency's Representative, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.3 Order of Precedence.

- A. The intent of the Contract Documents is to include all necessary criteria to establish the scope and quality for completion of the Work on the Project by the Design-Build Entity. The Contract Documents are complementary and what is required by one shall be as binding as if required by all. Performance by the Design-Build Entity shall be required to the extent consistent with, and reasonably inferable from, the Contract Documents.
- B. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or the provisions of any Applicable Laws (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Applicable Law).
- C. In resolving conflicts among any of the Contract Documents, the order of precedence shall be as follows:
 1. Permits from other agencies as may be required by law;
 2. Change Orders or Pending Change Orders, most recent first;
 3. Design-Build Contract;
 4. Special Conditions;
 5. General Conditions;
 6. RFP and all addenda, attachments and appendices;
 7. Design-Build Entity Proposal in response to RFP;
 8. Construction Documents prepared by Design-Build Entity; and
 9. Drawings prepared by Design-Build Entity;

10. Request for Qualifications and all addenda, attachments and appendices; and
 11. Design-Build Entity Statement of Qualifications in response to Request for Qualifications.
- D. With reference to the Drawings the order of precedence shall be as follows:
1. Figures govern over scaled dimensions;
 2. Detail drawings govern over general drawings;
 3. Change Order drawings govern over Drawings;
 4. Drawings govern over standard drawings.
- E. Notwithstanding the orders of precedence established above, in the event of conflicts, the higher standard, higher quality and most expensive shall always apply.

3.4 Amending and Supplementing Contract Documents.

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof only by a Change Order.

3.5 Interpretation and Use of Contract Documents.

- A. Agency and the Design-Build Entity acknowledge that the Contract Documents may differ in some respect(s) from the other documents included in the RFP upon which the Design-Build Entity based its Proposal. Prior to the commencement of construction on the Project, the parties shall confirm, in writing, the final form of the Contract Documents that are to be utilized. Specifically, once approved by Agency, the Construction Documents become a part of the Contract Documents and define the entire scope of work, so long as such documents incorporate all minimum requirements of the Bridging Documents. The Design-Build Entity shall certify that the Construction Documents are in full compliance with the Contract Documents, except as noted.
- B. Organization of the Performance Specifications into various subdivisions and the arrangement of the Drawings shall not control the Design-Build Entity in dividing portions of the Work necessary for the Project among Subcontractors or in establishing the extent of Work to be performed by any trade.
- C. Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood design professional and construction industry meanings; nontechnical words and abbreviations are used in accordance with their commonly understood meanings.
- D. The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word "including," when following any general

statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters, whether or not non limiting language (such as “without limitation,” “but not limited to,” or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

- E. Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include a corporation, partnership, trust, or other legal entity, whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only for reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.
- F. Each and every provision of law required by law to be inserted in the Contract Documents shall be deemed to be inserted herein, and the Contract Documents shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon application of either party the Contract shall be amended in writing to make such insertion or correction.
- G. Before commencing any Work on the Project, the Design-Build Entity shall check and review the Contract Documents, including the Construction Documents, for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other special requirements, if any, designated in the Contract. In the event the Design-Build Entity observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with any such restrictions or special requirements of the Contract, the Design-Build Entity shall immediately notify Agency's Representative in writing of the same and shall cause to be corrected any such violation or inconsistency in the manner provided hereunder. The Design-Build Entity shall be solely liable for any such violation, inconsistency or special requirement, if Design-Build Entity fails to conduct such review or notification to Agency.
- H. Before commencing any Work on the Project, the Design-Build Entity shall carefully examine all Performance Specifications, the Contract, the Contract Documents and other information given to the Design-Build Entity as to Project requirements. The Design-Build Entity shall immediately notify Agency's Representative of any perceived or alleged error, inconsistency, ambiguity, or lack of detail or explanation in such documents in writing. Neither the Design-Build Entity nor any Subcontractor shall take advantage of any apparent error or omission which may be found in the Performance Specifications, the Contract, the Contract Documents or other information given to Design-Build Entity. If the Design-Build Entity or its Subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract, which it knows or should have known to be in error, inconsistent, or

ambiguous, or not sufficiently detailed or explained, the Design-Build Entity shall bear any and all costs arising therefrom including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the Project Completion Date. In no case shall any Subcontractor proceed with Work if uncertain without the Design-Build Entity's written direction and/or approval.

3.6 Reuse of Documents.

- A. Design-Build Entity and any Subcontractor shall not: have or acquire any title to or Ownership rights in any of the Construction Documents or other documents (or copies of any thereof) prepared by or bearing the seal of the A/E or its consultants, including electronic media editions; or reuse of any such Construction Documents, other documents, or copies thereof on extensions of the Project or any other project without written consent of Agency and A/E and specific written verification or adaptation by the A/E. The prohibitions of this Article will survive final payment, or termination of the Contract. Nothing herein shall preclude Design-Build Entity from retaining copies of the Contract Documents for record purposes.

3.7 Electronic Data.

- A. The data furnished by Agency or Agency's Representative to Design-Build Entity, or by Design-Build Entity to Agency or Agency's Representative, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) Days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-Day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

3.8 Ownership and Use of Construction Documents.

- A. The Construction Documents, and all copies thereof, furnished to, or provided by, the Design-Build Entity are the property of Agency. Agency and the Design-Build Entity explicitly agree that all materials and documents developed in the performance of this Contract are the property of Agency pursuant to the requirements of Agency. Agency shall have unlimited rights, for the benefit of Agency, in all drawings, designs, technical specifications, notes and any other documentation and other Work developed in the performance of this Contract for the Project, including the right to re-use details of the Design on any other Agency Work at no additional cost to

Agency. The Design-Build Entity agrees to, and hereby does, grant to Agency a royalty free license to all such data that the Design-Build Entity may cover by copyright and to all designs as to which the Design-Build Entity may assert any right or establish any claim to under the patent or copyright laws. The Design-Build Entity, for a period up to five (5) years from the date of Completion of the Project, agrees to furnish and to provide access to the originals or copies of all such materials immediately upon the written request of Agency. Any use or reuse by Agency of the Construction Documents on any project other than this Project without employing the services of the Design-Build Entity shall be at Agency's own risk with respect to third parties. If Agency uses or re-uses the Construction Documents on any project other than this Project, it shall remove the A/E's seal from the Construction Documents and hold harmless Design-Build Entity, A/E, and their officers, directors, agents and employees from claims arising out of the use or re-use of the Construction Documents on such other project. Design-Build Entity shall not be responsible or liable for any revisions to the Construction Documents made by any party other than the Design-Build Entity, a party for which the Design-Build Entity is legally responsible or liable, or anyone approved by the Design-Build Entity.

3.9 Administration of the Contract by Agency's Representative.

- A. During the term of this Design-Build Contract, Agency's Representative shall have the right to review the Design-Build Entity's Work at such intervals as deemed appropriate by Agency's Representative. However, no actions taken during such review or site visit by Agency's Representative shall relieve the Design-Build Entity of any of its obligations of single point responsibility for the design and construction of this Project nor form the basis for a Claim if such actions extend beyond the Project Completion Date.
- B. Agency's Representative will not have control over, will not be in charge of, and will not be responsible for design or construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work on the Project, since these are solely the Design-Build Entity's responsibility.
- C. Except as otherwise provided in the Contract Documents or when direct communications have been specifically authorized, Agency and the Design-Build Entity shall communicate through Agency's Representative. Communications by the Design-Build Entity with Agency's consultants and Agency's Representative's consultants shall be through Agency's Representative. Communications by Agency and Agency's Representative with Subcontractors will be through the Design-Build Entity. Communications by the Design-Build Entity and Subcontractors with Separate Contractors shall be through Agency's Representative. The Design-Build Entity shall not rely on oral or other non-written communications.
- D. Based on Agency's Representative's Project site visits, review of the Work, and evaluations of the Design-Build Entity's Applications for Payment, Agency's Representative will recommend amounts, if any, due the Design-Build Entity and will issue Certificates for Payment in such amounts.

- E. Agency's Representative will have the authority to reject Work on the Project, or any portion thereof, which does not conform to the Contract Documents. Agency's Representative will have the authority to stop Work on the Project, or any portion thereof. Whenever Agency's Representative considers it necessary, or advisable, for implementation of the intent of the Contract Documents, Agency's Representative will have the authority to require additional inspection or testing of the Work on the Project in accordance with the Contract Documents, whether or not such Work is fabricated, installed, or completed. However, no authority of Agency's Representative conferred by the Contract Documents nor any decision made in good faith either to exercise, or to not exercise such authority, will give rise to a duty or responsibility of Agency or Agency's Representative to the Design-Build Entity, or any person or entity claiming under, or through, the Design-Build Entity.
- F. Agency's Representative will have the authority to conduct inspections in connection with beneficial occupancy and to determine the dates of Completion; will receive for review and approval any records, written warranties, and related documents required by the Contract Documents and assembled by the Design-Build Entity; and will issue a final Certificate for Payment upon the Design-Build Entity's compliance with the requirements of the Contract Documents.
- G. Agency's Representative will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of performance thereunder by the Design-Build Entity. Should the Design-Build Entity discover any conflicts, omissions, or errors in the Construction Documents or the Contract Documents; have any questions about the interpretation or clarification of the Contract Documents; question whether Work is within the scope of the Contract Documents; then, before proceeding with the Work affected, the Design-Build Entity shall notify Agency's Representative in writing and request interpretation, or clarification. Agency's Representative's response to questions and requests for interpretations, clarifications, instructions, or decisions will be made with reasonable promptness. Should the Design-Build Entity proceed with the Work affected before receipt of a response from Agency's Representative, any portion of the Work on the Project which is not done in accordance with Agency's Representative's interpretations, clarifications, instructions, or decisions shall be removed or replaced and the Design-Build Entity shall be responsible for all resultant losses.
- H. Agency may at any time and from time to time, without prior notice to or approval of the Design-Build Entity, replace Agency's Representative with a new Agency Representative. Upon receipt of notice from Agency informing the Design-Build Entity of such replacement and identifying the new Agency's Representative, the Design-Build Entity shall recognize such person or firm as Agency's Representative for all purposes under the Contract Documents.

ARTICLE 4 -AVAILABILITY AND OWNERSHIP OF LANDS AND MATERIALS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.1 Availability of Lands.

- A. Agency shall furnish the Project site. Agency shall notify Design-Build Entity of any encumbrances or restrictions not of general application but specifically related to use

of the Project site with which Design-Build Entity must comply in performing the Work. Agency will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. Design-Build Entity shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment at no additional cost to Agency.

4.2 Ownership of Site Materials Found.

- A. The title to water, soil, rock, gravel, sand, minerals, timber and any other materials developed or obtained in the excavation or other operations of Design-Build Entity or any of its Subcontractors in the performance of the Contract, and the right to use said items in carrying out the Contract, or to dispose of same, is hereby expressly reserved by Agency. Neither Design-Build Entity nor any of its Subcontractors nor any of their representatives or employees shall have any right, title, or interest in said materials, nor shall they assert or make any claim thereto. Design-Build Entity will, as determined by Agency's Representative, be permitted to use in the Work without charge, any such materials which meet the requirements of the Contract Documents, provided Agency shall have the right to use or consume these materials without payment to a third party.

4.3 Hazardous Material at Site.

- A. The Design-Build Entity shall have no responsibility for detection, abatement, remediation, removal or disposal of any Hazardous Material, except Hazardous Materials introduced onto the Project Site by the Design-Build Entity, its employees, subcontractors, agents, or other parties acting on behalf of the Design-Build Entity. In the event that the Design-Build Entity becomes aware of the presence of, or exposure of persons to, any Hazardous Material at the Project Site, the Design-Build Entity shall inform Agency by notice immediately. Notwithstanding anything to the contrary herein, the Design-Build Entity shall not be responsible for, and the Agency shall bear full responsibility and remediation costs relating to any Hazardous Materials uncovered, removed or disturbed by the Design-Build Entity on the Project Site resulting from the Design-Build Entity's performance of the work hereunder, except Hazardous Materials introduced onto the Project Site by the Design-Build Entity, its employees, subcontractors, agents, or other parties acting on behalf of the Design-Build Entity. The Agency shall not be responsible for, and the Design-Build Entity shall bear full responsibility and remediation costs relating to any Hazardous Materials introduced onto the Project Site by the Design-Build Entity, its employees, subcontractors, agents, or other parties acting on behalf of the Design-Build Entity.
- B. The Design-Build Entity hereby specifically agrees to indemnify, defend and hold the Agency, its present and future directors, officers, employees, agents, representatives, successors and assigns harmless from and against any and all losses, liabilities, claims, demands, damages, causes of action, fines, penalties, costs and expenses (including, but not limited to, all reasonable consulting, engineering, attorneys' or other professional fees), that they may incur or suffer by reason of: (a) the existence, uncovering or unveiling, or any release by the Agency or Design-Build Entity of, a Hazardous Material introduced onto the Project Site by the Design-Build Entity, its employees, subcontractors, agents, or other parties acting on

behalf of the Design-Build Entity; (b) any enforcement or compliance proceeding commenced by or in the name of any governmental authority because of the presence on the Project Site of Hazardous Materials introduced onto the Project Site by the Design-Build Entity, its employees, subcontractors, agents, or other parties acting on behalf of the Design-Build Entity; and (c) any action reasonably necessary to abate, remediate or prevent a violation or threatened violation of any Hazardous Material laws by the Design-Build Entity.

4.4 Protection and Restoration of Existing Improvements and Reference Points.

- A. Design-Build Entity shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Agency. Design-Build Entity shall report to Agency's Representative whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

ARTICLE 5 - BONDS AND INSURANCE

- 5.1 Time for Compliance. Design-Build Entity shall not commence Work under this Contract until it has provided evidence to Agency that it has secured all insurance required under this Article. Design-Build Entity shall require and verify that all subconsultants and subcontractors maintain insurance meeting all the requirements stated herein. Design-Build Entity shall not allow any subconsultant or subcontractor to commence work on any subcontract until it has provided evidence to Agency that the subconsultant or subcontractor has secured all insurance required under this Article.

- 5.2 Minimum Requirements. Design-Build Entity shall, at its expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise out of or result from the performance of the Work and Design-Build Entity's other obligations under the Contract Documents whether by Design-Build Entity, its agents, representatives, employees or subcontractors. Design-Build Entity shall also require all of its subconsultants and subcontractors to procure and maintain the same insurance for the duration of the Contract and verify the subconsultants' and subcontractors' compliance. Design-Build Entity's and subconsultants' and subcontractors' insurance shall meet at least the minimum levels of coverage set forth in this Article:

- A. Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) General Liability: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001); (2) Automobile Liability: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto) or if Design-Build Entity has no owned autos, non-owned, leased or hired autos Code 8 (hired) and Code 9 (non-owned); (3) Workers' Compensation and Employer's Liability: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance; (4) Installation Floater/Builder's Risk: "All Risk All Perils" form; (5) Professional Liability/Errors and Omissions; and (6) Pollution Liability Insurance. The policies shall not contain any exclusion contrary to

the Contract, including but not limited to endorsements or provisions limiting coverage for (1) contractual liability or (2) cross liability for claims or suits by one insured against another.

B. Minimum Limits of Insurance. The Design-Build Entity shall maintain limits no less than:

1. The total liability limits for the general and automobile liability equals \$10,000,000. Design-Build Entity may opt to utilize umbrella or excess liability insurance in meeting these requirements. The umbrellas or excess policy must contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.
2. Design-Build Entity shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than \$2,000,000 per occurrence, \$2,000,000 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted. If Commercial General Liability Insurance or other form with general aggregate limit is used including, but not limited to, form CG 25 03, either the general aggregate limit shall apply separately to the Project or the general aggregate limit shall be twice the required occurrence limit.
3. Automobile Liability: \$1 million per accident for bodily injury and property damage.
4. Workers' Compensation and Employer's Liability:
 - a. Workers' Compensation: statutory limits.
 - b. Employer's Liability limits of \$1 million per accident for bodily injury or disease.
 - c. Should any of the Work be upon or contiguous to navigable bodies of water, Design-Build Entity shall carry insurance covering its employees for benefits available under the Federal Longshoremen's and Harbor Worker's Act to the extent required by law;
5. Excess/Umbrella Liability Policy may be provided to insure the total limits required for Commercial General Liability and Automobile Liability and must apply to all primary coverage afforded, including but not limited to general liability, owned and non-owned automobiles, leased and hired cars.
6. Professional Liability/Errors and Omissions: \$2,000,000 per claim.
7. Pollution Liability Insurance: \$2,000,000 dollars per occurrence and in the aggregate

C. Notices; Cancellation or Reduction of Coverage. At least fifteen (15) Days prior to the expiration of any such policy, evidence showing that such insurance coverage has

been renewed or extended shall be filed with Agency. If such coverage is cancelled or materially reduced, Design-Build Entity shall, within ten (10) Days after receipt of written notice of such cancellation or reduction of coverage, file with Agency evidence of insurance showing that the required insurance has been reinstated or has been provided through another insurance company or companies. In the event any policy of insurance required under this Contract does not comply with these specifications or is canceled and not replaced, Agency has the right but not the duty to obtain the insurance it deems necessary and any premium paid by Agency will be promptly reimbursed by Design-Build Entity or Agency may withhold amounts sufficient to pay premium from Design-Build Entity payments. In the alternative, Agency may suspend or terminate this Contract.

5.3 Insurance Endorsements. The insurance policies shall contain the following provisions, or Design-Build Entity shall provide endorsements on forms approved by Agency to add the following provisions to the insurance policies:

- A. General Liability. The general liability policy shall include or be endorsed (amended) to state that: (1) using ISO CG forms 20 10 and 20 37 (including completed operations), or endorsements providing the exact same coverage, Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions shall be covered as additional insureds with respect to the Work or ongoing and completed operations performed by or on behalf of the Design-Build Entity, including materials, parts or equipment furnished in connection with such work; and (2) using ISO form 20 01, or endorsements providing the exact same coverage, the insurance coverage shall be primary insurance as respects Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions, or if excess, shall stand in an unbroken chain of coverage excess of the Design-Build Entity's scheduled underlying coverage. Any excess insurance shall contain a provision that such coverage shall also apply on a primary and noncontributory basis for the benefit of Agency, before Agency's own primary insurance or self-insurance shall be called upon to protect it as a named insured. Any insurance or self-insurance maintained by Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions shall be excess of the Design-Build Entity's insurance and shall not be called upon to contribute with it in any way. The insurer shall agree, using CG 24 04 05 09 or the equivalent, to waive all rights of subrogation against Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions for losses paid under the terms of the insurance policy.
- B. Automobile Liability. The automobile liability policy shall include or be endorsed (amended) to state that: (1) Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Design-Build Entity or for which the Design-Build Entity is responsible; and (2) the insurance coverage shall be primary insurance as respects Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions, or if excess, shall stand in an unbroken chain of coverage excess of the Design-Build Entity's scheduled

underlying coverage. Any insurance or self-insurance maintained by Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions shall be excess of the Design-Build Entity's insurance and shall not be called upon to contribute with it in any way.

- C. Workers' Compensation and Employer's Liability Coverage. The insurer shall agree, using WC 00 04 03 06 or the equivalent, to waive all rights of subrogation against Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions for losses paid under the terms of the insurance policy.
- D. Professional Liability/Errors and Omissions. Professional Liability Insurance insuring the A/E, its officers, directors, stockholders, employees, agents, or partner, and all other persons for whose acts the A/E may be liable, against any and all liabilities arising out of or in connection with the negligent acts, errors or omissions of any of the foregoing in connection with the carrying out of their professional responsibilities described in this Contract. Professional Liability Insurance shall remain in full force and effect, and shall be so certified to Agency by the insurer, for a period of five (5) years after the completion of all of the Design-Build Entity's services hereunder and Agency's acceptance of the Project. All subconsultants shall have professional liability insurance with the same limits (additional requirements for Professional Liability/Errors and Omissions Insurance written on a "claims made" basis are set forth below).
- E. All Coverages. Each insurance policy required by this Agreement shall be endorsed to include the following provisions:
1. coverage shall not be suspended, voided, reduced or canceled except after thirty (30) Days (10 Days for nonpayment of premium) prior written notice by mail has been given to Agency and all additional insureds.
 2. any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to Agency and any other additional insureds.
 3. standard separation of insureds provisions.
 4. no special limitations on the scope of protection afforded to Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions.
 5. waiver of any right of subrogation of the insurer against Agency, its officials, officers, employees, agents, and volunteers, or any other additional insureds, or shall specifically allow the Design-Build Entity or others providing insurance in compliance with these specifications to waive their right of recovery prior to a loss. By signing this agreement, the Design-Build Entity hereby waives its own right of recovery against Agency or any other additional insureds, and shall require similar written express waivers and insurance clauses from each of its subconsultants and subcontractors.

5.4 Builder's Risk ["All Risk"]

- A. It is the Design-Build Entity's responsibility to maintain or cause to be maintained Builder's Risk ["All Risk"] extended coverage insurance on all work, material, equipment, appliances, tools, and structures that are or will become part of the Work and subject to loss or damage by fire, and vandalism and malicious mischief, in an amount to cover 100% of the replacement cost. The Agency accepts no responsibility for the Work until the Work is formally accepted by the Agency. The Design-Build Entity shall provide a certificate evidencing this coverage before commencing performance of the Work.
- B. The named insureds shall be Design-Build Entity, all Subcontractors of any tier (excluding those solely responsible for design work), suppliers, and Agency, its elected officials, officers, employees, agents and authorized volunteers, as their interests may appear. Design-Build Entity shall not be required to maintain property insurance for any portion of the Work following acceptance by Agency.
- C. Policy shall be provided for replacement value on an "all risk" basis. There shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) transit coverage, including ocean marine coverage (unless insured by the supplier), with sub-limits sufficient to insure the full replacement value of any key equipment item; and (5) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Site. Such insurance shall be on a form acceptable to Agency to ensure adequacy and sublimit.
- D. In addition, the policy shall meet the following requirements:
 - 1. Insurance policies shall be so conditioned as to cover the performance of any extra work performed under the Contract.
 - 2. Coverage shall include all materials stored on site and in transit.
 - 3. Coverage shall include Design-Build Entity's tools and equipment.
 - 4. Insurance shall include boiler, machinery and material hoist coverage.
 - 5. Agency shall be named loss payee.

- 5.5 Pollution Liability Insurance. Contractor shall provide and maintain Pollution Legal Liability insurance protecting DBE and Agency from liability, injury or damage from pollution conditions caused by or arising out of DBE's work or operations on the Site or under this Contract, whether such liability results from bodily injury or property damage, and, whether such liability, injury or damage is progressive, continuous or intermittent. DBE's Pollution Legal Liability insurance shall name Agency as an additional insured.

- 5.6 Receipt and Application of Insurance Proceeds. Any insured loss under the policies of insurance required herein will be adjusted with Agency and made payable to Agency as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of the provisions herein. Agency shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Project and the cost thereof covered by an appropriate Change Order. Agency as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing to Agency's exercise of this power within fifteen (15) Days after the occurrence of loss. If such objection be made, Agency as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Agency as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Agency as fiduciary shall give bond for the proper performance of such duties.
- 5.7 Partial Utilization, Acknowledgement of Property Insurer. If Agency finds it necessary to occupy or use a portion or portions of the Project prior to Completion of all the Work, no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.
- 5.8 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by Agency. Design-Build Entity shall guarantee that, at the option of Agency, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects Agency, its officials, officers, employees, agents, and volunteers and any other additional insureds named in the Special Conditions; or (2) the Design-Build Entity shall procure a bond guaranteeing payment of losses and related investigation costs, claims, and administrative and defense expenses.
- 5.9 Claims Made Policies. Claims made policies are not acceptable other than for Professional Liability. In addition to the requirements above, for any claims made policy: The Retroactive Date must be shown and must be before the date of the Contract or the beginning of contract work; Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after Agency's acceptance of the Work; and If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Design-Build Entity must purchase "extended reporting" coverage for a minimum of five (5) years after Agency's acceptance of the Work.
- 5.10 Subcontractor Insurance Requirements. Design-Build Entity shall not allow any Subcontractors to commence work on any subcontract relating to the Work until Design-Build Entity has verified that all Subcontractors maintain insurance meeting all requirements under this Section and has provided evidence to Agency of such insurance. If requested by Design-Build Entity, Agency may approve different scopes or minimum limits of insurance for particular Subcontractors. Design-Build Entity shall confirm that Agency shall be named as additional insureds on all Subcontractors'

policies of Commercial General Liability Insurance and Commercial Automobile Insurance.

- 5.11 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VIII, licensed to do business in California, and satisfactory to Agency.
- 5.12 Verification of Coverage. Design-Build Entity shall furnish Agency with original certificates of insurance and endorsements effecting coverage required by this Contract on forms satisfactory to Agency. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements must be received and approved by Agency before work commences. Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.
- 5.13 Reservation of Rights. Agency reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.
- 5.14 Performance Bond and Payment Bond.
- A. The Design-Build Entity shall submit performance and payment bonds on the forms provided with the Contract Documents, duly executed by a responsible corporate surety admitted to transact surety business in the State of California, as defined in Code of Civil Procedure Section 995.120, and listed in the United States Department of the Treasury circular entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," authorized to do business in the State of California and acceptable to Agency conditioned upon the faithful performance by the Design-Build Entity of all requirements of the Contract Documents. Each of the bonds shall be in a sum no less than one hundred percent (100%) of the Contract Price. The Design-Build Entity shall furnish bonds covering the faithful performance of the Contract (Performance Bond) and payment of obligations arising thereunder (Payment Bond) on the forms contained in the Contract. The obligations of the performance bond surety shall continue so long as any obligation of Design-Build Entity remains. Nothing herein shall limit the Agency's rights or the Design-Build Entity's or surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.
- B. The Payment Bond and Performance Bond shall be in effect on the date the Contract is signed by Agency. The Design-Build Entity shall promptly furnish such additional security as may be required by Agency to protect its interests and those interests of persons or firms supplying labor or materials to the Project. The premiums for the Payment Bond and Performance Bond shall be paid by the Design-Build Entity. The Design-Build Entity maintains and agrees that it has executed Payment and Performance Bonds in the amounts and manner required by the Contract Documents. No payment will be made to the Design-Build Entity until the Design-Build Entity's Payment Bond and Performance Bond have been approved by Agency.

- C. Should, in Agency's sole opinion, any bond become insufficient or surety found to be unsatisfactory, the Design-Build Entity shall renew or replace the effected bond within 10 Days of receiving notice from Agency. In the event the surety or the Design-Build Entity intends to reduce or cancel any required bonds, at least thirty (30) Days prior written notice shall be given to Agency, and the Design-Build Entity shall post acceptable replacement bonds at least ten (10) Days prior to expiration of the original bonds. No further payments shall be deemed due or will be made under this Contract until any replacement bonds required by this Article are accepted by Agency.
- D. To the extent, if any, that the Contract Price is increased in accordance with the Contract, the Design-Build Entity shall, upon request of Agency, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to Agency. The bonds shall further provide that no change or alteration of the Contract (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Design-Build Entity will release the surety. If the Design-Build Entity fails to furnish any required bond, Agency may terminate the Contract for cause.

ARTICLE 6 -DESIGN-BUILD ENTITY'S RESPONSIBILITIES

6.1 Design-Build Entity Responsibility; Independent Contractor.

- A. The Design-Build Entity shall be responsible to Agency for acts and omissions of the Design-Build Entity's employees, Subcontractors, material and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of Work on the Project under direct or indirect contract with the Design-Build Entity or any of its Subcontractors. Agency retains the Design-Build Entity on an independent contractor basis. Design-Build Entity retains the right to perform similar or different services for others during the term of this Contract. The Design-Build Entity is not an employee, agent or representative of Agency. The Design-Build Entity represents that it is fully experienced and properly qualified to perform the class of Work provided for in this Contract and that it is properly licensed, equipped, organized, and financed to perform Work on the Project. Neither Agency, nor any of its officials, officers, directors, employees or agents shall have control over the conduct of Design-Build Entity or any of Design-Build Entity's officers, employees, or agents, except as set forth in this Contract. The Design-Build Entity shall maintain complete control over its employees and its Subcontractors and shall pay all wages, salaries and other amounts due such personnel in connection with their performance as required by law. The Design-Build Entity shall be responsible for all reports and obligations respecting such personnel, including but not limited to, social security taxes, income tax withholdings, unemployment insurance, and workers' compensation insurance.

6.2 Review of Contract Documents and Field Conditions by The Design-Build Entity; Single Point Responsibility of The Design-Build Entity.

- A. In addition to the examination and reviews performed, and obligations assumed, incident to making the representations set forth in the Contract, the Design-Build

Entity shall carefully study and compare each of the Contract Documents provided by Agency with the others and with information furnished by Agency, and shall promptly report in writing to Agency's Representative any errors, inconsistencies, or omissions in the Contract Documents provided by Agency or inconsistencies with Applicable Law observed by the Design-Build Entity. The Design-Build Entity shall be solely responsible for any errors, inconsistencies or omissions in the Contract Documents if the Design-Build Entity fails to perform such review and examination or fails to report such errors, inconsistencies or omissions to Agency in writing.

- B. The Design-Build Entity is responsible for the design and construction of the Project and shall use the highest design and engineering standards of care applicable to projects, buildings or work of similar size, complexity, quality and scope in performing Work on the Project. The Design-Build Entity shall be solely responsible for any and all design errors including, but without limitation, errors, inconsistencies or omissions in the Construction Documents. The Design-Build Entity shall take field measurements, verify field conditions, and carefully compare with the Contract Documents such field measurements, conditions, and other information known to the Design-Build Entity before commencing Work on the Project. Errors, inconsistencies, or omissions discovered at any time shall be promptly reported in writing to Agency's Representative.
- C. If the Design-Build Entity performs any design and/or construction activity which it knows, or should know, involves an error, inconsistency, or omission referred to in this Article, without notifying and obtaining the written consent of Agency's Representative, the Design-Build Entity shall be responsible for the resultant losses, including, without limitation, the costs of correcting Defective Work.
- D. Agency does not assume any obligation to employ the Design-Build Entity's services or pay the Design-Build Entity royalties of any type as to future programs that may result from Work performed under this Contract.
- E. The Design-Build Entity shall be responsible for all plotting, printing, copying and distribution costs of any and all documents required in connection with Work on the Project.
- F. The Design-Build Entity agrees that it has single point responsibility for the design and construction of this Project, and agrees to utilize the highest standard of excellent design, engineering and construction practices. The Design-Build Entity has the duty to act in Agency's best interests at all times throughout the course and performance of this Contract.

6.3 Design, Supervision and Construction Procedures.

- A. The Design-Build Entity shall supervise, coordinate, and direct all Work on the Project using the Design-Build Entity's best skill and attention and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Design-Build Entity shall be solely responsible for, and have control over, the entire design effort, construction means, methods, techniques, sequences, procedures, and the coordination of all portions of Work on the Project,

including, but without limitation, landscape and site work, utilities, and building systems.

- B. The Design-Build Entity shall be responsible to Agency for acts and omissions of the Design-Build Entity, its agents, employees, and Subcontractors, and their respective agents and employees.
- C. The Design-Build Entity shall not be relieved of its obligation to perform all Work on the Project in accordance with the Contract Documents either by acts or omissions of Agency or Agency's Representative in the administration of the Contract, or by tests, inspections, or approvals required, or performed, by persons or firms other than the Design-Build Entity.
- D. The Design-Build Entity shall be responsible for inspection of all portions of Work on the Project to determine that such portions conform to the requirements of the Contract Documents and are ready to receive subsequent Work.
- E. To facilitate communications and the management of the design process, the Design-Build Entity shall maintain an office in the Agency's County for the duration of the design process.
- F. Unless otherwise provided in the Contract Documents, the Design-Build Entity shall provide and pay for all professional design/engineering services, services, labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work on the Project, whether temporary or permanent and whether or not incorporated or to be incorporated in Work on the Project. The Design-Build Entity shall furnish architectural and engineering services for the preparation of Construction Documents necessary to complete the Project in accordance with the requirements of the Contract Documents. From the Agency-approved Construction Documents, which are developed from the Agency-accepted Proposal, the Design-Build Entity shall furnish all labor, materials, equipment, services, and transportation necessary to complete construction of the Project, including site work, structures and utilities.
- G. The Design-Build Entity is required to deliver to Agency, if requested, any and all Design Materials including, but not limited to, calculations, preliminary drawings, construction drawings, shop drawings, electronic media data, tenant improvement documents, sketches, illustrations, specifications, descriptions, models, mock ups, and other information developed, prepared, furnished, or delivered in the prosecution of the Design Work.
- H. The Design-Build Entity is responsible for preparation of the Construction Documents for the entire Project. The Design-Build Entity is responsible for construction of the entire Project as required by the Contract Documents.

6.4 Labor; Working Hours.

- A. The Design-Build Entity shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Design-Build Entity shall at all times maintain good discipline and

order at the Site. The Design-Build Entity will provide all labor needed to complete the Work within the Contract Times.

- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, which are defined as hours between 7:00 a.m. and 3:30 p.m. any day Monday through Friday of any week except on Holidays and/or during Schedule Constraints defined in the Contract Documents. The Design-Build Entity will not permit the performance of Work on a Saturday, Sunday, any Holiday or during identified Schedule Constraints without Agency's written consent given after prior written notice to Agency's Representative. The Design-Build Entity shall be responsible for, and shall reimburse Agency for, all inspection costs outside regular working hours, including overtime.

6.5 Progress Meetings.

- A. The Design-Build Entity shall schedule and hold regular on-Site progress meetings at least weekly and at other times as requested by the Agency or as required by progress of the Work. The Design-Build Entity, Agency's Representative, and all Subcontractors active on the Site shall attend each meeting. The Design-Build Entity may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors. Agency's Representative will preside at the progress meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings is to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the Design-Build Entity shall present any issues which may impact its progress with a view to resolve these issues expeditiously.

6.6 Cost-Loaded CPM Progress Schedule and Recovery Schedule.

- A. Design-Build Entity shall adhere to the Project Schedule, which shall be a cost-loaded CPM progress schedule established in accordance with the Contract Documents as it may be adjusted from time to time as provided below:
 - 1. Design-Build Entity shall submit to Agency's Representative for acceptance proposed adjustments in the Project Schedule that will not result in changing the Project Completion Date. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Project Schedule that will change the Project Completion Date shall be submitted in accordance with the requirements of the Contract Documents. Adjustments in the Project Completion Date may only be made by a Change Order.
 - 3. Should any of the following conditions exist, Agency may require Design-Build Entity to prepare, at no extra cost to Agency, a plan of action and a recovery schedule for completing the Work and achieving all contractual milestones within the Project Completion Date:

- a. The Design-Build Entity's monthly progress report indicates delays that are, in the opinion of Agency, of sufficient magnitude that Agency questions the Design-Build Entity's ability to complete the Work.
 - b. The Project Schedule shows the Design-Build Entity to be thirty (30) or more Days behind the critical path at any time during construction.
 - c. The Design-Build Entity desires to make changes in the logic or the planned duration of future activities of the Project Schedule which, in the opinion of Agency, are major in nature.
 - d. The recovery schedule shall include proposed revisions to the Project Schedule, demonstrating how Design-Build Entity intends to achieve all contractual milestones including contract completion within the Project Completion Date. The submittal shall include a narrative describing the actions planned by the Design-Build Entity to recover the schedule.
 - e. Design-Build Entity shall submit the recovery schedule within seven (7) Days of Agency's request:
 - (i) If Design-Build Entity asserts that Agency is responsible for the delay, failure to submit the recovery schedule within seven (7) Days of Agency's request will be considered a concurrent delay event attributable to Design-Build Entity, and Design-Build Entity shall only be entitled to non-compensable adjustments to the Project Completion Date.
 - (ii) If Design-Build Entity is responsible for the delay, this provision will not limit or affect Design-Build Entity's liability and failure to submit the recovery schedule with seven (7) Days of Agency's request may result in Agency withholding progress payments or other amounts due under the Contract Documents.
 - f. Design-Build Entity is responsible for all costs associated with the preparation and execution of the recovery schedule, including any necessary recovery actions, which may include, but are not limited to, assignment of additional labor, and/or equipment, shift or overtime work, expediting of submittals or deliveries, overlapping of activities or sequencing changes to increase activity concurrence.
 - g. Regardless of whether Agency directs Design-Build Entity to prepare a recovery schedule pursuant to this Article, Design-Build Entity shall promptly undertake appropriate action at no additional cost to Agency to recover the schedule whenever the current Project Schedule shows that the Design-Build Entity will not achieve a milestone and/or complete the Work within the Project Completion Date.
- B. Unless otherwise specified in the Contract Documents, Design-Build Entity shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other

facilities and incidentals necessary for the performance, testing, start up, and completion of the Work within the Project Completion Date.

- C. Failure of Agency's Representative to discover errors or omissions in schedules that it has reviewed, or to inform the Design-Build Entity that the Design-Build Entity, Subcontractors, or others are behind schedule, or to direct or enforce procedures for complying with the Project Schedule shall not relieve the Design-Build Entity from its sole responsibility to perform and complete all Work on the Project within the Project Completion Date and shall not be a cause for an adjustment of the Project Completion Date or the Contract Price.
- D. The Design-Build Entity shall perform all Work on the Project in accordance with the current accepted Project Schedule.

6.7 Materials.

- A. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All materials furnished by the Design-Build Entity shall be of the most suitable grade for the purpose intended considering strength, ductility, durability, and best industry practice.
- B. All special warranties and guarantees required by the Contract Documents shall expressly run to the benefit of Agency. If required by Agency's Representative, Design-Build Entity shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.
- D. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of the Work and shall be stored properly and protected as required by the Contract Documents. Design-Build Entity shall be entirely responsible for damage or loss by weather or other causes to materials or Work until Agency has accepted the Work. Materials shall be stored on the Project site in such manner so as not to interfere with any operations of Agency or any independent contractor.
- E. No materials, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. Design-Build Entity warrants good title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion to deliver the Work to Agency free from any claims, liens, or encumbrances.
- F. Inspection of Materials.
 - 1. Materials furnished by the Design-Build Entity which will become a part of the Project shall be subject to inspection at any one or more of the following

locations, as determined by Agency's Representative: at the place of production or manufacture, at the shipping point, or at the site of the Work. To allow sufficient time to provide for inspection, the Design-Build Entity shall submit to Agency's Representative, at the time of issuance, copies of purchase orders or other written instrument confirming procurement of the materials, including drawings and other pertinent information, covering materials on which inspection will be made.

2. No later than fourteen (14) Days prior to manufacture of material, Design-Build Entity shall inform Agency's Representative, in writing, the date the material is to be manufactured.
3. The inspection of materials at any of the locations specified above or the waiving of the inspection thereof shall not impact whether the materials and equipment conform to the Contract Documents. Design-Build Entity will not be relieved from furnishing materials meeting the requirements of the Contract Documents due to Agency's inspection or lack of inspection of the equipment or materials. Acceptance of any materials will be made only after materials are installed in the Project.

6.8 Submittals.

A. Industry Standard Submittals.

1. Design-Build Entity will identify in the Construction Documents all industry standard submittals for all materials, systems, and equipment incorporated into the Work.

B. Schedule of Submittals.

1. Design-Build Entity will prepare and deliver a Schedule of Submittals to Agency's Representative that has been fully integrated with the Cost-Loaded CPM Progress Schedule and identifies each Submittal required by the Construction Documents as well as the date on which Design-Build Entity will deliver each Submittal to Agency's Representative. Each Submittal must be delivered to Agency's Representative at least thirty (30) Days prior to the date the material or equipment is scheduled to be incorporated into the Work. The Design-Build Entity is responsible for any schedule delays resulting from the Submittal process.
2. Design-Build Entity must submit all submittals required by the Construction Documents in accordance with the Schedule of Submittals. If Design-Build Entity fails to submit the submittals in accordance with the Schedule of Submittals, Design-Build Entity will be solely liable for any delays or impacts caused by the delayed submittal, whether direct or indirect. Design-Build Entity will be liable for the time calculated from the date the submittal is due until the date a compliant submittal is made. A compliant submittal will be one that is complete and satisfies the requirements of the Contract Documents.
3. Where a Submittal, Shop Drawing or Sample is required by the Construction Documents, any related Work performed prior to Agency's Representative's

review and approval of the pertinent Submittal will be at the sole expense and responsibility of the Design-Build Entity.

C. Submittal Procedures.

1. The Design-Build Entity will follow the following procedures for each Submittal, Shop Drawing and Sample required by the Contract Documents:
 - a. Transmit three (3) copies of each with a Submittal Transmittal.
 - b. Transmittals will be sequentially numbered. The Design-Build Entity to mark revised Submittals with original number and sequential alphabetic suffix.
 - c. Each Submittal will identify the Project, the Design-Build Entity, Subcontractor and supplier, pertinent Construction Document and detail number, and specification section number appropriate to the Submittal.
 - d. The Design-Build Entity must sign each Submittal, certifying that it has reviewed and approved the Submittal, verified products required, field dimensions, adjacent construction work, and that coordination of information is according to requirements of the Project and Contract Documents.
 - e. Identify variations in Contract Documents and product or system limitations that may differ and/or be detrimental to successful performance of completed Work.
 - f. When a Submittal is revised for resubmission, the Design-Build Entity shall promptly address Agency comments and resubmit. The Design-Build Entity shall identify changes made since previous submission.
 - g. Agency's review of Submittals shall not relieve the Design-Build Entity from responsibility for deviations from the Contract Documents unless the Design-Build Entity has, in writing, called Agency's attention to such deviations at time of submission and Agency's has taken no exception to the deviation. Agency's review of Submittals shall not relieve the Design-Build Entity from responsibility for errors in the Submittals.
 - h. Submittals not required by the Construction Documents or requested by Agency's Representative will not be acknowledged or processed.
 - i. Incomplete Submittals will not be reviewed by Agency's Representative. Delays resulting from incomplete submittals are not the responsibility of Agency's Representative.
 - j. The Design-Build Entity shall not be entitled to any extension of the Project Completion Date as a result of the Submittal process.

6.9 Shop Drawing and Sample Submittal Procedures.

A. Before submitting each Shop Drawing or Sample, Design-Build Entity shall have:

1. Reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
2. Determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
3. Determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
4. Determined and verified all information relative to the Design-Build Entity's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

B. With each Submittal, the Design-Build Entity shall give Agency's Representative specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal and, in addition, a specific notation made on each Shop Drawing or Sample submitted to Agency's Representative for review and approval of each such variation.

C. Shop Drawings.

1. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Agency's Representative the services, materials, and equipment Design-Build Entity proposes to provide and to enable Agency's Representative to review the information Representative for assessing conformance with information given and design concept expressed in Contract Documents. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional engineer responsible for designing components shown on Shop Drawings. Shop Drawings must include signed and sealed calculations to support design in a form suitable for submission to and approval by authorities having jurisdiction. Design-Build Entity shall make revisions and provide additional information when required by authorities having jurisdiction.

D. Samples.

1. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as required to enable Agency's Representative to review the submittal for assessing conformance with information given and design concept expressed in Contract Documents. Samples should be of appropriate size and detail to assess functional, aesthetic, color, texture, patterns and finish selection.

E. Agency's Representative's Review.

1. Agency's Representative will review Shop Drawings and Samples in accordance with the Schedule of Submittals. Agency's Representative's review and acceptance will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Project, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Agency's Representative's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of design or construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 3. Agency's Representative's review and acceptance shall not relieve the Design-Build Entity from responsibility for any variation from the requirements of the Contract Documents unless Agency's Representative has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Submittal.
- F. The Design-Build Entity shall make corrections required by Agency's Representative and shall return three (3) corrected copies of Shop Drawings and Product Data, and submit, as required, new Samples for review and approval. The Design-Build Entity shall direct specific attention in writing to revisions other than the corrections called for by Agency's Representative on previous Submittals. Agency will review the first resubmittal of Shop Drawings at its cost. Agency reserves the right to reduce the Contract Price by Change Order for its cost for any subsequent reviews of Shop Drawing resubmittals.

6.10 Construction Documents.

A. Construction Documents.

1. The A/E shall design the building systems and prepare the Construction Documents. The Construction Documents shall provide information customarily necessary in documents for projects of similar size, complexity, and quality. The Construction Documents shall include all information required by the building trades to complete the construction of the Project, other than such details customarily developed by others during construction. Agency's review of the Construction Documents shall be conducted in accordance with the approved Project Schedule with procedures set forth in this Article. Such review shall not relieve the Design-Build Entity from its responsibilities under the Contract. Such review shall not be deemed an approval or waiver by Agency of any deviation from, or of the Design-Build Entity's failure to comply with, any provision or requirement of the Contract Documents, unless such deviation or failure has

been identified as such in writing in the Document submitted by the Design-Build Entity and approved by Agency.

2. However, it is acknowledged by the parties hereto that inherent in a Design-Build concept, bridging or otherwise, the production and review of Construction Documents may be a continuing process with portions thereof completed at different times. The Design-Build Entity will submit the Construction Document packages to Agency for review and approval in accordance with the agreed upon schedule, unless otherwise approved in writing by Agency. The Project Schedule shall indicate the times for Agency to review the completion of each such portion of the Construction Documents and a reasonable time for review of same.
3. The Design-Build Entity shall submit completed packages of the Construction Documents for review by Agency at the times indicated on the Project Schedule and as defined in the Scheduling Specification. Meetings between the Design-Build Entity and Agency to review the Construction Document packages, shall be scheduled at least every two weeks, or as otherwise agreed to by the parties, and held so as not to delay Work on the Project. The Design-Build Entity will conduct these design meetings with Agency in accordance with the schedule approved by Agency. The Design-Build Entity will be responsible for preparing and circulating for the parties' review, design meeting minutes from all such meetings.

B. Field Engineering.

1. The Design-Build Entity shall retain and pay expenses of a civil engineer or land surveyor to establish on the Project site the required reference points and benchmarks, establish building lines and elevations, check for building framing, plumbness, and establish on building frame the required basic grid lines. The engineer or land surveyor shall be properly licensed in the State of California.
2. The Design-Build Entity shall locate and protect control points prior to starting Work on the Project site and preserve permanent reference points during construction, and shall require the engineer or surveyor to replace control points which become lost or destroyed.

C. Geotechnical and Survey.

1. Agency may provide a geotechnical report to Design-Build Entity that shall not be considered a part of the Contract Documents and shall be informational only and may not be relied upon by Design-Build Entity to form its basis of design. Design-Build Entity shall be responsible for obtaining its own geotechnical report which includes supporting data, findings and recommendations; and also with a legal description and a project survey, as necessary, which shall become a part of the Contract Documents. The Design Work shall be consistent with both the findings and recommendations of the Design-Build Entity's geotechnical report and legal description and Project survey, or such other geotechnical recommendations obtained by Design-Build Entity at its sole cost and expense.

2. The Design-Build Entity shall verify the location and depth (elevation) of all existing utilities and services before performing any excavation work.
3. Any additional tests, borings, etc. necessary to support the Construction Documents shall be the responsibility of the Design-Build Entity.

6.11 Dust Control.

- A. Design-Build Entity, at its expense, shall maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas free from dust. Industry accepted methods of dust control suitable for the area involved, such as sprinkling, chemical treatment, light bituminous treatment or similar methods, will be permitted.

6.12 Air Pollution.

- A. To the extent applicable, Design-Build Entity must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the South Coast Air Quality Management Agency (SCAQMD) and/or California Air Resources Board (CARB). Although the SCAQMD and CARB limits and requirements are more broad, Design-Build Entity shall specifically be aware of their application to "portable equipment", which definition is considered by SCAQMD and CARB to include any item of equipment with a fuel-powered engine. Design-Build Entity shall indemnify Agency against any fines or penalties imposed by SCAQMD, CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by Design-Build Entity, its sub-consultants, or others for whom Design-Build Entity is responsible under its indemnity obligations provided for in this Agreement.
- B. The Design-Build Entity shall comply with all air pollution control rules, regulations, ordinances and statutes. All containers of paint, thinner, curing compound, solvent or liquid asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements. Design-Build Entity shall not discharge into the atmosphere from any source whatever smoke, dust, or other air contaminants in violation of the laws, rules, and regulations of the governmental entities having jurisdiction.

6.13 Patent Fees and Royalties.

- A. Design-Build Entity shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Agency or Agency's Representative, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Agency in the Contract Documents.

- B. To the fullest extent permitted by Applicable Laws, Design-Build Entity shall indemnify, defend, and hold harmless Agency and Agency's Representative, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents or specified in the Contract Documents and identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

6.14 Permits and Licenses.

- A. Design-Build Entity shall obtain and pay for all other permits and licenses required for the Work, including excavation permit and permits for plumbing, mechanical and electrical work and for operations in or over public streets or right of way under jurisdiction of public agencies other than Agency.
- B. The Design-Build Entity shall arrange and pay for all off-site inspection of the Work related to permits and licenses, including certification, required by the Performance Specifications, drawings, or by governing authorities, except for such off-site inspections identified as Agency's responsibility in the Contract Documents.
- C. Before acceptance of the Work, the Design-Build Entity shall submit all licenses, permits, certificates of inspection and required approvals to Agency.

6.15 Applicable Laws.

- A. Design-Build Entity shall give all notices required by and shall comply with all Applicable Laws applicable to the performance of the Work. Except where otherwise expressly required by Applicable Laws, neither Agency nor Agency's Representative shall be responsible for monitoring Design-Build Entity's compliance with any Applicable Laws. If Design-Build Entity performs any Work knowing or having reason to know that it is contrary to Applicable Laws, Design-Build Entity shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work.

6.16 Labor Laws and Design-Build Entity's Obligations.

A. Hours of Work.

- 1. The Design-Build Entity and Subcontractors shall furnish sufficient forces to ensure the prosecution of the Work on the Project in accordance with the Construction Schedule and in such a manner to allow for the full and adequate completion of the Project within the Project Completion Date.
- 2. Work on the Project shall be performed during regular working hours, except that in the event of an emergency or when required to complete the Work on the

Project in accordance with job progress, Work may be performed outside of regular working hours with advance written notice to Agency. Permissible working hours shall be between 7:00 a.m. to 3:30 p.m. and shall not be changed except with consent of Agency.

3. Eight (8) hours of work shall constitute a legal day's work. The Design-Build Entity and each Subcontractor shall forfeit, as penalty to Agency, twenty-five dollars (\$25) for each worker employed in the execution of Work on the Project by the Design-Build Entity or any Subcontractor for each day during which such worker is required or permitted to work more than eight (8) hours in any one day and forty (40) hours in any week in violation of the provisions of the Labor Code, and in particular, Section 1810 to Section 1815, except as provided in Labor Code Section 1815.
4. If the work done after hours is required by the Contract to be done outside the Design-Build Entity's regular working hours, the costs of any inspections, if required to be done outside normal working hours, shall be borne by Agency. If Agency allows the Design-Build Entity to do Work outside regular working hours for the Design-Build Entity's own convenience, the costs of any inspections required outside regular working hours shall be invoiced to the Design-Build Entity by Agency and deducted from the next progress payment. If the Design-Build Entity elects to perform Work outside the Inspector's regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Design-Build Entity by Agency and deducted from the next progress payment.
5. No Work on the Project or other activities by or on behalf of the Design-Build Entity which presents a hazard or unreasonable disruption to Agency staff shall be allowed during normal working hours. The determination as to whether Work on the Project or some other activity presents a hazard or constitutes an unreasonable disruption to Agency staff shall be made by and pursuant to the sole discretion of a representative of Agency. All Work on the Project or other activities which could present a hazard or unreasonable disruption to Agency staff shall be performed before or after normal working hours, on weekends, or on an Agency recognized holiday. Neither the Design-Build Entity nor its Subcontractors or anyone working on behalf of the Design-Build Entity or Subcontractors shall be entitled to additional compensation or an extension of the Project Completion Date for having to arrange their Work schedule so as not to violate the provisions of this Article 6.17A. The Design-Build Entity, Subcontractors and persons working on behalf of the Design-Build Entity shall be expected to arrange such Work and other activities in advance so as to avoid creating monetary or time impacts.

B. Wage Rates, Travel, and Subsistence.

1. The Design-Build Entity is aware of the requirements of Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Since the Work on the Project

involves an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and since the total compensation is \$1,000 or more, the Design-Build Entity agrees to fully comply with such Prevailing Wage Laws. Agency has obtained the prevailing wage rates from the Director of the Department of Industrial Relations, State of California. Copies of the prevailing wage rates are on file at Agency’s office and shall be made available to any interested party on request. the Design-Build Entity shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform the Project available to interested parties upon request, and shall post copies at the Design-Build Entity’s principal place of business and at the Project site. The Design-Build Entity shall defend, indemnify and hold Agency, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or allege failure to comply with the Prevailing Wage Laws.

2. Pursuant to Labor Code Section 1775, the Design-Build Entity is hereby advised that in the event that the Design-Build Entity fails to pay prevailing wages, the Design-Build Entity will be held liable for penalties and for shortfalls in wages and such amounts may be withheld from progress payments. the Design-Build Entity and each Subcontractor shall forfeit as a penalty to Agency not more than two hundred dollars (\$200) for each Day, or portion thereof, for each worker paid less than the stipulated prevailing wage rate for any work done by him, or by any subcontract under him, in violation of the provisions of the Labor Code. The difference between such stipulated prevailing wage rate and the amount paid to each worker for each Day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Design-Build Entity.
3. The Design-Build Entity shall post, at appropriate conspicuous points on the Project site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

C. Labor Compliance/Payroll Records.

1. Pursuant to Labor Code Section 1776, the Design-Build Entity and each Subcontractor shall maintain weekly certified payroll records showing the name, address, social security number, work classification, straight time and overtime hours paid each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the Project. The Design-Build Entity shall certify under penalty of perjury that records maintained and submitted by the Design-Build Entity are true and accurate. The Design-Build Entity shall also require Subcontractor(s) to certify weekly payroll records under penalty of perjury.
2. In accordance with Labor Code section 1771.4, the Design-Build Entity and each Subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations (“DIR”) on a weekly basis and in the format prescribed by the DIR. This may include electronic submission. Design-Build Entity shall ensure full compliance with all requirements and regulations from the DIR

relating to labor compliance monitoring and enforcement and all other applicable labor law.

3. Any stop orders issued by the DIR against Design-Build Entity or any Subcontractor that affect Design-Build Entity's performance of Work, including any delay, shall be Design-Build Entity's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Design-Build Entity caused delay subject to any applicable liquidated damages and shall not be compensable by the Agency. Design-Build Entity shall defend, indemnify and hold the Agency, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the DIR against Design-Build Entity or any Subcontractor.
4. The payroll records described herein shall be certified and submitted by the Design-Build Entity at a time designated by the Agency. The Design-Build Entity shall also provide the following:
 - a. A certified copy of the employee's payroll records shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
 - b. A certified copy of all payroll records described herein shall be made available for inspection or furnished upon request of the DIR.
5. Unless submitted electronically, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement ("DLSE") of the DIR or shall contain the same information as the forms provided by the DLSE.
6. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency, the Agency, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Design-Build Entity awarded the Contract or performing the contract shall not be marked or obliterated.
7. In the event of noncompliance with the requirements of this Article 6.17C, the Design-Build Entity shall have ten (10) Days in which to comply subsequent to receipt of written notice specifying any item or actions necessary to ensure compliance with this Article 6.17C. Should noncompliance still be evident after such ten (10) day period, the Design-Build Entity shall, as a penalty to the Agency, forfeit One Hundred Dollars (\$100.00) for each day, or portion thereof, for each worker until strict compliance is effectuated. Upon the request of DIR, such penalties shall be withheld from contract payments.
8. In submitting the Proposal on this Project, it shall be the Design-Build Entity's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this Contract and Applicable Law in its Proposal.

9. The Design-Build Entity shall include provisions of this Article 6.17C in all Subcontracts and require Subcontractors to comply with these provisions at no additional cost to Agency.

D. Apprentices.

1. The Design-Build Entity's attention is directed to the provisions of Sections 1777.5, 1777.6, and 1777.7 of the Labor Code concerning employment of apprentices by the Design-Build Entity or any Subcontractor. The Design-Build Entity shall obtain a certificate of apprenticeship before employing any apprentice pursuant to Sections 1777.5, 1777.6, and 1777.7 of the Labor Code. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from DIR, the Administrator of Apprenticeships, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices. Knowing violations of Labor Code section 1777.5 will result in forfeiture not to exceed one hundred dollars (\$100.00) for each calendar day of non-compliance pursuant to Labor Code section 1777.7.

E. Nondiscrimination.

1. Pursuant to Labor Code section 1735 and other applicable provisions of law, the Design-Build Entity and its Subcontractors shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap on this Work. The Design-Build Entity will take affirmative action to insure that employees are treated during employment or training without regard to their race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap.

F. Workers' Compensation.

1. Pursuant to Labor Code section 1860, Design-Build Entity shall secure the payment of workers' compensation to its employees in accordance with the provisions of Labor Code section 3700. By its signature hereunder, Design-Build Entity certifies that he is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work.

G. Public Works Registration.

1. Pursuant to Labor Code sections 1725.5 and 1771.1, the Design-Build Entity and its Subcontractors must be registered with the Department of Industrial Relations prior to the execution of a contract to perform public works. By entering into this Contract, Design-Build Entity represents that it is aware of the registration requirement and is currently registered with the DIR. Design-Build Entity shall maintain a current registration for the duration of the Project. Design-Build Entity shall further include the requirements of Labor Code sections 1725.5 and 1771.1 in any Subcontract and ensure that all Subcontractors are registered at the time this Contract is entered into and maintain registration for the duration of the Project.

6.17 Debarment

- A. Contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code section 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid or may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the Agency. The Design-Build Entity shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

6.18 Taxes.

- A. The Design-Build Entity shall pay all sales, consumer, use, and other similar taxes required to be paid in accordance with the Applicable Law of the place of the Project which are applicable during the performance of the Project. In accordance with Revenue and Taxation Code Section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which the Design-Build Entity will be responsible.

6.19 Use of Site and Other Areas.

- A. Limitation on Use of Site and Other Areas. The Design-Build Entity shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Applicable Laws, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Design-Build Entity shall assume full responsibility for any damage to any such land or area, or to the Agency or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work. Should any claim be made by any such Agency or occupant because of the performance of the Work, Design-Build Entity shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- B. Removal of Debris. During the progress of the Work Design-Build Entity shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to Applicable Laws.
- C. Cleaning. Prior to Completion of the Work, Design-Build Entity shall clean the Site and the Work and make it ready for utilization by Agency. At the completion of the Work Design-Build Entity shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. Loading Structures. Design-Build Entity shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall

Design-Build Entity subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.20 Utility Usage.

- A. All temporary utilities, including but not limited to electricity, water, gas, and telephone, used on the Work shall be furnished and paid for by Design-Build Entity. Design-Build Entity shall provide necessary temporary distribution systems, including meters, if necessary, from distribution points to points on the Work where the utility is needed. Upon completion of the Work, Design-Build Entity shall remove all temporary distribution systems. All permanent meters installed shall be listed in the Design-Build Entity's name until the Work is accepted. If Work is to be performed in existing Agency's facilities, Design-Build Entity may, to the extent authorized by Agency in writing, use Agency's existing utilities. If Design-Build Entity uses Agency utilities, it shall compensate Agency for utilities used.

6.21 Record Drawings.

- A. Design-Build Entity shall maintain in a safe place at the Site one record copy of the Contract Documents and written interpretations and clarifications in good order and annotated to show changes made during construction. On these, it shall mark all Project conditions, locations, configurations, and any other changes or deviations which may vary from the information represented in the original Contract Documents, including buried or concealed construction and utility features which are revealed during the course of construction. Said record drawings shall be supplemented by any detailed sketches as necessary or directed to fully indicate the Work as actually constructed. These master record drawings of the as-built conditions, including all revisions made necessary by Addenda and Change Orders shall be maintained up-to-date during the progress of the Project. Red ink shall be used for alterations and notes. Notes shall identify relevant Change Orders by number and date.
- B. Record drawings shall be accessible to Agency's Representative at all times during the construction period. Upon Completion of the Project and as a condition of final acceptance, the Design-Build Entity shall finalize and deliver a complete set of record drawings to Agency's Representative. The information submitted by the Design-Build Entity will be assumed to be correct, and the Design-Build Entity shall be responsible for, and liable to Agency, for the accuracy of such information, and for any errors or omissions which may or may not appear on the record drawings.

6.22 Safety and Protection.

- A. Design-Build Entity shall be solely responsible for all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety laws. Design-Build Entity shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Design-Build Entity shall comply with all Applicable Laws relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Design-Build Entity shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. Design-Build Entity shall comply with the applicable requirements of Agency's safety programs, if any. Design-Build Entity shall inform Agency and Agency's Representative of the specific requirements of Design-Build Entity's safety program with which Agency's and Agency's Representative's employees and representatives must comply while at the Site.
- C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Design-Build Entity, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Design-Build Entity.

6.23 Safety Representative.

- A. Design-Build Entity shall designate an OSHA-certified and experienced safety representative at the Project site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Design-Build Entity shall provide Agency's Representative the name and contract information of the safety representative in writing. Design-Build Entity shall provide Agency's Representative the name and contact information of the safety representative in writing.

6.24 Hazard Communication Programs.

- A. Design-Build Entity shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Project site in accordance with Applicable Laws.

6.25 Emergencies.

- A. In an emergency affecting safety of life or of Work or of adjoining property, Design-Build Entity, without special instruction or authorization from Agency, shall act to prevent such threatened loss or injury; and Design-Build Entity shall so act, without appeal, if directed or instructed by Agency. Any compensation claimed by Design-Build Entity on account of emergency work shall be determined in accordance with the Contract Documents.

6.26 Guarantee.

- A. The Design-Build Entity unconditionally guarantees all Work on the Project will be completed in accordance with the requirements of the Contract Documents, and will remain free of defects in workmanship and materials for a period of one (1) year from the date of Project Completion, unless a longer guarantee period is specifically called for in the Contract Documents. However, a shorter guarantee period shall apply to landscape plants, trees, turf, etc. Trees or shrubs greater than one gallon in size at the time of planting shall be guaranteed for one (1) year, and all other plant material shall be guaranteed for six (6) months. The Design-Build Entity shall repair or replace any and all Work, together with any adjacent work that may have been damaged or displaced, which was not in accordance with the requirements of the Contract Documents, or that may be defective in its workmanship or material within the guarantee period specified in the Contract Documents, without any expense whatsoever to Agency; ordinary wear and tear and abuse excepted.
- B. The Design-Build Entity further agrees, within fourteen (14) Days, or as such shorter period as may be designated for emergency repairs, after being notified in writing by Agency, of any Work not in accordance with the requirements of the Contract Documents or any defects in the Work on the Project, that the Design-Build Entity shall commence and execute, with due diligence, all Work necessary to fulfill the terms of the guarantee. If Agency finds that the Design-Build Entity fails to perform any of the Work under the guarantee, Agency may elect to have the Work completed at the Design-Build Entity's expense and the Design-Build Entity will pay costs of the Work upon demand. Agency will be entitled to all costs, including reasonable attorneys' fees and consultants' expenses necessarily incurred upon the Design-Build Entity's refusal to pay the above costs.
- C. Where Defective Work (or damage to other Work resulting therefrom) has been corrected or removed and replaced, the Warranty period hereunder with respect to such Work shall be extended for an additional period of one (1) year after such correction or removal and replacement has been satisfactorily completed.
- D. Design-Build Entity's obligations under this Article are in addition to any other obligation or warranty and do not limit Agency's rights and remedies pursuant to California Code of Civil Procedure sections 337.10 and 337.15. or any other Applicable Law.
- E. Notwithstanding the foregoing provisions, in the event of an emergency constituting an immediate hazard to health or safety of Agency employees, property, or licensees, Agency may undertake, at the Design-Build Entity's expense and without prior notice, all Work necessary to correct such condition(s) when it is caused by Work of the Design-Build Entity not being in accordance with the requirements of the Contract Documents.

6.27 Warranty.

- A. The Design-Build Entity warrants to Agency that any and all materials, equipment and furnishings incorporated in the Project will be of good quality and new unless otherwise required or permitted by the Contract Documents. Work not conforming to

these requirements, including substitutions not properly approved and authorized, may be considered defective. The foregoing warranty excludes improper operation, or normal wear and tear under normal usage under the control of Agency. Such warranty shall exclude warranties relating to design, warranty of fitness, and any other express or implied warranties other than as set forth herein or in the Contract Documents; provided, however, that the foregoing shall not impair the rights of Agency to maintain an action for breach of contract against the Design-Build Entity. Nothing contained in these Contract Documents pertaining to warranty or guarantee shall be construed as limiting any other rights Agency may have at law, including rights for latent defects under Code of Civil Procedure Section 337.15.

6.28 Indemnification.

- A. To the fullest extent allowed by law (including without limitation Civil Code Sections 2782 and 2782.8), the Design-Build Entity shall defend (with counsel of Agency's choosing), indemnify and hold Agency, its officials, officers, agents, employees, and representatives free and harmless from and against any and all claims, demands, causes of action, costs, expenses, liabilities, losses, damages or injuries, in law or in equity, to property or persons, including wrongful death, regardless of whether the allegations are false, fraudulent, or groundless, arising out of, related to, or in connection with any acts, omissions or willful misconduct of Design-Build Entity, its officials, officers, employees, agents, consultants, contractors, and Subcontractors arising out of or in connection with the performance of the Work or this Contract, including claims made by Subcontractors for nonpayment, and including without limitation the payment of all attorney's fees and other related costs and expenses except to the extent caused by the sole or active negligence or willful misconduct of the Agency. The Design-Build Entity shall defend, at the Design-Build Entity's own cost, expense and risk, with counsel of Agency's choosing, any and all such suits, actions or other legal proceedings of every kind that may be brought or instituted against Agency, its officials, officers, agents, employees and representatives. The Design-Build Entity shall pay and satisfy any judgment, award or decree that may be rendered against Agency, its officials, officers, agents, employees and representatives, in any such suit, action or other legal proceeding. The Design-Build Entity shall reimburse Agency, its officials, officers, agents, employees and representatives for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. The Design-Build Entity agrees to pay, or reimburse Agency and Agency's Representative, for regulatory agency or court imposed fees, fines, or penalties imposed on Agency and Agency's Representative arising from the Design-Build Entity's failure to complete the Project in a timely manner and/or in accordance with the Contract Documents and any applicable permits or Applicable Laws. The Design-Build Entity's responsibility and obligation to pay, or reimburse Agency and Agency's Representative, for these fees, fines, or penalties shall be in addition to the assessment of liquidated damages for late completion of the Project. This indemnity provision shall apply to all liability, as provided for above, regardless of whether any insurance policies are applicable. Insurance policy limits do not act as a limitation upon the amount of the indemnification to be provided by the Design-Build Entity.
- B. If the Design-Build Entity's obligation to defend, indemnify, and/or hold harmless arises out of the Design-Build Entity's performance as a "design professional" (as

that term is defined under Civil Code Section 2782.8), then, and only to the extent required under Civil Code Section 2782.8, which is fully incorporated herein, the Design-Build Entity's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Design-Build Entity, and, upon Design-Build Entity obtaining a final adjudication by a court of competent jurisdiction, Design-Build Entity's liability for such claim, including the cost to defend, shall not exceed the Design-Build Entity's proportionate percentage of fault.

- C. In claims against any person or entity indemnified under this Article that are made by an employee of the Design-Build Entity or any Subcontractor, a person indirectly employed by the Design-Build Entity or any Subcontractor, or anyone for whose acts the Design-Build Entity or any Subcontractor may be liable, the indemnification obligation under this Article shall not be limited by any limitation on amount or type of damages, compensation, or benefits payable by or for Design-Build Entity or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts or any other insurance limitations.
- D. In the event the Design-Build Entity and one or more than one other party is connected with an accident or occurrence covered by this indemnification, then all such parties shall be jointly and severally responsible to each of the Indemnitees for indemnification, and the ultimate responsibility among such indemnifying parties for the loss and expense of any such indemnification shall be resolved without jeopardy to any indemnitee listed in this Article.
- E. The provisions of this Article shall survive the termination of this Contract howsoever caused, and no payment, partial payment, or acceptance of occupancy in whole or part of the Work shall waive or release any of the provisions of this Article.

6.29 Superintendent.

- A. The Design-Build Entity shall employ a competent Superintendent satisfactory to Agency who shall be in attendance at the Project site at all times during the performance of the Construction Work. Superintendent shall represent the Design-Build Entity and communications given to, and received from, Superintendent shall be binding on the Design-Build Entity. Superintendent must be able to proficiently speak, read and write in English. Failure to maintain a Superintendent on the Project site at all times Work on the Project is in progress shall be considered a material breach of this Contract, entitling Agency to terminate the Contract or, alternatively, issue a Suspension Order until the Superintendent is on the Project site. If, by virtue of issuance of said Suspension Order, the Design-Build Entity fails to complete the Contract by the Project Completion Date, the Design-Build Entity will be assessed Liquidated Damages in accordance with the Contract.
- B. Any changes to the assignment of the Superintendent shall receive prior written approval from Agency. The Superintendent may not perform the work of any trade, pick up materials, or perform any work not directly related to the supervision and coordination of the Construction Work at the Project site when work is in progress. In addition, the Design-Build Entity will provide all key personnel identified in the Contract for the time periods stipulated.

6.30 Project Staffing.

- A. The Design-Build Entity and each Subcontractor shall: furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work on the Project; organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and keep an adequate force of skilled and fit workers on the job to complete all Work on the Project in accordance with all requirements of the Contract.
- B. Agency shall have the right, but not the obligation, to require the removal from the Project of the Design-Build Entity's Representative, or any other superintendent, staff member, agent, or employee of any contractor, Subcontractor, material or equipment supplier, or any other entity working on the Project. Removal may be required for any reason designated by Agency, including but not limited to, failure or refusal to perform Work on the Project in a manner acceptable to Agency, uncooperative or incompetent performance on the Project, threatening the adequate or timely completion of the Project, or threatening the safety of persons or property.

6.31 Compliance With State Storm Water Permit for Construction.

- A. Storm, surface, ground, nuisance, or other waters may be encountered at various times during the Work. Design-Build Entity hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Proposal accordingly, and assumes any and all risks and liabilities arising therefrom.
- B. Design-Build Entity shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions of the Agency's ordinances regulating discharges of storm water; the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.); the California Porter-Cologne Water Quality Control Act (Water Code § 13000 et seq.); and any and all regulations, policies, or permits issued pursuant to any such authority. These include, but are not limited to California Regional Water Quality Control Boards (Santa Ana and San Diego Regions) Order No. R8-2009-0030 (NPDES Permit No. CAS 618030), Order No. R9-2009-0002, Order No. R8-2009-0045, Order No. R9-2013-0001 as amended by Order Nos. R9-2015-0001 and R9-2015-0100, and State Water Resources Control Board Order No. 2010-0014-DWQ, Order No. 2009-0009-DWQ, and Order No. 2012-0006-DWQ, and any amendment or renewal thereof.
- C. The Design-Build Entity shall be required to comply with all conditions of the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity ("Permit") for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development or sale. The Design-Build Entity shall be responsible for filing the Notice of Intent and for obtaining the Permit. If applicable, the Design-Build Entity shall be solely responsible for preparing and implementing a Stormwater Pollution Prevention Plan ("SWPPP") prior to initiating

work on the Project. It shall be the Design-Build Entity's responsibility to evaluate the cost of procuring the Permit and preparing the SWPPP as well as complying with the SWPPP and any necessary revision to the SWPPP to address storm water impacts. The Design-Build Entity shall comply with all requirements of the State Water Resources Control Board. The Design-Build Entity shall include all costs of compliance with specified requirements in the Price. For those Sites where construction activity results in the disturbance of less than one acre of total land area and/or do not need coverage under the Permit, the Design-Build Entity shall be responsible for preparing and implementing an Erosion and Sediment Control Plan in accordance with California Regional Water Quality Control Board Order No. R8-2009-0030, Order No. R9-2013-0001 as amended by Order Nos. R9-2015-0001 and R9-2015-0100 and any amendment or renewal thereof.

- D. The Design-Build Entity shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, monitoring and reporting requirements as required by the Permit. The Design-Build Entity shall provide copies of all reports and monitoring information to the Agency's Representative. The Design-Build Entity shall comply with the lawful requirements of any applicable municipality, the County, drainage authority, and other local agencies regarding discharges of storm water to separate storm drain system or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.
- E. Failure to comply with laws, regulations, and ordinances listed in this Article is a violation of federal and state law. Notwithstanding any other indemnity contained in this Contract, Design-Build Entity agrees to indemnify and hold harmless the Agency, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which the Agency, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the laws, regulations, and ordinances listed above, arising out of or in connection with the Project, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the Agency, its officials, officers, agents, employees or authorized volunteers. Agency reserves the right to defend any enforcement action or civil action brought against the Agency for Design-Build Entity's failure to comply with any applicable water quality law, regulation, or policy. Design-Build Entity hereby agrees to be bound by, and to reimburse the Agency for the costs associated with, any enforcement action and/or settlement reached between the Agency and any relevant enforcement entity.

6.32 Monthly Report.

- A. The Design-Build Entity shall prepare and submit to Agency, during both the Construction Documents Phase and the Construction Phase, monthly reports on the Work accomplished during the prior monthly period. Such reports shall be prepared in a manner and in a format approved by Agency. Reports shall be furnished at the time of submission of each monthly application for payment. The monthly report shall also set forth the Design-Build Entity's projected progress for the forthcoming month.

6.33 Other Reports.

- A. The Design-Build Entity will cooperate with Agency in preparing, or causing to be prepared, all or part of, periodic project reports required by state or federal agencies.

6.34 Notice of Labor Dispute.

- A. If the Design-Build Entity has knowledge that any actual or potential labor dispute is delaying, or threatens to delay, the timely performance of Work on the Project, the Design-Build Entity shall immediately give written notice including all relevant information to Agency.
- B. The Design-Build Entity agrees to insert the substance of this Article 6.36 in any subcontract to which a labor dispute may delay the timely performance of Work on the Project, except that each subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor shall immediately notify the next higher tier Subcontractor or the Design-Build Entity, as the case may be, of all relevant information concerning the dispute.

6.35 Documents and Samples At Project Site.

- A. The Design-Build Entity shall maintain the following at the Project site:
 - 1. One current copy of the Contract Documents (including Construction Documents), in good order and marked to record current changes and selections made during construction.
 - 2. One copy of the prevailing wage rates applicable to the Project.
 - 3. The current accepted Project Schedule.
 - 4. Shop Drawings, Product Data, and Samples.
 - 5. All other required submittals.

6.36 Cutting, Fitting, and Patching.

- A. The Design-Build Entity shall do all cutting, fitting, or patching work required to make all parts of the Project come together properly and to allow the Project to receive or be received by the work of Separate Contractors shown upon, or reasonably implied by, the Contract Documents. The Design-Build Entity shall not endanger the Project, or adjacent property by cutting, digging, or otherwise. The Design-Build Entity shall not cut or alter the work of any Separate Contractor without the prior written consent of Agency's Representative.

6.37 Access to Work.

- A. Agency, Agency's Representative, their consultants, and other persons authorized by Agency will at all times have access to the Work on the Project wherever it is in

preparation or progress. The Design-Build Entity shall provide safe and proper facilities for such access and for inspection.

6.38 Concealed Or Unknown Conditions.

- A. Except and only to the extent provided otherwise in Articles 9 and 10, by signing the Contract, the Design-Build Entity agrees:
1. To bear the risk of concealed or unknown conditions, if any, which may be encountered in performing the Contract, as described in the Contract Documents, and/or can reasonably be inferred by the Design-Build Entity based on its experience and expertise; and
 2. That the Design-Build Entity's Contract Price for the Contract was made with full knowledge of this risk.

In agreeing to bear the risk of concealed or unknown conditions, the Design-Build Entity understands that, except and only to the extent provided otherwise in Articles 9 and 10, concealed and/or unknown conditions shall not excuse the Design-Build Entity from its obligation to achieve full completion of the Project within the Project Completion Date, and shall not entitle the Design-Build Entity to an adjustment of the Contract Price.

- B. If concealed or unknown conditions are encountered which require, in the opinion of Agency's Representative, design details which differ from those details shown in the Bridging Documents and Agency's Representative finds that such revised design details will cause an increase or decrease in the cost of, or the time required for performance of the Contract, and if Agency agrees with Agency's Representative's determinations, Agency will issue a Change Order modifying the Contract to provide for the change in design details and to provide for an adjustment in the Contract Price and/or Project Completion Date pursuant to Articles 9 and 10 following receipt of a Change Order Request.
- C. If the Design-Build Entity encounters concealed or unknown conditions that differ materially from those anticipated or expected, the Design-Build Entity shall notify Agency's Representative within three (3) Days in writing of such conditions so that Agency's Representative can determine if such conditions require design details which differ from those design details shown in the Bridging Documents. Design-Build Entity shall be liable to Agency for any extra costs incurred as a result of the Design-Build Entity's failure to give such notice. Design-Build Entity's failure to give such notice shall constitute a waiver by Design-Build Entity of any additional compensation.

6.39 Liability for and Repair of Damaged Work.

- A. Design-Build Entity shall be liable for any and all damages and losses to the Project (whether by fire, theft, vandalism, earthquake, flood or otherwise) prior to Agency's acceptance of the Project as fully completed.

6.40 Environmental Quality Protection

A. Landscape and Vegetation Preservation

1. The Design-Build Entity shall exercise care to preserve the natural landscape and vegetation, and shall conduct operations so as to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the Work. Movement of crews and equipment within the rights-of-way and over routes provided for access to the Work shall be performed in a manner to prevent damage to property. When no longer required, construction roads shall be restored to original contours. Upon completion of the Work, and following removal of construction facilities and required cleanup, land used for construction purposes and not required for the completed installation shall be scarified and regraded, as required, so that all surfaces are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.

B. Protected Species

1. If, in the performance of the Work, evidence of the possible occurrence of any Federally listed threatened or endangered plant or animal is discovered, the Design-Build Entity shall notify the Agency Representative immediately, giving the location and nature of the findings. Written confirmation of the evidence, location and nature of the findings shall be forwarded to Agency within 2 Days. The Design-Build Entity shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the endangered plant or animal. If directed by the Agency Representative, Design-Build Entity will refrain from working in the immediate area, suspend the Work in its entirety, or alter its performance to ensure full compliance with all applicable permits, laws and regulations. Any Agency directed changes to the Work as a result of a siting will be pursuant to the Contract Documents. Any costs or delays incurred by Agency or the Design-Build Entity due to unreasonable or false notification of an endangered plant or animal will be borne by the Design-Build Entity.

C. Preservation of Historical and Archeological Resources

1. If, in the performance of the Work, Design-Build Entity should unearth cultural resources (for example, human remains, animal bones, stone tools, artifacts and/or midden deposits) through excavation, grading, watering or other means, the Design-Build Entity notify the Agency Representative immediately, giving the location and nature of the findings. The Design-Build Entity shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the cultural resource. If directed by the Agency Representative, Design-Build Entity will refrain from working in the immediate area, suspend the Work in its entirety, or re-sequence and/or alter its performance to ensure full compliance with all applicable permits, laws and regulations. The Design-Build Entity shall provide such cooperation and assistance as may be necessary to preserve the cultural resources for removal or other disposition. Any Agency directed

changes to the Work as a result of the cultural resource will be pursuant to the Contract Documents. Should Design-Build Entity, without permission, injure, destroy, excavate, appropriate, or remove any cultural resource on or adjacent to the Site, it will be subject to disciplinary action, arrest and penalty under applicable law. The Design-Build Entity shall be principally responsible for all costs of mitigation and/or restoration of cultural resources related to the unauthorized actions identified above. Design-Build Entity shall be required to pay for unauthorized damage and mitigation costs to cultural resources (historical and archeological resources) as a result of unauthorized activities that damage cultural resources and shall indemnify Agency pursuant to the Contract Documents.

6.41 Technical Manuals; Spare Parts.

- A. The Design-Build Entity shall submit technical operation and maintenance information for each item of mechanical, electrical and instrumentation equipment in an organized manner in the Technical Manual. It shall be written so that it can be used and understood by Agency's operation and maintenance staff. The Design-Build Entity shall furnish to Agency six (6) identical Technical Manuals. Each set shall consist of one or more volumes, each of which shall be bound in a standard binder.
- B. The Design-Build Entity shall furnish to Agency six (6) identical sets of spare parts information for all mechanical, electrical, and instrumentation equipment. The spare parts list shall include the current list price of each spare part. The spare parts list shall include those spare parts which each manufacturer recommends be maintained by Agency in inventory. Each manufacturer or supplier shall indicate the name, address, and telephone number of its nearest outlet of spare parts to assist Agency in ordering. The Design-Build Entity shall cross-reference all spare parts lists to the equipment numbers designated in the Contract Documents. The spare parts lists shall be bound in standard size, 3-ring binder.

ARTICLE 7 -OTHER WORK AT THE PROJECT SITE

7.1 Related Work At Project Site.

- A. Nothing contained in the Contract Documents shall be interpreted as granting to Design-Build Entity exclusive occupancy at the Project site. Agency reserves the right to award separate contracts for, or to perform with its own forces, construction or operations related to the Work or other construction or operations at or affecting the Project site, including portions of Work on the Project which have been deleted by Change Order. The Design-Build Entity shall cooperate with Agency's employees or through other direct contracts, or have other work performed by utility owners (collectively, "Other Contractors"). If such other work is not noted in the Contract Documents, then written notice thereof will be given to the Design-Build Entity prior to starting any such other work. The Design-Build Entity shall participate with Agency and Separate Contractors in joint review of construction schedules and Project requirements when directed to do so. The Design-Build Entity shall make necessary revisions to the Project Schedule after such joint review.

- B. Design-Build Entity shall be solely responsible for all costs associated with coordinating its Work with Separate Contractors. Design-Build Entity shall not be entitled to additional compensation from Agency for damages resulting from such simultaneous, collateral, and essential Work. If necessary to avoid or minimize such damage or delay, Design-Build Entity shall redeploy its work forces to other parts of the Work, or adjust its Work schedule including reasonable acceleration of the Work. If a portion of the Work on the Project is dependent upon the proper execution or results of other construction or operations by Agency or Separate Contractors, the Design-Build Entity shall inspect such other design or construction or operations before proceeding with that portion of the Work on the Project. The Design-Build Entity shall promptly report to Agency's Representative apparent discrepancies or defects which render the other design, construction or operations unsuitable to receive the Work on the Project. Unless otherwise directed by Agency's Representative, the Design-Build Entity shall not proceed with the portion of the Work on the Project affected until apparent discrepancies or defects have been corrected. Failure of the Design-Build Entity to so report within a reasonable time after discovering such discrepancies or defects shall constitute an acknowledgment that the other construction or operations by Agency or Separate Contractors is suitable to receive the Work on the Project, except as to defects not then reasonably discoverable.
- C. Design-Build Entity shall afford each Separate Contractor proper and safe access to the Project site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Design-Build Entity shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Design-Build Entity shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Design-Build Entity may cut or alter others' work with the written consent of Agency's Representative and the others whose work will be affected.
- D. If the proper execution or results of any part of Design-Build Entity's Work depends upon work performed by Separate Contractors, Design-Build Entity shall inspect such other work and promptly report to Agency's Representative in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Design-Build Entity's Work. Design-Build Entity's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Design-Build Entity's Work except for latent defects and deficiencies in such other work.
- E. If any claims are made by Separate Contractors arising out of Design-Build Entity's performance of the Work, Design-Build Entity shall be responsible to immediately resolve the dispute and indemnify Agency pursuant to the Contract Documents.
- F. Agency's Representative shall arrange meetings with Separate Contractors performing work to plan coordination of construction activities but will not be responsible to direct coordination efforts. Any difference or conflict arising between Design-Build Entity and any Separate Contractor shall be submitted to Agency's Representative for a decision in the matter. Design-Build Entity shall comply with

direction from Agency's Representative whose decision on coordination matters will be final.

7.2 For Delays by Others.

- A. By entering into this Contract, Design-Build Entity acknowledges that there may be Separate Contractors on the Project site whose work will be coordinated with that of Design-Build Entity. Design-Build Entity expressly warrants and agrees that Design-Build Entity will cooperate with Separate Contractors and will do nothing to delay, hinder, or interfere with the work of Separate Contractors, Agency, or Agency's Representative. Design-Build Entity also expressly agrees that, in the event its Work is hindered, delayed, interfered with, or otherwise affected by a Separate Contractor, its sole remedy will be a direct action against the Separate Contractor. Design-Build Entity will have no remedy, and hereby expressly waives any remedy, against Agency or Agency's Representative on account of delay, hindrance, interference, or other event caused by Separate Contractor.

7.3 Design-Build Entity's Delay Or Damage.

- A. Design-Build Entity shall be liable to Agency and any Separate Contractor for the direct delay and disruption costs or damages incurred by such Separate Contractor as a result of Design-Build Entity's wrongful action or inactions.

ARTICLE 8 -SUBCONTRACTORS

8.1 Award of Subcontracts and Other Contracts for Portions of The Work.

- A. All Subcontractors shall be retained in accordance with the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100 *et seq.*). The Design-Build Entity shall not, without the consent of Agency: substitute any person or entity as a Subcontractor in place of the Subcontractor designated in the Proposal; or permit any such Subcontractor to be assigned or transferred, or allow it to be performed by any person or entity other than the original Subcontractor listed in the Proposal. Any assignment or substitution made without the prior written consent of the awarding authority or not in compliance with the Subletting and Subcontracting Fair Practices Act shall be void, and the assignees shall acquire no rights in the Contract. Any consent, if given, shall not relieve the Design-Build Entity or its Subcontractors from their obligations under the terms of the Contract. All requests by the Design-Build Entity for substitution will be handled through Agency's Representative.
- B. The Design-Build Entity shall submit to Agency's Representative after selecting Subcontractors pursuant to an open and competitive process, an updated expanded list of Subcontractors, along with their respective addresses, telephone numbers, e-mail addresses and contractor's license numbers. The expanded list of Subcontractors shall be provided and/or updated no later than ten (10) Days after the date which the Design-Build Entity awards a contract for any portion of the Work to a Subcontractor not originally listed in the Design-Build Entity's Proposal.
- C. Agency has the right to request all documentation that supports the Design-Build Entity's selection of a Subcontractor. Agency shall have the right of final approval as

to the qualifications of a Subcontractor to perform its designated scope of Work. Within Agency's discretion, any Subcontractor may be deemed not qualified to perform Work on the Project if Agency or Agency's Representative determines that the Subcontractor fails to meet the requirements of the Contract Documents, or for any other reason.

- D. Any increase in the cost of the Work on the Project resulting from the replacement or substitution of a Subcontractor pursuant to this Article or as required by Agency or Agency's Representative pursuant to this Article, shall be borne solely by the Design-Build Entity. The Design-Build Entity shall not be entitled to any increase in Contract Price or an extension of Project Completion Date due to such replacement or substitution.
- E. Any part of the Work on the Project performed for the Design-Build Entity by a Subcontractor shall be pursuant to a written subcontract. Each such subcontract shall require the Subcontractor, to the extent of the work to be performed by the Subcontractor, to be bound to the Design-Build Entity by the terms of the Contract Documents, to assume toward the Design-Build Entity all the obligations and responsibilities which the Design-Build Entity assumes towards the Agency by the Contract Documents, and to perform such portion of the work on the Project in accordance with the Contract Documents. Each such subcontract shall preserve and protect the rights of the Agency under the Contract Documents, with respect to the work to be performed by Subcontractor, so that subcontracting thereof will not prejudice such rights. The Design-Build Entity is responsible for reviewing and coordinating the Work of and among his Subcontractors and Design Professionals. This review and coordination includes, but is not limited to, resolution of any inconsistencies, errors or omissions.

8.2 Contingent Assignment of Subcontracts.

- A. The Design-Build Entity hereby assigns to Agency all its interest in first tier subcontracts now or hereafter entered into by the Design-Build Entity for performance of any part of the Work on the Project. The assignment will be effective upon acceptance by Agency in writing and only as to those subcontracts which Agency designates in writing. Agency may accept said assignment at any time during the course of the Work on the Project and prior to Final Completion in the event of a suspension or termination of the Design-Build Entity's rights under the Contract Documents. Such assignment is part of the consideration to Agency for entering into the Contract with the Design-Build Entity and may not be withdrawn prior to Final Completion.

ARTICLE 9 -CHANGE IN CONTRACT PRICE; CHANGE IN CONTRACT TIMES

9.1 Contract Change Orders.

- A. Agency, without invalidating the Contract, may order changes in the work consisting of additions, deletions or other revisions, and the Contract Price and/or Contract Time shall be adjusted accordingly. All such changes in the Work shall be authorized by written Change Order and shall be performed under the applicable conditions of the Contract Documents. A Change Order signed by the Design-Build

Entity indicates the Design-Build Entity's agreement therewith, including any adjustment in the Contract Price and/or Contract Time, and the full and final settlement of all costs (direct, indirect and overhead) related to the work authorized by the Change Order. No changes in the Work covered by this Contract shall exonerate any surety or any bond given in connection with this Contract. No dispute, disagreement or failure of the Parties to reach agreement on the terms of a Change Order shall relieve the Design-Build Entity from the obligation to proceed with performance of the changed work promptly and expeditiously. Whenever any change is made as provided for herein, such change shall be considered and treated as though originally included in the Contract Documents, and shall be subject to all terms, conditions and provisions of the original Contract Documents.

- B. Design-Build Entity shall promptly execute changes in the Work as directed in writing by Agency even when the parties have not reached agreement on whether the change increases the scope of Work or affects the Contract Price or Contract Time, if any. All claims for additional compensation to the Design-Build Entity shall be presented in writing. No claim will be considered after the work in question has been done unless a written Change Order has been issued or a timely written notice of claim has been made by Design-Build Entity. Design-Build Entity shall not be entitled to claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease or omission of any item or portion of Work to be done.

9.2 Contract Change Order Procedures.

A. Agency Directive

1. The Agency may direct changes in the Work, including deletion of Work, by delivering a written work directive. To the extent the work directive results in a change to the Contract Price and/or Contract Time, Design-Build Entity must timely submit a Change Order Request and comply with all Change Order procedures in accordance with this Article. Notwithstanding issuance of a work directive, Design-Build Entity's failure to timely submit a Change Order Request shall constitute a waiver by Design-Build Entity of any adjustment to the Contract Price and/or Contract Time for work performed under the directive. The Agency shall not be liable to Design-Build Entity for work performed or omitted by Design-Build Entity in reliance on verbal orders.
2. The Agency shall have the right to order changes in the Work by a unilateral Change Order setting forth the Agency's determination of the reasonable additions or savings in the Contract Price and/or Contract Time.

B. Design-Build Entity Change Order Requests

1. The Design-Build Entity agrees that one of the purposes of the Contract is to minimize the risk for Change Orders and reduce the likelihood of Change Orders. Change Order Requests shall be kept to a minimum.
2. The Design-Build Entity may request changes to the Contract Price and/or Contract Time for Agency directed changes in the Work or for Additional Work caused by the acts, errors, or omissions of the Agency, or caused by unforeseen conditions if, and only if, the Design-Build Entity follows the

procedures specified in this Article. Work that should or could have been included as part of the Construction Documents or work resulting from ambiguities in the Construction Documents shall not be considered Additional Work and the Agency will not issue a Change Order for said work.

3. If Design-Build Entity intends to initiate a Change Order Request, then Design-Build Entity shall provide the Agency with written notice of the underlying facts and circumstances that give rise to the proposed change. Design-Build Entity shall submit the notice of change/delay prior to performance of the work and no later than five (5) Days after the Agency's work directive or Design-Build Entity discovers the circumstances causing the need for the Change Order. To be considered valid and complete, the notice of change/delay shall include a general statement of the circumstances giving rise to the notice of change/delay and a reasonable order of magnitude estimate of the additional costs and/or time. If the circumstances give rise to both a cost adjustment and time extension, Design-Build Entity shall submit the notice of change and notice of delay concurrently.
4. A Change Order Request will only be deemed timely submitted if it is submitted prior to incurring any expense and within fourteen (14) Days from Design-Build Entity's notice of change/delay.
5. A Change Order Request must state that it is a Change Order Request, state and justify the reason for the request, and specify the amount of any requested adjustment to the Contract Price and/or Contract Time, if any. The Change Order Request shall include all of the following information (unless inapplicable to the change): A detailed description of the circumstances giving rise to the request; A complete itemized cost proposal, including itemized pricing for costs; Supporting documentation for all costs; A time impact analysis showing the impact of the delay to the critical path to completion; If any added costs or information cannot be determined at the time of the Change Order Request, the reason the costs or information cannot be determined at the time; and Certification to the accuracy of the Change Order Request under penalty of perjury. The time impact analysis shall be in the critical path method format and shall show the sequencing of all critical and non-critical new activities and/or activity revisions affected by the delay, with logic ties to all affected existing activities noted on the schedule. The Agency may demand, and Design-Build Entity shall provide, any additional information supporting the Change Order Request, including but not limited to native electronic format version of schedules and time impact analyses. Design-Build Entity shall provide the requested additional information within five (5) Days of the request.
6. If the Agency denies the Change Order Request or disagrees with the proposal submitted by Design-Build Entity, it will notify the Design-Build Entity, and the Agency will provide its opinion of the appropriate change to the Contract Price and/or Contract Time. If no agreement can be reached, the Agency shall have the right to order the work by a unilateral Change Order setting forth the Agency's determination of the reasonable additions or savings in the Contract Price and/or Contract Time, if any. The Agency's

determination shall become final and binding if the Design-Build Entity fails to submit a Claim in writing to the Agency within fourteen (14) Days of the issuance of the unilateral Change Order, disputing the terms of the unilateral Change Order and providing such supporting documentation for its position as the Agency may reasonably require.

C. Change Order Format

1. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including any adjustment in compensation or extension of time, and the full and final settlement of all costs (direct, indirect and overhead) related to the Work authorized by the Change Order.
2. The Agency may designate the forms to be used for notices, Change Order Requests, and Change Orders. If so designated, Design-Build Entity may only use such forms. Design-Build Entity shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the Change Order. No Claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. The Design-Build Entity may not change or modify the Agency's Change Order form in an attempt to reserve additional rights.

9.3 Determining Adjustments to Compensation.

- A. Limitation on Costs. Design-Build Entity shall not be entitled to any compensation for Work subject to a Change Order except as expressly set forth in this Article. The mark-up added in instances of Additional Work shall constitute the entire amount of profit, any mark-ups, any field or home office overhead costs, including personnel, equipment or office space, any materials, or any costs of equipment idle time for such Work.
- B. Lump Sum Change Orders. Whenever possible, any changes affecting compensation shall be in a lump sum mutually agreed by the Design-Build Entity and the Agency.
- C. Time and Materials Change Orders. The Agency may direct the Design-Build Entity to proceed with the Additional Work with payment to be made on the basis of actual cost of the labor and materials required to complete the Additional Work. If the Project is federally funded, a time and materials Change Order shall only be issued after a determination that no other Change Order is suitable and the Change Order shall include a ceiling price that the Design-Build Entity exceeds at its own risk.
- D. Federally Funded Projects. For any change in price to the Contract, general and administrative expenses shall be negotiated and must conform to the cost principles set forth under at 2 C.F.R. Part 200, subpart E, and profit shall be negotiated as a separate element of the cost. To establish a fair and reasonable profit, consideration must be given to the complexity of the Additional Work to be performed, the risk borne by the Design-Build Entity, the Design-Build Entity's

investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

E. Allowed Costs. Estimates for lump sum quotations and accounting for time-and-material work shall be limited to direct expenditures necessitated specifically by the change and shall be segregated as follows

1. Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the Additional Work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from federal, state or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the Additional Work cost will not be permitted unless the Design-Build Entity establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
2. Materials. The cost of materials reported shall be at the lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials costs shall be based upon supplier or manufacturer's invoice.
3. Tool and Equipment Use. Regardless of ownership, the rates to be used in determining equipment use shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed. The Design-Build Entity shall furnish cost data supporting the establishment of the rental rate. The rental rate to be applied for use of each items of equipment shall be the rate resulting in the least total cost to the Agency for the total period of use. The Agency shall the make the final determination as to an equitable rental rate for the equipment. No payment will be made for the use of small tools, which have a replacement value of \$1,000 or less.
 - a. The rental time to be paid for equipment shall be the time the equipment is in productive operation on the Additional Work being performed. Rental time will not be allowed while equipment is inoperative due to breakdowns.
 - b. All equipment shall, in the opinion of the Agency, be in good working condition and suitable for the purpose for which the equipment is to be used. Equipment with no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
 - c. Before construction equipment is used on any Additional Work, the Design-Build Entity shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the Agency, in duplicate, a description of the equipment and its identifying number.
 - d. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour greater than 30 minutes will be considered one hour of operation. When

daily rates are listed, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation.

4. Allowed Mark-up. The allowed mark-up for any and all overhead (including supervision and home and field office costs) and profit on work added to the Contract shall be determined in accordance with the following provisions:
 - a. "Net Cost" is defined as the actual costs of labor, materials and tools and equipment only, excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Design-Build Entity and Subcontractors at cost only, without mark-up. Design-Build Entity shall provide the Agency with documentation of the costs, including but not limited to payroll records, invoices, and such other information as the Agency may reasonably request.
 - b. For Work performed by the Design-Build Entity's forces the allowed mark-up shall not exceed fifteen (15%) percent of labor costs, ten percent (10%) of material costs, and ten percent (10%) of the cost of tools and equipment use.
 - c. For Work performed by a Subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Subcontractor's Net Cost of the Work to which the Design-Build Entity may add up to five percent (5%) of the Subcontractor's Net Cost.
 - d. For Work performed by a sub-subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the sub-subcontractor's Net Cost for Work to which the Subcontractor and Design-Build Entity may each add up to an additional five percent (5%) of the Net Cost of the lower tier subcontractor.
 - e. No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by the Agency exceed twenty-five percent (25%) of the Net Cost as defined herein, of the party that performs the Work.
 - f. Calculation of the mark-up will be subject to the limitations above and to calculation as further detailed in (b)(B)(5) above.
5. Documentation of Time-and-Material Costs.
 - a. T&M Daily Sheets. Design-Build Entity must submit timesheets, materials invoices, records of equipment hours, and records of rental equipment hours to the Agency's for an approval signature each day that Work is performed on a time-and-material basis. The Engineer's signature on time sheets only serves as verification that the Work was performed and is not indicative of the Agency's agreement to Design-Build Entity's entitlement to the cost.
 - b. T&M Summary Sheet. Design-Build Entity shall submit a T&M Summary Sheet, which shall include total actual costs, within five (5) Days following completion of Additional Work on a time-and-material basis. Design-Build Entity's total actual cost shall be presented in a summary table in an

electronic spreadsheet file by labor, material, equipment, and any other costs, along with documentation supporting the costs. Design-Build Entity's failure to submit the T&M Summary Sheet within five (5) Days of completion of the Additional Work will result in Design-Build Entity's waiver for any reimbursement of any costs associated with the Additional Work.

- c. Excluded Costs. The following costs or any other home or field office overhead costs, all of which are to be considered administrative costs covered by the Design-Build Entity's mark-up, shall not be allowed costs and shall not be included in any lump sum proposals or time-and-materials invoices:
- d. Overhead Cost. Payroll costs and other compensation of Design-Build Entity's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, timekeepers, clerks, and other personnel employed by Design-Build Entity whether at the Site or in Design-Build Entity's principal office or any branch office, material yard, or shop for general administration of the Work;
- e. Office Expenses. Expenses of Design-Build Entity's principal and branch offices;
- f. Capital Expenses. Any part of Design-Build Entity's capital expenses, including interest on Design-Build Entity's capital employed for the Additional Work and charges against Design-Build Entity for delinquent payments;
- g. Negligence. Costs due to the negligence of Design-Build Entity or any Subcontractor or Supplier, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including without limitation the correction of Defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property;
- h. Small Tools. Cost of small tools valued at less than \$1,000 and that remain the property of Design-Build Entity;
- i. Administrative Costs. Costs associated with the preparation of Change Orders (whether or not ultimately authorized), cost estimates, or the preparation or filing of Claims;
- j. Anticipated Lost Profits. Expenses of Design-Build Entity associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings, or unpaid retention;
- k. Home Office Overhead. Costs derived from the computation of a "home office overhead" rate by application of the Eichleay, Allegheny, burden fluctuation, or other similar methods;
- l. Special Consultants and Attorneys. Costs of special consultants or attorneys, whether or not in the direct employ of Design-Build Entity, employed for

services specifically related to the resolution of a Claim, dispute, or other matter arising out of or relating to the performance of the Additional Work.

- m. Other. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in the Contract Documents; including but not limited to: submittals, drawings, field drawings, shop drawings, including submissions of drawings; field inspection; general superintendence; computer services; reproduction services; salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries; janitorial services; small tools, incidentals and consumables; temporary on-site facilities (offices, telephones, high speed internet access, plumbing, electrical power, lighting; platforms, fencing, water); surveying; estimating; protection of work; handling and disposal fees; final cleanup; other incidental work; related warranties; insurance and bond premiums.
- n. Compliance with Federal Cost Principles. If the Project is federally funded, any costs that are not allowable, reasonable and allocable to the Project, under generally accepted accounting principles and the applicable federal requirements.

9.4 Design-Build Entity's Waiver of Further Relief.

- A. **DESIGN-BUILD ENTITY'S FAILURE TO PROVIDE A COMPLETE AND TIMELY NOTICE OF A CHANGE ORDER REQUEST OR TO COMPLY WITH ANY OTHER REQUIREMENT OF THIS ARTICLE, SHALL CONSTITUTE A WAIVER BY DESIGN-BUILD ENTITY OF THE RIGHT TO AN ADJUSTMENT OF THE CONTRACT PRICE AND/OR PROJECT COMPLETION DATE ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH CHANGE BY MEANS OF THE CLAIMS DISPUTE RESOLUTION PROCESS OR BY ANY OTHER LEGAL PROCESS OTHERWISE PROVIDED FOR UNDER APPLICABLE LAWS.**
- B. Design-Build Entity recognizes and acknowledges that timely submission of a formal written notice of change/delay and Change Order Request, whether or not the circumstances of the change may be known to the Agency or available to the Agency through other means, is not a mere formality but is of crucial importance to the ability of the Agency to promptly identify, prioritize, evaluate and mitigate the potential effects of changes. Any form of informal notice, whether verbal or written (including, without limitation, statements in requests for information, statements in Submittals, statements at any job meeting or entries on monthly reports, daily logs or job meeting minutes), that does not strictly comply with the formal requirements of this Article, shall accordingly be insufficient.

9.5 Agency Reservation of Rights.

- A. By signing the Contract, the parties agree that Agency has the right to do any or all of the following, which are reasonable and within the contemplation of the parties:
 - 1. To order changes in the Work, including without limitation: Changes to correct errors or omissions caused by Agency, if any, in the Contract Documents;

Changes resulting from Agency's decision to change the Work subsequent to execution of the Contract; and Changes due to unforeseen conditions.

2. To suspend Work on the Project or any part thereof.
3. To delay Work on the Project, including without limitation, delays resulting from the failure of Agency or Agency's Representative to timely perform any Contract obligation and delays for Agency's convenience.

ARTICLE 10 -TIME FOR COMPLETION; LIQUIDATED DAMAGES

10.1 Progress and Completion.

- A. The Design-Build Entity shall proceed expeditiously with adequate forces and shall achieve full completion of the Work by the Project Completion Date. If Agency's Representative determines and notifies the Design-Build Entity that the Design-Build Entity's progress is such that the Design-Build Entity will not achieve full completion of the Work by the Project Completion Date, the Design-Build Entity shall immediately and at no additional cost to Agency, take all measures necessary, including working such overtime, additional shifts, Sundays, or holidays as may be required to ensure that the entire Project is completed within the Project Completion Date. Upon receipt of such notice from Agency's representative, the Design-Build Entity shall immediately notify Agency's Representative of all measures to be taken to ensure full completion of the Work within the Project Completion Date. The Design-Build Entity shall reimburse Agency for any extra costs or expenses (including the reasonable value of any services provided by Agency's employees) incurred by Agency as the result of such measures.

10.2 Time for Completion.

- A. The time for completion set forth in Contract shall commence: (1) on the date stated in the Notice to Proceed, or (2) if the Notice to Proceed does not specify a commencement date, then on the date of the Notice to Proceed and shall be completed by Design-Build Entity in the time specified in the Contract Documents. The Agency is under no obligation to consider early completion of the Project; and the Project Completion Date shall not be amended by the Agency's receipt or acceptance of the Design-Build Entity's proposed earlier completion date. Any difference in time between the Design-Build Entity's early completion and the Project Completion Date shall be considered a part of the Project float. Design-Build Entity shall not be entitled to compensation, and the Agency will not compensate Design-Build Entity, for delays which impact early completion. Design-Build Entity shall not, under any circumstances, receive additional compensation from the Agency (including but not limited to indirect, general, administrative or other forms of overhead costs) for the period between the time of earlier completion proposed by the Design-Build Entity and the Project Completion Date.

10.3 Liquidated Damages.

- A. If the Work is not completed as stated in the Contract Documents, it is understood that the Agency will suffer damage. In accordance with Government Code section 53069.85, being impractical and infeasible to determine the amount of actual

damage, it is agreed that Design-Build Entity shall pay to the Agency as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Contract for each calendar day of delay until the Work is fully completed. Design-Build Entity and its surety shall be liable for any liquidated damages. Any money due or to become due the Design-Build Entity may be retained to cover liquidated damages.

10.4 Inclement Weather.

- A. Design-Build Entity shall abide by the Agency's determination of what constitutes inclement weather. Time extensions for inclement weather shall only be granted when the Work stopped during inclement weather is on the critical path of the Project schedule. Design-Build Entity shall not be entitled to reverse liquidated damages for time extensions resulting from inclement weather.

10.5 Extension of Time.

- A. Design-Build Entity's entitlement to an extension of the Contract Time is limited to a City-caused extension of the critical path, reduced by the Design-Build Entity's concurrent delays, and established by a proper time impact analysis. Design-Build Entity shall not be charged liquidated damages because of any delays in completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of Design-Build Entity (or its Subcontractors or Suppliers). The Agency shall ascertain the facts and extent of delay and grant extension of time for completing the Work when, in its judgment, the facts justify such an extension. Design-Build Entity shall not be entitled to an adjustment in the Contract Times for delays within the control of Design-Build Entity. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Design-Build Entity.

10.6 Reverse Liquidated Damages.

- A. Consistent with Public Contract Code Section 7102, Design-Build Entity will be compensated for damages incurred due to unreasonable delays to the critical path for which the Agency is responsible. The parties agree that determining Design-Build Entity's exact delay damages are and will continue to be impracticable and extremely difficult. As such, for each calendar day in excess of the Project Completion Date, the Agency shall pay to the Design-Build Entity the sum stipulated in the Contract per day. Such amount shall constitute the only payment allowed for any Agency-caused delays and shall necessarily include all overhead, all profits, all administrative costs, all bond costs, all labor, materials, equipment and rental costs and any other costs, expenses and fees incurred or sustained as a result of such delays. Design-Build Entity shall not be entitled to reverse liquidated damages for any change in the Work in which Design-Build Entity is compensated for overhead and profit through a Change Order resulting in a lump sum or allowed mark-up for the Additional Work. The amount of reverse liquidated damages shall be reduced by Design-Build Entity's concurrent delays.

10.7 Force Majeure.

- A. In accordance with Sections 10.5 and 10.6 above, the Design-Build Entity shall not be charged liquidated damages, and the Agency shall not be responsible, for any

delays resulting from a Force Majeure Event. If a delay to the critical path results from a Force Majeure Event, the Design-Build Entity will be entitled to a time extension but will not receive an adjustment to the Contract Price or any other compensation. Such a non-compensable adjustment shall be Design-Build Entity's sole and exclusive remedy for such delays.

10.8 No Damages for Reasonable Delay.

- A. The Agency's liability to Design-Build Entity for delays for which the Agency is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the Agency be liable for any costs which are borne by the Design-Build Entity in the regular course of business, including, but not limited to, home office overhead and other ongoing costs. Damages caused by unreasonable Agency delay shall be based on actual costs only, no proportions or formulas shall be used to calculate any delay damages.

10.9 Procedure for Time Extensions and Delay Damages.

- A. Design-Build Entity shall not be entitled to any extension of time or any reverse liquidated damages unless Design-Build Entity properly notices the delay and adjustment to compensation and requests a Change Order in accordance with the Contract Documents. Design-Build Entity's failure to timely and fully comply with the Change Order procedures in the Contract Documents shall constitute a waiver of Design-Build Entity's right to a time extension or reverse liquidated damages.

ARTICLE 11 -TEST AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK; NOTICE OF DEFECTS

11.1 Notice of Defective Work.

- A. Prompt notice of all Defective Work of which Agency or Agency's Representative has actual knowledge will be given to Design-Build Entity. Defective Work may be rejected, corrected, or accepted as provided in the Contract Documents.

11.2 Access to Work.

- A. Agency, Agency's Representative, their consultants and other representatives and personnel, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Project site and the Work at reasonable times for their observation, inspection, and testing. Design-Build Entity shall provide them proper and safe conditions for such access and advise them of Design-Build Entity's safety procedures and programs.

11.3 Tests and Inspections.

- A. Design-Build Entity shall give Agency's Representative timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

- B. Except as provided by the Contract Documents, Agency shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents.
- C. If Applicable Laws of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Design-Build Entity shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Agency's Representative the required certificates of inspection or approval.
- D. Design-Build Entity shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Agency and Agency's Representative's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Design-Build Entity's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Agency.
- E. Agency will provide inspection during normal working hours from 7:00 a.m. to 3:30 p.m. Monday through Friday. Inspection before or after this time will be charged to the contractor as reimbursable inspection time. Inspections on weekends requires two days' notice for review and approval. Upon written request and approval, the 8.5 hour working day may be changed to other limits subject to Agency ordinance.

11.4 Uncovering Work.

- A. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Design-Build Entity without written concurrence of Agency's Representative, Design-Build Entity shall, if requested by Agency's Representative, uncover such Work for observation.
- B. Uncovering Work shall be at Design-Build Entity's expense unless Design-Build Entity has given Agency's Representative timely notice of Design-Build Entity's intention to cover the same and Agency's Representative has not acted with reasonable promptness in response to such notice.
- C. If Design-Build Entity has given Agency's Representative timely notice of Design-Build Entity's intention to cover the work and Agency's Representative has not acted with reasonable promptness in response to such notice, and Agency's Representative later considers it necessary or advisable that covered Work be observed by Agency's Representative or inspected or tested by others, Design-Build Entity, at Agency's Representative's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Agency's Representative may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Design-Build Entity shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such

uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Agency shall be entitled to an appropriate decrease in the Contract Price.

2. If the uncovered Work is not found to be defective, Design-Build Entity shall be allowed an increase in the Contract Price and/or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction.

11.5 Agency May Stop The Work.

- A. If the Work is defective, Agency may in its sole discretion order Design-Build Entity to stop the Work, or any portion thereof, until the cause for such order has been eliminated. All delays associated with the stop Work order will be the responsibility of the Design-Build Entity.

11.6 Correction of Defective Work.

- A. Promptly after receipt of written notice, the Design-Build Entity shall (1) correct Defective Work that becomes apparent during the progress of the Work on the Project and (2) replace, repair, or restore to Agency's satisfaction any other parts of the Work on the Project and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work. The Design-Build Entity shall promptly commence such correction, replacement, repair, or restoration upon notice from Agency's Representative or Agency, but in no case later than fourteen (14) Days after receipt of such notice; and the Design-Build Entity shall diligently and continuously prosecute such correction to completion. The Design-Build Entity shall bear all costs of such correction, replacement, repair, or restoration, and all losses resulting from such Defective Work, including additional testing, inspection, and compensation for Agency's Representative's services and expenses. The Design-Build Entity shall perform corrective Work on the Project at such times that are acceptable to Agency and in such a manner as to avoid, to the extent practicable, disruption to Agency's activities. When correcting Defective, Design-Build Entity shall take no action that would void or otherwise impair Agency's special warranty and guarantee, if any, on said Work.
- B. If immediate correction of Defective Work is required for life safety or the protection of property and is performed by Agency or Separate Contractors, the Design-Build Entity shall pay to Agency all reasonable costs of correcting such Defective Work. The Design-Build Entity shall replace, repair, or restore to Agency's satisfaction any other parts of the Construction Work and any other real or personal property which is damaged or destroyed as a result of such Defective Work or the correction of such Defective Work.
- C. The Design-Build Entity shall remove from the Project site portions of the Construction Work and materials which are not in accordance with the Contract Documents and which are neither corrected by the Design-Build Entity nor accepted by Agency.

- D. Enforcement of the Design-Build Entity's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies Agency may have under the Contract Documents or at law or in equity for Defective Work. Nothing contained in this Article shall be construed to establish a period of limitation with respect to other obligations of the Design-Build Entity under the Contract Documents.

11.7 Acceptance of Defective Work.

- A. If, instead of requiring correction or removal and replacement of Defective Work, Agency prefers to accept it, Agency may do so. Design-Build Entity shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Agency's evaluation of and determination to accept such Defective Work and for the diminished value of the Work.
- B. If any acceptance of Defective Work occurs prior to release of the Project retention, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Agency shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work and all costs incurred by Agency.
- C. If the Project retention is held in an escrow account as permitted by the Contract Documents, Design-Build Entity will promptly alert the escrow holder, in writing, of the amount of retention to be paid to Agency.
- D. If the acceptance of defective Work occurs after release of the Project retention, an appropriate amount will be paid by Design-Build Entity to Agency.

11.8 Agency May Correct Defective Work.

- A. If Design-Build Entity fails within a reasonable time after written notice from Agency's Representative to correct Defective Work, or to remove and replace rejected Work as required by Agency, or if Design-Build Entity fails to perform the Work in accordance with the Contract Documents, or if Design-Build Entity fails to comply with any other provision of the Contract Documents, Agency may, after seven (7) Days written notice to Design-Build Entity, correct, or remedy any such deficiency.
- B. In connection with such corrective or remedial action, Agency may exclude Design-Build Entity from all or part of the Site, take possession of all or part of the Work and suspend Design-Build Entity's services related thereto, take possession of Design-Build Entity's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Agency has paid Design-Build Entity but which are stored elsewhere. Design-Build Entity shall allow Agency and Agency's Representative, and the agents, employees, other contractors, and consultants of each of them, access to the Site to enable Agency to exercise the rights and remedies to correct the defective work.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

arbitration or other dispute resolution costs) incurred or sustained by Agency correcting the defective work will be charged against Design-Build Entity, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Agency shall be entitled to an appropriate decrease in the Contract Price. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Defective Work.

- D. If the Change Order is executed after all payments under the Contract have been paid by Agency and the Project Retention is held in an escrow account as permitted by the Contract Documents, Design-Build Entity will promptly alert the escrow holder, in writing, of the amount of Retention to be paid to Agency.
- E. If the Change Order is executed after release of the Project Retention, an appropriate amount will be paid by Design-Build Entity to Agency.
- F. Design-Build Entity shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to Agency correcting defective work.

ARTICLE 12 - PAYMENTS TO DESIGN-BUILD ENTITY AND COMPLETION

12.1 Schedule of Values.

- A. The Design-Build Entity shall submit a schedule of values to the Agency before the first Application for Payment, allocating the entire Contract Price to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Agency. This schedule, unless objected to by the Agency, shall be used as a basis for reviewing the Design-Build Entity's Applications for Payment. Any changes to the schedule of values shall be submitted to the Agency and supported by such data to substantiate its accuracy as the Agency may require, and unless objected to by the Agency, shall be used as a basis for reviewing the Design-Build Entity's subsequent Applications for Payment.

12.2 Applications for Payments.

- A. By the twenty-fifth (25th) day of each month Design-Build Entity shall submit to Agency's Representative for review an Application for Payment filled out and signed by Design-Build Entity covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Agency has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Agency's interest therein, all of which must be satisfactory to Agency.

- B. Beginning with the second Application for Payment, each Application shall include an affidavit executed by the Design-Build Entity stating that it has paid all amounts due on account of the Work paid by Agency in the prior Applications for Payment.

12.3 Review of Applications.

- A. Agency's Representative will either indicate in writing a recommendation of payment to Agency or return the Application for Payment to Design-Build Entity indicating in writing Agency's Representative's reasons for refusing to recommend payment. In the latter case, Design-Build Entity may make the necessary corrections and resubmit the Application for Payment.
- B. In taking action on the Design-Build Entity's Applications for Payment, the Agency shall be entitled to rely on the accuracy and completeness of the information furnished by the Design-Build Entity and shall not be deemed to represent that the Agency has made a detailed examination, audit or arithmetic verification of the documentation submitted in support of the Application for Payment or other supporting data; that the Agency has made exhaustive or continuous on-site inspections; or that the Agency has made examinations to ascertain how or for what purposes the Design-Build Entity has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the Agency, will be performed by the Agency's auditors acting in the sole interest of the Agency.
- C. By recommending any such payment Agency's Representative will not thereby be deemed to have represented that:
 - 1. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Agency's Representative in the Contract Documents; or
 - 2. there may not be other matters or issues between the parties that might entitle Design-Build Entity to be paid additionally by Agency or entitle Agency to withhold payment to Design-Build Entity.
- D. Neither Agency's Representative's review of Design-Build Entity's Work for the purposes of recommending payments nor Agency's Representative's recommendation of any payment, including final payment, will impose responsibility on Agency's Representative:
 - 1. to supervise, direct, or control the Work;
 - 2. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - 3. for Design-Build Entity's failure to comply with Applicable Laws applicable to Design-Build Entity's performance of the Work;
 - 4. to make any examination to ascertain how or for what purposes Design-Build Entity has used the moneys paid on account of the Contract Price; or

5. to determine that title to any of the Work, materials, or equipment has passed to Agency free and clear of any Liens.
- E. Agency's Representative may refuse to recommend the whole or any part of any payment due to subsequently discovered evidence or the results of subsequent inspections or tests. Agency retains the right to revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Agency's opinion to protect Agency from loss.

12.4 Payment Becomes Due.

- A. Thirty (30) Days after presentation of an undisputed and properly submitted Application for Payment to Agency's Representative, and subject to Agency's Representative's recommendation, subject to the modifications above, the amount recommended will become due, and when due will be paid by Agency to Design-Build Entity.

12.5 Retention and Securities in Lieu of Retention.

- A. Unless Project has been deemed substantially complex as noted in the Contract Documents, Agency will retain five percent (5%) of the amount invoiced in accordance with Applicable Laws.
- B. Pursuant to Public Contract Code section 22300, Design-Build Entity may substitute securities for any moneys withheld as a retention by Agency to ensure performance under the Contract. At the request and expense of Design-Build Entity, securities equivalent to the amount withheld shall be deposited with Agency, or with a state or federally chartered bank in this state as the escrow agent, who shall then pay those moneys to Design-Build Entity. Upon satisfactory completion of the Contract, the securities shall be returned to Design-Build Entity.
 1. Alternatively, Design-Build Entity may request, and Agency shall make payment of retentions earned directly to the escrow agent selected by the Design-Build Entity. At the expense of Design-Build Entity, Design-Build Entity may direct the investment of the payments into securities and Design-Build Entity shall receive the interest earned on the investments upon the same terms provided for in Public Contract Code section 22300 for securities deposited by Design-Build Entity. Upon satisfactory completion of the Contract, Design-Build Entity shall receive from the escrow agent all securities, interest, and payments received by the escrow agent when Agency authorizes the escrow agent to release these funds to the Design-Build Entity, pursuant to the terms of Public Contract Code section 22300.
- C. Securities eligible for investment shall include those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Design-Build Entity and Agency.
- D. Design-Build Entity shall be the beneficial Agency of any securities substituted for moneys withheld and shall receive any interest thereon.

- E. The escrow agreement shall be in the form of the Escrow Agreement provided as part of the Contract Documents.

12.6 Agency's Reduction in Recommended Payment.

- A. In addition to reductions recommended by Agency's Representative, Agency may refuse to make payment of the full amount recommended by Agency's Representative because:
1. Claims have been made against Agency on account of Design-Build Entity's performance or furnishing of the Work.
 2. Stop Payment Notices or Liens have been filed in connection with the Work.
 3. Defective Work not remedied.
 4. Failure of Design-Build Entity to make proper payments to its subcontractors or suppliers.
 5. Completion of the Contract if there exists a reasonable doubt that the Work can be completed for the unpaid Contract balance.
 6. Damage to another contractor or third party.
 7. Amounts which may be due the Agency for claims against Design-Build Entity.
 8. Failure of Design-Build Entity to keep the record ('as-built') drawings up to date.
 9. Failure to provide updates on the construction schedule.
 10. Site cleanup.
 11. Failure of the Design-Build Entity to comply with requirements of the Contract Documents.
 12. Liquidated Damages.
- B. Upon completion of the Contract, Agency will reduce the final Contract Price to reflect costs charged to the Design-Build Entity, back charges or payments withheld pursuant to the Contract Documents.

12.7 Design-Build Entity's Warranty of Title.

- A. Design-Build Entity warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Agency no later than the time of payment free and clear of all Liens.

12.8 Partial Utilization.

- A. Agency reserves the right to occupy or utilize any portion of the Work at any time before completion, and such occupancy or use shall not constitute acceptance of any part of Work covered by this Contract. This use shall not relieve the Design-Build Entity of its responsibilities under the Contract.

12.9 Final Inspection.

- A. Upon written notice from Design-Build Entity that the entire Work is complete, Agency's Representative will promptly make a final inspection with Agency and Design-Build Entity and will notify Design-Build Entity in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Design-Build Entity shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

12.10 Final Acceptance.

- A. After Design-Build Entity has, in the opinion of Agency's Representative, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents, and other documents required by the Contract Documents, Agency shall execute and file with the County in which the Project is located a Notice of Completion, constituting final acceptance and completion of the Project, except as may be expressly noted.

12.11 Final Payment.

A. Application for Payment.

1. Upon execution of the Notice of Completion, Design-Build Entity may submit a final accounting for the cost of the Work and a final Application for Payment. Final payment, constituting the entire unpaid balance of the Contract Price.
2. Prior to Final Payment, the Agency may conduct an audit of the Work or notify the Design-Build Entity that it will not conduct an audit and issue a final Certificate for Payment. If the Agency conducts an audit of the Work, the Agency will either issue to the Design-Build Entity a final Certificate for Payment, or notify the Design-Build Entity in writing of the Agency's reasons for withholding a certificate. If the Agency's auditors report the cost of the Work as substantiated by the Design-Build Entity's final accounting to be less than claimed by the Design-Build Entity, the Design-Build Entity shall be entitled to make a claim. Pending a final resolution of the disputed amount, the Agency shall pay the Design-Build Entity the amount certified in the Agency's final Certificate for Payment.
3. The final Application for Payment shall be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance;
- b. consent of the surety to final payment;
- c. a fully completed Conditional Waiver and Release on Final Payment.

B. Agency's Representative's Review of Application and Acceptance.

- 1. If, on the basis of Agency's Representative's observation of the Work during construction and final inspection, and Agency's Representative's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Agency's Representative is satisfied that the Work has been completed and Design-Build Entity has satisfied all other requirements for final payment, Agency's Representative will indicate in writing Agency's Representative's recommendation of payment and present the Application for Payment to Agency for payment. Otherwise, Agency's Representative will return the Application for Payment to Design-Build Entity, indicating in writing the reasons for refusing to recommend final payment, in which case Design-Build Entity shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due.

- 1. Within sixty (60) Days after the presentation to Agency's Representative of the proper and complete final Application for Payment and accompanying documentation, the amount recommended by Agency's Representative, less any sum Agency is entitled to set off pursuant to the Contract Documents, will become due and will be paid by Agency to Design-Build Entity.

12.12 Waiver of Claims.

- A. The making and acceptance of final payment will constitute a waiver of all Claims by Design-Build Entity against Agency other than those previously made in accordance with the requirements herein and expressly acknowledged by Agency in writing as still unsettled.

ARTICLE 13 -SUSPENSION OF WORK AND COMPLETION

13.1 Agency May Suspend Work.

- A. Agency may, at its sole option, decide to suspend at any time the performance of all or any portion of the Work by notice in writing to Design-Build Entity. Such notice of suspension of Work will designate the amount and type of plant, labor, and equipment to be committed to the Project during the period of suspension. Design-Build Entity shall use its best efforts to utilize its plant, labor, and equipment in such a manner as to minimize costs associated with suspension.
- B. Upon receipt of any such notice, Design-Build Entity shall, unless the notice requires otherwise:

1. Immediately discontinue Work on the date and to the extent specified in the notice;
 2. Place no further orders or subcontracts for material, services, or facilities with respect to suspended Work other than to the extent required in the notice;
 3. Promptly make every reasonable effort to obtain suspension upon terms satisfactory to Agency's Representative of all orders, subcontracts, and rental agreements to the extent they relate to performance of Work suspended; and
 4. Continue to protect and maintain the Work including those portions on which Work has been suspended.
- C. Except as provided by this article, as full and complete compensation for such suspension, Design-Build Entity shall be granted an adjustment in the Contract Price based on a negotiated daily rate that reflects the Design-Build Entity's actual costs associated with the demobilized condition of the Site (and as a result will be less than the Daily Rate contained in the Special Conditions) and an extension of the Contract Times equal to the number of days performance of Work is suspended; provided, however, that no adjustment of Contract Price or extension of Contract Times shall be granted if the suspension results from Design-Build Entity's non-compliance with the requirements of the Contract.

13.2 Agency May Terminate for Cause.

- A. Agency may, without prejudice to any other right or remedy, serve written notice upon Design-Build Entity of its intention to terminate this Contract in whole or in part if the Design-Build Entity: (i) refuses or fails to prosecute the Work or any part thereof with such diligence as will ensure its completion within the Project Completion Date; (ii) fails to complete the Work within the required time; (iii) files a bankruptcy petition or is adjudged a bankruptcy; (iv) makes a general assignment for the benefit of its creditors; (v) has a receiver appointed; (vi) refuses or fails to supply enough properly skilled workers or proper materials to complete the Work; (vii) fails to make prompt payment to subcontractors or for material or labor; (viii) disregards Applicable Laws, other requirements or instructions of Agency; or (ix) violates any of the provisions of the Contract Documents.
- B. The Notice of Default and Intent to Terminate shall state the reasons for termination. Unless within five (5) Days after the service of such notice, Design-Build Entity resolves the circumstances giving rise to the Notice of Default to Agency's satisfaction, or makes arrangements acceptable to Agency for the required corrective action, Agency may terminate this Contract. In such case, Design-Build Entity shall not be entitled to receive any further payment until the Work has been finished. Agency may take over and complete the Work by any method it may deem appropriate, including enforcement of the Project Performance Bond. Design-Build Entity and its surety shall be liable to Agency for any excess costs or other damages incurred by Agency to complete the Work. If Agency takes over the Work, Agency may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plant, and other property belonging to the Design-Build Entity as may be on the Site.

13.3 Agency May Terminate for Convenience.

- A. In addition to its right to terminate this Contract for default, Agency may terminate the Contract, in whole or in part, at any time upon seven (7) Days written notice to Design-Build Entity. The Notice of Termination shall specify that the termination is for the convenience of Agency, the extent of termination, and the effective date of such termination ("Effective Date of Termination").
- B. After receipt of Notice of Termination, and except as directed by Agency, the Design-Build Entity shall, regardless of any delay in determining or adjusting any amounts due under this Termination for Convenience clause, immediately proceed with the following obligations:
 - 1. Stop Work as specified in the Notice.
 - 2. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.
 - 3. Leave the Site and any other property upon which the Design-Build Entity was working in a safe and sanitary manner such that it does not pose any threat to the public health or safety.
 - 4. Terminate all subcontracts and purchase orders to the extent that they relate to the portions of the Work terminated.
 - 5. Place no further subcontracts or orders, except as necessary to complete the remaining portion of the Work.
 - 6. Submit to Agency, within fifteen (15) Days from the Notice of Termination, all of the documentation called for by the Contract Documents to substantiate all costs incurred by the Design-Build Entity for labor, materials and equipment through the Notice of Termination. Any documentation substantiating costs incurred by the Design-Build Entity solely as a result of Agency's exercise of its right to terminate this Contract pursuant to this clause, which costs the Design-Build Entity is authorized under the Contract Documents to incur, shall: (i) be submitted to and received by Agency no later than thirty (30) Days after the Effective Date of the Notice of Termination; (ii) describe the costs incurred with particularity; and (iii) be conspicuously identified as "Termination Costs Occasioned by Agency's Termination for Convenience."
- C. Agency's total liability to Design-Build Entity by reason of the termination shall be limited to the total (without duplication of any items) of:
 - 1. The reasonable cost to the Design-Build Entity for all Work performed prior to the Effective Date of Termination, including the Work done to secure the Project for termination. Reasonable cost may not exceed the applicable percentage completion values derived from the progress schedule and the schedule of values. Deductions shall be made for cost of materials to be retained by the Design-Build Entity, cost of Work defectively performed,

amounts realized by sale of materials, and for other appropriate credits or offsets against cost of Work as allowed by the Contract Documents.

2. When, in Agency's opinion, the cost of any item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, reasonable cost to be allowed will be the estimated reasonable cost of performing the Work in compliance with requirements of the Contract Documents and excessive actual cost shall be disallowed.
 3. Any Work required by the Termination for Convenience that is not included in Contract Documents will be negotiated pursuant to the Contract Change Order provisions.
 4. Reasonable costs to the Design-Build Entity of handling material returned to vendors, delivered to Agency or otherwise disposed of as directed by Agency.
 5. A reasonable allowance for the Design-Build Entity's internal administrative costs in preparing termination claim.
 6. Reasonable demobilization costs, and reasonable payments made to Subcontractors or suppliers on account of termination.
- D. In no event shall Agency be liable for unreasonable costs incurred by the Design-Build Entity or subcontractors after receipt of a Notice of Termination. Such non-recoverable costs include, but are not limited to, the cost of or anticipated profits on Work not performed as of the date of termination, post-termination employee salaries, unreasonable post-termination administrative expenses, post-termination overhead or unabsorbed overhead, surety costs of any type, costs of preparing and submitting the Design-Build Entity's termination claim, attorney fees of any type, and all other costs relating to prosecution of a claim or lawsuit.
- E. Agency shall have no obligation to pay the Design-Build Entity under this Article unless and until the Design-Build Entity provides Agency with updated and acceptable as-builts and Record Documents for Work completed prior to termination as required by the Contract Documents.
- F. In arriving at the amount due the Design-Build Entity under this clause there shall be deducted in whole, or in the appropriate part(s) if the termination is partial:
1. All unliquidated advances or other payments on account previously made to the Design-Build Entity, including without limitation all payments which are applicable to the terminated portion of the Contract Documents,
 2. Any claim Agency may have against the Design-Build Entity in connection with the Work or any amounts that may be withheld in accordance with the Contract Documents, and
 3. The agreed price for, or proceeds of sale of, any materials, supplies, or other things kept by the Design-Build Entity and not otherwise recovered by or credited to Agency.

- G. Design-Build Entity shall not be paid on account of loss of anticipated profits or revenue or other economic loss or consequential damages arising out of or resulting from such termination.
- H. Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, Agency may immediately order Design-Build Entity to cease Work until such safety or liability issues are addressed to the satisfaction of Agency or the Contract is terminated.
- I. If Agency terminates Design-Build Entity for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Design-Build Entity shall be entitled to receive only the amounts payable under this section, and Design-Build Entity specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

ARTICLE 14 -CLAIMS, DISPUTE AVOIDANCE AND RESOLUTION

14.1 Procedure for Resolving Claims

- A. Design-Build Entity shall timely comply with any and all requirement of the Contract Documents pertaining to notices and requests for changes to the Contract Price and/or the Project Completion Date, including but not limited to all requirements of Article 9 and Article 14.1, as a prerequisite to filing any Claim governed by this Article. The failure to timely submit a notice of delay or notice of change, or to timely submit a Chang Order Request, or to timely provide any other notice or request required herein shall constitute a waiver of the right to further pursue the Claim under the Contract or at law.
- B. Intent. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of \$375,000 or less. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Article is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Article shall be construed to be consistent with all applicable law, including but not limited to these statutes.
- C. Claims. For purposes of this Article, "Claim" means a separate demand by the Design-Build Entity for (1) a time extension, including without limitation relief from damages or penalties for delay assessed by Agency, (2) payment of money or damages arising from Work done by or on behalf of the Design-Build Entity and payment of which is not otherwise expressly provided for or the Design-Build Entity is not otherwise entitled, or (3) payment of an amount which is disputed by Agency. A "Claim" does not include any demand for payment for which the Design-Build Entity has failed to provide notice, submit a Change Order Request, or otherwise failed to follow any procedures contained in the Contract Documents.

- D. Filing Claims. Claims governed by this Article may not be filed unless and until the Design-Build Entity completes any and all requirements of the Contract Documents pertaining to notices and requests for changes to the Contract Price and/or the Project Completion Date, and Design-Build Entity's request for a change has been denied in whole or in part. Claims governed by this Article must be filed no later than thirty (30) Days after a request for change has been denied in whole or in part or after any other event giving rise to the Claim. The Claim shall be submitted in writing to the Agency and shall include on its first page the following words in 16 point capital font: "THIS IS A CLAIM." The Claim shall include the all information and documents necessary to substantiate the Claim, including but not limited to those identified below. Nothing in this Article is intended to extend the time limit or supersede notice requirements otherwise provided by Contract Documents. Failure to follow such contractual requirements shall bar any Claims or subsequent proceedings for compensation or payment thereon.
- E. Documentation. The Design-Build Entity will submit the claim justification in the following format:
1. Summary description of Claim including basis of entitlement, merit and amount of time or money requested, with specific reference to the Contract Document provisions pursuant to which the Claim is made
 2. List of documents relating to the Claim
 - a. Specifications
 - b. Drawings
 - c. Clarifications (Requests for Information)
 - d. Schedules
 - e. Other
 3. Chronology of events and correspondence
 4. Narrative analysis of Claim merit
 5. Analysis of Claim cost, including calculations and supporting documents
 6. Time impact analysis in the form required by the Contract Documents or, if the Contract Documents do not require a particular format, CPM format, if an adjustment of the Contract Time is requested
 7. Cover letter and certification of validity of the Claim
- F. Agency Response to Claim. Upon receipt of a Claim pursuant to this Article, Agency shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days of receipt of the Claim, or as extended by mutual agreement, shall provide a written statement identifying what portion of the Claim is disputed and what portion is

undisputed. Any payment due on an undisputed portion of the Claim will be processed and made within 60 days after Agency issues its written response.

1. If Agency needs approval from its governing body to provide Design-Build Entity a written statement as set forth above, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim, Agency shall have up to three (3) days following the next publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide Design-Build Entity a written statement identifying the disputed portion and the undisputed portion of the Claim.
 2. Agency may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the Claim or relating to defenses or Claims Agency may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of the Agency and the Design-Build Entity. Agency's written response shall be submitted 30 days (15 days if the Claim is less than \$50,000) after receiving the additional documentation, or within the same period of time taken by the Design-Build Entity to produce the additional information, whichever is greater.
- G. Meet and Confer Conference. If the Design-Build Entity disputes Agency's response, or if Agency fails to respond within the statutory time period(s), the Design-Build Entity may so notify Agency, in writing, within 15 days of the receipt of the response or the failure to respond, and demand an informal conference to meet and confer for settlement of those portions of the Claim that remain in dispute. Upon such demand, Agency shall schedule a meet and confer conference within 30 Days.
- H. Mediation. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the Agency shall provide the Design-Build Entity a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 Days after the Agency issues its written statement. Any disputed portion of the Claim, as identified by the Design-Build Entity in writing, shall be submitted to nonbinding mediation, with the Agency and the Design-Build Entity sharing the associated costs equally. The public entity and Design-Build Entity shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing, unless the parties agree to select a mediator at a later time.
1. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.
 2. For purposes of this Article, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute

resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this Article.

3. Unless otherwise agreed to by the Agency and the Design-Build Entity in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.
 4. The mediation shall be held no earlier than the date the Design-Build Entity completes the Work or the date that the Design-Build Entity last performs Work, whichever is earlier. All unresolved Claims shall be considered jointly in a single mediation, unless a new unrelated Claim arises after mediation is completed.
- I. Procedures After Mediation. If following the mediation, the Claim or any portion remains in dispute, the Design-Build Entity must file a Claim pursuant to 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 prior to initiating litigation. 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 Design-Build Entity submits his or her written Claim pursuant to subdivision (a) until the time the Claim is denied, including any period of time utilized by the meet and confer conference.
- J. Civil Actions. The following procedures are established for all civil actions filed to resolve Claims of \$375,000 or less:
1. Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties or unless mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of this Contract. The mediation process shall provide for the selection within 15 Days by both parties of a disinterested third person as mediator, 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.
 2. 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 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 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. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

K. Government Code Claim Procedures.

1. This Article does not apply to tort claims and nothing in this Article 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 3.5 of Title 1 of the Government Code.
2. In addition to any and all requirements of the Contract Documents pertaining to notices of and requests for adjustment to the Contract Time, Contract Price, or compensation or payment for Additional Work, disputed Work, construction claims and/or changed conditions, the Design-Build Entity must comply with the claim procedures set forth in Government Code Section 900, et seq. prior to filing any lawsuit against the Agency.
3. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to adjustment of the Contract Time or Contract Price for Additional Work, disputed Work, construction claims, and/or changed conditions have been followed by Design-Build Entity. If Design-Build Entity does not comply with the Government Code claim procedure or the prerequisite contractual requirements, Design-Build Entity may not file any action against the Agency.
4. **A Government Code claim must be filed no earlier than the date the Work is completed or the date the Design-Build Entity last performs Work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved Claims known to Design-Build Entity or that should reasonably be known to Design-Build Entity excepting only new unrelated Claims that arise after the Government Code claim is submitted.**

- L. Non-Waiver. The Agency's failure to respond to a Claim from the Design-Build Entity within the time periods described in this Article or to otherwise meet the time requirements of this Article shall result in the Claim being deemed rejected in its entirety, and shall not constitute a waiver of any rights under this Article.

14.2 Litigation.

- A. Any claims, disputes, or controversies between the parties arising out of or related to the Contract, which have not been resolved in accordance with the procedures set forth herein shall be resolved in a court of competent jurisdiction.

14.3 Duty to Continue Performance.

- A. Unless provided to the contrary in the Contract Documents, Design-Build Entity shall continue to perform the Work and Agency shall continue to satisfy its payment obligations to Design-Build Entity, pending the final resolution of any dispute or disagreement between Design-Build Entity and Agency.

ARTICLE 15 -MISCELLANEOUS PROVISIONS

15.1 Limitations On Agency's Responsibilities.

- A. Agency shall not supervise, direct, or have control or authority over, nor be responsible for, the Design-Build Entity's means, methods, techniques, sequences, or procedures of design or construction, or the safety precautions and programs incident thereto, or for any failure of the Design-Build Entity to comply with Applicable Laws applicable to the performance of the Work. Agency will not be responsible for the Design-Build Entity's failure to perform the Project in accordance with the Contract Documents.

15.2 Successors

- A. The parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract. The Design-Build Entity may not either voluntarily or by action of law, assign any obligation assumed by the Design-Build Entity hereunder without the prior written consent of the Agency.

15.3 Cumulative Remedies.

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Applicable Laws, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Article will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

15.4 Survival of Obligations.

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Project or termination or completion of the Contract or termination of the services of the Design-Build Entity.

15.5 Controlling Law.

- A. Notwithstanding any subcontract or other contract with any Subcontractor, Supplier, or other person or organization performing any part of the Project, this Contract shall be governed by the law of the State of California excluding any choice of law provisions.

15.6 Jurisdiction; Venue.

- A. The Design-Build Entity and any Subcontractor, supplier, or other person or organization performing any part of the Project agree that any action or suits at law or in equity arising out of or related to the proposal process, award, or performance

of the Project shall be maintained in the Superior Court of Riverside County, California, and expressly consent to the jurisdiction of said court, regardless of residence or domicile, and agree that said court shall be a proper venue for any such action.

15.7 Headings.

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

15.8 Agency's Right to Audit.

- A. The Design-Build Entity shall make available to Agency for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to Agency. If the Design-Build Entity submits a Change Order Request or a Claim to Agency, Agency shall have the right to audit the Design-Build Entity's books, records, documents, and other evidence to the extent they are relevant.
- B. The right to audit shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted, including but not limited to job cost reports, estimates, proposals, bids, proposal papers, documents of other work administered by the Design-Build Entity's home office, and any and all other documentation relied upon by the Design-Build Entity to obtain this Contract. Agency shall have the right to make and take copies of any records examined.
- C. The right to audit shall include the right to inspect the Design-Build Entity's plans, or such parts thereof, as may be or have been engaged in the performance of the Project. The Design-Build Entity further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The right to audit provided herein shall be exercisable through such representatives as Agency deems desirable during the Design-Build Entity's normal business hours at the Design-Build Entity's office.
- D. In accordance with Government Code Section 8546.7, records of both Agency and the Design-Build Entity shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment. The Design-Build Entity shall make available to Agency any of the Design-Build Entity's other documents related to the Project immediately upon request of Agency. In addition to the State Auditor's rights described above, Agency shall have the right to examine and audit all books, estimates, records, contracts, documents, Proposals, subcontracts, and other data of the Design-Build Entity (including electronic records, computations and projections) related to negotiating, pricing, or performing the Project in order to evaluate the accuracy and completeness of the cost or pricing data, for a period of four (4) years after final payment.

15.9 Assignment.

- A. Design-Build Entity shall not assign, transfer, convey, sublet, or otherwise dispose of this Contract or any part thereof including any claims, without prior written consent of Agency. Any assignment without the written consent of Agency shall be void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or Material supplied for performance of Work called for under the Contract Documents in favor of all persons, firms, or corporations rendering such services or supplying such Materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure or the Government Code.
- B. As set forth in Public Contract Code section 7103.5, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.

15.10 All Legal Provisions Included.

- A. Design-Build Entity shall give all notices and comply with all federal, state and local laws, ordinances, rules and regulations bearing on conduct of work as indicated and specified by their terms. References to specific laws, rules or regulations in this Contract are for reference purposes only, and shall not limit or affect the applicability of provisions not specifically mentioned. If Design-Build Entity observes that drawings and specifications are at variance therewith, he shall promptly notify Agency in writing and any necessary changes shall be adjusted as provided for in this Contract for changes in Work. If Design-Build Entity performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to Agency, he shall bear all costs arising therefrom.
- B. Design-Build Entity shall be responsible for familiarity with the Americans with Disabilities Act ("ADA") (42 U.S.C. § 12101 et seq.). The Work will be performed in compliance with ADA laws, rules and regulations. Design-Build Entity shall comply with the Historic Building Code, including, but not limited to, as it relates to the ADA, whenever applicable..
- C. Design-Build Entity acknowledges and understands that, pursuant to Public Contract Code section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code section 2717(b) in order to supply mined material for this Contract.
- D. No Agency official or representative who is authorized in such capacity and on behalf of Agency to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection

with construction of the Work, shall be or become directly or indirectly interested financially in the Contract.

- E. All provisions of law required to be inserted in the Contract or Contract Documents pursuant to any Applicable Laws shall be and are inserted herein. If through mistake, neglect, oversight, or otherwise, any such provision is not herein inserted or inserted in improper form, upon the application of either party, the Contract or Contract Documents shall be changed by Agency, at no increase in the Contract Price or Contract Time, so as to strictly comply with the Applicable Laws and without prejudice to the rights of either party hereunder.

15.11 State License Board Notice.

- A. Contractors are required by law to be licensed and regulated by the Design-Build Entity's State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, the Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

15.12 Noise.

- A. The Design-Build Entity shall use only such equipment on the Project and in such state of repair so that the emission of sound therefrom is within the noise tolerance level of that equipment as established by CAL-OSHA.
- B. The Design-Build Entity shall comply with the most restrictive of the following: (1) local sound control and noise level rules, regulations and ordinances and (2) the requirements contained in these Contract Documents, including hours of operation requirements. No internal combustion engine shall be operated on the Project without a muffler of the type recommended by the manufacturer. Should any muffler or other control device sustain damage or be determined to be ineffective or defective, the Design-Build Entity shall promptly remove the equipment and shall not return that equipment to the Project site until the device is repaired or replaced. Noise and vibration level requirements shall apply to all equipment on the jobsite or related to the Project, including but not limited to, trucks, transit mixers or transit equipment that may or may not be owned by the Design-Build Entity.

15.13 Change In Name Or Nature of Design-Build Entity's Legal Entity.

- A. Should a change be contemplated in the name or nature of the Design-Build Entity's legal entity, the Design-Build Entity shall first notify Agency in order that proper steps may be taken to have the change reflected in the Contract Documents and all related documents. No change of the Design-Build Entity's name or nature will affect Agency's rights under the Contract Documents, including but not limited to the bonds and insurance.

15.14 Complete Contract.

- A. The Contract Documents constitute the full and complete understanding of the parties and supersede any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may be modified only by a written instrument signed by both parties or as otherwise provided in the Contract Documents.

15.15 Notice of Third Party Claims.

- A. Pursuant to Public Contract Code section 9201, Agency shall provide Design-Build Entity with timely notification of the receipt of any third-party claim relating to the Contract.

15.16 Severability of Provisions.

- A. If any one or more of the provisions contained in the Contract Documents should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

15.17 Correction of Errors and Omissions.

- A. The Design-Build Entity agrees to correct any error or omission in the Construction Documents or Contract Documents at no additional cost to Agency.

15.18 Interpretation.

- A. The Contract Documents shall not be construed in favor of or against any party, but shall be construed as if all parties prepared the Contract Documents.

END OF GENERAL CONDITIONS

ATTACHMENT 3 SPECIAL CONDITIONS

ARTICLE 1 -MODIFICATIONS TO THE GENERAL CONDITIONS

[*ADJUSTMENTS CAN BE MADE TO THE GENERAL CONDITIONS FOR MANY PROJECT SPECIFIC REQUIREMENTS, EXAMPLES INCLUDING BRAND NAMES OR MATERIALS, PRODUCTS, THINGS, OR SERVICES REQUIRED, MODIFYING WORK AND/OR HOLIDAY HOURS, CHANGING THE RETENTION AMOUNT, DAYS FOR SUBSTITUTION OF MATERIALS, MODIFYING NOISE RESTRICTIONS, ETC.***]**

[*THE FOLLOWING ARE EXAMPLES OF WAYS IN WHICH TO MAKE THE FOLLOWING ADJUSTMENTS TO THE GENERAL CONDITIONS***]**

1.1 Section 6.8 Submittals.

Section 6.8 of the General Conditions shall be deleted in its entirety and replaced with the following:

“6.8 Submittals.

_____”

1.2 Section 6.8 Submittals.

The first sentence in Section 6.8 of the General Conditions shall be deleted in its entirety and replaced with the following:

“_____”

**ATTACHMENT 4
PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, THE Temescal Valley Water District ("Agency") has awarded to _____, ("DBE") an agreement for _____ (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the DBE is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the DBE is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned DBE and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the Agency in the sum of _____ dollars, (\$_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the DBE, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one (1) year guarantee of all materials and workmanship; and shall indemnify and save harmless the Agency, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees including reasonable attorney's fees, incurred by Agency in enforcing such obligation.

The obligations of Surety hereunder shall continue so long as any obligation of DBE remains. Nothing herein shall limit the Agency's rights or the DBE or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever DBE shall be, and is declared by the Agency to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the Agency's option:

- (1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- (2) Obtain a Bid or Bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible Bidder, arrange for a Contract between such Bidder, the Surety and the Agency, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to DBE by the Agency under the Contract and any modification thereto, less any amount previously paid by the Agency to the DBE and any other set offs pursuant to the Contract Documents.
- (3) Permit the Agency to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to DBE by the Agency under the Contract and any modification thereto, less any amount previously paid by the Agency to the DBE and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the Agency may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the DBE.

Surety shall not utilize DBE in completing the Project nor shall Surety accept a Bid from DBE for completion of the Project if the Agency, when declaring the DBE in default, notifies Surety of the Agency's objection to DBE's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day
of _____, 20__.

Design-Build Entity

By: _____
President

Surety

By: _____
Attorney-in-Fact

The rate of premium on this bond is _____ per thousand. The total amount of premium
charges, \$_____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or
Representative for service of
process in California, if different
from above)

(Telephone number of Surety and
Agent or Representative for service
of process in California)

**NOTE: A copy of the Power-of-Attorney to local representatives of the bonding company
must be attached hereto.**

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- ☐ Individual
☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited
 ☐ General

- ☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:

Name Of Person(s) Or Entity(ies)

_____ Title or Type of Document

_____ Number of Pages

_____ Date of Document

_____ Signer(s) Other Than Named Above

ATTACHMENT 5
PAYMENT BOND (LABOR AND MATERIALS)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the **Temescal Valley Water District** ("Agency"), by action taken or a resolution passed _____, 20____ has awarded to _____, hereinafter designated as the "Principal," a contract ("Contract") for the work described as follows: ("Project"); and

WHEREAS, said Principal is required to furnish a bond in connection with said Contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the Agency in the penal sum of _____ dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we 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 said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the Work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the DBE and his subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such Work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the Agency in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of

recovery of claimants otherwise entitled to recover under any such Contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of Contract between the owner or Agency and original DBE or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of Sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____ 20____ the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

(Corporate Seal of Principal, if corporation)

Design-Build Entity

By: _____
President

(Seal of Surety)

Surety

By: _____
Attorney-in-Fact

(Attached Attorney-In-Fact Certificate and Required Acknowledgements)

NOTE: A copy of the Power-of-Attorney to local representatives of the bonding company must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF _____

On _____, 20____, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document

and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

DESCRIPTION OF ATTACHED DOCUMENT

- ☐ Individual
☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited
 ☐ General

- ☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:

Name Of Person(s) Or Entity(ies)

_____ Title or Type of Document

_____ Number of Pages

_____ Date of Document

_____ Signer(s) Other Than Named Above

**ATTACHMENT 6
HOURLY RATE SCHEDULE FOR EXTRA WORK**

*****ATTACH RATE SCHEDULE*****

**ATTACHMENT 7
WORKERS' COMPENSATION CERTIFICATION**

Labor Code section 3700 in relevant part provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
- b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date: _____

Name of Design-Build Entity: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

Appendix B

Geotechnical Report for the Temescal Water Reclamation Facility



Jeff Pope
LWA COPY

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.
SOIL ENGINEERING & ENGINEERING GEOLOGY

September 4, 1987

John S. Murk Engineers
5225-D Avenida Encinas
Carlsbad, California 92008-4367

Job No: 08-7168-001-00-00
Log No: 7-2010

Attention: Mr. Matt A. Tebbetts

SUBJECT: PRELIMINARY GEOTECHNICAL INVESTIGATION
Wastewater Treatment Facility and 16-Inch Off-Site
Water Transmission Main
Wildrose Development Project
Riverside County, California

Gentlemen:

In accordance with your request, we have completed a Preliminary Geotechnical Investigation for the above referenced projects. The purpose of this investigation was to provide information for site preparation, design and construction of structures and pavements within the Wastewater Treatment Facility and a general evaluation of the soils along the Water Transmission Main alignment.

From the results of this investigation, we have developed geotechnical conclusions and recommendations pertinent to the subject project.

This opportunity to be of service is appreciated. If you have any questions, please call.

Very truly yours,

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.


William T. Altmeyer
Director of Geotechnical Services

WTA:mmf

Distribution: (6) Addressee

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I. INTRODUCTION

1.1 Proposed Development

This report presents the results of our Preliminary Geotechnical Investigation of the Wastewater Treatment Facility and the Water Transmission Main Alignment for the Wildrose Development Project. For the purposes of our investigation, we were provided with a parcel/topography map of the Temescal Canyon Corridor, a U.S.G.S. Map of the area showing approximate project location and a rough conceptual plan of the Wastewater Treatment Plant Facility. Additionally, we were provided with a brief outline of the project as summarized herein.

The Wastewater Treatment Facility will have a capacity of 0.45 million gallons per day. Structures will be above and below ground and constructed of reinforced concrete or masonry. The remainder of the site will be paved with asphaltic concrete. About 2 feet of fill will be placed to reach final pad elevations. The facility will be protected by a flood control berm along its easterly boundaries.

The off-site water main alignment is approximately 12,500 feet long. The line itself will be 16-inches in diameter and constructed of concrete. The amount of cover will be at least 3-1/2 feet. The alignment for this phase of the investigation is essentially along Temescal Canyon Road. The exact location is not determined at this time.

Our Preliminary Geotechnical Investigation for the Wildrose Development is presented in our report dated March 2, 1987, Job Number 6750-001-00-00, submitted to B.C.E. Development. The geographical relationships

of the subject project to the Wildrose Ranch and surrounding areas are presented on the Location Map, Figure 1 and the Geotechnical Map, Plate 1.

1.2 Authorization

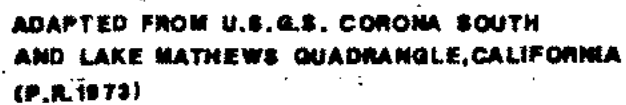
Our scope of services for this investigation was outlined in our proposal dated July 1, 1987 (HGC-7-6647). This work was authorized in writing by Mr. Matt A. Tebbetts on July 13, 1987. Investigation of Tank Site #1 was also authorized at this time. However, due to tank site location changes resulting in additional field investigation, we will present our results for the tank sites in a subsequent report.

1.3 Scope of Services

The purpose of our investigation was to perform field, laboratory and office services to determine the soils engineering and geologic parameters for the site and to develop conclusions and recommendations relative to site grading, conventional shallow foundations, slabs, pavement designs and trench construction and backfilling.

2.0 EXECUTIVE SUMMARY

Our conclusions and recommendations are based on the information obtained during our investigation of the site. Our work was limited to the scope requested and is specifically addressed to the proposed project as described herein. In summary, our findings are as follows:



JOB NO.: 7168-801-00-80

DATE: SEPTEMBER 1987

FIGURE: 1

1. The Wastewater Treatment Facilities and off-site Water Transmission Main are feasible from a geotechnical standpoint.
2. The soils along the water main alignment are predominantly granular and no soils related problems are anticipated. Excavation of the soils should be easy to moderate.
3. The alluvial soils in the area of the Wastewater Treatment facility are dry and loose near the surface and should therefore be overexcavated a minimum of 2 feet below the natural ground surface or 1 foot below the deepest footing. This recommendation is applicable for both surface and subsurface structures.
4. Groundwater depth in the Wastewater Treatment facility area was found to be 38 feet at the time of our investigation of July and August 1987. We understand from our discussions with Foothill Properties that the groundwater has come to within about 30 feet of the surface around Wildrose Ranch in the vicinity of the Wastewater Treatment Plant. We did not encounter groundwater in any of our borings along the water transmission main alignment.
5. Based on the relatively high blow counts obtained from our Standard Penetration tests and an assumed high groundwater depth of 25 feet, seismically induced liquefaction should not be considered a project constraint for the Wastewater Treatment Plant.

5.2.2 Stream Channel Deposits (Map Symbol: Qsc)

These deposits are generally confined to the active incised stream channels within the Temescal Wash. They consist of well-graded bouldery sands and slightly silty bouldery sands.

5.3 Structural Geology

The dominating structural features in the region include the Santa Ana Mountains block, the Elsinore trough and the Elsinore Fault system. The northwest-trending Elsinore trough is essentially a graben between the Santa Ana Mountains and the Perris block. It is a complex graben, divided lengthwise into several smaller slivers by the Elsinore fault system.

The Elsinore fault zone is the principal fault system in the general region. The Elsinore fault system is comprised of an echelon and complexly intertwined, mostly northwest to west-northwest - trending faults. These faults are generally less than 1-2km long.

Locally, the Glen Ivy Fault, one of the many fault segments which make up the Elsinore fault system, is the closest known active fault to the site. The Glen Ivy fault is divided into two segments (Jahns 1954a): the Glen Ivy North and the Glen Ivy South. The Glen Ivy North fault segment is less than 1 mile southwest of the site, trending in a northwest direction while the Glen Ivy South fault segment is approximately 1-1/2 miles south of the site. The Glen Ivy North fault segment extends southeastward from Brown Canyon, at the northwest

edge of Temescal Valley, to just south of Bundy Canyon. This fault segment is considered active by evidence of older and younger alluvium displaced along the northeast side of the Temescal Valley graben (Weber, 1977; Rockwell, 1985).

5.4 Drainage (Surface/Subsurface)

Groundwater was encountered in Boring 4 at a depth of 38 feet (See Appendix B). This corresponds to a groundwater elevation of 858 feet. Subsurface water-bearing alluvial deposits are greater than 100 feet thick and are underlain by sedimentary bedrock. The sedimentary rock is essentially non-water bearing and may act as a partial barrier to groundwater flow within the aquifer system. Surface drainage and runoff from the foothills is directed into active stream channels and the Temescal Wash by the incised natural topography.

6.0 SEISMICITY

6.1 Regional Seismicity

The site is located in a region of generally high seismicity as is all of Southern California. During its design life, the site is expected to experience ground motions from earthquakes on regional and/or local causative faults. Figure 2 shows the geographic relationship of these faults to the site and the epicenters for numerous large earthquakes that have occurred in historic time. The table on Figure 3 lists known regionally active faults, their maximum probable earthquake magnitude and seismic parameters for identified causative faults.

SEISMICITY FOR MAJOR FAULTS

<u>FAULTS</u>	<u>DISTANCE FROM SITE (MILES)</u>	<u>MAXIMUM PROBABLE EARTHQUAKE</u>	<u>ESTIMATED PEAK GROUND ACCELERATION¹</u>	<u>REPEATABLE HIGH GROUND ACCELERATION²</u>	<u>ESTIMATED MODIFIED MERCALLI INTENSITY³</u>
Elsinore (Glen Ivy Fault)	0.85 SW	7.0	.53g	.34g	IX
San Jacinto	21 NE	7.5	.21g	.14g	VIII
San Andreas	38 NE	8.2	.22g	.14g	VIII
Newport- Inglewood	33 W	6.5	.09g	.06g	VII
Chino	11 NW	6.5	.27g	.22g	VIII

1. Seed and Idriss (1982)
2. Floessel and Slosson (1974)
3. Gutenberg and Richter (1956)

Earthquake epicenters (exceeding 6.0 on the Richter Scale of Magnitude) within a 65-mile radius of this project are listed below:

<u>Date</u>	<u>Richter Magnitude</u>	<u>Approximate Distance of Site To Epicenter-Miles</u>	<u>Fault</u>
1769	6.0+	30 N	Cucamonga
1812	6.0+	26 SW	Newport- Inglewood
1855	6.0+	56 W	Newport- Inglewood
1890	6.0+	23 NE	San Jacinto
1894	6.0+	60 SE	Elsinore
1899	7.0+	47 SE	San Jacinto
1899	6.0+	35 N	San Andreas
1907	6.0+	32 NE	San Andreas
1910	6.0+	15 SE	Elsinore
1918	6.8	28 E	San Jacinto
1920	6.0+	48 W	Newport- Inglewood
1923	6.3	21 NE	San Jacinto
1933	6.3	30 SW	Newport- Inglewood
1948	6.5	62 E	San Andreas

6.2 Earthquake Effects

6.2.1 Earthquake Accelerations

We have analyzed the possible earthquake accelerations at the site and determined that, for

the intended use, the most significant event would be a 7.0 Magnitude earthquake occurring on the Elsinore Fault Zone (Glen Ivy North Fault). The accelerations produced at the site by such an event would exceed those of events on any other know fault.

A Magnitude 7.0 earthquake occurring on the Glen Ivy North Fault 0.85 miles southwest of the site could produce a peak ground acceleration on the order of 0.53g (Seed and Idriss, 1982), with the duration of strong motion exceeding 30 seconds (Bolt, 1973). Peak acceleration is not, however, always representative of the accelerations for which structures are actually designed (Ploessel and Slosson, 1974). Repeatable high ground accelerations from an 7.0 Magnitude earthquake on the Elsinore Fault Zone are estimated to be on the order of 0.34g. The design of structures should comply with the requirements of the governing jurisdictions and standard practices of the Structural Engineers Association of California.

6.2.2 Soil Settlement

The on-site recent alluvial materials consist of medium dense soils. The settlement potential under seismic loading conditions for the on-site materials, in our opinion, is low. Regrading of the upper two feet as recommended in this report will reduce the potential for settlement of near surface soils.

6.2.3 Liquefaction

The alluvial soils underlying the site have a low potential for liquefaction due to the favorable groundwater conditions with depths greater than 30 feet, predominantly gravelly sand soil types, and medium dense nature (Figure 4).

6.2.4 Ground Rupture

Rupture of the ground at the site, due to shaking from seismic events, is not considered a significant hazard and would have a minor impact on the proposed development.

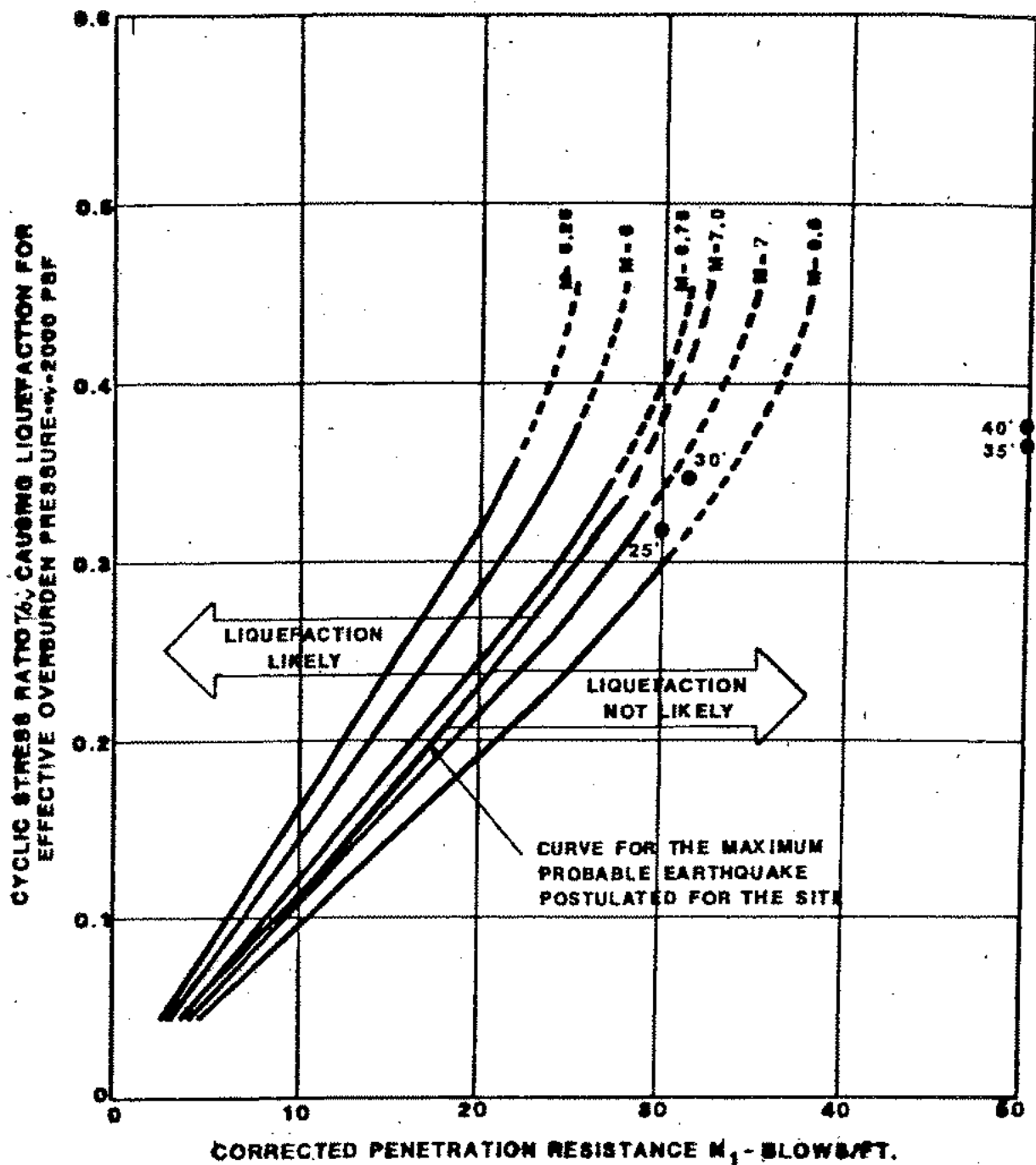
7.0 SUBSURFACE CONDITIONS

7.1 Wastewater Treatment Facilities Site

Our test borings indicate that the wastewater treatment facilities site is underlain by recent alluvium consisting predominantly of silty sand and sand. Gravels were present in varying amounts throughout the soil strata. The in-place soils are generally medium dense to dense.

These alluvial soils should exhibit good strength characteristics when recompacted. The sands and silty sands are also non-expansive and relatively free draining.

Groundwater was encountered in Boring 4 at a depth of 38 feet. We understand from our discussions with Foothill Properties that the highest depth in recent times has been about 30 feet.



LIQUEFACTION POTENTIAL ANALYSIS

JOB NO.: 7158-001-00-00

DATE: SEPTEMBER 1987

FIGURE: 4

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

7.2 Off-Site Water Transmission Main

Our test borings along the transmission main alignment indicate that the subsurface soils are predominantly sands, silty sands, sandy gravel and gravelly sand. The in-place soils are in a loose to dense state.

The soils should be readily excavatable with conventional trenching equipment. Compaction of these soils should not present a problem. However, the soils are about 3 to 5 percent below optimum conditions necessitating the addition of water to the soils prior to their replacement as compacted fill.

Groundwater was not encountered in any of our borings of August 1987 to the maximum depth explored of 9 feet along the Transmission Main alignment.

8.0 GEOTECHNICAL EVALUATION AND RECOMMENDATIONS FOR WASTEWATER TREATMENT FACILITIES

8.1 General

Based on the results of this supplemental Geotechnical Investigation, the proposed project is feasible from a geotechnical standpoint provided the recommendations contained in this report are implemented during planning, design and construction. Recommendations for site grading and design of structural foundations and slabs, together with pavement designs and flood control berm designs are presented in the following sections of this report. Suggested specifications for site grading are included in Appendix D.

A brief summary of our findings is contained in the previous "Executive Summary", Section 2.0 portion of this report.

8.2 Grading and Earthwork

8.2.1 Site Clearing

Prior to grading, the site should be cleared of existing vegetation, and miscellaneous debris. Holes resulting from the removal of any buried obstructions, which would extend below finished site grades, should be backfilled with compacted fill. Abandoned concrete irrigation pipes should be removed or crushed in place. The stripped materials should not be incorporated in fills, but should be either removed from the site or stock-piled for use in landscaping.

September 4, 1987

Log No: 7-2010

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8.2.2 Preparation of Existing Soils

Because the surface soils are loose and will probably not provide uniform support for the proposed structures, they should be removed to a minimum depth of at least 2 feet below existing grade or 1 foot below the deepest footing, whichever is greater. The on-site soils may be reused as compacted fill. In building areas, overexcavation should extend laterally, a minimum distance of five feet beyond the exterior footing lines.

Prior to the placement of any fill, the exposed soils, after overexcavation, should be scarified 6 to 8 inches, brought to near optimum moisture conditions and compacted to 90 percent of the maximum dry density as determined by ASTM Standard Test Method: D 1557-78.

8.2.3 Fill Placement

On-site fill soils should be brought to near optimum moisture content and compacted in 6 to 8-inch thick layers to a minimum 90 percent of the maximum dry density.

Fill imported from off-site areas should be equivalent or better in expansion potential to the on-site soils which have a very low expansion potential. Imported soils should be approved by the Soils Engineer prior to use. At least two (2) working days notice should be allowed for approval.

If laboratory testing is necessary to obtain approval of the import source, an additional one to two days should be allowed.

Suggested "Standard Guidelines for Grading Project" are provided in Appendix D of this report.

8.3 Settlement Considerations

8.3.1 Earthworks

Subsidence of the natural ground due to movement of construction equipment is expected to be about 0.2 foot. This subsidence will occur during construction.

The on-site soils can be expected to shrink approximately 15 to 20 percent when recompacted. The exact amount of shrinkage will depend on several factors, including in-place soils densities and moisture contents, as well as grading methods.

8.3.2 Foundations

For statically loaded structural footings supported on properly compacted fill and sized for the recommended bearing pressure, total and differential settlements are not expected to exceed about one inch to one-half inch, respectively. This settlement should occur during construction. For dynamically loaded foundations, the above settlement estimates should be increased by a factor of 2 for long-term service. Subsurface tanks should be adequately designed to resist any bouyant uplift forces.

8.4 Surface and Subgrade Drainage

Discharge from the sewage treatment plant should be piped at least 1000 feet downstream from the site before released to the surficial/subsurface water system.

To enhance future performance in the building pad areas, it is recommended that all pad drainage and runoff from roof drains be collected and directed away from foundations and to proper disposal areas. In soil areas, we recommend that a minimum two percent gradient away from foundation areas be maintained.

It is important that drainage patterns be established at the time of fine grading and maintained through the life of the project. It should be understood that altered drainage patterns, landscaping, planters and other improvements as well as irrigation and variations in seasonal rainfall, all affect subsurface moisture conditions which in turn, could affect structural performance.

8.5 Foundations and Slab Recommendations

8.5.1 General

The natural soils to be found in the proposed building areas are expected to have a very low expansion potential. This expansion potential should be confirmed at the conclusion of rough grading. Reinforcement of footings and slabs to resist volume changes of the foundation soils are not considered necessary. A Structural Engineer should evaluate configurations and reinforcement requirements for structural loadings, shrinkage and temperature stresses.

8.5.2 Foundations

Footings should have the following minimum dimensions and depths and should be designed using the bearing capacities recommended, as underlined.

- a) Individual Column Loads - Minimum 18-inches wide by 18-inches deep, 2000 pounds per square foot.
- b) Continuous Footings - Minimum 12-inches wide by 12-inches deep, 1500 pounds per square foot.

These bearing values may be increased by one-third for combinations of vertical and short-term horizontal forces. Embedment of interior footings may be measured from top of floor slab.

8.5.3 Concrete Slabs

Concrete floor slabs should be supported on a properly compacted subgrade as recommended in Section 8.2, "Grading and Earthwork". For elastic design, a subgrade modulus of 250 psi/in may be used for slab design.

8.5.4 Lateral Load Resistance

Lateral loads against buildings may be resisted by friction between the bottom of footings and the supporting soils. An allowable friction coefficient of 0.4 is recommended for soil areas.

Passive
As an alternate and provided the footings are poured neat against undisturbed soils, an allowable lateral bearing pressure equal to an equivalent fluid weight of 300 pounds per cubic foot, may be used, but the maximum lateral bearing should be limited to 3000 psf/ft. A combination of friction and lateral bearing pressure may be used provided the latter is reduced by one-third.

8.5.5 Flatwork

Concrete flatwork in exterior building areas should be designed according to the expected soil conditions and anticipated usage. The recommendations given in Section 8.5.3, "Concrete Slabs", should be applied where pertinent.

In addition, construction joints should be provided to reduce the effects of any possible soil movement and concrete shrinkage.

8.6 Soil Sulfate Content

Based on our laboratory testing, ordinary Type I or Type II Portland Cement may be used in the construction of concrete foundations or slabs in contact with subgrade soils. This condition should be confirmed by actual sulfate testing performed at the conclusion of grading.

8.7 Utility Trench Backfill

It is our opinion that utility trench backfill consisting of the on-site material types could be best placed by

mechanical compaction to a minimum of 90 percent of the laboratory maximum dry density (relative compaction).

As an alternative, granular material (S.E. >30) may be placed in lifts and thoroughly jetted in-place; however, jetting should only be considered to apply to trenches no greater than 2 feet in width. Following jetting operations trench backfill should be thoroughly and mechanically compacted and/or wheel rolled from the surface to a minimum of 90 percent relative compaction.

Exterior trenches extending below a 1:1 (horizontal:vertical) projection from the outer edge of foundations should be mechanically compacted to a minimum of 90 percent relative compaction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, we would recommend that utilization of light-weight mechanical equipment and/or shading of the conduit with clean granular material, which could be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction also may be appropriate as approved by the Soils Engineer at the time of construction. Suggested guidelines for trench backfill specifications are included in Appendix D.

8.8 Pavement Design

Recommended pavement sections should be based on laboratory testing of the actual subgrade soils after site grading is complete. The assumed preliminary Traffic Index values indicated herein are in accordance

with our usual engineering practice and are intended only for preliminary project budget estimates.

For this preliminary pavement design, sand equivalent and sieve analysis testing were performed on a bulk sample which was considered representative of soils to be found at pavement subgrade elevations. The values were used to estimate a design R-value for the subgrade soils of 50. A description of the laboratory testing procedures, as well as the test results, are presented in Appendix C.

Accordingly, our preliminary pavement design recommendations are as follows:

T.I. = 4.0 (Automobile Parking)	3-inches Asphaltic Concrete placed in <u>two</u> lifts over compacted native subgrade
T.I. = 5.5 (Truck Driveways and Access Roads)	3-inches Asphaltic Concrete placed in <u>two</u> lifts over 4-inches of Class II Aggregate Base or its equivalent

Subgrade soils should be compacted to a minimum of 95 percent relative compaction, as determined by laboratory test ASTM: D 1557-78 (Five-Layer Method), to a minimum depth of 12-inches.

Base coarse materials should meet the requirements of Section 26 of the California Department of Transportation Standard Specifications for Class II Aggregate Base or its equivalent, and be compacted to a minimum of 95 percent relative compaction.

8.9 Retaining Walls

Retaining walls for subsurface structures should be designed in accordance with the following criteria:

ACTIVE PRESSURES

<u>Backfill</u> <u>Soil Type</u>	<u>Unrestrained</u> <u>Walls</u>	<u>Restrained</u> <u>Walls</u>	<u>Walls With No</u> <u>Tolerable Deflection</u>
Natural Soils	35 pcf	40 pcf	50 pcf
Select Backfill (S.E.>30)	30 pcf	35 pcf	45 pcf

Walls subject to surcharge loads should be designed for an additional uniform lateral pressure equal to one-half the anticipated surcharge pressure in the case of restrained walls or one-third the surcharge pressure for unrestrained walls. The wall backfill should be well-drained to relieve possible hydrostatic pressures on the wall. Wall footings should be designed as discussed in the "Foundation and Slab Recommendations", section.

8.10 Grading and Foundation Plan Review

As foundation and grading plans are completed, they should be forwarded to us for review for conformance with the intentions of these recommendations.

8.11 Flood Control Berm

8.11.1 Compaction Requirements

The compaction requirements for the flood control berm should be the same as presented in Section 8.2, "Grading and Earthwork".

8.11.2 Material Requirements

Based on the results of our permeability testing, the on-site soils are granular and free draining. They could be prone to wind and water erosion if used to construct the flood control berm. We therefore recommend that the flood control berm be constructed of a clayey soil with a permeability of no more than 1×10^{-6} centimeters per second and a plasticity index of at least 10. It is our understanding that this type of material is readily available offsite and does not present a major constraint.

8.11.3 Construction Requirements

The berm should be keyed into competent native soils at a minimum depth of 2 feet. Slopes should be constructed at a 2:1 (horizontal:vertical) slope ratio or flatter. The slopes should be planted with drought resistant vegetation as soon as possible after construction to enhance surficial stability.

The infiltration of surface water into the trench excavations should be prevented where possible. If water is present in the trenches, from surface or subsurface sources, it should be dewatered prior to backfill operations.

9.2.2 Bedding Material

All bedding and shading materials around the sewer pipe should have a Sand Equivalent of 30 or more and be in accordance with the requirements of the County of Riverside, and the recommendations of the design consultants for the project.

9.2.3 Fill Placement

The bottom of the sewer trench excavation should be founded in firm competent material as determined from this investigation. Fill soils should be brought to near optimum moisture conditions and compacted in lifts to a minimum of 90 percent of the maximum density based upon ASTM Laboratory Test Designation D 1557-78 (Five-Layer Method). Care should be taken to protect the pipe from breakage during backfilling operations. Construction should progress in a timely manner such that the walls of the excavations are not allowed to dry out and slough.

9.2.4 Observation

All trenching and backfilling operations should be performed under the observation and testing of the Soils Engineer or his delegated representative.

10.0 LIMITATIONS OF INVESTIGATION

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Soils Engineers and Geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The samples taken and used for testing and the observations made are believed representative of the entire project; however, soil and geologic conditions can vary significantly between borings, test pits, and surface outcrops.

As in most projects, conditions revealed by excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the Project Soils Engineer and Geologist and designs adjusted as required or alternate designs recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge.

Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

John S. Murk Engineers

September 4, 1987

Job No: 08-7168-001-00-00

Log No: 7-2010

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This opportunity to be of service is sincerely appreciated. If you have any questions, please call.

Very truly yours,

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

Dean R. Stanphill

Dean R. Stanphill
Staff Engineer

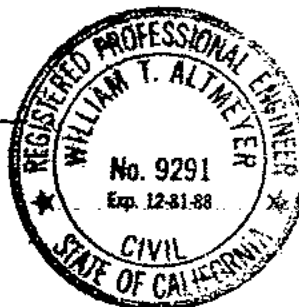
Warren L. Sherling

Warren L. Sherling, C.E.G. 1182
Chief Engineering Geologist
Registration Expires 6-30-88

Reviewed by:

William T. Altmeyer

William T. Altmeyer, R.C.E. 9291
Director of Geotechnical Services
Registration Expires 12-31-88



DRS:WLS:WTA:mmf

APPENDIX A
REFERENCES

REFERENCES

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APPENDIX B
LOGS OF BORINGS

DATE OBSERVED: 7-27-87 METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 1	SOIL TEST
							DESCRIPTION	
0	SM						NATURAL GROUND:	
41		X			1.8	107	Brown fine to coarse grained silty SAND with fine gravel - some coarse gravel @2', dry	
30	SW	X			2.9	109	@4' Fine to coarse grained SAND with gravel	
50/6"		X			3.6	104	@9' Slightly Moist	
69		X			5.3	105	@17' Some clay, gravel layers, occasional cobbles, boulders	
40							@40' Refusal	
							Total Depth: 40' No Water	

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-1

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING:

8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION:

See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 2	SOIL TEST
							DESCRIPTION	
0	SM						NATURAL GROUND:	
					1.5	106	Brown fine to medium grained silty SAND with gravels, dry	Remolded Permeability
3	SW	24	X				@3' Brown fine to coarse grained SAND with gravel	
6							@6' Layers of silty SAND, moist, slightly porous	
9		14	X		8.3	97	@7' Brown, fine to medium grained, moist, medium dense	
12							@12' Loose, fine to medium grained SAND with clay, some mica	
15		7	X		8.0	98		
18							@17' Rockier	
21								
24		28	X		2.9	106		
25							@25' Rocks - No water	
26							Total Depth: 25'	
27							No Water	
30								
33								
36								
39								
42								
45								

JOB NO. 06-7168-001-00-00

LOG OF BORING

FIGURE: B-2

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	SULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 3	SOIL TEST
							DESCRIPTION	
0	SM						NATURAL GROUND: Brown fine to coarse silty SAND with gravels, dry	
3.5	SP	22					@3.5' Fine to medium grained dry to slightly moist	
4		3					@4' Medium grained SAND	
5.5							@5.5' Fine to medium grained silty SAND	
7							@7' Rock	
9							@9' Fine to coarse grained SAND with some fine gravel, moist	
14	SW	18					@14' Fine to medium grained, some silt, saturated	
15	SP	9					@15' Gravel	
19							@19' Fine to coarse grained SAND with fine gravel, moist	
20	SW	33					@21' Refusal	
21							Total Depth: 21' No Water	
30							 - Standard Penetration Test	
40								

JOB NO: 68-7168-001-00-00

LOG OF BORING

FIGURE: B-3

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87 METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 4 DESCRIPTION	SOIL TEST
0	SM						NATURAL GROUND: Brown fine grained silty SAND with some coarse grains, dry	
6	SW	13			2.2	-	@3' Fine to coarse grained SAND, some gravel	
							@7' Slightly Moist	
10		21			4.5	-	@10' Gravels - 2" max	
15		16			4.5	-		
20		28			5.9	-	@20' Two-inch thick layers of silty SAND, saturated, free water outside. Interlayered sand, moist	
25		20			2.7	-	Increasing amount of gravel @24' Fine to coarse grained SAND	Sieve Analysis
30	SP	31			2.7	-	@29' Fine to medium grained	Sieve Analysis
35	SW	50/6"			3.2	-	@34' Fine to coarse grained	Sieve Analysis
							@38' Water	
40		50			14.8	-	@39' Fine to coarse grained	Sieve Analysis

JOB NO:
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LOG OF BORING

FIGURE: B-4

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87 METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 4 (CONTINUED)	SOIL TEST
							DESCRIPTION	
40							@41' Refusal	
45							Total Depth: 41' Water @38'	
50								
55								
60								
65								
70								
75								
80								

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-4a

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 5	SOIL TEST
							DESCRIPTION	
0	ML						NATURAL GROUND:	Sand Equivalent Expansion Maximum Density/ Optimum Moisture Remolded Direct Shear Sieve Analysis
5	SW	12	NR				Brown fine grained sandy SILT, dry	
							@2' Fine to coarse grained SAND	
							@3' Some gravels and cobbles	
6		17			1.2	99	@5' Moist, fine to coarse silty SAND	
	SM						@6' Fine to coarse grained SAND	
	SW							
10		32			3.4	104	@ 9' Slightly Moist	
							@11' Gravels and cobbles	
18		27						
20							@20' Gravels	
							@23.5' Layers of silty SAND/clayey SAND	
25		44						
							Total Depth: 25'	
							No Water	
30								
35								
40								

JOB NO.: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-5

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNOBTAINED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 6	SOIL TEST
0	SM						NATURAL GROUND: Brown fine to medium grained silty SAND, dry @3' Tan fine to coarse grained SAND with gravel, dry @4' Slightly moist @7' Brown fine to coarse grained silty SAND/clayey SAND, moist @14' Brown fine to coarse grained SAND, moist @20' Some gravel	
5	SW	30	X		-	-		
10		14	X		5.2	98		
15					-	-		
20					-	-	Total Depth: 25' No Water  - Standard Penetration Test	
25		48			-	-		
30								
35								
40								

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-6

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION: _____

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. <u>7</u>	SOIL TEST
							TANK SITE #1	
							DESCRIPTION	
0	SM	27	X	X			<u>FILL:</u> Brown fine to coarse grained silty SAND with gravels and cobbles @2' Dark brown silty SAND with organics, moist, brown and reddish brown mottled some fine gravel @7' Foul smell, black organics	Sand Equivalent Maximum Density/ Optimum Moisture Sieve Analysis Remolded Direct Shear
10		13	X	X				
15	SM	11	X	X			<u>NATURAL GROUND:</u> Gravels and cobbles @13', brown fine to coarse silty SAND, moist	Sieve Analysis
20		68	X	X			<u>BEDROCK</u> - Bedford Canyon Friable, fractured, comes up 2" pieces - bluish colored	
25		50/5"	NR				@29' Refusal	
30							Total Depth: 29' No Water Caved to 14'	
35								
40								

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-7

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 8 TANK SITE #1 DESCRIPTION	SOIL TEST
0	SM						FILL: Brown fine to coarse silty SAND with fine gravel, dry	
6	SM	20						
10		13					NATURAL GROUND: Brown silty SAND, fine to coarse grain, moist @7' Slightly moist, fine to medium grained	
16		41					BEDROCK - Orangish-brown cemented, comes up 3/9" pieces, easy drilling	
20							@23' Refusal	
26							Total Depth: 23' No Water Caved to 15-1/2'	
30							 - Standard Penetration Test	
36								
40								

JOB NO.: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-8

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	SULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 9	SOIL TEST
							TANK SITE - MAIN	
							DESCRIPTION	
0	SM						<u>FILL:</u> Brown fine to coarse silty SAND	
1	SM							
2							<u>NATURAL GROUND:</u> Brown fine to coarse silty SAND @3' Gravels @4-1/2' Refusal on gravels	
3							Total Depth: 4-1/2' No Water	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
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28								
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31								
32								
33								
34								
35								
36								
37								
38								
39								
40								

JOB NO. 08-7188-001-00-00

LOG OF BORING

FIGURE: B-9

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 10 TANK SITE - MAIN DESCRIPTION	SOIL TEST
0							<u>FILL:</u> Brown silty SAND with gravels	
5							<u>NATURAL GROUND:</u> Brown to reddish brown fine to coarse grained silty SAND, slightly moist, gravels, difficult drilling	
10							Total Depth: 5' No Water	
15								
20								
25								
30								
35								
40								

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-10

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 7-27-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNOBTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 11 TANK SITE - MAIN DESCRIPTION	SOIL TEST
0	SW						FILL: Brown gravelly SAND, dry	
5	SW						NATURAL GROUND: Brown gravelly SAND, moist	
10							Total depth: 5' No Water	
15								
20								
25								
30								
35								
40								

JOB NO:
08-7168-001-00-00

LOG OF BORING

FIGURE: B-11

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-4-87 METHOD OF DRILLING: 8" Hollow-Stem Auger
 LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 12 MAP SYMBOL - 1	SOIL TEST
							DESCRIPTION	
0	GW						FILL: Brown sandy gravel, slightly moist @4' Dark brown fine to coarse grained silty SAND, moist, loose to medium dense	
4	SM	6			1.3	-		
9							Total Depth: 9' No Water  - Standard Penetration Test (Typical)	
10								
15								
20								
25								
30								
35								
40								

DATE OBSERVED: 8-4-87 METHOD OF DRILLING: 8" Hollow-Stem Auger
 LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOW/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 13 MAP SYMBOL - 2	SOIL TEST
							DESCRIPTION	
0	SM						NATURAL GROUND: Reddish brown silty SAND, fine to medium grained, slightly moist @3' Brown @5' Gravels and cobbles @6' Dense	
10		24			5.6	-		
15								
20								
25								
30								
35								
40								



- Standard Penetration Test

JOB NO. 08-7168-001-00-00

LOG OF BORING

FIGURE: B-13

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-4-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 14 MAP SYMBOL - 3 DESCRIPTION	SOIL TEST
0	SW							
5		38			4.5	-	<u>FILL:</u> Light gray, fine to coarse grained gravelly SAND with SILT <u>NATURAL GROUND:</u> @1' Brown, moist fine to coarse grained SAND @6' Dense	Sand Equivalent Sieve Analysis
10								
15								
20								
25								
30								
35								
40								



- Standard Penetration Test

JOB NO. 08-7168-001-00-00

LOG OF BORING

FIGURE: B-14

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87 METHOD OF DRILLING: 8" Hollow-Stem Auger
 LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 15 MAP SYMBOL - 4 DESCRIPTION	SOIL TEST
0	SP						NATURAL GROUND: White fine to medium grained SAND @2' Brown with fine gravel, slightly moist @4' Darker brown, moist @6' Loose	
5		5			5.7	-		
9							Total Depth: 9' No Water	
10								
15								
20								
25								
30								
35								
40								

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION: _____

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 16 MAP SYMBOL - 5 DESCRIPTION	SOIL TEST
0	SM						NATURAL GROUND: Dark brown fine to coarse grained silty SAND, moist @4' Light brown to brown	
6		7			10.4	-		
10							Total Depth: 9' No Water	
16							 - Standard Penetration Test	
20								
26								
30								
36								
40								

JOB NO:
08-7168-001-00-00

LOG OF BORING

FIGURE: B-16

HIGHLAND GEOTECHNICAL CONSULTANTS, INC

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 17	SOIL TEST
							MAP SYMBOL - 6	
							DESCRIPTION	
0	SW GW						NATURAL GROUND: Brown gravelly SAND/sandy gravel with some cobbles, dry @6" Moist @3' Dark brown fine to coarse SAND with silt and fine gravel @5' Fine with some coarse gravel @6' Fine to coarse grained SAND with fine gravel	
4	SW	4			10.6	-		
9							Total Depth: 9' No Water	
15								
20								
25								
30								
35								
40								

 - Standard Penetration Test

JOB NO. 08-7188-001-00-00

LOG OF BORING

FIGURE: B-17

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 18	SOIL TEST
							MAP SYMBOL - 7	
							DESCRIPTION	
0	SM						NATURAL GROUND: Light brown fine to coarse grained silty SAND with gravel and cobbles	
4	SW						@4' Gravelly SAND, sandy gravel, moist	
6		9			5.4	-	@6' Dark brown SAND with fine gravel, Moist	
10							Total Depth: 9' No Water	
15							 - Standard Penetration Test	
20								
25								
30								
35								
40								

JOB NO. 08-7168-001-00-00

LOG OF BORING

FIGURE: B-18

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87 METHOD OF DRILLING: 8" Hollow-Stem Auger
 LOGGED BY: DS GROUND ELEVATION: _____ LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. <u>19</u> MAP SYMBOL - 8 DESCRIPTION	SOIL TEST
0	SW						NATURAL GROUND: Dark brown fine to coarse SAND with gravel and some cobbles, dry @6" Slightly moist, hard drilling @3' Coarse gravel	
6		18			2.7	-	@6' Fine grained gravel	
9							Total Depth: 9' No Water	
12							- Standard Penetration Test	
15								
18								
21								
24								
27								
30								
33								
36								
39								
42								
45								
48								
51								
54								
57								
60								

LOG NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-19

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNOBTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 20 MAP SYMBOL - 9 DESCRIPTION	SOIL TEST
0	SM						<u>FILL:</u> Brown fine to coarse silty SAND @1' Green SAND, moist	
4	SM			X			<u>NATURAL GROUND:</u> @4' Brown fine to coarse silty SAND with gravel, moist, some silt	
10		10			9.1	-		
12							Total Depth: 9' No Water	
16								
20								
24								
28								
32								
36								
40								

 - Standard Penetration Test

JOB NO. 08-7188-001-00-00

LOG OF BORING

FIGURE: B-20

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION:

See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 21 MAP SYMBOL - 10 DESCRIPTION	SOIL TEST
0	SW						NATURAL GROUND: Brown fine to coarse grained SAND with SILT, slightly moist, some gravel	Sand Equivalent Sieve Analysis
5		7			6.5		@5' Cleaner @6' Lighter brown	
10							Total Depth: 9' No Water	
15								
20								
25								
30								
35								
40								

JOB NO: 08-7158-001-00-00

LOG OF BORING

FIGURE: B-21

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87 METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS GROUND ELEVATION: LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOW/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 22	SOIL TEST
							MAP SYMBOL - 11	
							DESCRIPTION	
0	SW						NATURAL GROUND: Brown fine to coarse grained SAND, moist, some fine gravel	
4		8			5.9	-	@4' Darker @6' Lighter brown	
8							Total Depth: 9' No Water	
12								
16								
20								
24								
28								
32								
36								
40								

 - Standard Penetration Test

JOB NO:
08-7168-001-00-00

LOG OF BORING

FIGURE: B-22

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

DATE OBSERVED: 8-6-87 METHOD OF DRILLING: 8" Hollow-Stem Auger
 LOGGED BY: DS GROUND ELEVATION: _____ LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNOBTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. <u>23</u> MAP SYMBOL - 12	SOIL TEST
							DESCRIPTION	
0	SW						NATURAL GROUND: Light brown fine to coarse SAND with silt and fine gravel, moist	
4		44			4.7	-	@4' Brown @5' Harder drilling, gravel	
9							Total Depth: 9' No Water	
10								
15								
20								
25								
30								
35								
40								



- Standard Penetration Test

DATE OBSERVED: 8-6-87

METHOD OF DRILLING: 8" Hollow-Stem Auger

LOGGED BY: DS

GROUND ELEVATION:

LOCATION: See Geotechnical Map

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT (%)	IN PLACE DRY DENSITY (PCF)	BORING NO. 24	SOIL TEST
							MAP SYMBOL - 13	
							DESCRIPTION	
0	SM						2" AC on surface	
5	SW	20			5.6	-	NATURAL GROUND: Dark brown fine to coarse SAND with silty sand, silt, moist @3' Gravel @4' Dark grey fine to coarse grained SAND with gravel, hard drilling @5' Easier drilling @6' Lighter brown, slightly moist @9' Refusal on gravel	
10							Total Depth: 9' No Water	
15								
20								
25								
30								
35								
40								

JOB NO: 08-7168-001-00-00

LOG OF BORING

FIGURE: B-24

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

PRIMARY DIVISIONS			SYMBOLS		SECONDARY DIVISIONS	
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)		GW	Well graded gravels, gravel-sand mixtures, little or no fines.	
				GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.	
		GRAVEL WITH FINES		GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.	
				GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.	
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)		SW	Well graded sands, gravelly sands, little or no fines.	
				SP	Poorly graded sands or gravelly sands, little or no fines.	
		SANDS WITH FINES		SM	Silty sands, sand-silt mixtures, non-plastic fines.	
				SC	Clayey sands, sand-clay mixtures, plastic fines.	
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.	
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays.	
				OL	Organic silts and organic silty clays of low plasticity.	
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
				CH	Inorganic clays of high plasticity, fat clays.	
				OH	Organic clays of medium to high plasticity, organic silts.	
HIGHLY ORGANIC SOILS				Pt	Peat and other highly organic soils.	

GRAIN SIZES

SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
	200	40	10	4	3/4"	3"	12"
	U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS		

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

CLAYS AND PLASTIC SILTS	STRENGTH**	BLOWS/FOOT*
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

*NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30-INCHES TO DRIVE A 2-INCH O.D. (1-3/8-INCH I.D.) SPLIT SPOON (ASTM D-1586).

**UNCONFINED COMPRESSIVE STRENGTH IN TONS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST (ASTM D-1586), POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION

KEY TO LOGS

JOB NO.:	DATE:	FIGURE:
08-7168-001-00-00	SEPTEMBER, 1987	B-25

APPENDIX C
LABORATORY TESTING

LABORATORY TESTING

A. Classification

Soils were classified visually according to the Unified Soil Classification System. Classification was supplemented by index tests, such as Particle Size Analysis. Moisture content and dry density determinations were made from undisturbed samples. Moisture content determinations were made from Standard Penetration Test samples.

B. Particle Size Analysis

Particle size analyses, consisting of mechanical analysis (sieve) were performed on representative samples of the on-site soils in accordance with ASTM: D 422-63. Test results are shown on Figures C-1 through C-9.

C. Sand Equivalent

Sand equivalent tests were performed on representative samples of the subsurface soils to supplement visual classifications and mechanical analysis. The laboratory standard used was ASTM: D 2419-74. The test results are represented on Figure C-10, Table I.

D. Maximum Density/Optimum Moisture Content

The maximum dry density/optimum moisture content relationship was determined for typical samples of the on-site soils. The laboratory standard used was ASTM: D 1557-78. The test results are summarized on Figure C-10, Table II.

E. Expansion

An expansion test was performed on a representative sample of the on-site soils remolded and tested under a surcharge of 144 pounds per square foot in accordance with the Uniform

Building Code Standard No. 29-2. The test results are summarized on Figure C-10, Table III.

F. Sulfate

Sulfate tests were performed on representative samples of the on-site soils. The laboratory standard used was California 417A. The test results are presented on Figure C-10, Table IV.

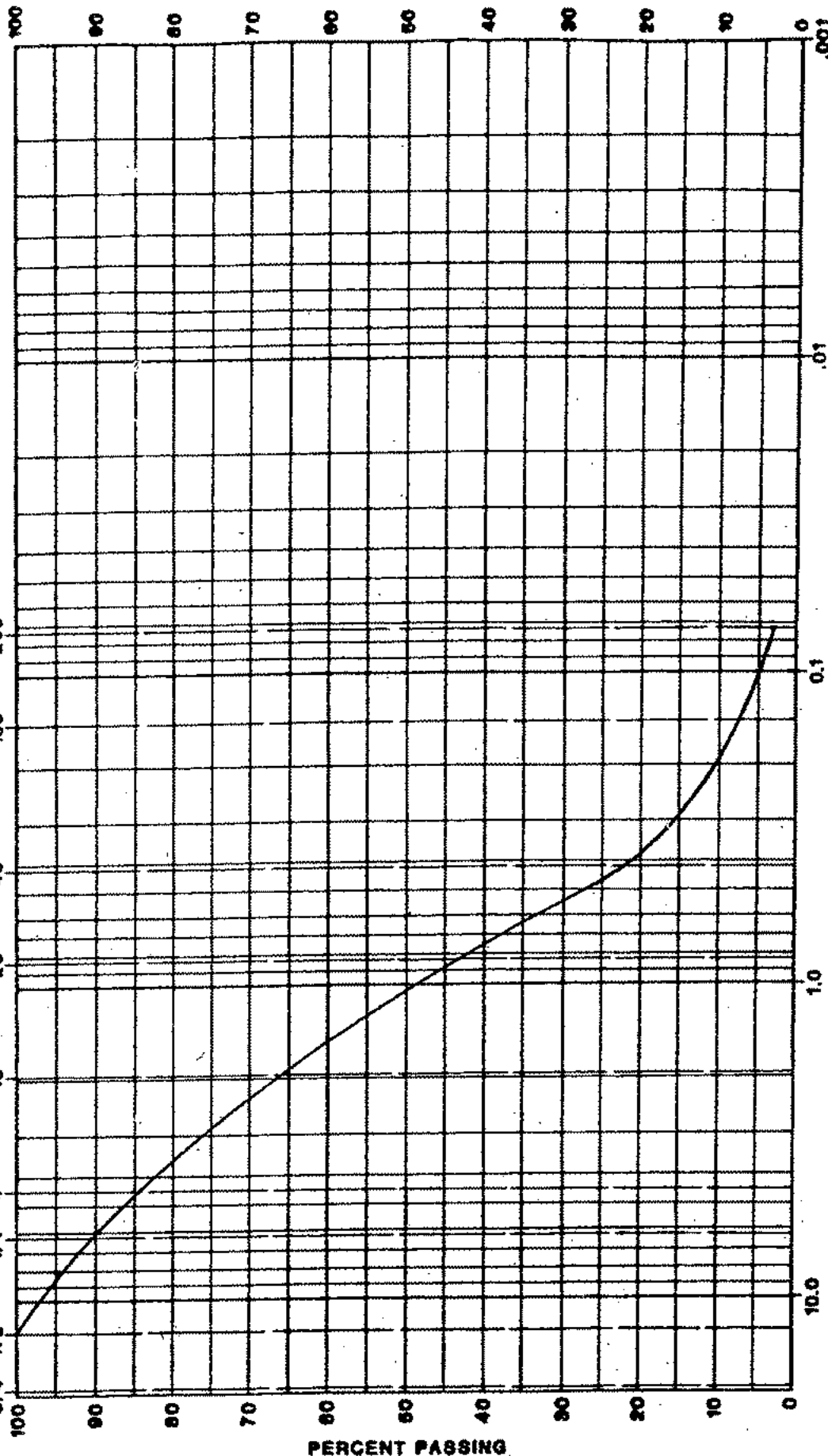
G. Direct Shear

Direct shear strength tests were performed on representative samples of the on-site soils remolded to 90 percent relative compaction. To simulate possible adverse field conditions, the samples were saturated prior to shearing. A saturating device was used which permitted the samples to absorb moisture while preventing volume change. The test results are presented on Figure C-11.

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES--U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
4	24	—	—	—	Fine to Coarse Grained SAND

JOB NO.: 08-7168-001-00-00

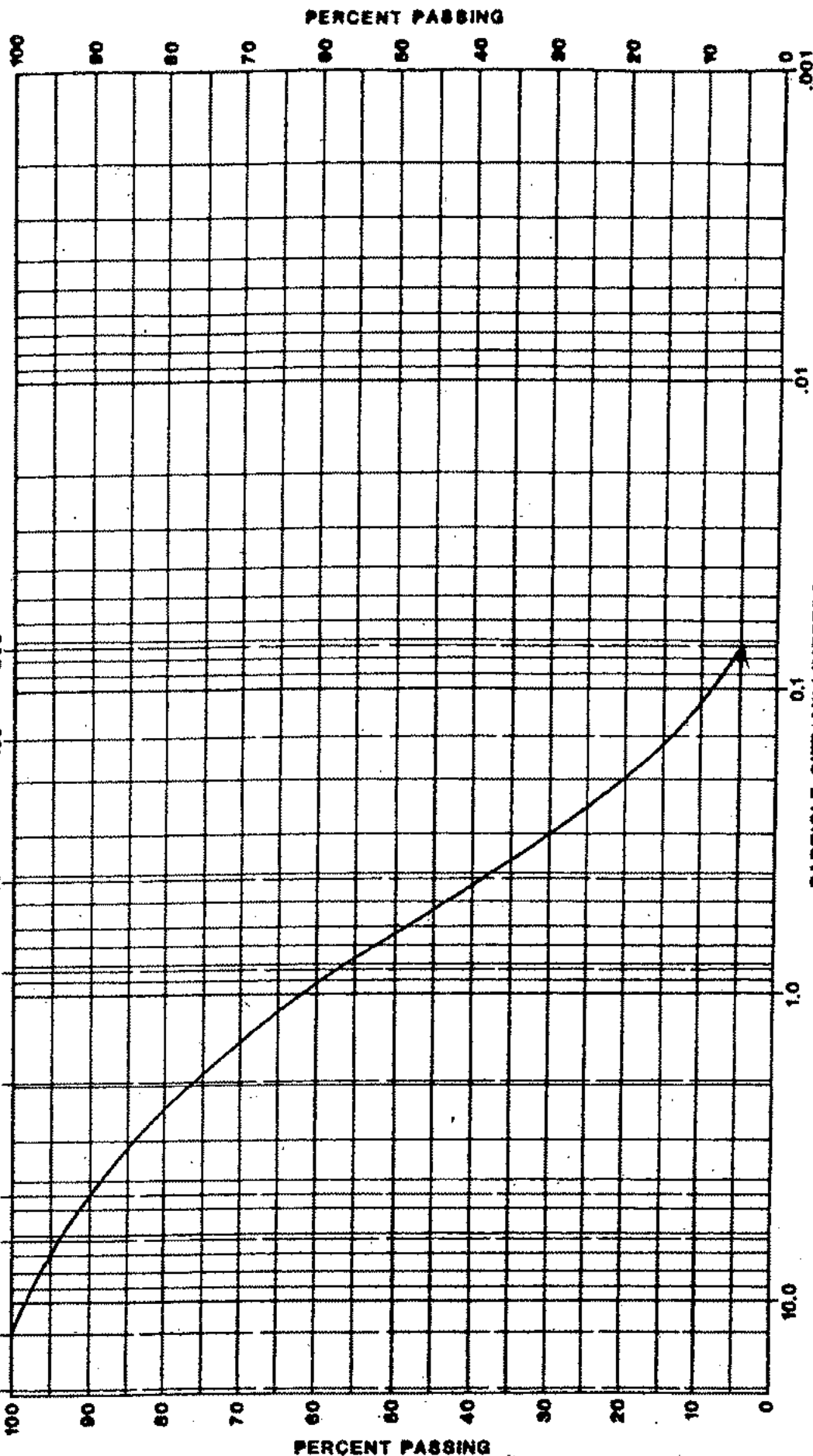
PARTICLE SIZE ANALYSIS

FIGURE: C-1

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES--U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
4	29				Fine to Coarse Grained SAND

JOB NO.: 08-7168-001-00-00

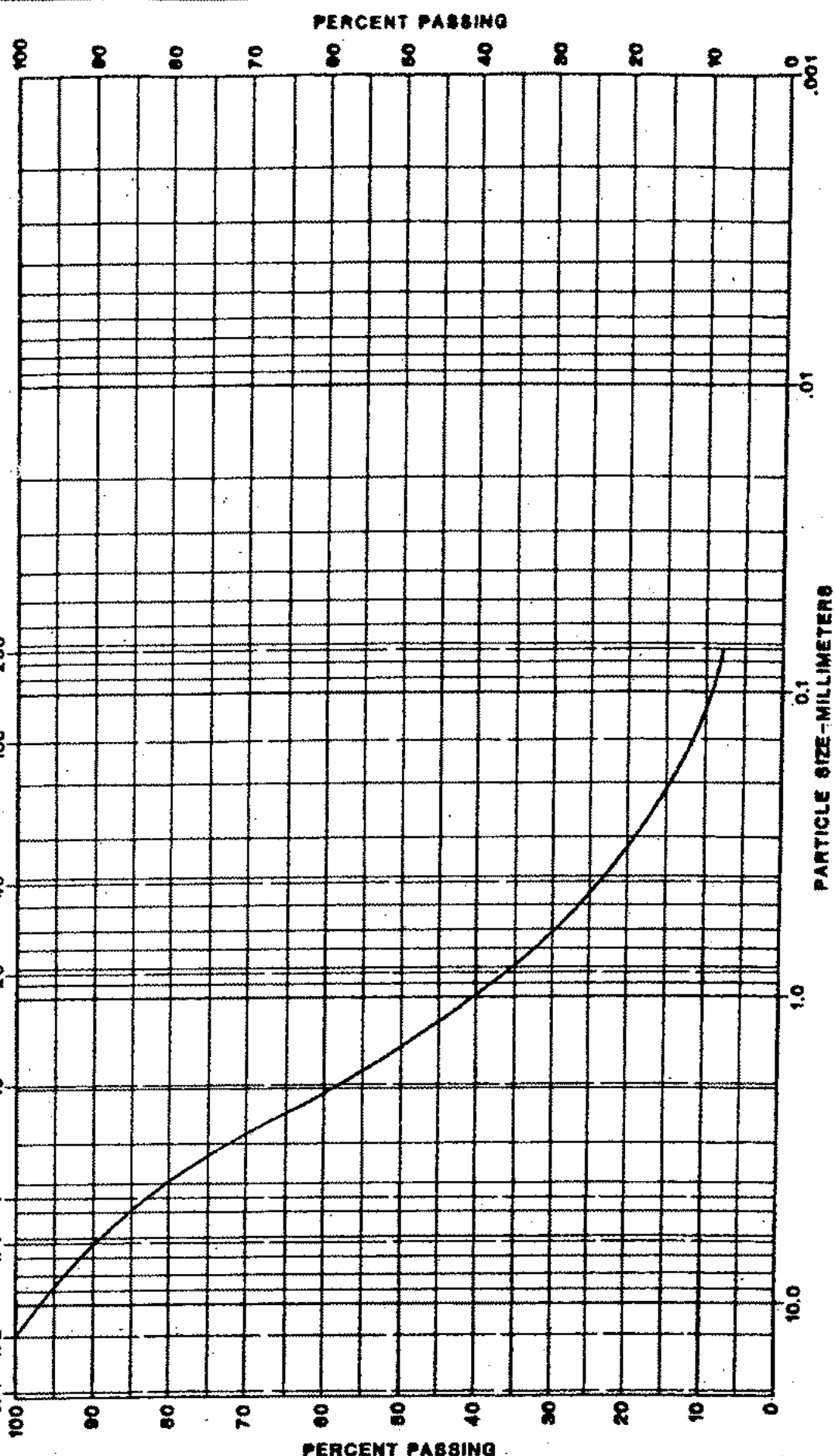
PARTICLE SIZE ANALYSIS

FIGURE: C-2

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES-U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
4	34		-	-	Fine to Coarse Grained SAND

JOB. NO.: 08-7168-001-00-00

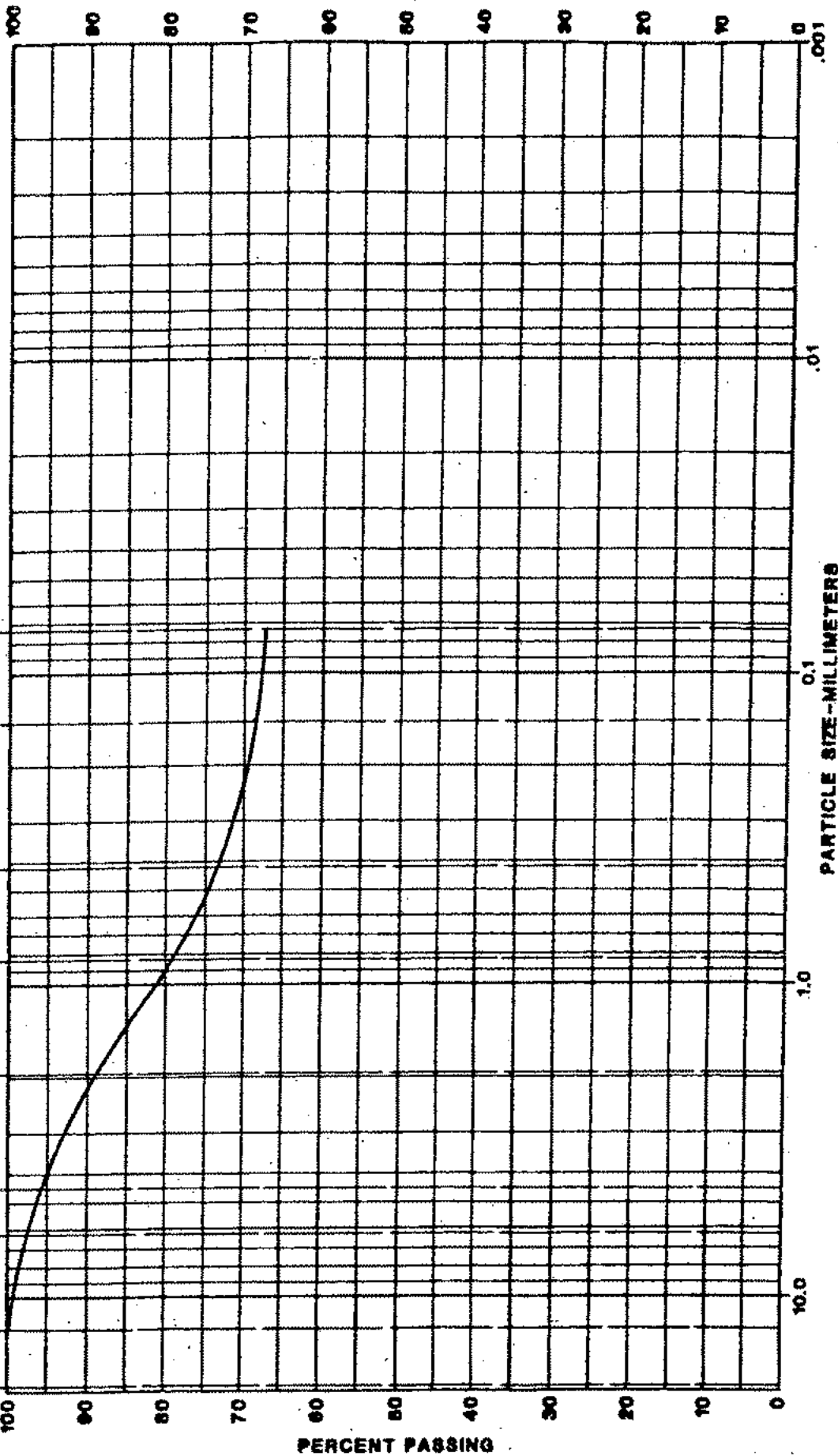
PARTICLE SIZE ANALYSIS

FIGURE: C-3

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES-U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
4	39				Medium Grained Sandy SILT

JOB NO.:
08-7168-001-00-00

PARTICLE SIZE ANALYSIS

FIGURE: C-4

GRAVEL		SAND			SILT		CLAY
		COARSE	MEDIUM	FINE			

SIEVE SIZES—U.S. STANDARD

200

100

40

20

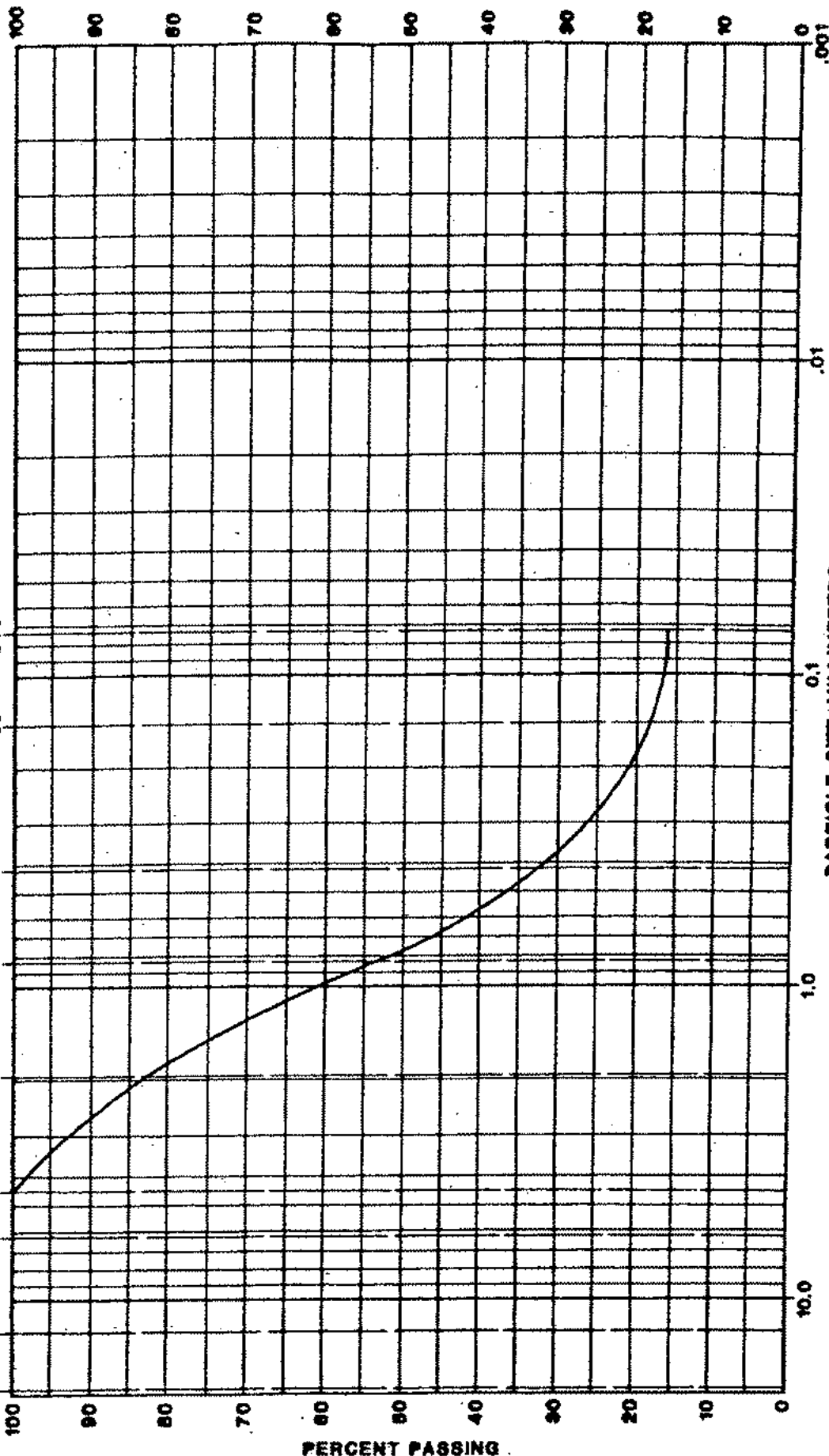
10

4

1/4"

3/4"

1/2"



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
5	2-6	—	—	—	Fine to Coarse Grained Silty SAND

JOB NO:
08-7168-001-00-00

PARTICLE SIZE ANALYSIS

FIGURE:
C-5

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES-U.S. STANDARD

200

100

40

20

10

4

1/4"

1/2"

3/4"

1"

2"

4"

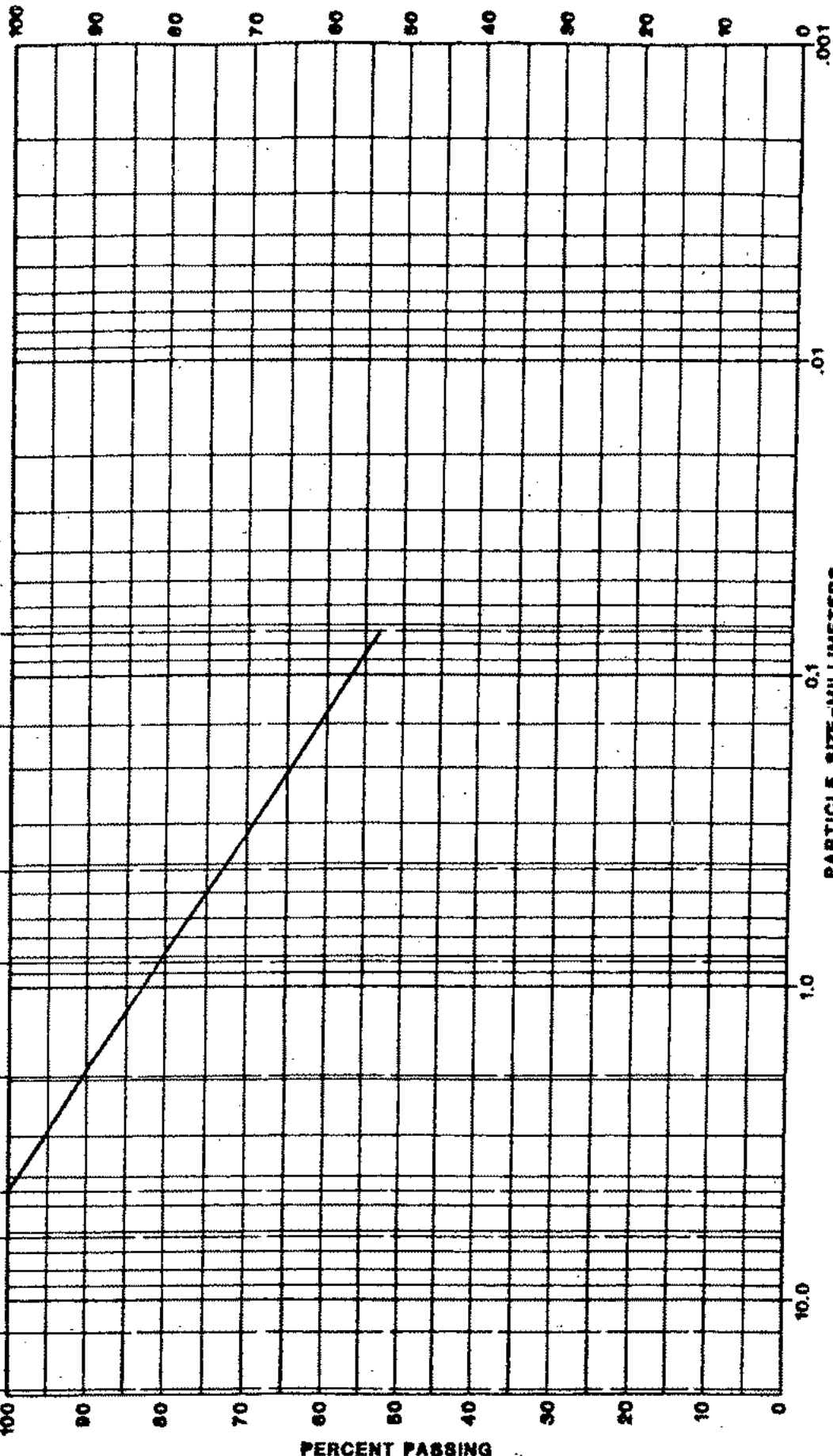
10"

20"

40"

60"

100"



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
7	1-8		-	-	Sandy SILT, Fine to Coarse Grained

JOB NO:
08-7168-001-00-00

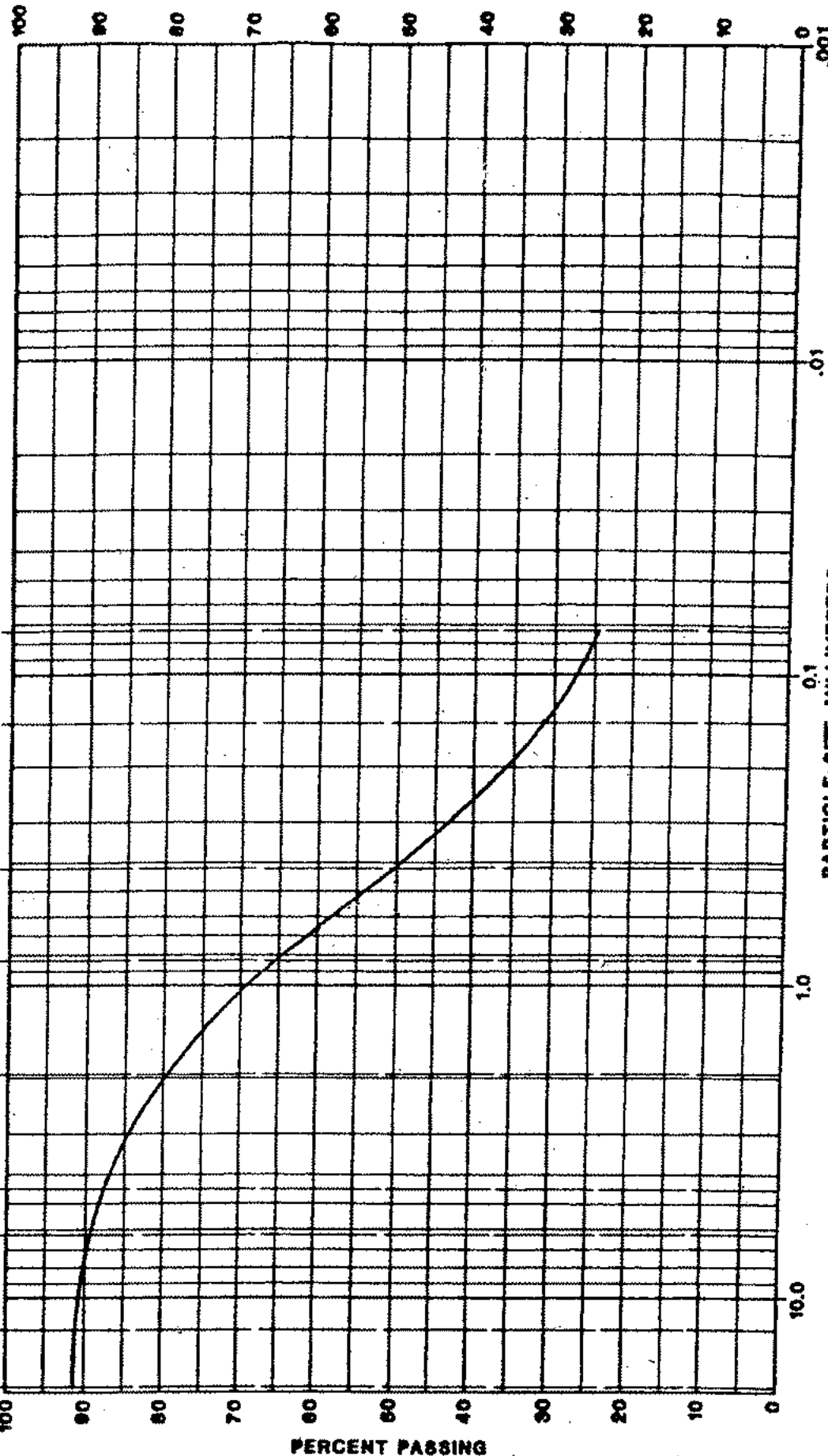
PARTICLE SIZE ANALYSIS

FIGURE:
C-6

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

BIEVE SIZES-U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200



BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
14	2-6		-	-	Fine to Medium Grained Silty SAND

JOB NO:
08-7168-001-00-00

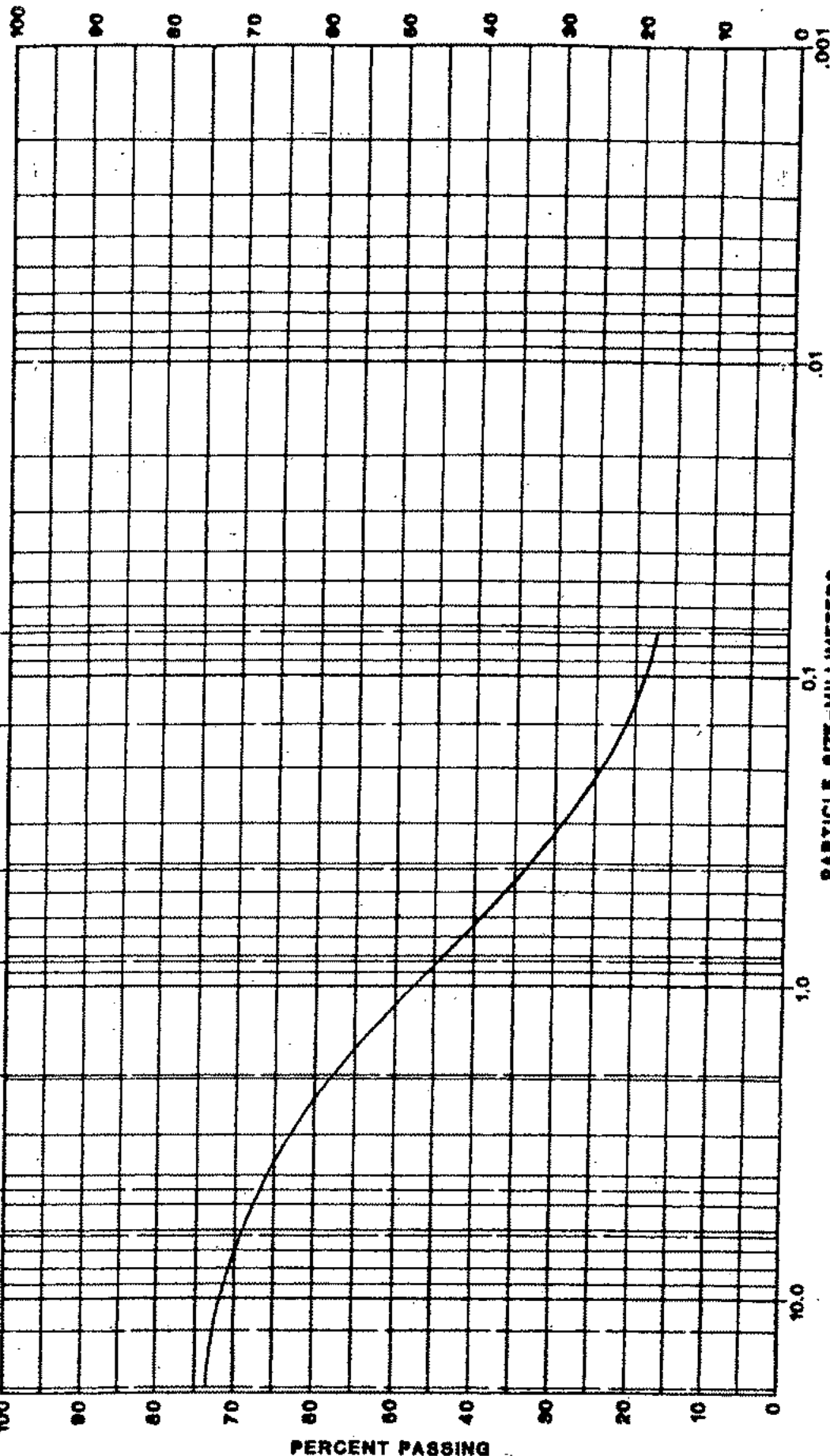
PARTICLE SIZE ANALYSIS

FIGURE:
C-7

GRAVEL	SAND			SILT	CLAY
	COARSE	MEDIUM	FINE		

SIEVE SIZES-U.S. STANDARD

3/4" 1/2" 1/4" 4 10 20 40 100 200

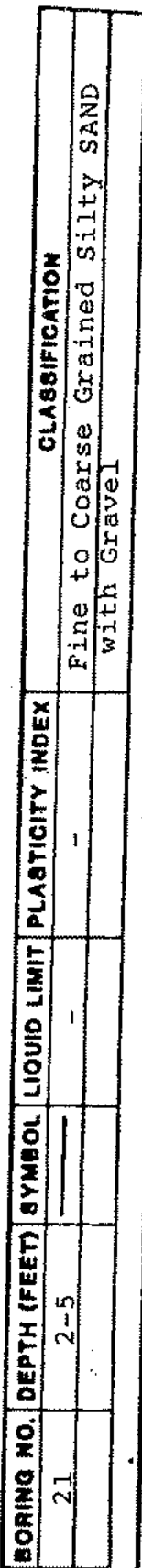


BORING NO.	DEPTH (FEET)	SYMBOL	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
20	4-6		-	-	Fine to Coarse Grained Gravelly SAND with SILT

JOB NO.: 08-7168-001-00-00

PARTICLE SIZE ANALYSIS

FIGURE: C-8



JOB NO.:	08-7168-001-00-00
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PARTICLE SIZE ANALYSIS

FIGURE: C-9

TABLE I

RESULTS OF SAND EQUIVALENT TESTS
(ASTM: D 2419-74)

<u>Test Location</u>	<u>Sand Equivalent</u>
B5@2'-6'	33
B7@1'-8'	12
B14@2'-6'	18
B20@4'-6'	18
B21@2'-5'	21

TABLE II

MAXIMUM DENSITY/OPTIMUM MOISTURE RELATIONSHIP
(ASTM: D 1557-78)

<u>Test Location</u>	<u>Maximum Dry Density (pcf)</u>	<u>Optimum Moisture Content(%)</u>
B5@2'-6'	133.0	7.5
B7@1'-8'	129.0	8.0

TABLE III

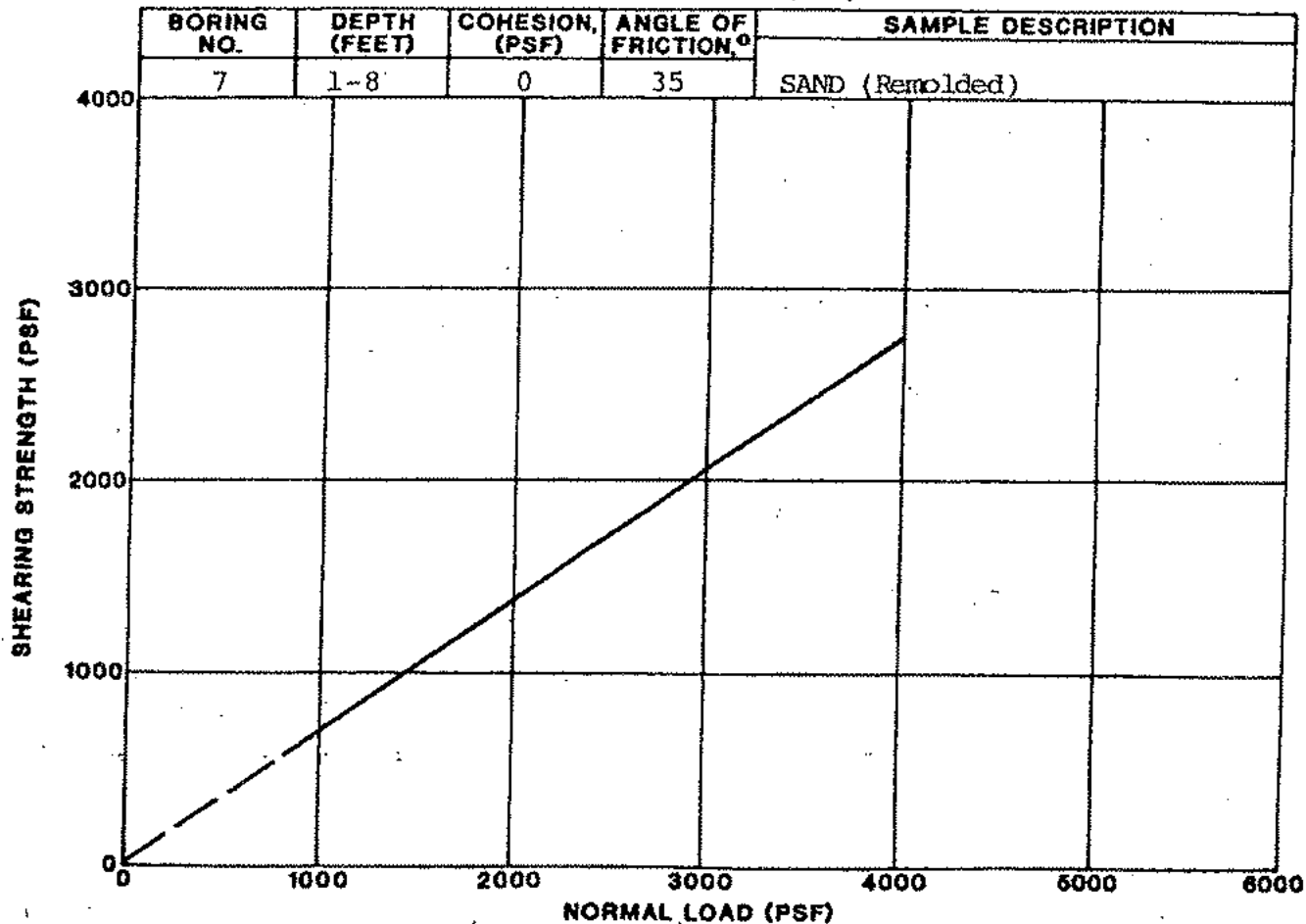
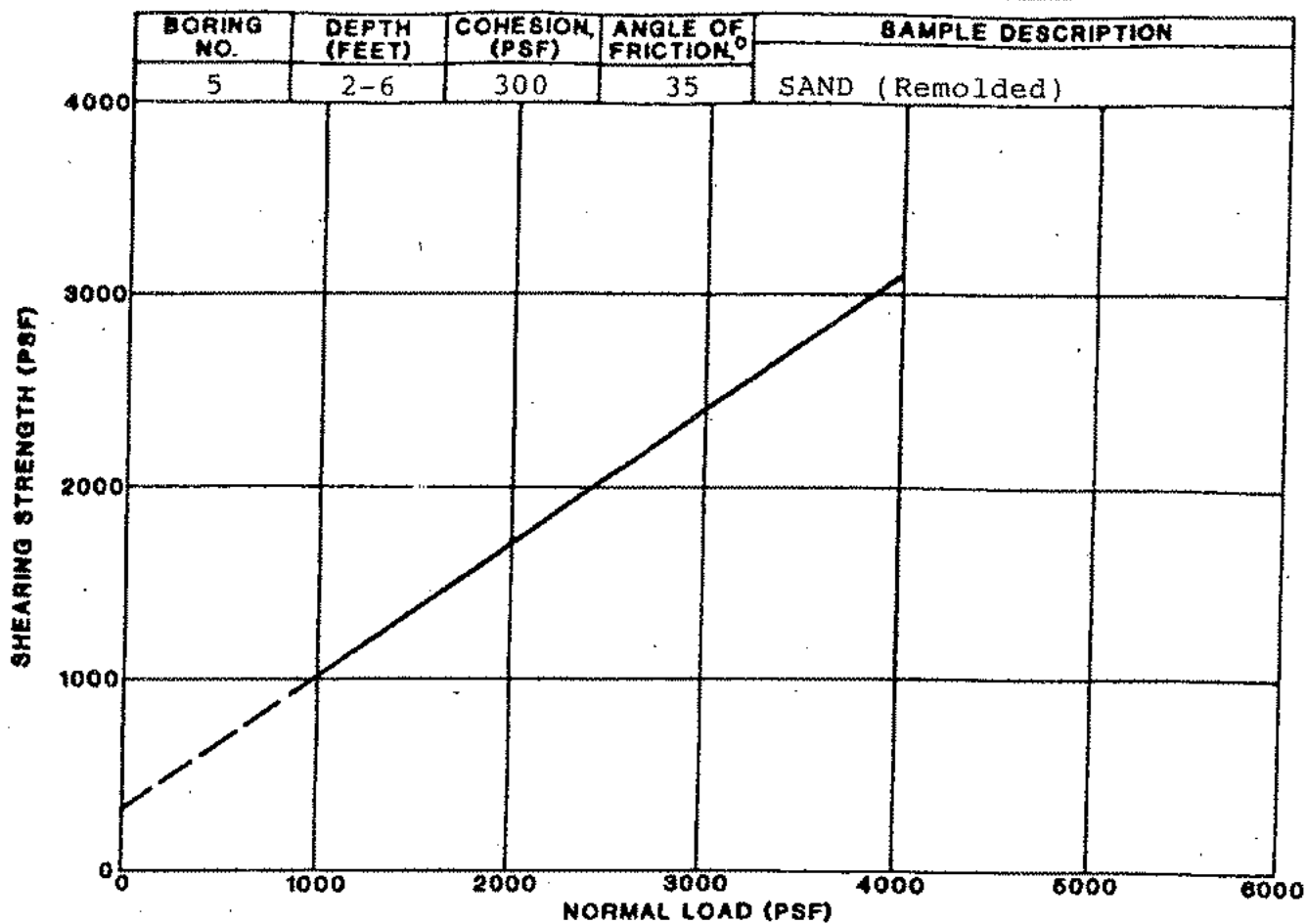
RESULTS OF EXPANSION TESTS
(U.B.C. Standard 29-2)

<u>Test Location</u>	<u>Expansion Index</u>	<u>Expansion Potential</u>
B5@2'-6'	0	Very Low

TABLE IV

RESULTS OF SULFATE TESTS
(California Test Method 417A)

<u>Test Location</u>	<u>% Soluble Sulfate</u>
B5@2'-6'	.0065
B7@1'-8'	.0033



JOB NO.
08-7168-001-00-00

SHEARING STRENGTH TEST

FIGURE: C-11

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.

STANDARD GUIDELINES FOR GRADING PROJECT

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STANDARD GUIDELINES FOR GRADING PROJECT

1. GENERAL

- 1.1 The guidelines contained herein and the standard details attached hereto represent this firm's standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications.
- 1.2 All plates attached hereto shall be considered as part of these guidelines.
- 1.3 The Contractor should not vary from these guidelines without prior recommendation by the Geotechnical Consultant and the approval of the Client or his authorized representative. Recommendations by the Geotechnical Consultant and/or Client should not be considered to preclude requirements for approval by the controlling agency prior to the execution of any changes.
- 1.4 These Standard Grading Guidelines and Standard Details may be modified and/or superseded by recommendations contained in the text of the preliminary geotechnical report and/or subsequent reports.
- 1.5 If disputes arise out of the interpretation of these grading guidelines or standard details, the Geotechnical Consultant shall provide the governing interpretation.

2. DEFINATION OF TERMS

- 2.1 ALLUVIUM - unconsolidated detrial deposits resulting from flow of water, including sediments deposited in river beds, canyons, flood plains, lakes, fans at the foot of slopes and estuaries.
- 2.2 AS-GRADED (AS-BUILT) - the surface and subsurface conditions at completion of grading.
- 2.3 BACKCUT - a temporary construction slope at the rear of earth retaining structures such as buttresses, shear keys, stabilization fills or retaining walls.
- 2.4 BACKDRAIN - generally a pipe and gravel or similar drainage system placed behind earth retaining structures such as buttresses, stabilization fills and retaining walls.

- 2.5 BEDROCK - a more or less solid, relatively undisturbed rock in place either at the surface or beneath superficial deposits of soil.
- 2.6 BENCH - a relatively level step and near vertical rise excavated into sloping ground on which fill is to be placed.
- 2.7 BORROW (Import) - any fill material hauled to the project site from off-site areas.
- 2.8 BUTTRESS FILL - a fill mass, the configuration of which is designed by engineering calculations to stabilize a slope exhibiting adverse geologic features. A buttress is generally specified by minimum key width and depth and by maximum backcut angle. A buttress normally contains a backdrainage system.
- 2.9 CIVIL ENGINEER - the Registered Civil Engineer or consulting firm responsible for preparation of the grading plans, surveying and verifying as-graded topographic conditions.
- 2.10 CLIENT - the Developer or his authorized representative who is chiefly in charge of the project. He shall have the responsibility of reviewing the findings and recommendations made by the Geotechnical Consultant and shall authorize the Contractor and/or other consultants to perform work and/or provide services.
- 2.11 COLLUVIUM - generally loose deposits usually found near the base of slopes and brought there chiefly by gravity through slow continuous downhill creep (also see Slope Wash).
- 2.12 COMPACTION - is the densification of a fill by mechanical means.
- 2.13 CONTRACTOR - a person or company under contract or otherwise retained by the Client to perform demolition, grading and other site improvements.
- 2.14 DEBRIS - all products of clearing, grubbing, demolition, contaminated soil material unsuitable for reuse as compacted fill and/or any other material so designated by the Geotechnical Consultant.
- 2.15 ENGINEERING GEOLOGIST - a Geologist holding a valid certificate of registration in the specialty of Engineering Geology.

- 2.39 SUBDRAIN - generally a pipe and gravel or similar drainage system placed beneath a fill in the alignment of canyons or former drainage channels.
- 2.40 SLOUGH - loose, non-compacted fill material generated during grading operations.
- 2.41 TAILINGS - non-engineered fill which accumulates on or adjacent to equipment haul-roads.
- 2.42 TERRACE - relatively level step constructed in the face of a graded slope surface for drainage control and maintenance purposes.
- 2.43 TOPSOIL - the presumably fertile upper zone of soil which is usually darker in color and loose.
- 2.44 WINDROW - a string of large rock buried within engineered fill in accordance with guidelines set forth by the Geotechnical Consultant.

3. OBLIGATIONS OF PARTIES

- 3.1 The Geotechnical Consultant should provide observation and testing services and should make evaluation to advise the Client on geotechnical matters. The Geotechnical Consultant should report his findings and recommendations to the Client or his authorized representative.
- 3.2 The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the Geotechnical Consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonable accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.
- 3.3 The Contractor should be responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements. During grading, the Contractor or his authorized representative should remain on-site. Overnight and on days off, the Contractor should remain accessible.

4. SITE PREPARATION

- 4.1 The Client, prior to any site preparation or grading, should arrange and attend a meeting among the Grading Contractor, the Design Engineer, the Geotechnical Consultant, representative of the appropriate governing authorities as well as any other concerned parties. All parties should be given at least 48 hours notice.
- 4.2 Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, roots of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.
- 4.3 Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cut-off and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the Geotechnical Consultant at the time of demolition.
- 4.4 Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the Contractor from damage or injury.
- 4.5 Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the Geotechnical Consultant.
- 4.6 The Client or Contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

5. SITE PROTECTION

- 5.1 Protection of the site during the period of grading should be the responsibility of the Contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered

to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the Geotechnical Consultant, the Client and the regulating agencies.

- 5.2 The Contractor should be responsible for the stability of all temporary excavations. Recommendations by the Geotechnical Consultant pertaining to the temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the Contractor. Recommendations by the Geotechnical Consultant should not be considered to preclude more restrictive requirements by the regulating agencies.
- 5.3 Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.
- 5.4 During periods of rainfall, plastic sheeting should be kept reasonably accessible to prevent unprotected slopes from becoming saturated. Where necessary during periods of rainfall, the Contractor should install checkdams, desilting basins, rip-rap, sand bags or other devices or methods necessary to control erosion and provide safe conditions.
- 5.5 During periods of rainfall, the Geotechnical Consultant should be kept informed by the Contractor as to the nature of remedial or preventative work being performed (e.g., pumping, placement of sand bags or plastic sheeting, other labor, dozing, etc.).
- 5.6 Following periods of rainfall, the Contractor should contact the Geotechnical Consultant and arrange a walk-over of the site in order to visually assess rain related damage. The Geotechnical Consultant may also recommend excavations and testing in order to aid in his assessments. At the request of the Geotechnical Consultant, the Contractor shall make excavations in order to evaluate the extent of rain related-damage.
- 5.7 Rain-related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions identified by the Geotechnical Consultant.

Soil adversely affected should be classified as Unsuitable Materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the Geotechnical Consultant.

5.8 Relatively level areas, where saturated soils and/or erosion gullies exist to depths of greater than 1.0-foot, should be overexcavated to unaffected, competent material. Where less than 1.0-foot in depth, unsuitable materials may be processed in-place to achieve near-optimum moisture conditions, then thoroughly recompacted in accordance with the applicable specifications. If the desired results are not achieved, the affected materials should be overexcavated, then replaced in accordance with the applicable specifications.

5.9 In slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0-foot, they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0-foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. As field conditions dictate, other slope repair procedures may be recommended by the Geotechnical Consultant.

6. EXCAVATIONS

6.1 UNSUITABLE MATERIALS

6.1.1 Materials which are unsuitable should be excavated under observation and recommendations of the Geotechnical Consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and non-engineered or otherwise deleterious fill materials.

6.1.2 Material identified by the Geotechnical Consultant as unsatisfactory due to its moisture conditions should be overexcavated, watered or dried, as needed, and thoroughly blended to a uniform near optimum moisture condition (as per guidelines, reference 7.2.1) prior to placement as compacted fill.

compacted fill blanket. Geotechnical conditions may require greater depth of overexcavation. The actual depth should be delineated by the Geotechnical Consultant during grading.

- 6.3.2 For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

7. COMPACTED FILL

All fill materials should be compacted as specified below or by other methods specifically recommended by the Geotechnical Consultant. Unless otherwise specified, the minimum degree of compaction (relative compaction) should be 90 percent of the laboratory minimum density.

7.1 PLACEMENT

- 7.1.1 Prior to placement of compacted fill, the Contractor should request a review by the Geotechnical Consultant of the exposed ground surface. Unless otherwise recommended, the exposed ground surface should then be scarified (6-inches minimum), watered or dried as needed, thoroughly blended to achieve near optimum moisture conditions, then thoroughly compacted to a minimum of 90 percent of the maximum density. The review by the Geotechnical Consultant should not be considered to preclude requirement of inspection and approval by the governing agency.
- 7.1.2 Compacted fill should be placed in thin horizontal lifts not exceeding 8-inches in loose thickness prior to compaction. Each lift should be watered or dried as needed, thoroughly blended to achieve near optimum moisture conditions then thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.
- 7.1.3 The Contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties

of the materials. If necessary, excavation equipment should be "shut down" temporarily in order to permit proper compaction of fills. Earth moving equipment should only be considered a supplement and not substituted for conventional compaction equipment.

- 7.1.4 When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal:vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least 6-foot wide benches and a minimum of 4-feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area subsequent to keying and benching until the area has been reviewed by the Geotechnical Consultant. Material generated by the benching operation should be moved sufficiently away from the bench area to allow for the recommended review of the horizontal bench prior to placement of fill. Typical keying and benching details have been included within the accompanying Standard Details.
- 7.1.5 Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.
- 7.1.6 Fill should be tested for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-64, D 2922-78 and/or D 2937-71. Test should be provided for about every 2 vertical feet or 1,000 cubic yards of fill placed. Actual test interval may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the Geotechnical Consultant.

placed within an engineered fill, special handling in accordance with the accompanying Standard Details is recommended. Rocks greater than 4 feet should be broken down or disposed off-site. Rocks up to 4 feet maximum dimension should be placed below the upper 10 feet of any fill and should not be closer than 20 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so that successive strata of oversized material are not in the same vertical plane.

The Contractor should be aware that the placement of rock in windrows will significantly slow the grading operation and may require additional equipment and/or special equipment.

- 7.3.7 It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the Geotechnical Consultant at the time of placement.
- 7.3.8 Material that is considered unsuitable by the Geotechnical Consultant should not be utilized in the compacted fill.
- 7.3.9 During grading operations, placing and mixing the materials from the cut and/or borrow areas may result in soil mixtures which possess unique physical properties. Testing may be required of samples obtained directly from the fill areas in order to verify conformance with the specifications. Processing of these additional samples may take two or more working days. The Contractor may elect to move the operation to other areas within the project, or may continue placing compacted fill pending laboratory and field test results. Should he elect the second alternative, fill placed is done so at the Contractor's risk.
- 7.3.10 Any fill placed in areas not previously reviewed and evaluated by the Geotechnical

Each lift should be moisture conditioned and thoroughly compacted. The desired moisture condition should be maintained and/or re-established, where necessary, during the period between successive lifts. Selected lifts should be tested to ascertain that desired compaction is being achieved. Care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately establish desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not exceeding 4 feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly backrolled utilizing a conventional sheepsfoot-type roller. Care should be taken to maintain the desired moisture conditions and/or re-establishing same as needed prior to backrolling. Upon achieving final grade, the slopes should again be moisture conditioned and thoroughly backrolled. The use of a side-boom roller will probably be necessary and vibratory methods are strongly recommended. Without delay, so as to avoid (if possible) further moisture conditioning, the slopes should then be grid-rolled to achieve a relatively smooth surface and uniformly compact condition.

In order to monitor slope construction procedures, moisture and density tests will be taken at regular intervals. Failure to achieve the desired results will likely result in a recommendation by the Geotechnical Consultant to overexcavate the slope surfaces followed by reconstruction of the slopes utilizing overfilling and cutting back procedures and/or further attempt at the conventional backrolling approach. Other recommendations may also be provided which would be commensurate with field conditions.

- 7.4.4 Where placement of fill above a natural slope or above a cut slope is proposed, the fill slope configuration as presented in the accompanying Standard Details should be adopted.

9. STAKING

- 9.1 In all fill areas, the fill should be compacted prior to the placement of the stakes. This, particularly, is important on fill slopes. Slope stakes should not be placed until the slope is thoroughly compacted (back-rolled). If stakes must be placed prior to the completion of compaction procedures, it must be recognized that they will be removed and/or demolished at such time as compaction procedures resume.
- 9.2 In order to allow for remedial grading operations, which could include overexcavations or slope stabilization, appropriate staking offsets should be provided. For finished slope and stabilization backcut areas, we recommend at least 10 feet setback from proposed toes and tops-of-cut.

10. SLOPE MAINTENANCE

10.1 Landscape Plants

In order to enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect would be the best party to consult regarding actual types of plants and planting configuration.

10.2 Irrigation

- 10.2.1 Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.
- 10.2.2 Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.
- 10.2.3 Though not a requirement, consideration should be given to the installation of near-surface moisture monitoring control devices. Such devices can aid in the maintenance of relatively uniform and reasonable constant moisture conditions.

- 10.2.4 Property owners should be made aware that over-watering of slopes is detrimental to slope stability.

10.3 Maintenance

- 10.3.1 Periodic inspections of landscaped slope areas should be planned and appropriate measures should be taken to control weeds and enhance growth of the landscape plants. Some areas may require occasional replanting and/or reseeding.
- 10.3.2 Terrace drains and downdrains should be periodically inspected and maintained free of debris. Damage to drainage improvements should be repaired immediately.
- 10.3.3 Property owners should be made aware that burrowing animals can be detrimental to slope stability. A preventative program should be established to control burrowing animals.
- 10.3.4 As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period of time prior to landscape planting.

10.4 Repairs

- 10.4.1 If slope failures occur, the Geotechnical Consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.
- 10.4.2 If slope failures occur as a result of exposure to periods of heavy rainfall, the failure area and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.
- 10.4.3 In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures, i.e., occurring typically within the outer 1 foot to 3 feet ± of a slope face.

12. STATUS OF GRADING

Prior to proceeding with any grading operation, the Geotechnical Consultant should be notified at least two working days in advance in order to schedule the necessary observation and testing services.

- 12.1 Prior to any significant expansion or cut back in the grading operation, the Geotechnical Consultant should be provided with adequate notice, i.e. two days, in order to make appropriate adjustments in observation and testing services.
- 12.2 Following completion of grading operations and/or between phases of a grading operation, the Geotechnical Consultant should be provided with at least two working days notice in advance of commencement of additional grading operations.



HIGHLAND GEOTECHNICAL CONSULTANTS, INC.
SOIL ENGINEERING & ENGINEERING GEOLOGY

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Murk Engineers
San Juan Encinas
CA 92008-4367

Job No: 08-7168-001-00-00
Log No: 7-2055

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Mr. Matt A. Tebbetts

RESPONSE TO MEETING OF SEPTEMBER 21, 1987
ADDITIONAL DESIGN INFORMATION
Wastewater Treatment Facility
Wildrose Development Project
Riverside County, California

See: See Attached Sheet

men:

Letter is in response to the meeting which took place at your
on September 21, 1987. Present at the meeting were
Kenneth Hume and Mr. George Moustakas with Murk Engineers and
Stan Stanhill with our office.

Purpose of the meeting was to review the referenced report and to
determine if any additional design information or clarification of
requirements was necessary. Several issues arose which are outlined

1:

1. Bearing Capacity

The following table gives allowable bearing capacities for different sized footings for the tank site and sewer treatment plant.

Individual Column Footings

18 inches wide by 18 inches deep - 2000 psf
24 inches wide by 18 inches deep - 2500 psf
30 inches wide by 18 inches deep - 3000 psf

Continuous Footings

12 inches wide by 12 inches deep - 1500 psf
18 inches wide by 18 inches deep - 2000 psf

2. Settlement

For structures whose footings are underlain by at least 2 feet of compacted fill, total and differential settlements are not expected to exceed about one-half inch to one-quarter inch respectively. For dynamically loaded foundations, the above settlements should be increased by a factor of 2. These recommendations are in addition to those presented in the referenced report that assume one foot of fill beneath the footings.

3. Stormwater

Stormwater should be directed away from footings and into proper disposal devices. From a geotechnical standpoint, this water may be discharged on adjacent soil areas.

4. Argillite

The Bedford Canyon Formation can contain argillite. However, our borings indicate that the Bedford Canyon Formation in the vicinity of the proposed tank sites is non-expansive quartzite-type bedrock.

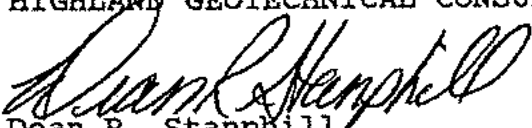
5. Elsinore Fault

The Elsinore Fault lies to the southwest of the proposed sites as indicated in the report.

If you have any questions, please call.

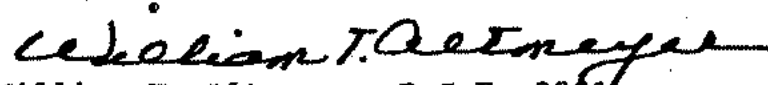
Very truly yours,

HIGHLAND GEOTECHNICAL CONSULTANTS, INC.


Dean R. Stanphill
Staff Engineer


Warren L. Sherling, C.E.G. 1182
Chief Geologist
Registration Expires 6-20-88

Reviewed by:


William T. Altmeyer, R.C.E. 9291
Director of Geotechnical Services
Registration Expires 12-31-88

DRS:WLS:WTA:vdp

REFERENCES

"Preliminary Geotechnical Investigation, Wastewater Treatment Facility and 16-inch off-site Water Transmission Main, Wildrose Development Project, Riverside County, California", Job No. 08-7168-001-00-00 by Highland Geotechnical Consultants, Inc., dated September 4, 1987.

"Site Response Spectrum and Soils Engineering Design Values, 2.8 Million Gallon Water Tank and Adjoining Main Line, Wildrose Development, Riverside County, California", Job No. 08-7168-001-00-00 by Highland Geotechnical Consultants, Inc., dated September 18, 1987.

Appendix C

Reference Record Drawings

Lee Lake Water District

LOCATED WITHIN THE:

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

CONTRACT DRAWINGS FOR:

LEE LAKE WATER RECLAMATION FACILITY

PHASE 1 CONSTRUCTION

CONSTRUCTION CONTRACT NO. 89 - 01

LEE LAKE WATER DISTRICT BOARD OF DIRECTORS

JOY G. JAMESON, Jr., PRESIDENT

CHARLES W. COLLADAY, VICE PRESIDENT

JOYCE DELEO, DIRECTOR

CHARLES H. LONG, DIRECTOR

LAWRENCE M. WERNER, DIRECTOR

JOHN S. MURK ENGINEERS, INC.

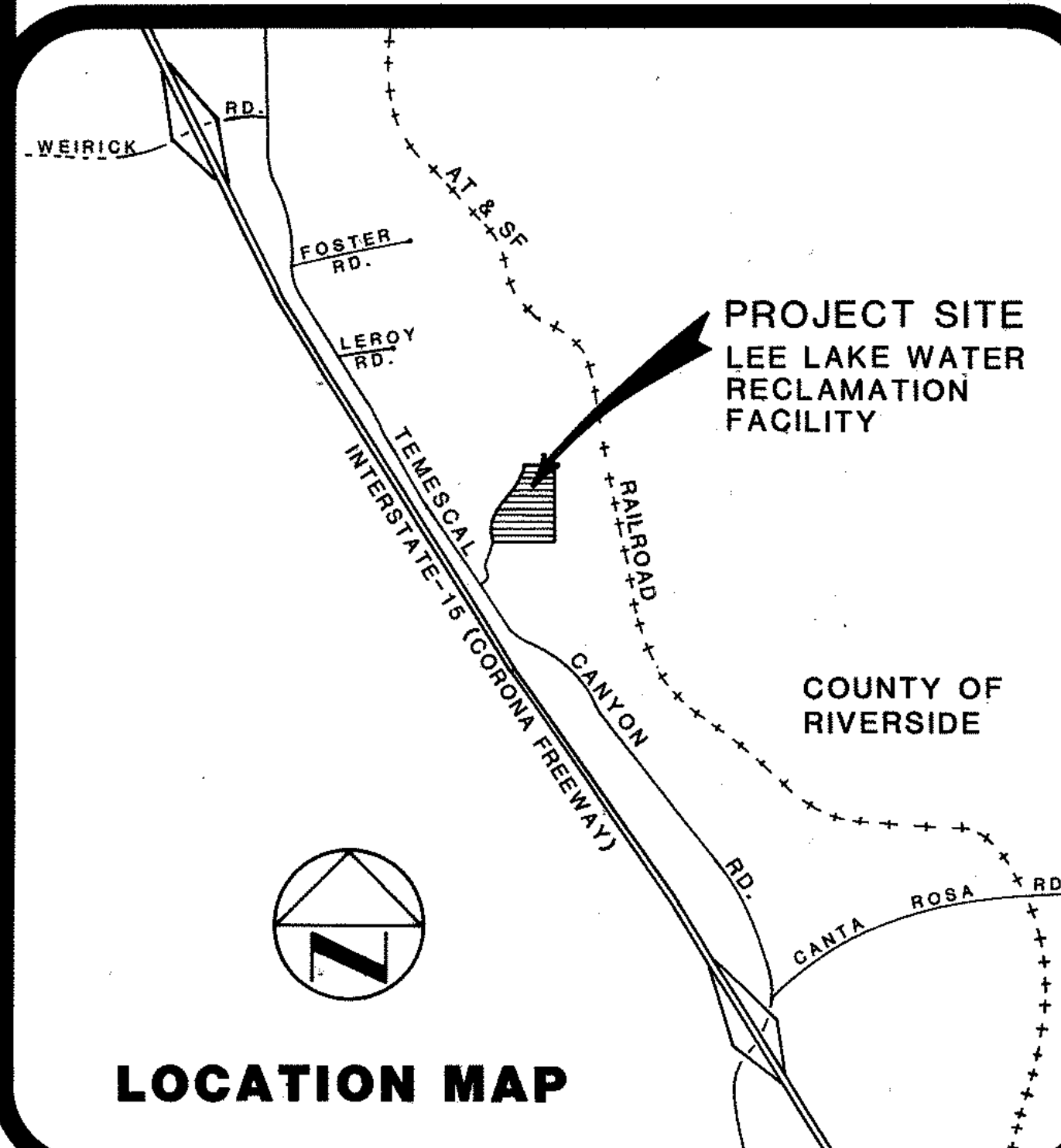
RECOMMENDED John S. Murk DATE 5/23/89
R.C.E. 22403

LEE LAKE WATER DISTRICT

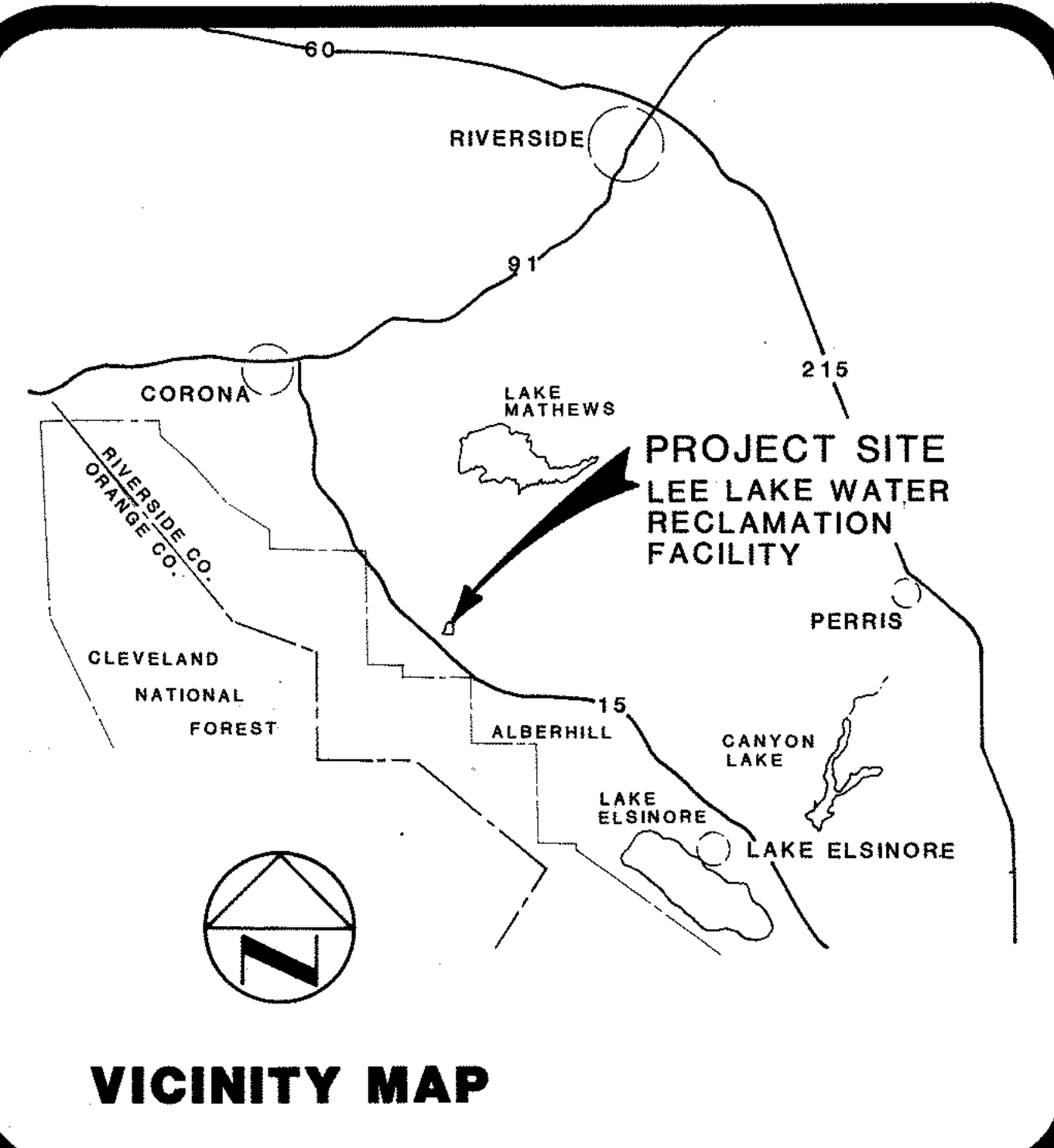
APPROVED F.E. Wood DATE 5-23-89
DISTRICT MANAGER



LOCATION MAP



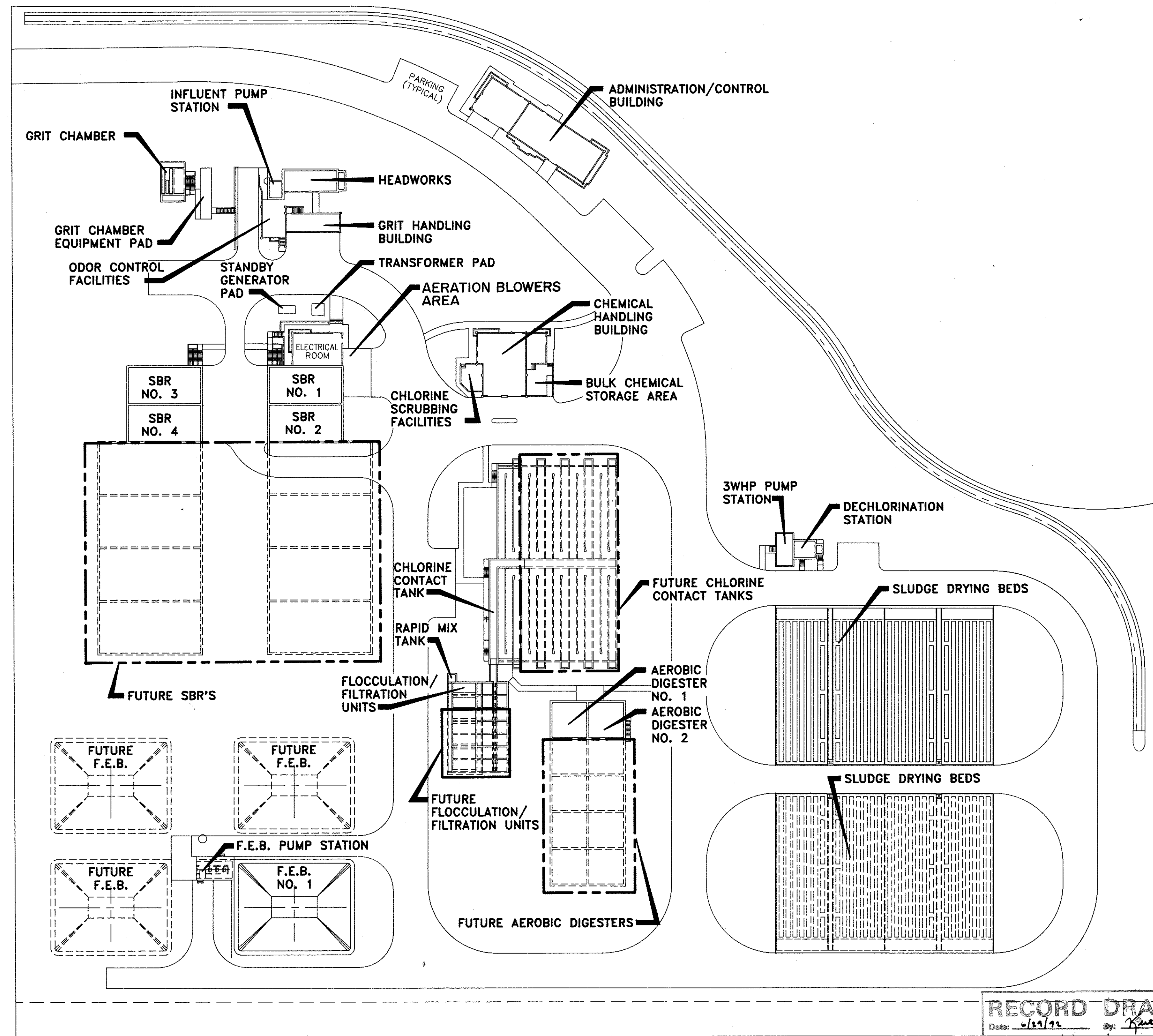
VICINITY MAP



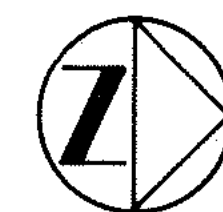
JSME

john s. murk engineers, inc.

Lee Lake Water District



NOTE:
DASHED STRUCTURES
INDICATES FUTURE
CONSTRUCTION



GENERAL SITE PLAN SCALE: 1" = 40'

RECORD DRAWING
Date: 6/27/92 By: [Signature]
CAMP DRESSER & MCKEE INC.



RECOMMENDED BY:
[Signature]
JSM R.C.E.
DATE: 5-23-89

APPROVED BY:
[Signature]
DISTRICT MANAGER
DATE: 5-23-89

Lee Lake Water District

LEE LAKE WATER RECLAMATION FACILITY

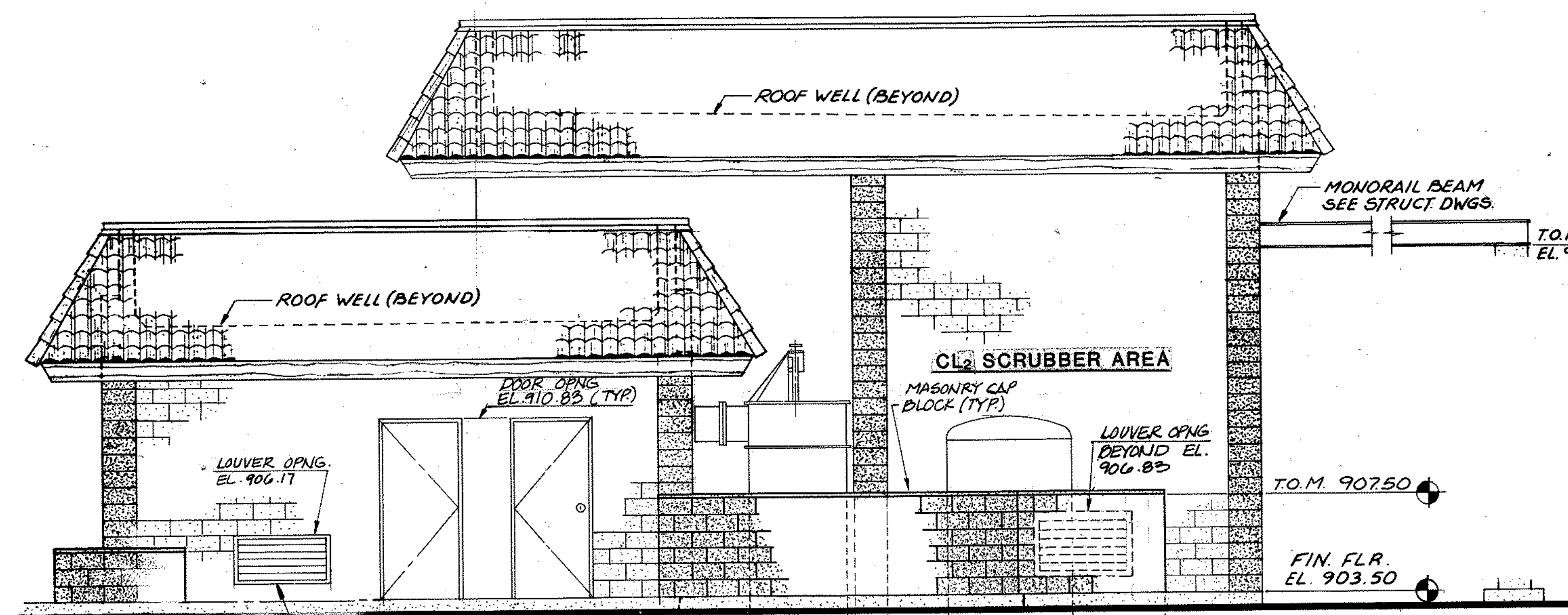
GENERAL SITE PLAN

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PC	KH	LD	5-23-89			

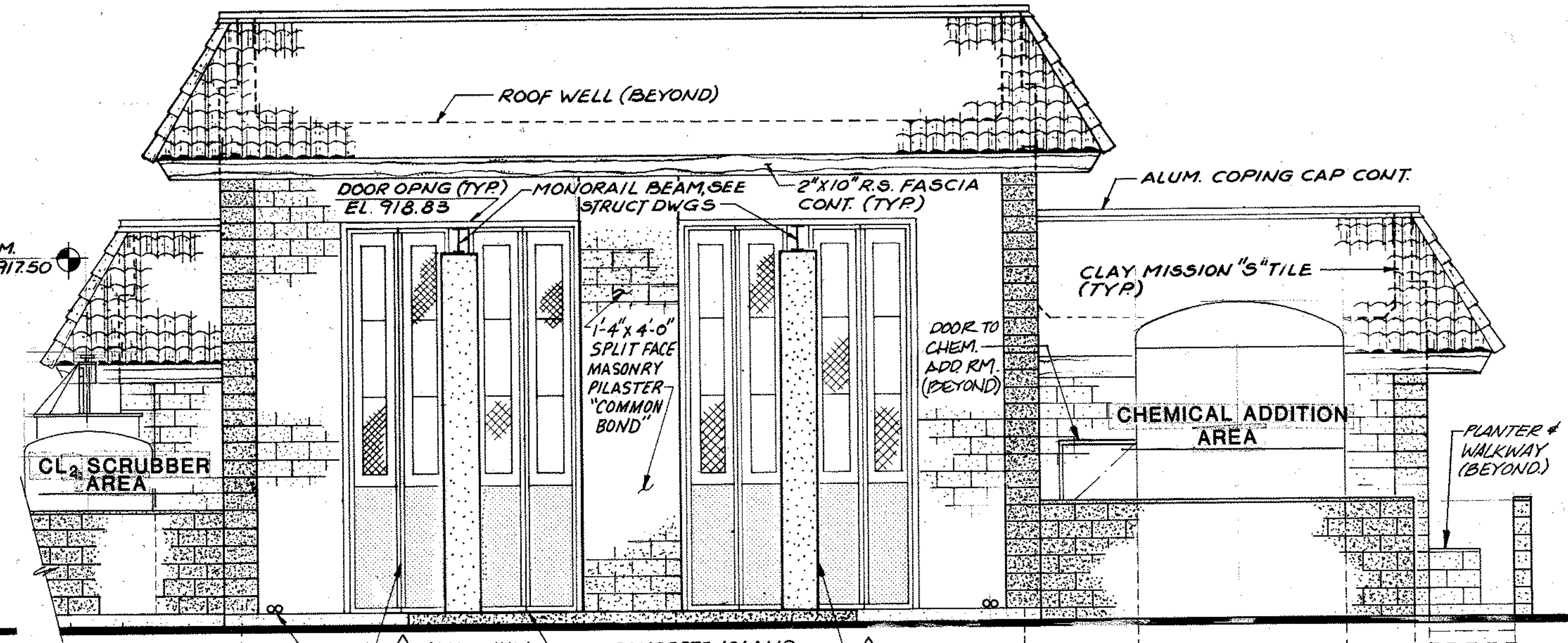
DESIGNED
PC KH
CHECKED
LD
DRAWN
PC
DATE
5-23-89

JSM&E
John S. Munk engineers, inc.
3225-D Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 438-7444

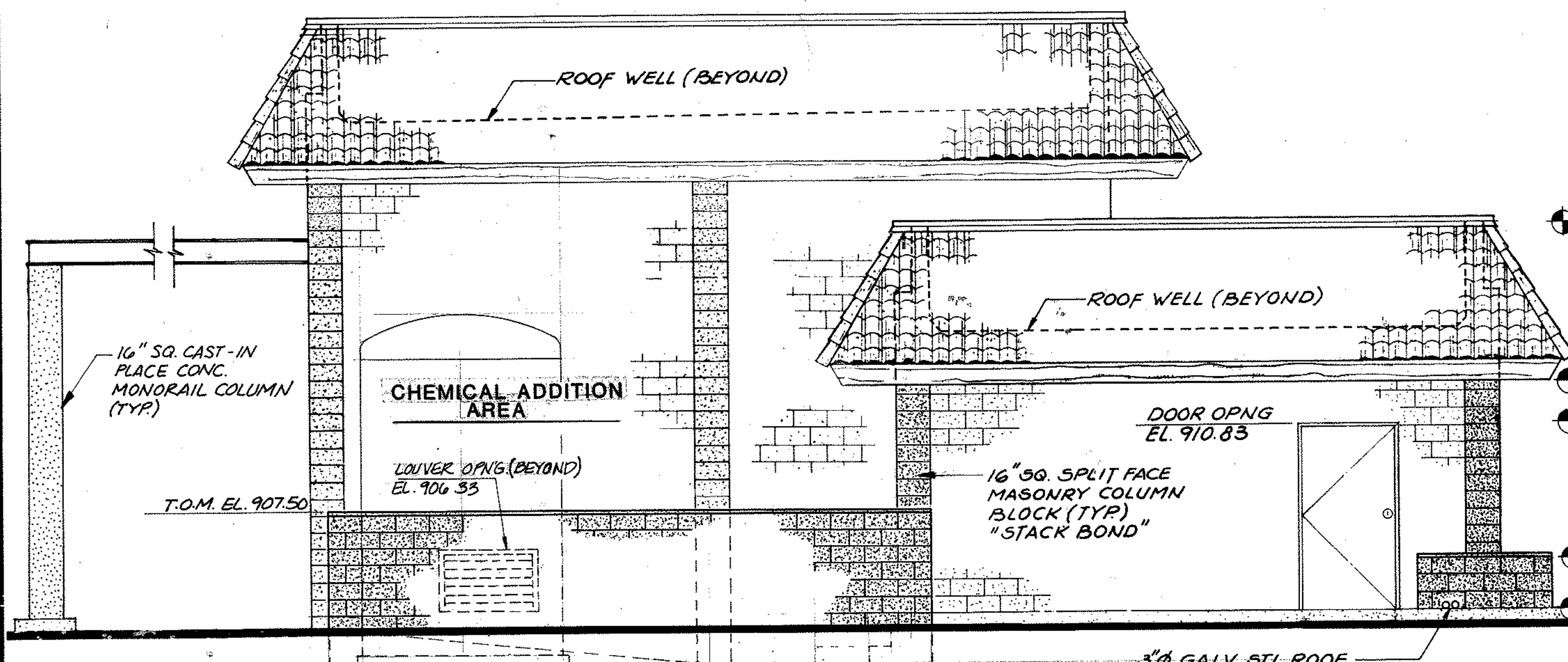
SCALE
1" = 40'
SHEET NO. 4
OF 14 SHEETS
DWG. NO.
G-4



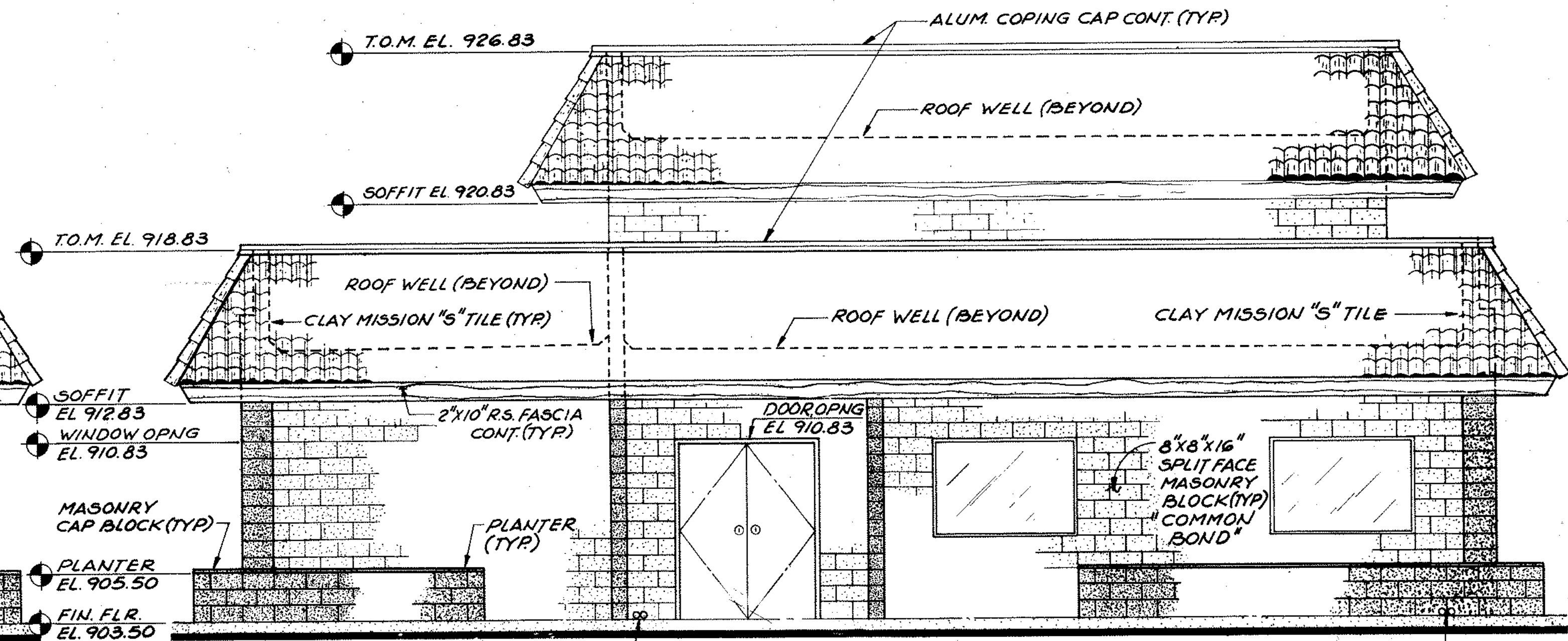
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



EAST ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"



RECOMMENDED BY
John S. Munk
NAME R.C.E.
DATE: 5-23-89

APPROVED BY:
[Signature]
DISTRICT MANAGER
DATE: 5-23-89

Lee Lake Water District

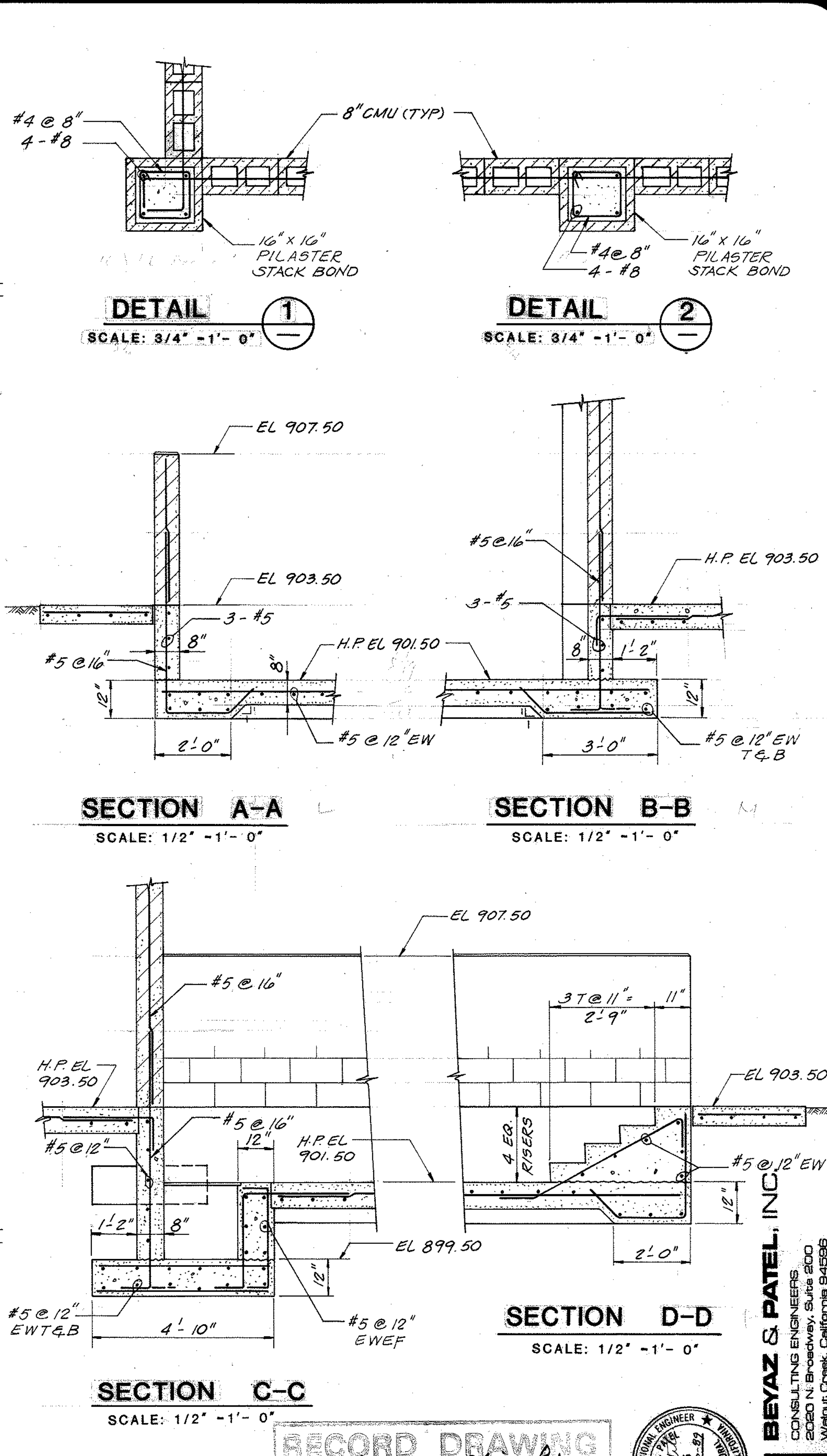
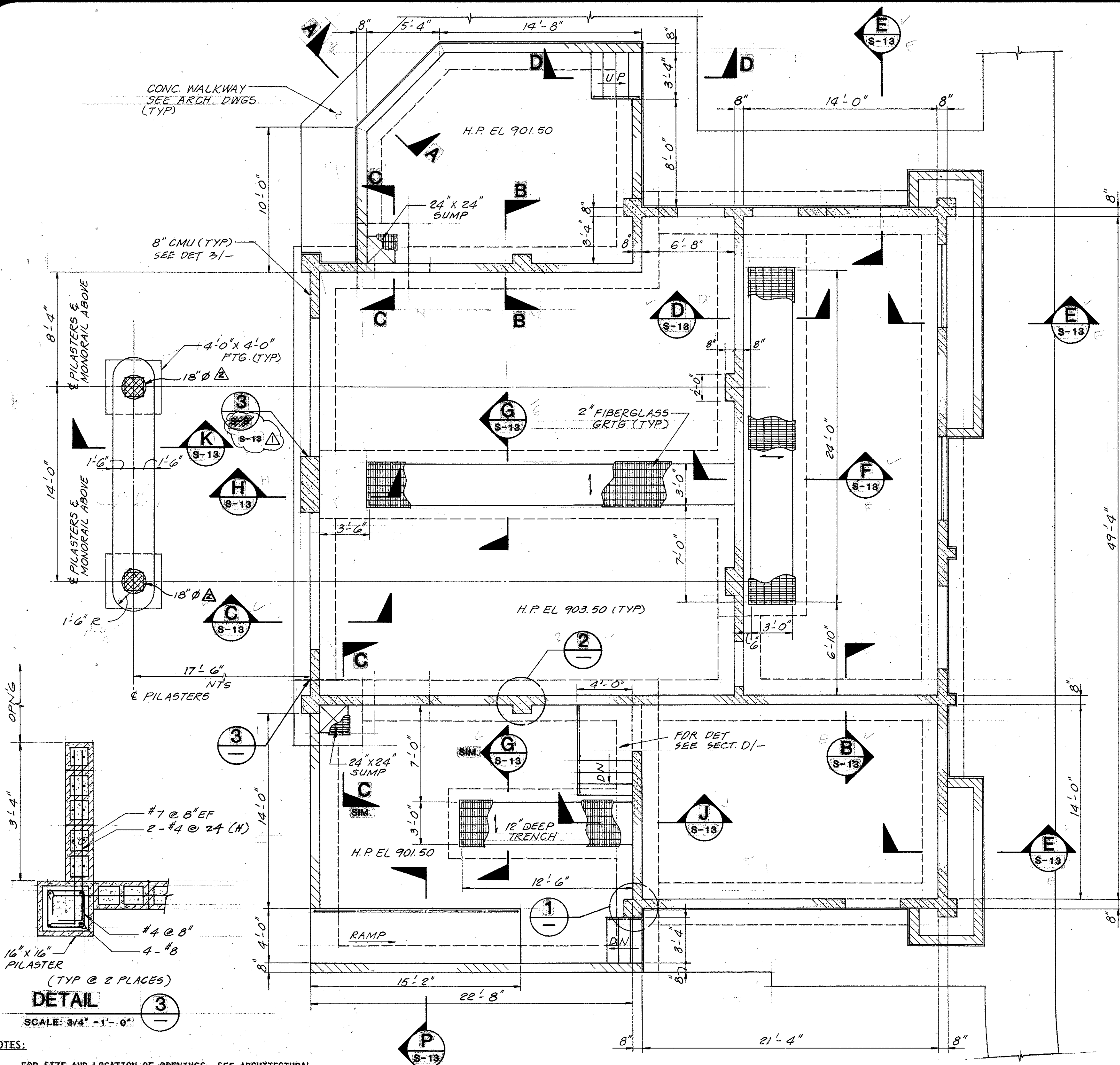
JSME
John S. Munk engineers, inc.
5225-B Avenida Encinas
Carlsbad, Ca. 92003-4367
(619) 433-7444

LEE LAKE WATER RECLAMATION FACILITY
CHEMICAL HANDLING BUILDING
EXTERIOR ELEVATIONS

SCALE
1/4" = 1'-0"
SHEET NO. 62
OF 194 SHEETS
DWG. NO.
A-23

NO.	REVISIONS	DATE
1	REVISED PER AS-BUILT	7-9-91
2		
3		
4		
5		
6		
7		
8		
9		
10		

DESIGNED
CHECKED
DRAWN
DATE
5-23-89



- NOTES:
1. FOR SIZE AND LOCATION OF OPENINGS, SEE ARCHITECTURAL DRAWINGS.
 2. FOR FLOOR DRAINS AND FLOOR SLOPES, SEE MECHANICAL DRAWINGS.
 3. FOR SIZE AND LOCATION OF EQUIPMENT PADS, SEE MECHANICAL DRAWINGS.
 4. FOR SIZE AND LOCATION OF PIPE PENETRATION IN SLAB AND WALLS, SEE MECHANICAL DRAWINGS.
 5. ENCASE ALL PIPES UNDER STRUCTURE IN CONCRETE. SEE DET. C & D DWG S-2.
 6. FOR SIZE AND LOCATION OF PIPES, SEE MECHANICAL DRAWINGS.
 7. FLOOR SLAB SHALL BE 8" MINIMUM WITH #5 @ 12" EW UNLESS NOTED OTHERWISE.

GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"

RECOMMENDED BY
John S. Murk
J.S.M. R.C.E.
DATE: 5-23-89

APPROVED BY
J.E. Wood
DISTRICT MANAGER
DATE: 5-23-89

Lee Lake Water District

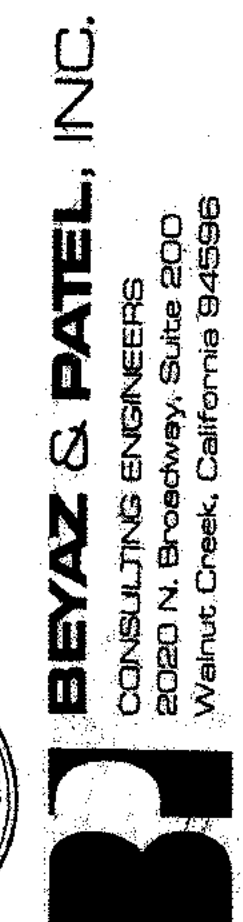
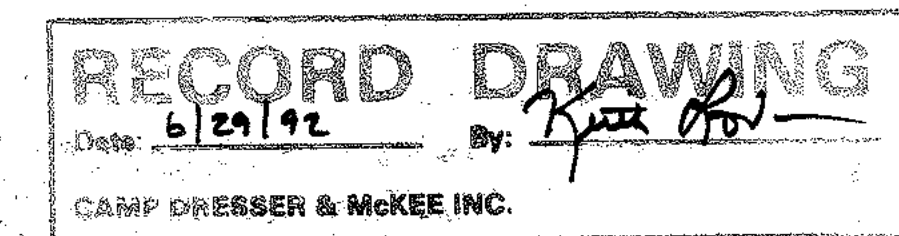
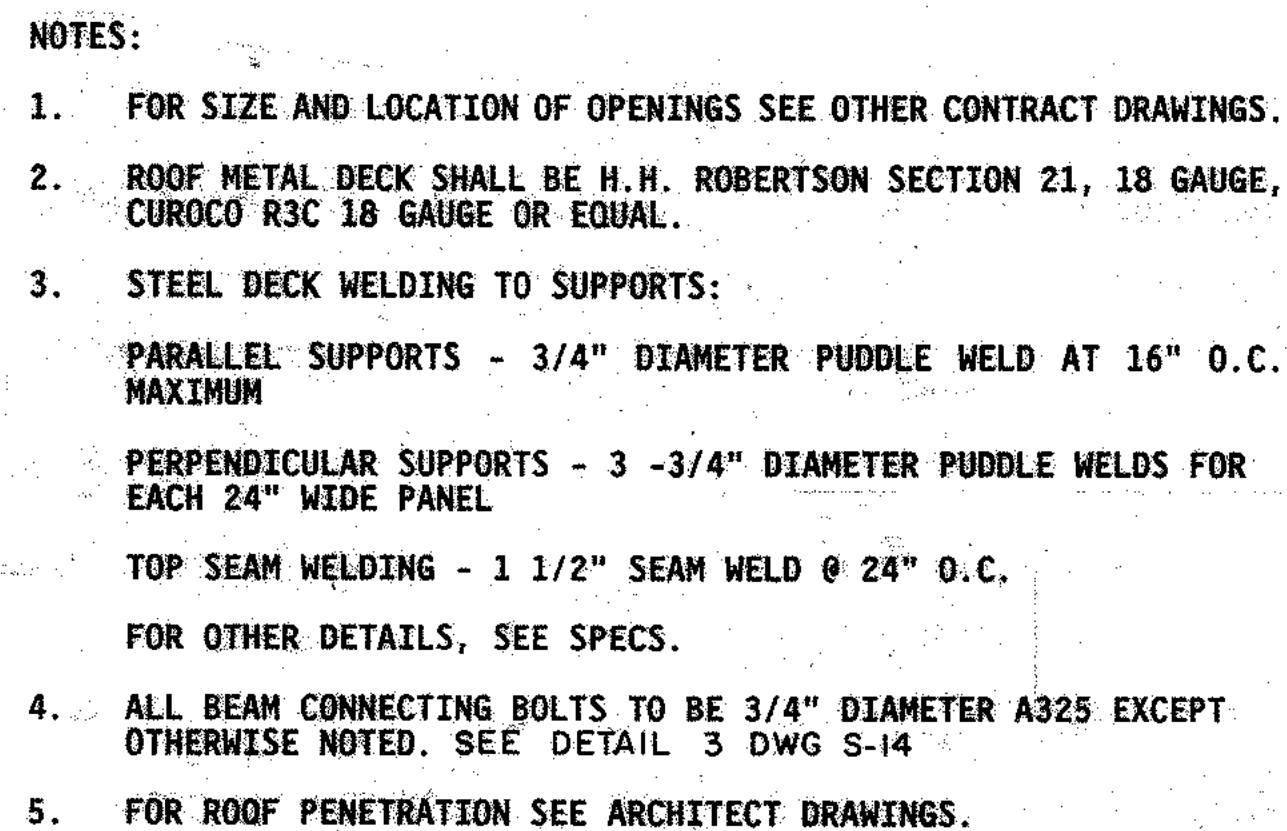
NO.	REVISIONS	DATE
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2	REVISION PER ADDENDUM NO. 2	8-1-89

DESIGNED
R. CARPINO
CHECKED
Y. PATEL
DRAWN
E. ROSADA
DATE
5-23-89

J.S.M.E.
John S. Murk Engineers, Inc.
5225-B Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 433-7444

LEE LAKE WATER RECLAMATION FACILITY
CHEMICAL HANDLING BUILDING
PLAN, SECTIONS AND DETAILS

SCALE
SHEET NO. 73
OF 134 SHEETS
DWG. NO.
S-11



LEE LAKE WATER RECLAMATION FACILITY

**CHEMICAL HANDLING BUILDING
PLAN, SECTIONS AND DETAILS**

JSAE
john s. mark engineers, inc.
5225 - D Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 432-7444

DESIGNED	R. CARPZO
CHECKED	Y. PATEL
DRAWN	E. POSADAS
DATE	5-23-89

[illegible]

RECOMMENDED BY: John S. Murch
 SOME R.C.E.
 DATE: 5-23-89

APPROVED BY: [Signature]
DISTRICT MANAGER
DATE: 6-23-89

Lee Lake Water District

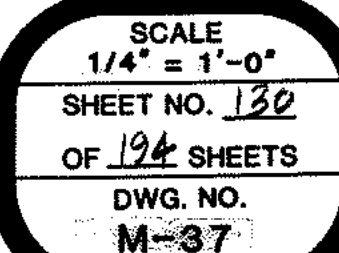
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SHEET NO. 74

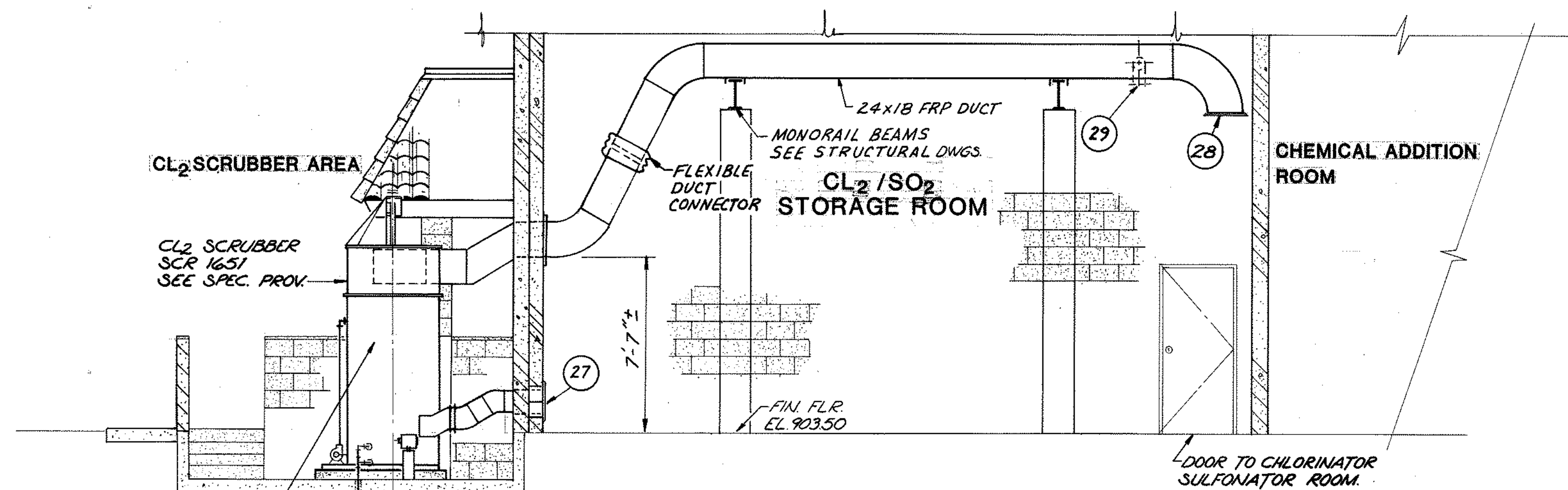
OF 194 SHEETS

DWG. NO.

S-12



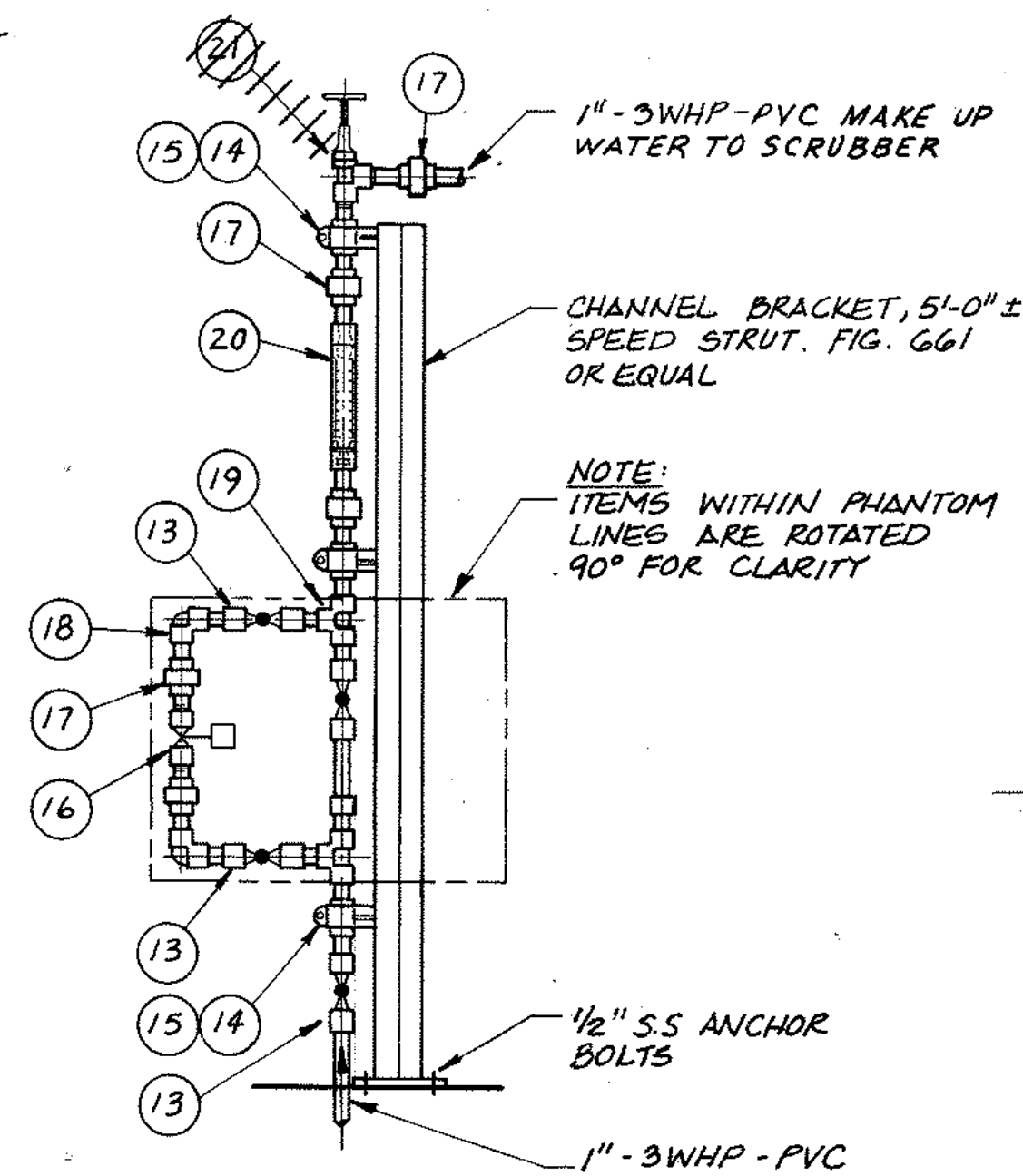
J.S.M.E.
John S. Murrells, Inc.
5225-D Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 438-7444



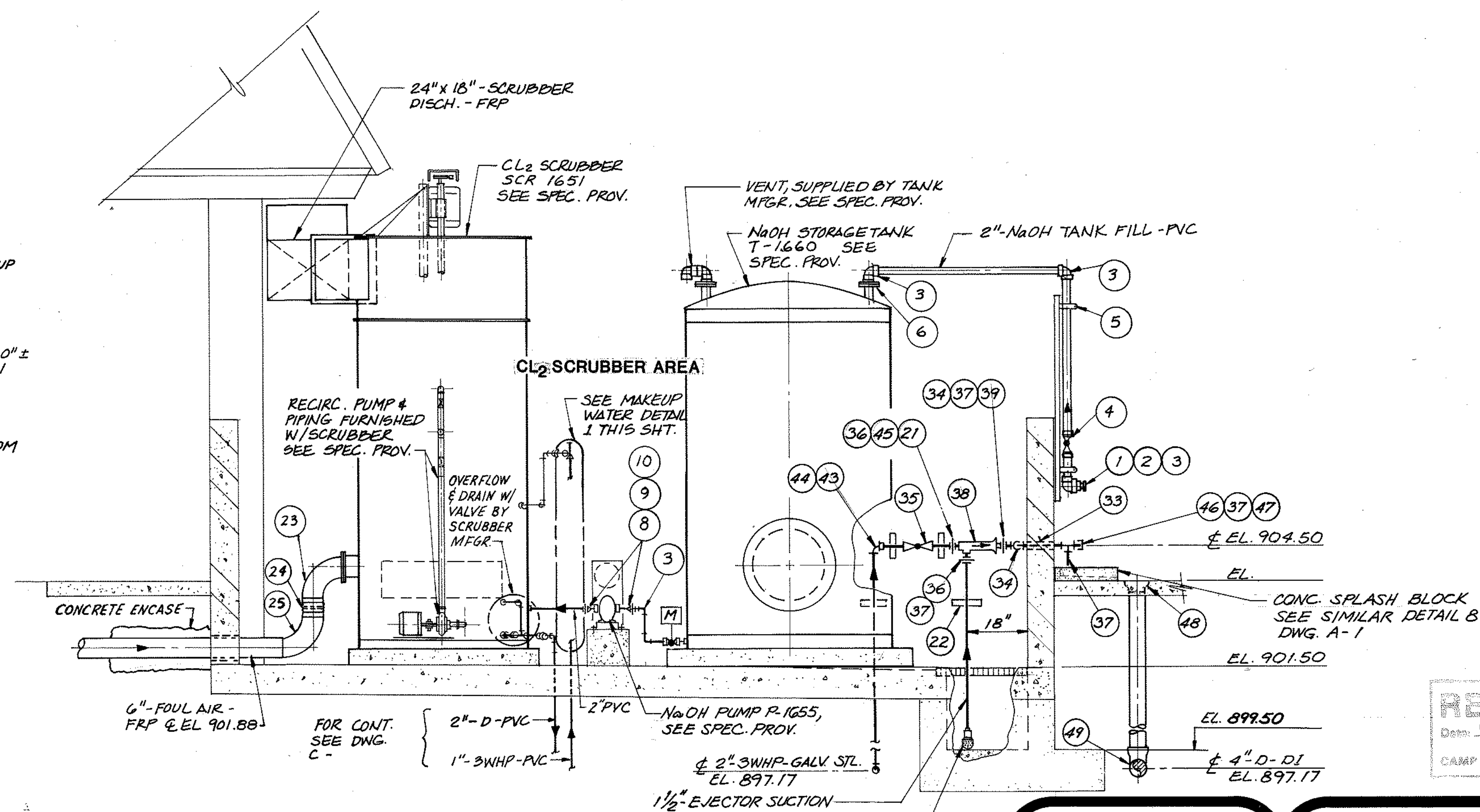
NOTE: FOR DETAILED INFO.
ON PIPING AND APPURTENANCES
SEE SECT. B-B THIS SHEET.

SECTION **A-A**
SCALE: 1/4" = 1'-0"
M-37

1" PVC ANGLE
GLOBE VALVE

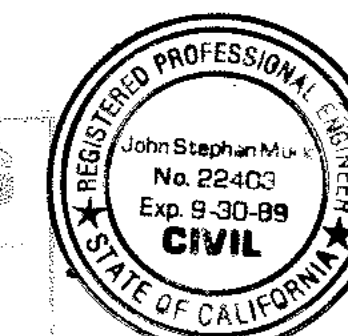


DETAIL **1**
NOT TO SCALE
M-37



NOTE: FOR PARTIAL ASSEMBLY SCHEDULE
REFERENCE DWG. M-37

RECORD DRAWING
6/23/92
CAMP DRESSER & ASSOCIATES, INC.



SECTION **B-B**
SCALE: 1/2" = 1'-0"
M-37

RECOMMENDED BY
John S. Munk
SME R.C.E.
DATE: 5-23-89

APPROVED BY
[Signature]
DISTRICT MANAGER
DATE: 5-23-89

Lee Lake Water District

NO.	REVISIONS	CLP	INITIALS	DATE
1	REVISED PER AS-BUILT			6-22-91

DESIGNED	TR / KH
CHECKED	LDT
DRAWN	RJC / LW
DATE	5-23-89

JSA&E
John S. Munk engineers, inc.
5225-B Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 433-7444

LEE LAKE WATER RECLAMATION FACILITY
**CL2 SCRUBBER AND VENTILATION AT
CHEMICAL HANDLING BUILDING,**
SECTION, DETAILS

SCALE
AS NOTED
SHEET NO. 131
OF 144 SHEETS
DWG. NO.
M-38

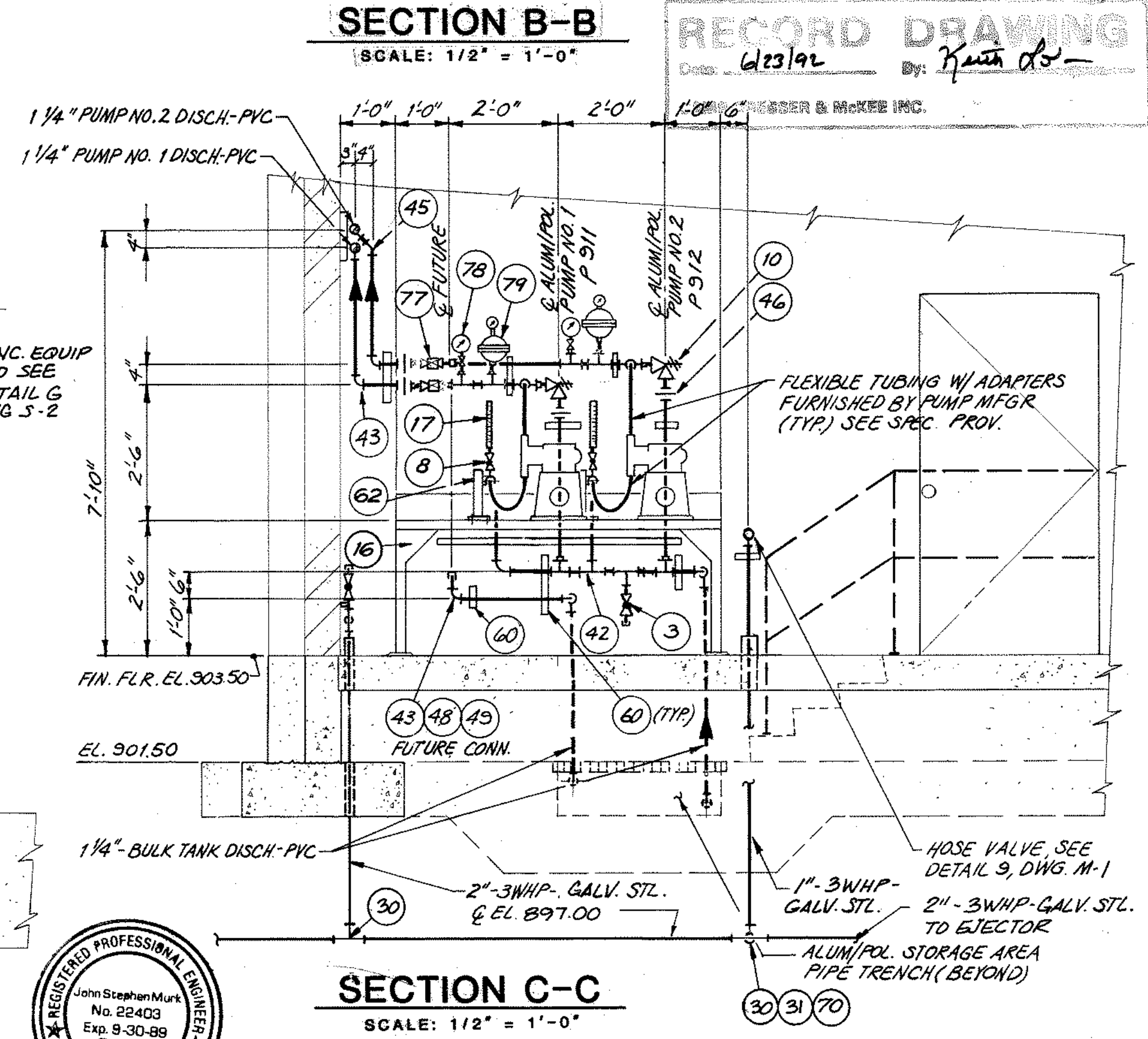
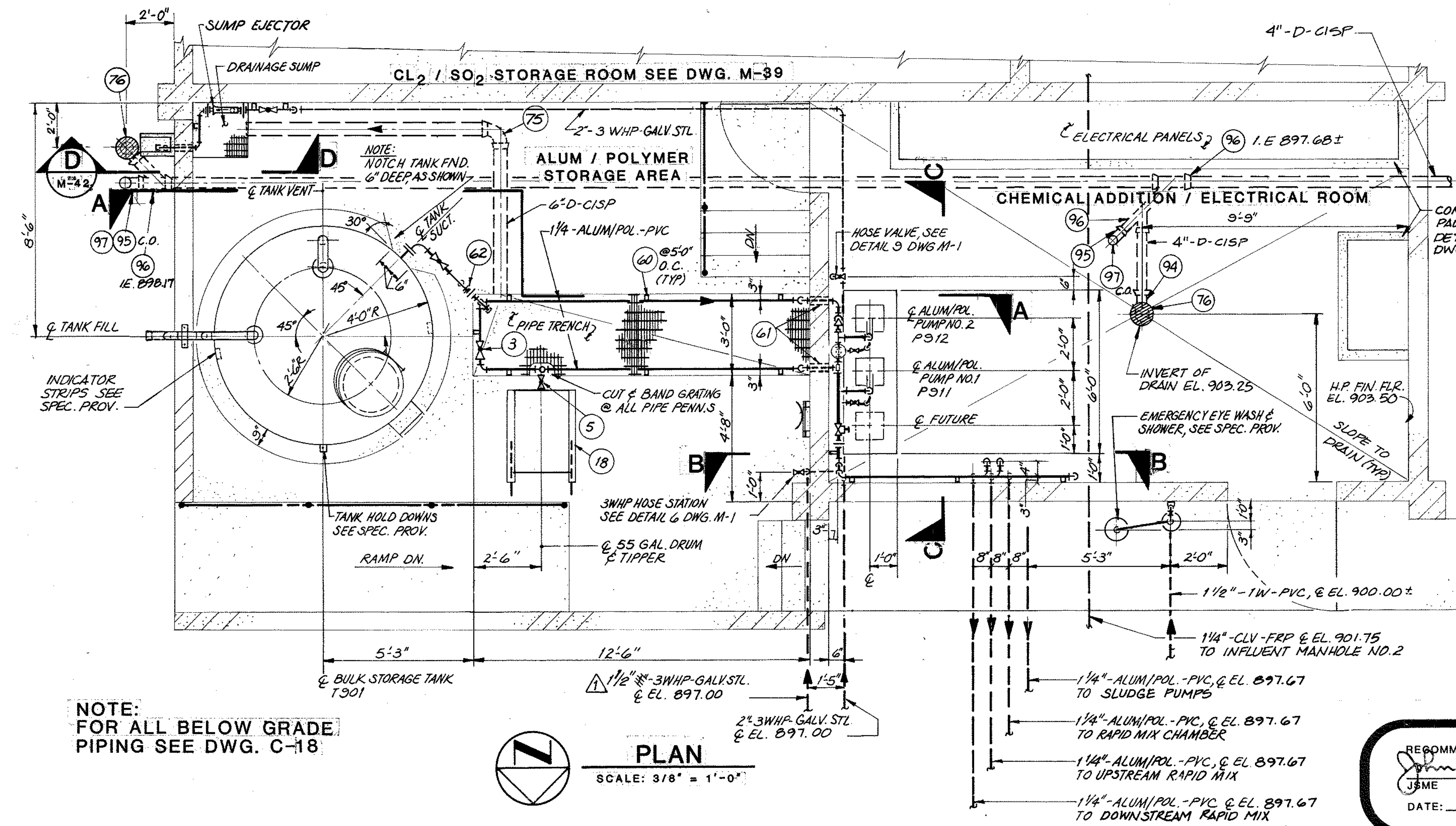
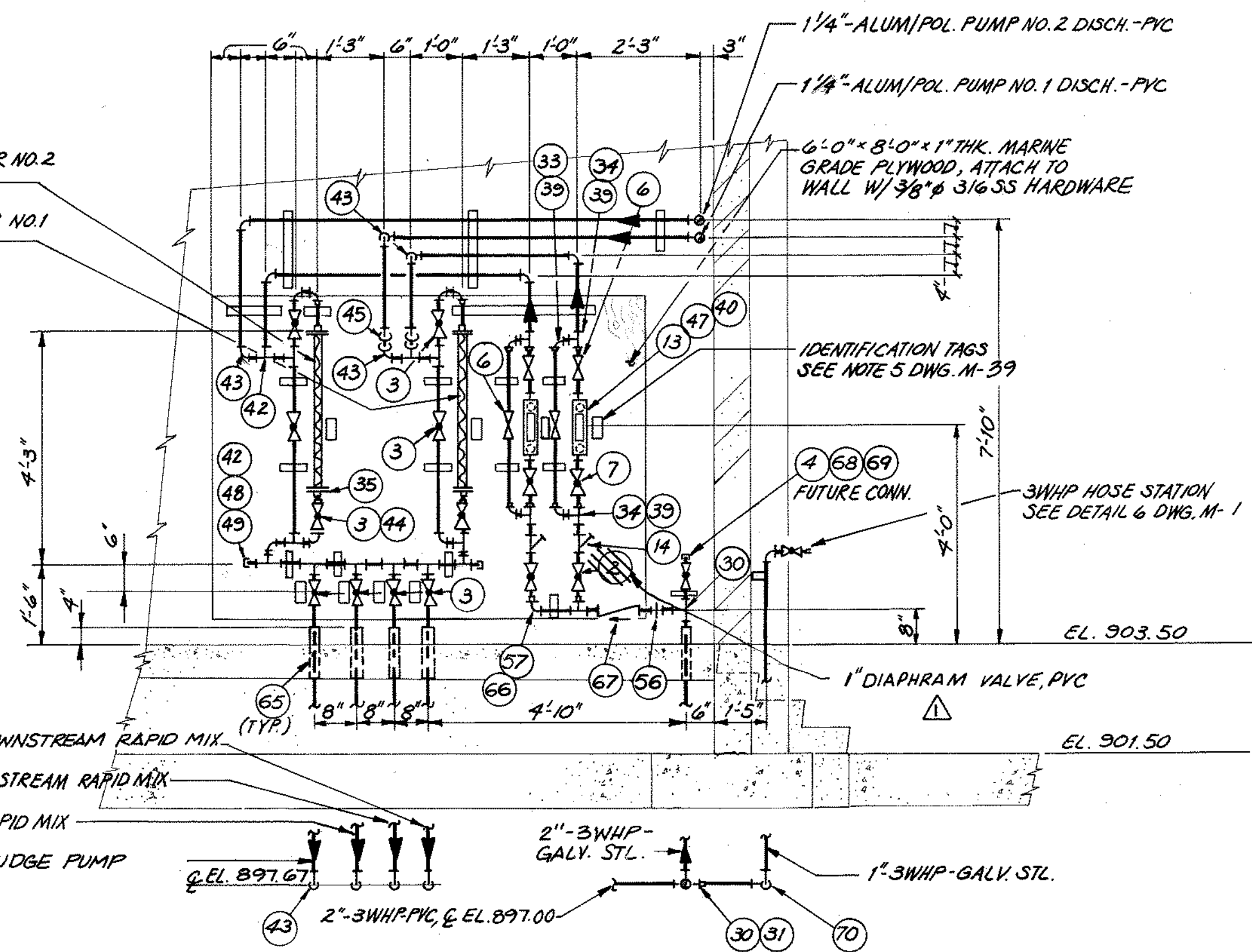
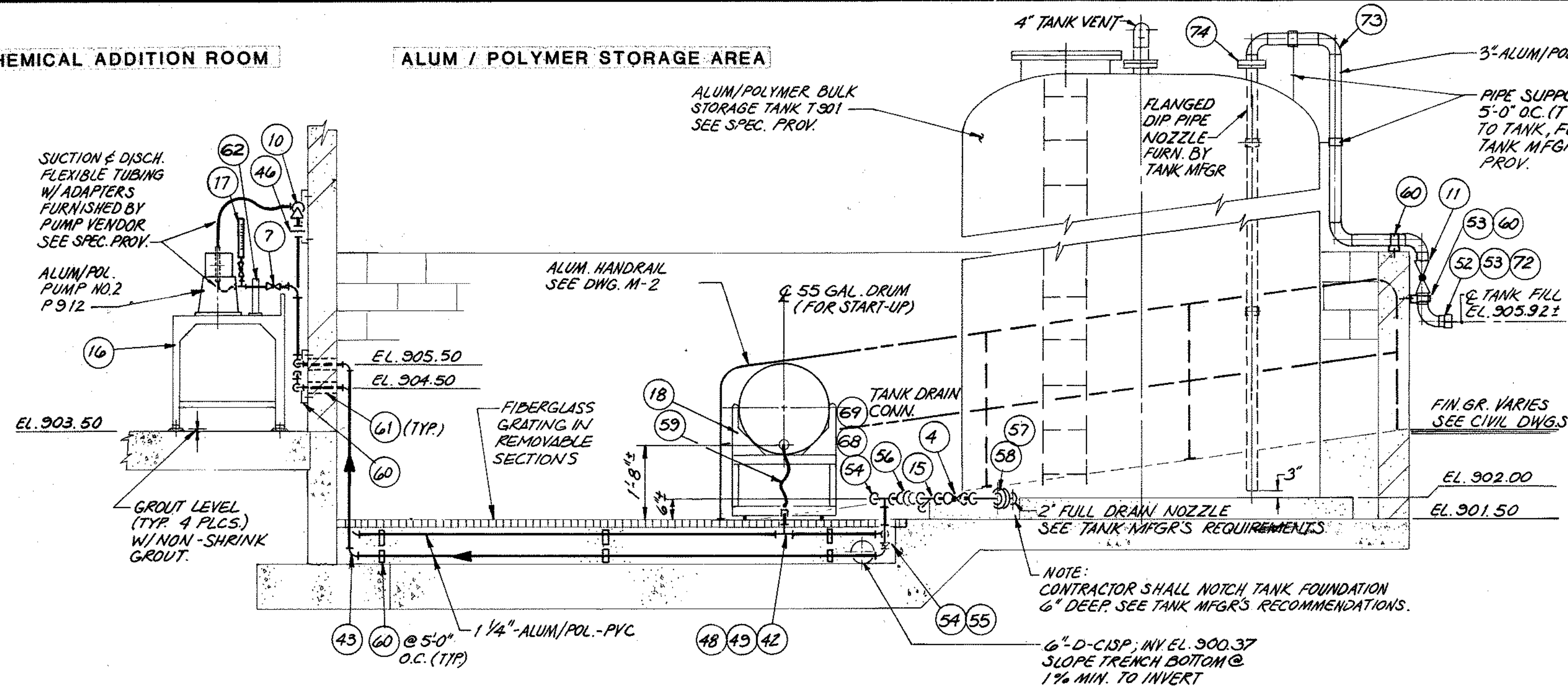


2. FLEXIBLE TUBING WITH ADAPTERS FOR GAS INLET, OUTLET & VENT CONNECTIONS SHALL BE FURNISHED BY THE CHLORINATION EQUIPMENT MFRGR FOR THE Cl_2 & SO_2 SYSTEMS.
3. WHERE FLANGED CONNECTIONS ARE INDICATED ON THE DWGS. CONTRACTOR SHALL FURNISH GASKETS COMPATABLE WITH CHLORINE & SULFUR DIOXIDE GASES & TYPE 316 SS BOLTING HARDWARE.
4. NOT USED.
5. CONTRACTOR SHALL FURNISH & INSTALL IDENTIFICATION TAGS TO CLEARLY DELINEATE SYSTEM. TAGS SHALL BE ENGRAVED WHITE ON BLACK. SETON OR EQUAL, SIZE & PLACMENT PER THE CONSTRUCTION MANAGER.
6. *CONTRACTOR SHALL VERIFY DIMENSIONS WITH EQUIPMENT MFRGR.
7. NON-SLIP COATING SHALL BE APPLIED TO ALL CONC. SLAB AREAS, STEPS, LANDINGS & RAMPS OF THE CHEMICAL/ELECTRICAL ROOM & ALUM./POLYMER STORAGE AREA.
8. FOR ODOR CONTROL & SENSOR LOCATIONS SEE Cl_2 SCRUBBER & VENTILATION @ CHEMICAL HANDLING BUILDING DWG. M-37.

[illegible]

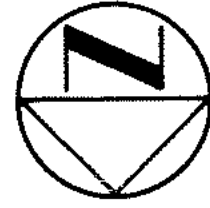
CHEMICAL ADDITION ROOM

ALUM / POLYMER STORAGE AREA



NOTE: FOR PARTIAL ASSEMBLY SCHEDULE SEE DWG. M-42

NOTE: FOR ALL BELOW GRADE PIPING SEE DWG. C-18



RECOMMENDED BY:
John S. Murk
J.S.M. R.C.E.
DATE: 5-23-89

APPROVED BY:
R. Ward
DISTRICT MANAGER
DATE: 5-23-89

Lee Lake Water District

NO.	REVISIONS	DATE	BY	INITIALS	DATE
1	REVISED PER AS-BUILT	5-23-89	CLP		6-25-91

DESIGNED	PA/TC
CHECKED	KH/LOT
DRAWN	PA
DATE	5-23-89

J.S.M.E.
John S. Murk engineers, inc.
5225-B Avenida Encinas
Carlsbad, Ca. 92008-4367
(619) 433-7444

LEE LAKE WATER RECREATION FACILITY
ALUM & POLYMER ADDITION @
CHEMICAL HANDLING BUILDING
PLAN, SECTIONS

SCALE AS NOTED
SHEET NO. 124
OF 194 SHEETS
DWG. NO. M-41



MATCH LINE- SEE DWG. C-19

KEY PLAN
NOT TO SCALE

MATCH LINE- SEE DWG. C- 16

RECORD DRAWING
Date: 6/29/92 By: [Signature]
CAMP DRESSER & MCKEE INC.

LEE LAKE WATER DISTRICT

LOCATED WITHIN THE:

COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

CONTRACT DRAWINGS FOR:

LEE LAKE WATER RECLAMATION FACILITY

PHASE II - TREATMENT PLANT EXPANSION

JOHN PASTORE, GENERAL MANAGER
KEN CALDWELL, SUPERINTENDENT OF OPERATIONS
BILL JARONCYK, SUPERINTENDENT OF OPERATIONS EMERITUS

LEE LAKE WATER DISTRICT BOARD OF DIRECTORS

CHARLES COLLADAY, PRESIDENT
GRANT DESTACHE, DIRECTOR
JOYCE DELEO, DIRECTOR
PAUL RODRIGUEZ, DIRECTOR
OWEN GARRETT, DIRECTOR

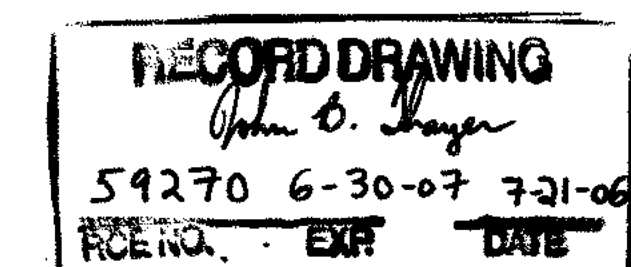
DUDEK & ASSOCIATES, INC.

RECOMMENDED John B. Thayer DATE 3-17-03
R.C.E. 59270



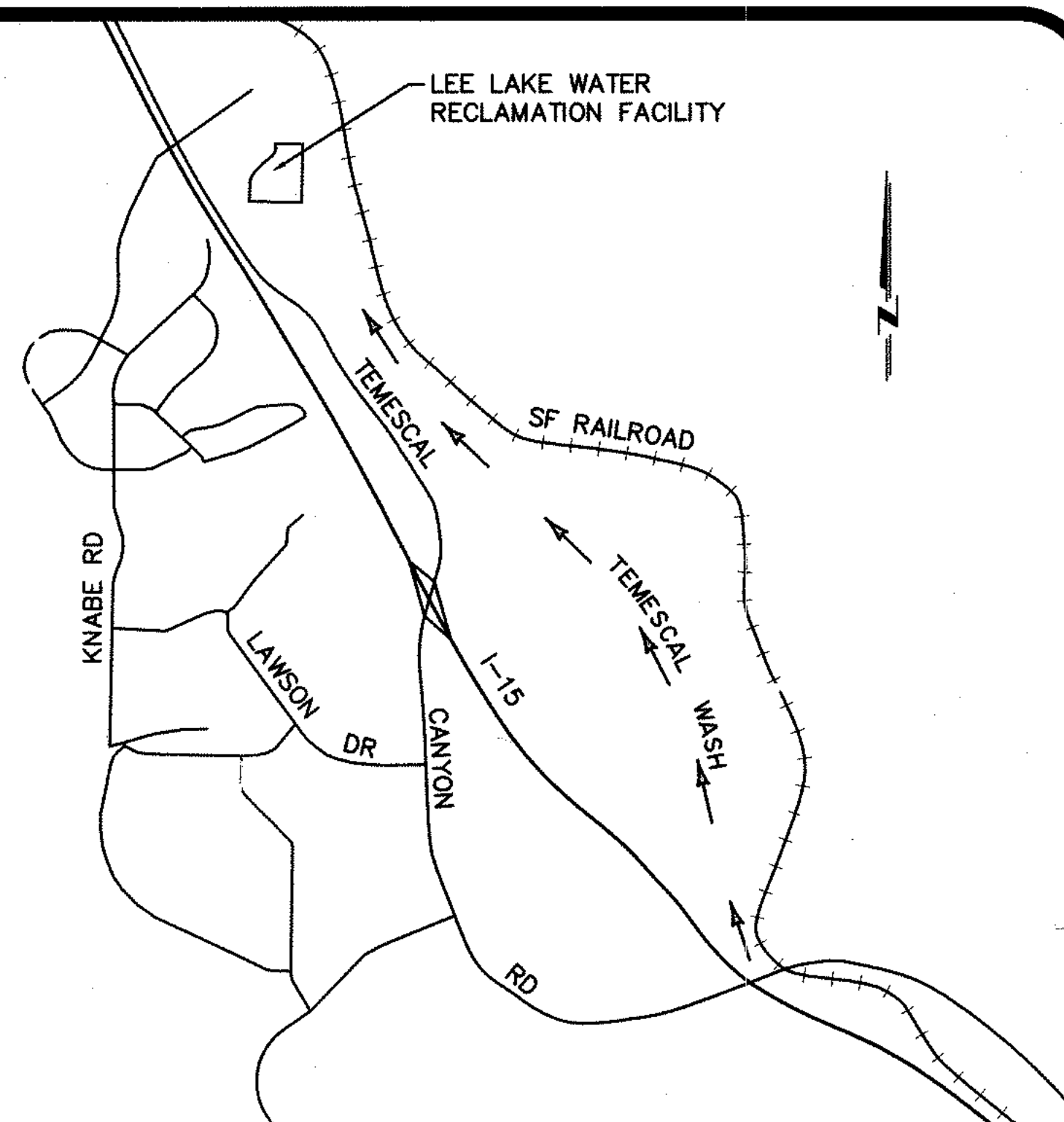
LEE LAKE WATER DISTRICT

APPROVED John Pastore DATE 4-3-03

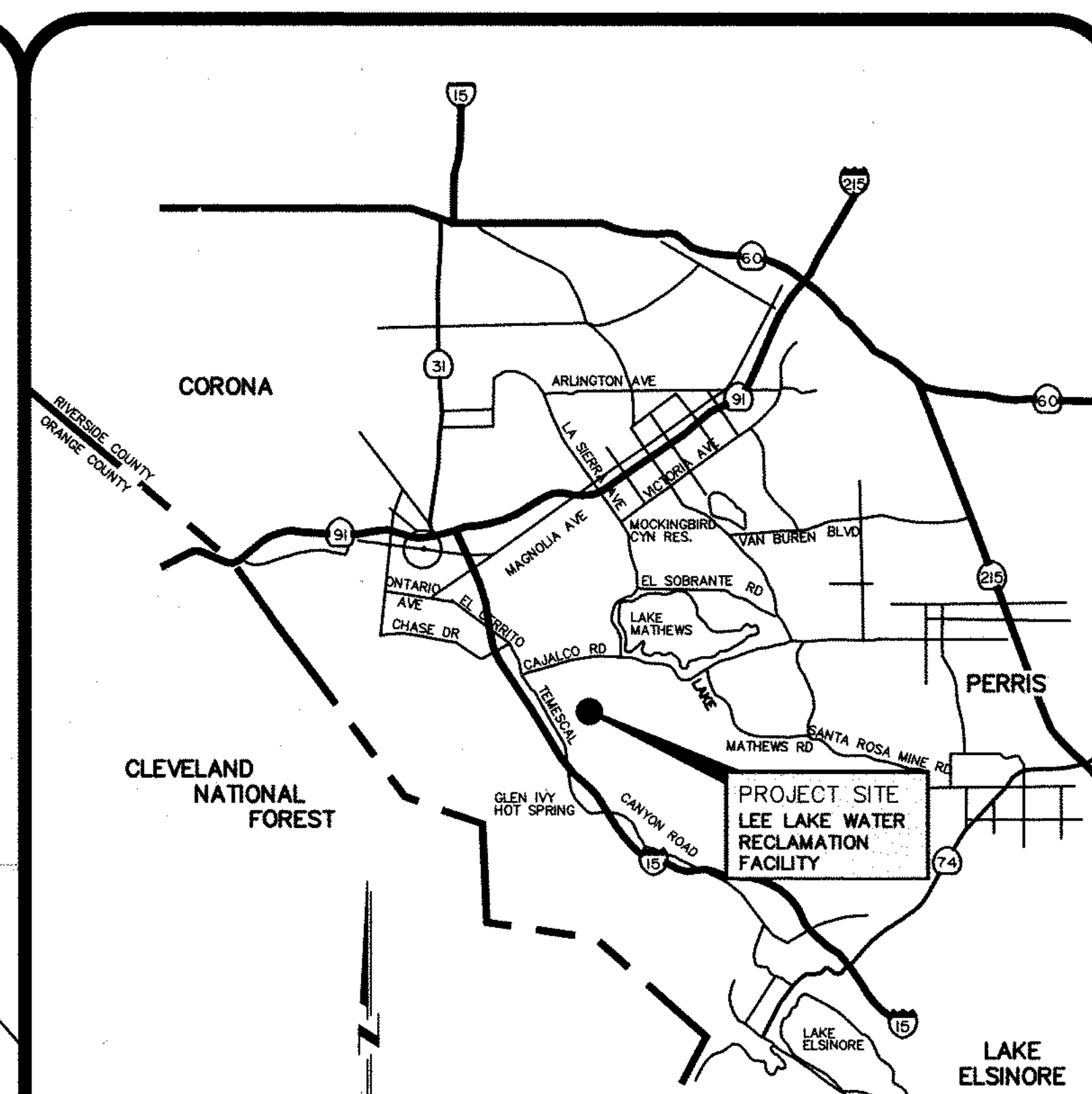


DUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

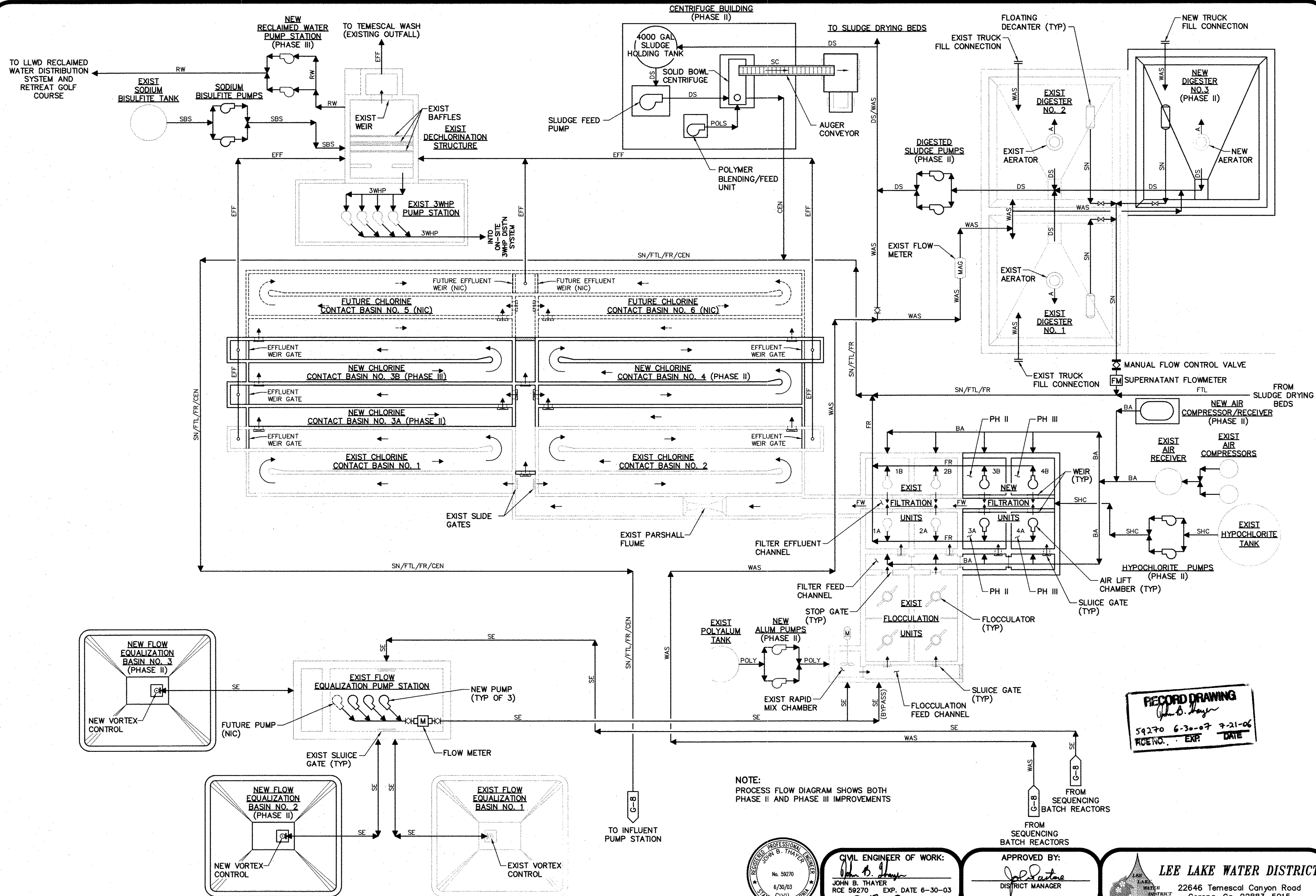
LEE LAKE WATER DISTRICT
2264 Temescal Canyon Road
Corona, Ca. 92883-5015



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

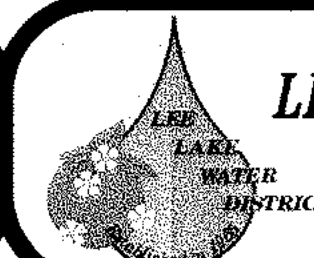


NOTE:
PROCESS FLOW DIAGRAM SHOWS BOTH
PHASE II AND PHASE III IMPROVEMENTS



CIVIL ENGINEER OF WORK:
JOHN B. THAYER
RCE 59270 EXP. DATE 6-30-03
DATE: 3-17-03

APPROVED BY:
[Signature]
DISTRICT MANAGER
DATE: 3-16-03



LEE LAKE WATER DISTRICT
22646 Temescal Canyon Road
Corona, Ca. 92883-5015

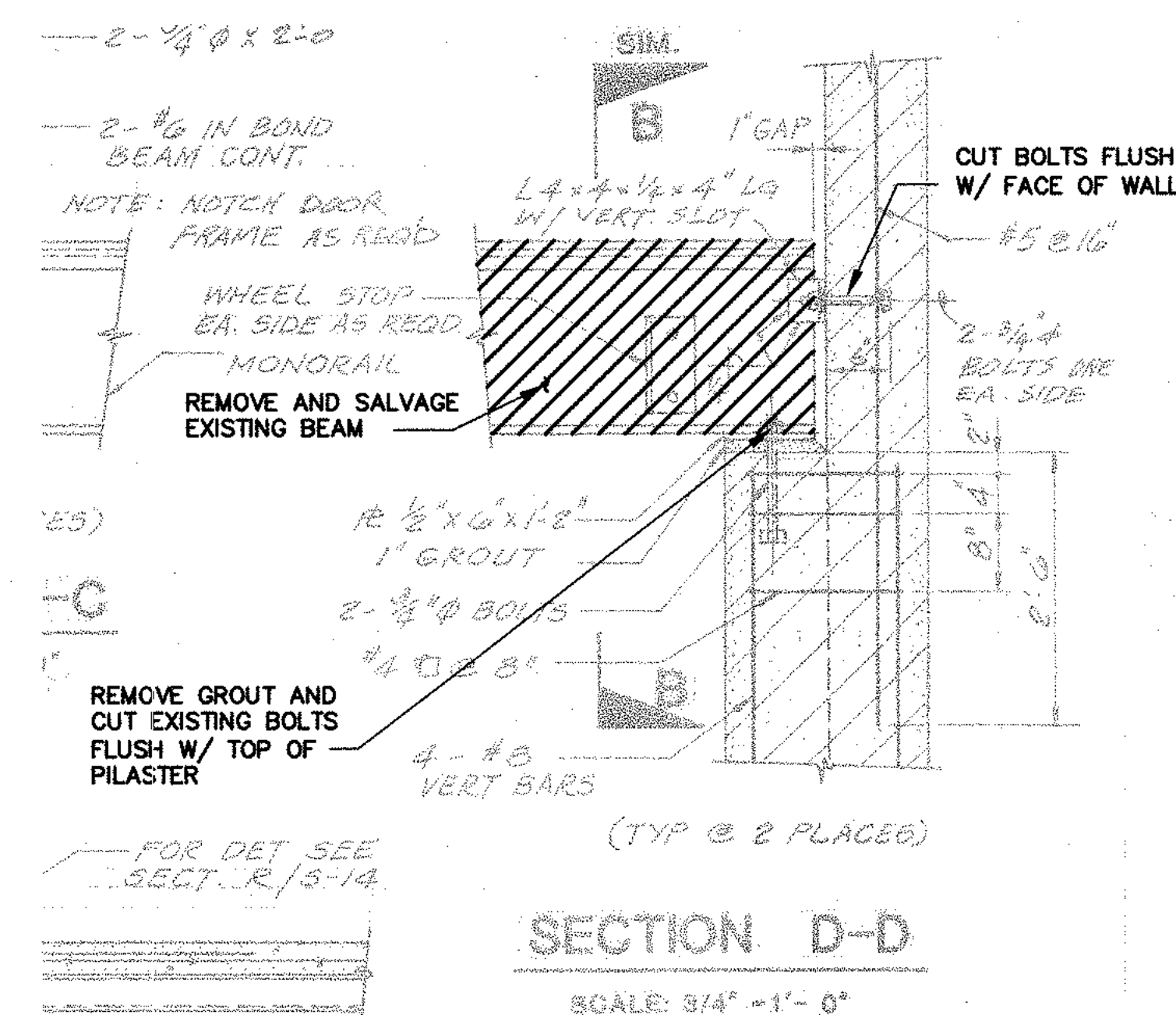
SCALE:
NO SCALE
SHEET NO. 9
OF 144 SHEETS
DWG. NO.
G-9

LEE LAKE WATER RECLAMATION FACILITY EXPANSION
PHASE II IMPROVEMENTS
PROCESS FLOW DIAGRAM

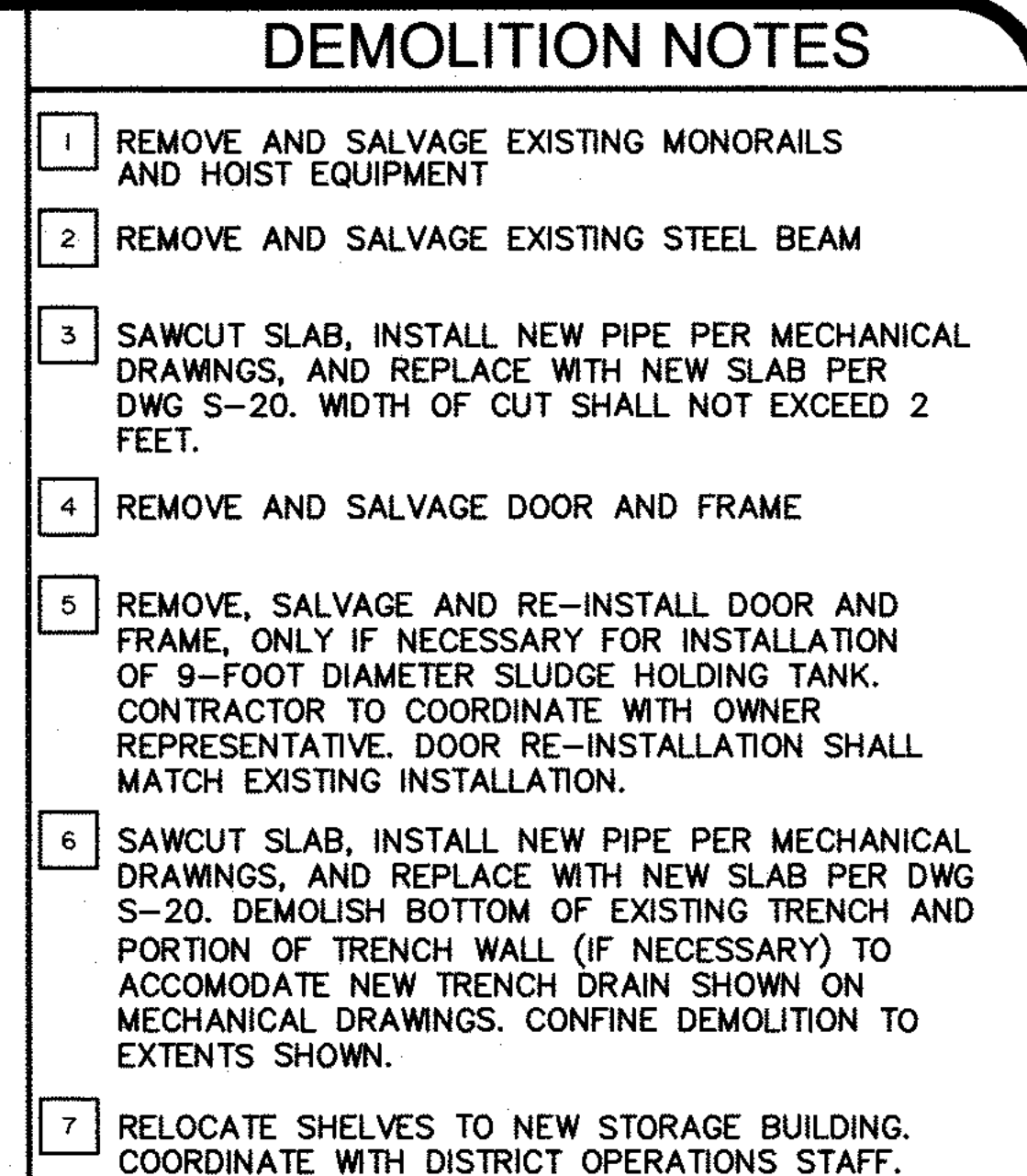
DUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

DESIGNED:
JT/EC/TF/HA
DRAWN:
CS/DL/RR/PC/MG
CHECKED:
DMM

NO.	REVISIONS	INITIALS	DATE



**CENTRIFUGE BUILDING
DEMOLITION SECTION**
NOT TO SCALE



AREA OF DEMOLITION

RECORD DRAWING
John D. Sawyer
59270 6-30-07 7-27-07
RCNO. - EXP. DATE

CIVIL ENGINEER OF WORK:

 JOHN B. THAYER
 RCE 59270 EXP. DATE 6-30-03
 DATE: 3-17-03

APPROVED BY: J. L. Cantore
DISTRICT MANAGER

DATE: 3-16-03



LEE LAKE WATER DISTRICT
22646 Temescal Canyon Road
Corona, Ca. 92883-5015

SCALE:
1/4" = 1'

SHEET NO. 19
OF 144 SHEETS

DWG. NO.
D-9

LEE LAKE WATER RECLAMATION FACILITY EXPANSION

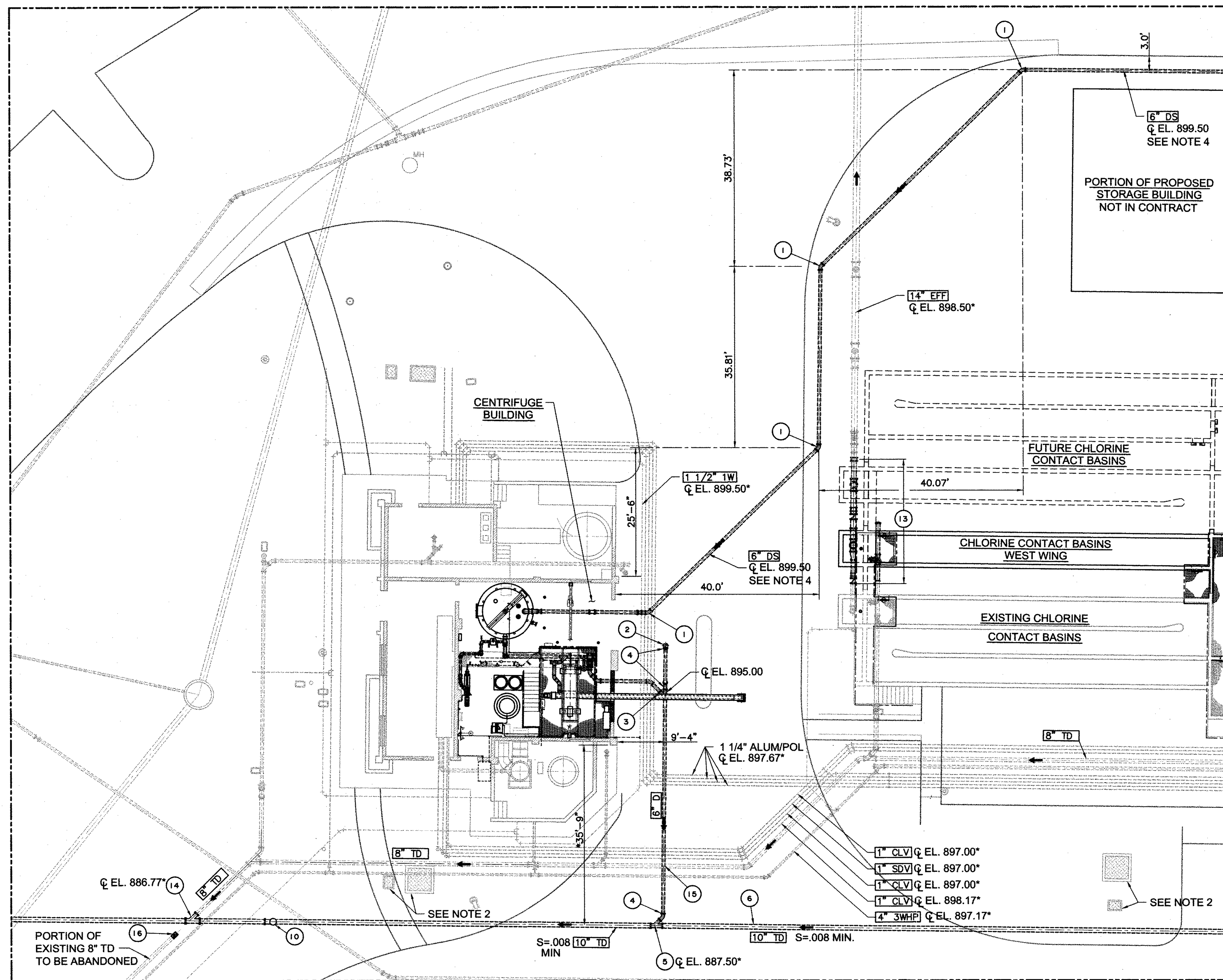
PHASE II IMPROVEMENTS
CENTRIFUGE BUILDING
DEMOLITION PLAN AND SECTIONS

IDUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

DESIGNED: JT/EC/TF/HA
DRAWN: CS/DL/RR/PC/MG
CHECKED: DMM

[illegible]

MATCHLINE - SEE DWG C-13



MATCHLINE -- SEE DWG C-7

MATCHLINE - SEE DWG C-8

PARTIAL YARD PIPING PLAN

SCALE: 1" = 10'



RECORD DRAWING

JOHN B. THAYER 7-21-06
DATE
RCE 59270 EXP. DATE 6-30-07

APPROVED BY:

DISTRICT MANAGER

DATE:

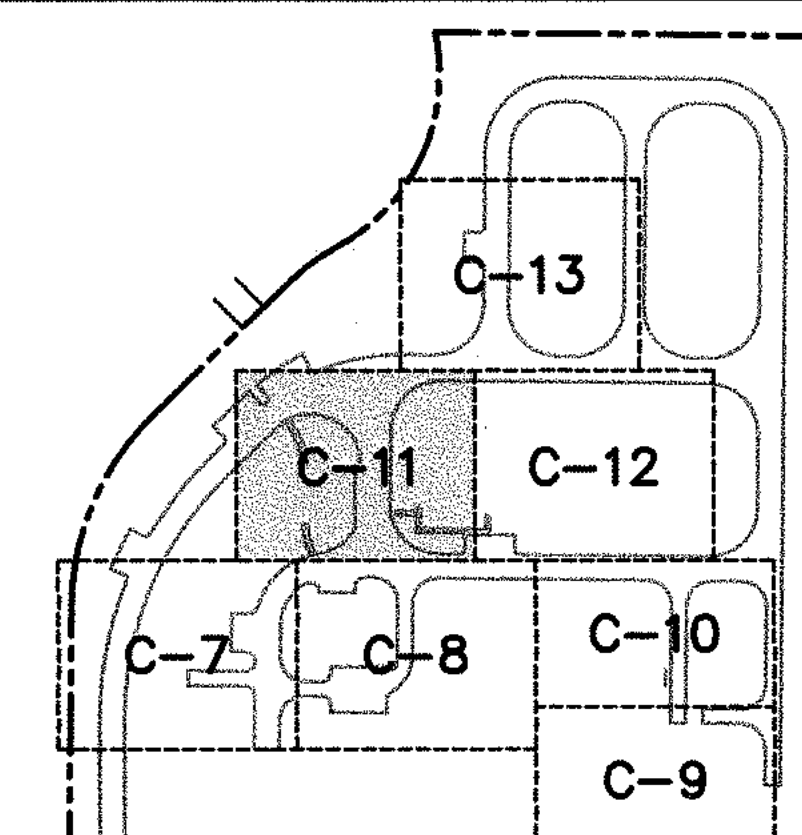
LEGEND

- 1 6" DI RESTRAINED MJ 45° BEND, PROVIDE THRUST BLOCK PER LLWD-22
- 2 6" CLEAN OUT TO GRADE PER DET 2, DWG C-1
- 3 6" C-900 PVC, P.O. 45° LATERAL WYE
- 4 6" C-900 PVC, P.O. x PE 45° BEND
- 5 INSTALL NEW 10" X 6" C-900 PVC PUSH-ON 45° LATERAL WYE
- 6 10" C-900 PVC PUSH-ON
- 7 10" X 8" DI, PE X MJ REDUCER
- 8 10" X 10" X 10" DI, MJ 45° LATERAL WYE
- 9 10"x4" DI MJ 45° LATERAL WYE, JOIN EXISTING 45° BEND
- 10 CLEANOUT TO GRADE PER DETAIL 2, DWG C-1
- 11 10"x10"x10" DI MJ 45° LATERAL WYE
- 12 CONNECT EXISTING 8" DI TO NEW 10" TD W/ 10"x8" MJ SMALL END BELL REDUCER, 10" DI 45° MJ X PE BEND AND 10" DI 45° MJ X PE BEND
- 13 REMOVE AND REPLACE EXISTING PIPE. SEE DWG M-18
- 14 CUT EXISTING 8" TD AND INSTALL 10"x10"x8" DI MJ LATERAL WYE.
- 15 ADJUST 6" TD TO CLEAR TOP OF 8" TD BY MIN. 1'-0"
- 16 PLUG END OF 8" TD WITH CONCRETE

NOTES:

1. *INDICATES DIMENSION OR ELEVATION TO BE FIELD VERIFIED BY CONTRACTOR.
2. EXISTING PULL BOXES, PIPES, AND OTHER UTILITIES TO BE PROTECTED IN PLACE
3. RESTORE ALL ASPHALT AND CONCRETE TO EXISTING CONDITIONS.
4. PROVIDE 36" MIN. COVER, WHERE COVER IS LESS THAN 42", PROVIDE SLURRY BACKFILL.

KEY MAP



LEE LAKE WATER RECLAMATION FACILITY EXPANSION

PHASE II IMPROVEMENTS YARD PIPING PLAN - 5

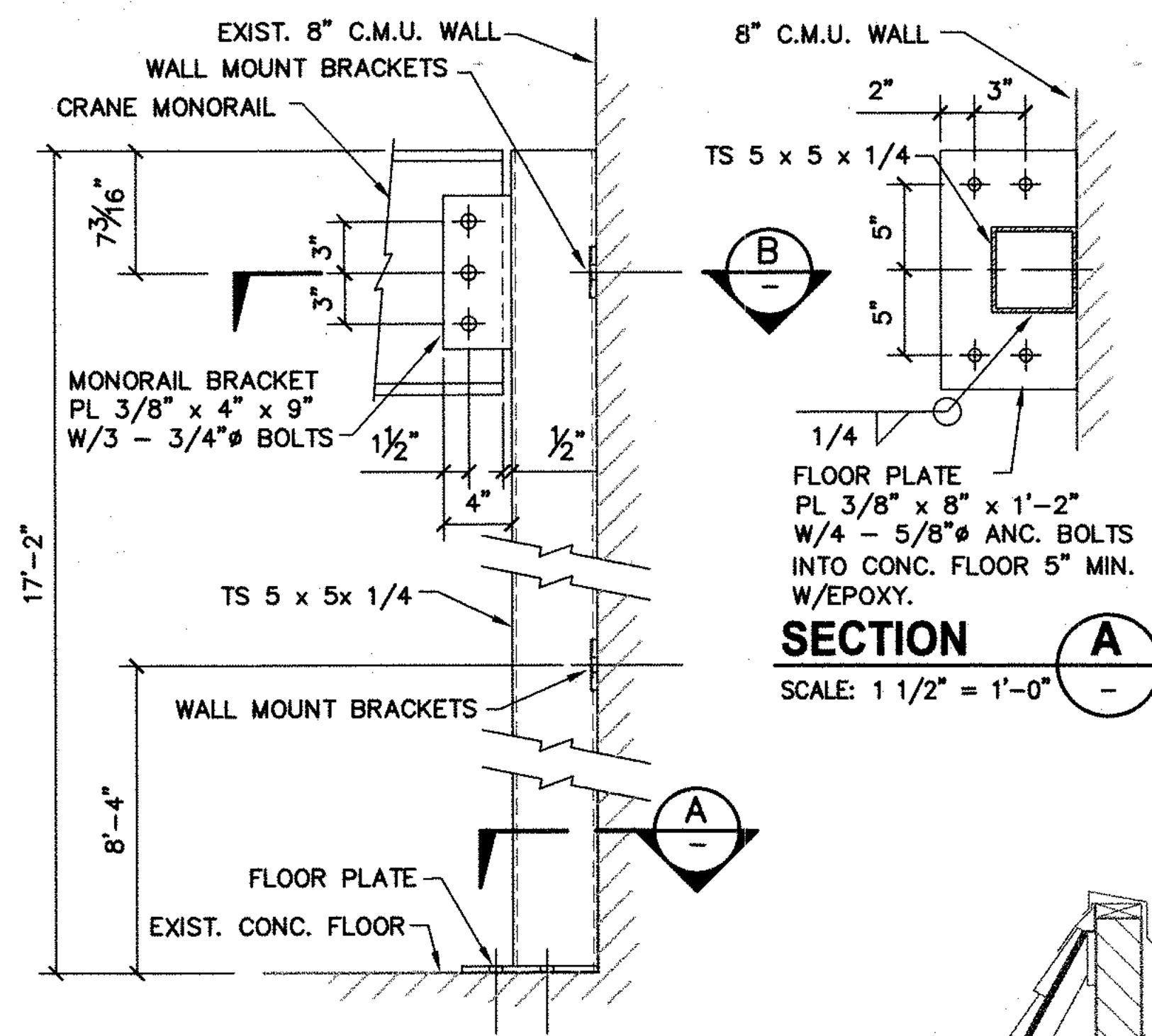
SCALE:
"=10'

T NO. 30
44 SHEETS

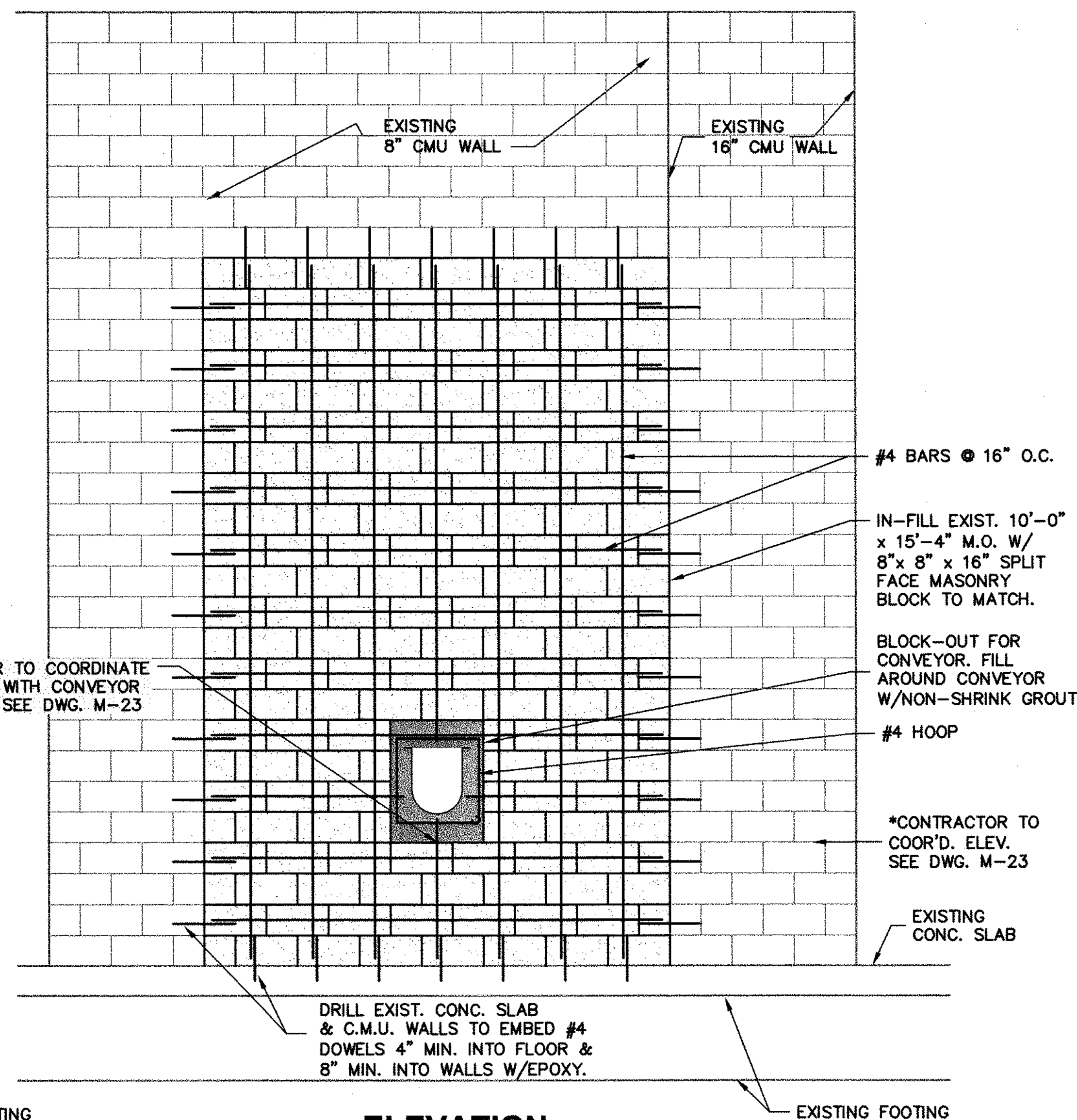
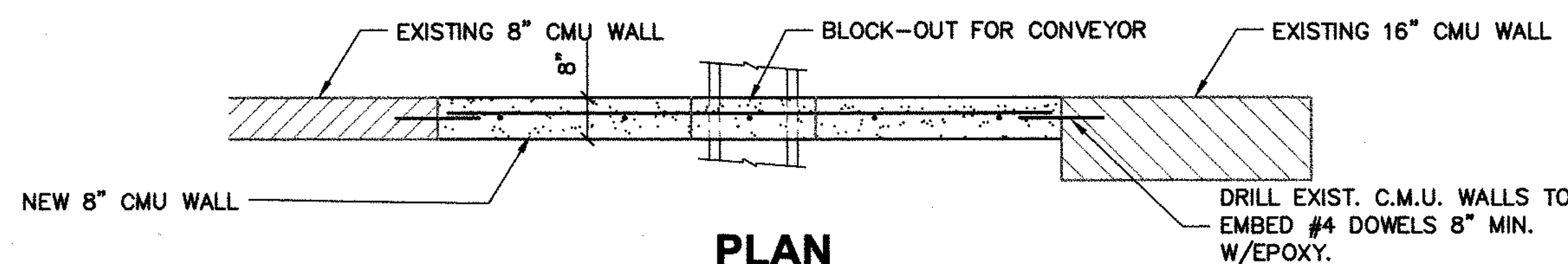
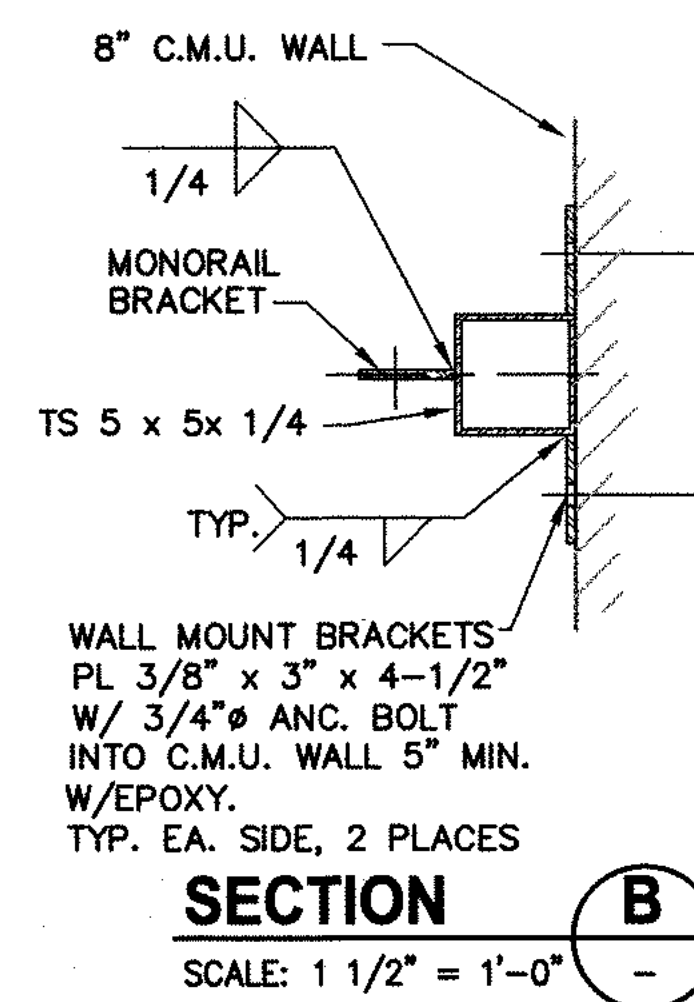
WG. NO.
C-11

DUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

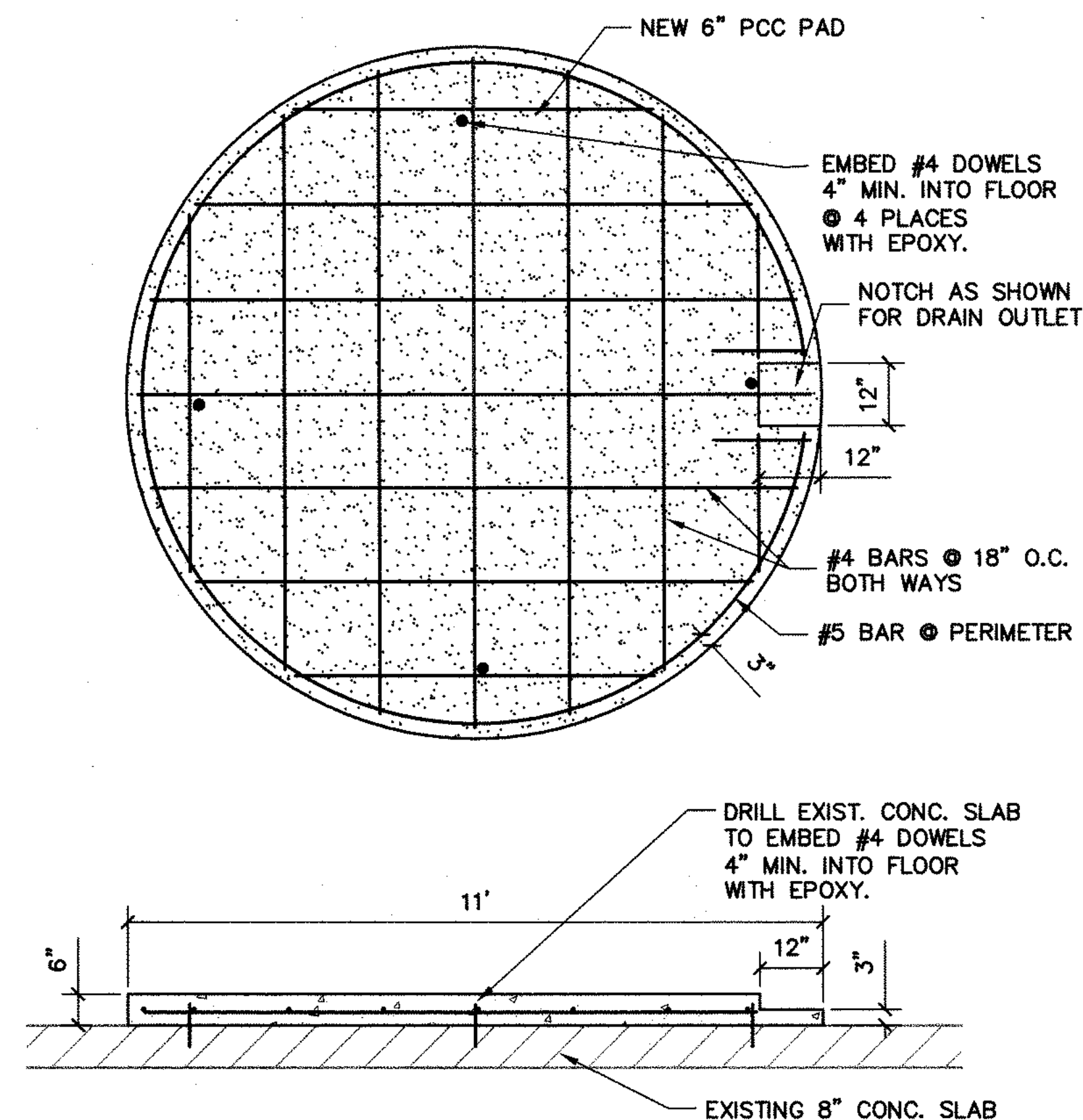
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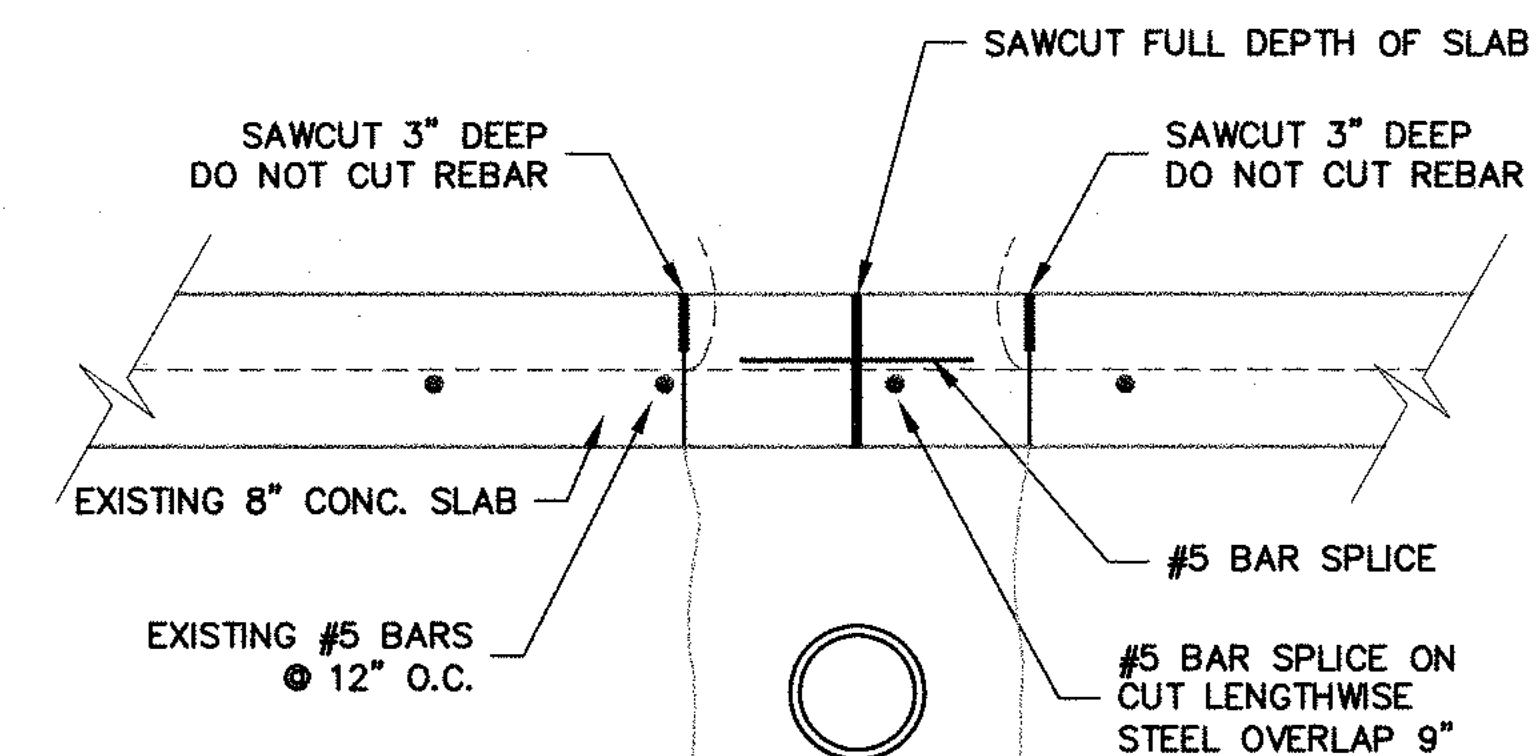
ELEVATION
NEW MONORAIL SUPPORT
SCALE: 1 1/2" = 1'-0"



WALL IN-FILL & CONVEYOR SUPPORT DETAILS
SCALE: 1/2" = 1'-0"



DIGESTED SLUDGE TANK PAD
SCALE: 1/2" = 1'-0"



ORDER OF WORK:

1. SAWCUT AS SHOWN
2. BEND EXISTING REINFORCING STEEL UPWARD TO ALLOW PLACEMENT OF PIPE
3. TRENCH & PLACE PIPE
4. BEND EXISTING REINFORCING STEEL BACK TO ORIGINAL POSITION
5. ADD #5 BAR SPLICE TO EXISTING CROSSWAYS REINFORCING STEEL
6. ADD #5 BAR SPLICE TO EXISTING LENGTHWISE REINFORCING STEEL
7. POUR 4000 PSI CONCRETE IN-FILL

PIPE TRENCH SAWCUT/REPLACE SLAB
NOT TO SCALE

** INDICATES DIMENSION OR ELEVATION TO BE FIELD VERIFIED BY CONTRACTOR OR IS DEPENDENT ON EQUIPMENT FURNISHED.



RECORD DRAWING

Kenneth R. King
RCE 13537
DATE 3-31-07

APPROVED BY:

DISTRICT MANAGER

DATE:



LEE LAKE WATER DISTRICT

22646 Temescal Canyon Road
Corona, Ca. 92883-5015

LEE LAKE WATER RECLAMATION FACILITY EXPANSION
PHASE II IMPROVEMENTS
CENTRIFUGE BUILDING PLAN

SCALE:
AS SHOWN
SHEET NO. 52
OF 144 SHEETS
DWG. NO.
S-20

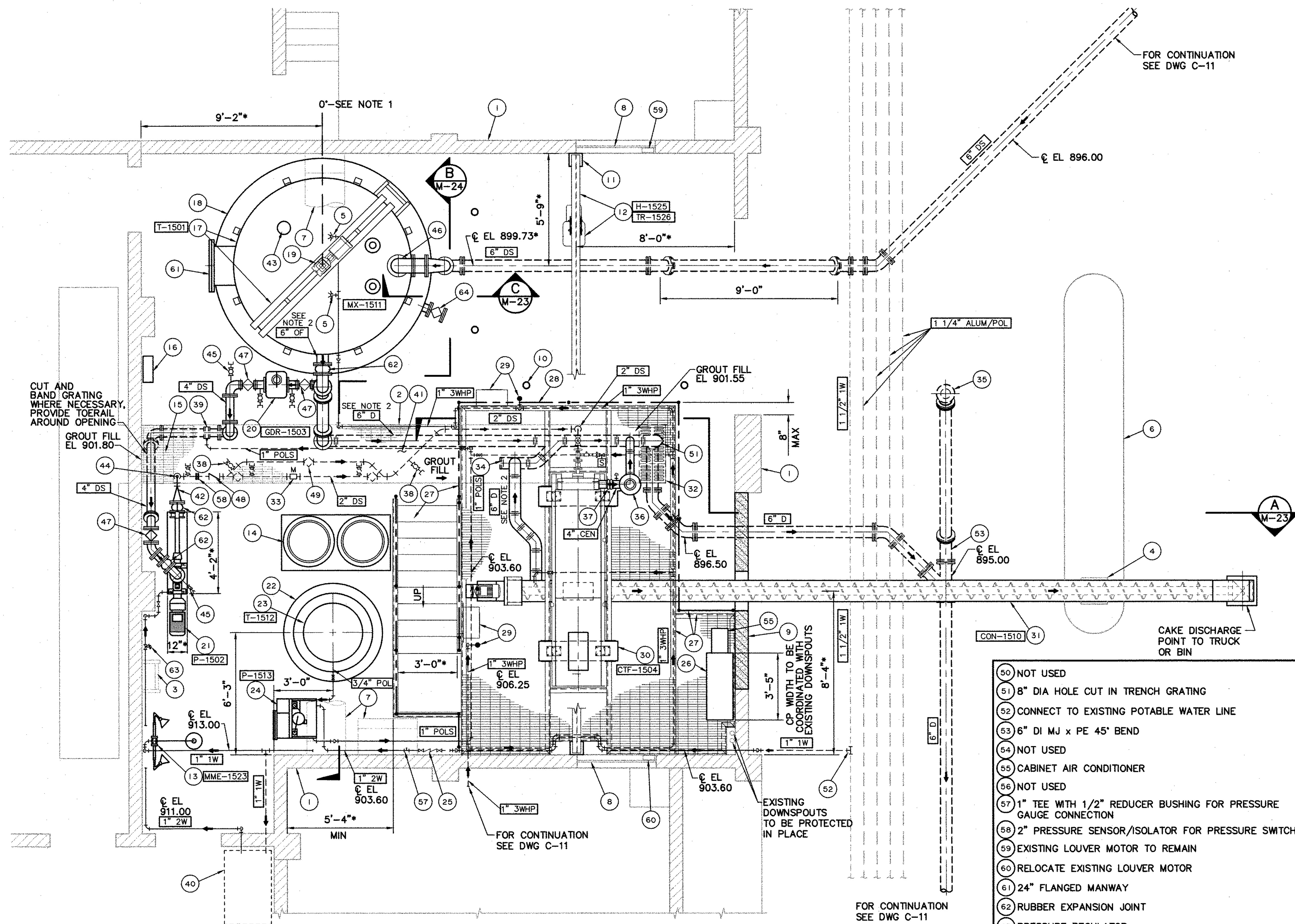
DUDEK & ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

DESIGNED: KRK
DRAWN: BK-VOL
CHECKED: KRK
DATE: X

RECORD DRAWING

J.P. 1/23/06
INITIALS
NO.
REVISIONS
DATE

P:\Engineering\Lee Lake WD\3190\01\CADD\DWGS\AS-Built\Phase 2\General-Demo-Civil-Mech\RD-3190-M-22-CENTRI-BLDG-PLAN.dwg -- Jul 17, 2006, 4:10pm



NOTES:

1. SEE SECTION 13675 FOR ORIENTATION AND SIZE OF TANK CONNECTIONS. ZERO DEGREES EQUALS NORTH; 90° EQUALS EAST; 180° EQUALS SOUTH; 270° EQUALS WEST
2. ALL STAINLESS STEEL DRAIN AND OVERFLOW GROOVED CONNECTIONS SHALL BE QUICK-DISCONNECT TYPE; VICTAULIC STYLE 78, OR EQUAL

CENTRIFUGE BUILDING PLAN

SCALE: 3/8" = 1'-0"

LEGEND

- 1 EXISTING MASONRY BUILDING
- 2 EXISTING PIPE TRENCH
- 3 EXISTING LADDER TO REMAIN
- 4 EXISTING COLUMN TO BE MODIFIED, SEE DWG D-9
- 5 SPRAY NOZZLE (TYP OF 2), SEE NOTE 15, DWG M-24
- 6 EXISTING CONCRETE ISLAND TO REMAIN
- 7 EXISTING AIR DUCTING TO REMAIN
- 8 EXISTING LOUVER TO REMAIN
- 9 BLOCK WALL, SEE STRUCTURAL DRAWING S-20
- 10 REMOVABLE PROTECTION POST (TYP OF 4), SEE DET 4, DWG M-4
- 11 NEW COLUMN (TYP OF 2), SEE STRUCTURAL DWG S-20
- 12 MONORAIL AND ELECTRIC HOIST AND TROLLEY
- 13 EMERGENCY EYEWASH AND SHOWER, SEE DET 2, DWG M-4
- 14 55 GALLON POLYMER STORAGE DRUM WITH PLASTIC BASE (TYP OF 2) AND EMERGENCY CONTAINMENT. PROVIDE 2 EAGLE DRUM TRAYS MODEL 4YF76 OR EQUAL AND 1 EAGLE PLASTIC RAMP MODEL 4RF65 OR EQUAL
- 15 EXISTING FRP GRATING, CUT TO ACCOMMODATE NEW PIPING AND REINFORCE NEW PENETRATION AS NECESSARY
- 16 GRINDER CONTROL PANEL, SEE ELECTRICAL DRAWINGS
- 17 4000 GALLON FRP CLOSED TOP DIGESTED SLUDGE STORAGE TANK WITH ACCESS LADDER, MIXER SUPPORT BRIDGE AND TIE DOWNS
- 18 DIGESTED SLUDGE TANK CONCRETE PAD, SEE STRUCTURAL DWG S-20
- 19 DIGESTED SLUDGE MIXER AND SUPPORT BRIDGE
- 20 IN-LINE GRINDER
- 21 PROGRESSIVE CAVITY SLUDGE FEED PUMP AND MOTOR, 4" THICK EQUIPMENT PAD PER DET CC, STRUCTURAL DWG S-4
- 22 12" THICK CONCRETE TANK PAD, SEE DET CC, DWG S-4
- 23 300 GALLON DOUBLE CONTAINMENT, OPEN TOP HDPE POLYMER STORAGE TANK
- 24 POLYMER FEED SYSTEM SKID
- 25 REDUCED PRESSURE 1" BACKFLOW PREVENTER; FEBCO MODEL 860, CONBRACO MODEL 40-200, OR EQUAL
- 26 CENTRIFUGE VFD AND CONTROL PANEL, SEE ELEC DRAWINGS
- 27 CENTRIFUGE PLATFORM, STAIRWAY AND HANDRAILING, PER CENTRIFUGE MANUFACTURER'S DESIGN
- 28 REMOVABLE HANDRAILING, THIS SIDE ONLY
- 29 HOSE BIBB AND RACK, SEE DET 3, DWG M-4 AND DET 2, DWG M-3
- 30 CENTRIFUGE
- 31 AUGER CONVEYOR
- 32 3'-0" X 1'-4" CAST IRON TRENCH DRAIN W/ 6" DRAIN OUTLET CONTRACTOR TO CUT 8" HOLE IN TRENCH DRAIN GRATE BELOW 6" DRAIN OUTLET WADE W-2920 OR APPROVED EQUAL
- 33 FLOWMETER
- 34 PIPE CAP, 316SS GRVD
- 35 CLEAN OUT TO GRADE, SEE DET 2, DWG C-1
- 36 CENTRATE DEAERATOR, VENT THROUGH ROOF
- 37 FLEXIBLE CONNECTION
- 38 FLUSH CONNECTION, 2" X 1" TEE WITH 1" BRONZE BALL VALVE AND 1" NPT CONNECTION (TYP)
- 39 4" FLANGED POLYMER INJECTION RING
- 40 SEAL WATER PRESSURIZATION SYSTEM, FOR EQUIPMENT SCHEDULE SEE DWG N-18
- 41 GROUT FILL EXISTING TRENCH SLOPE TO DRAIN-S=0.01
- 42 4" X 2" ECCENTRIC REDUCER, INSTALL FLAT ON TOP
- 43 8" TANK VENT THROUGH ROOF
- 44 1" AIR RELEASE VALVE
- 45 FLUSH CONNECTION, 1" THREADED OUTLET W/ 1" BRONZE BALL VALVE AND 1" NPT CONNECTION (TYP)
- 46 8" PVC SCH 80 FLG X FLG 90° BEND
- 47 4" GROOVED END PLUG VALVE WITH LEVER OPERATOR
- 48 2" 316SS CHECK VALVE
- 49 2" 316SS PLUG VALVE (TYP)

- 50 NOT USED
 - 51 8" DIA HOLE CUT IN TRENCH GRATING
 - 52 CONNECT TO EXISTING POTABLE WATER LINE
 - 53 6" DI MJ x PE 45° BEND
 - 54 NOT USED
 - 55 CABINET AIR CONDITIONER
 - 56 NOT USED
 - 57 1" TEE WITH 1/2" REDUCER BUSHING FOR PRESSURE GAUGE CONNECTION
 - 58 2" PRESSURE SENSOR/ISOLATOR FOR PRESSURE SWITCH
 - 59 EXISTING LOUVER MOTOR TO REMAIN
 - 60 RELOCATE EXISTING LOUVER MOTOR
 - 61 24" FLANGED MANWAY
 - 62 RUBBER EXPANSION JOINT
 - 63 PRESSURE REGULATOR
 - 64 4" FLANGED OUTLET W/ 4" PLUG VALVE AND 4" BLIND FLANGE FOR FUTURE TRANSMITTER, SEE SPEC SECTION 13675
- * INDICATES DIMENSION OR ELEVATION TO BE FIELD VERIFIED BY CONTRACTOR OR IS DEPENDENT ON EQUIPMENT FURNISHED



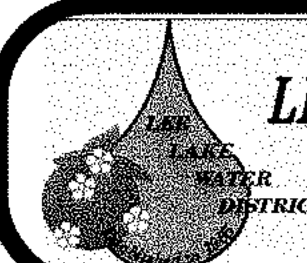
RECORD DRAWING

JOHN B. THAYER
RCE 59270 EXP. DATE 6-30-07

APPROVED BY:

DISTRICT MANAGER

DATE:



LEE LAKE WATER DISTRICT

22646 Temescal Canyon Road
Corona, Ca. 92883-5015

LEE LAKE WATER RECLAMATION FACILITY EXPANSION

**PHASE II IMPROVEMENTS
CENTRIFUGE BUILDING PLAN**

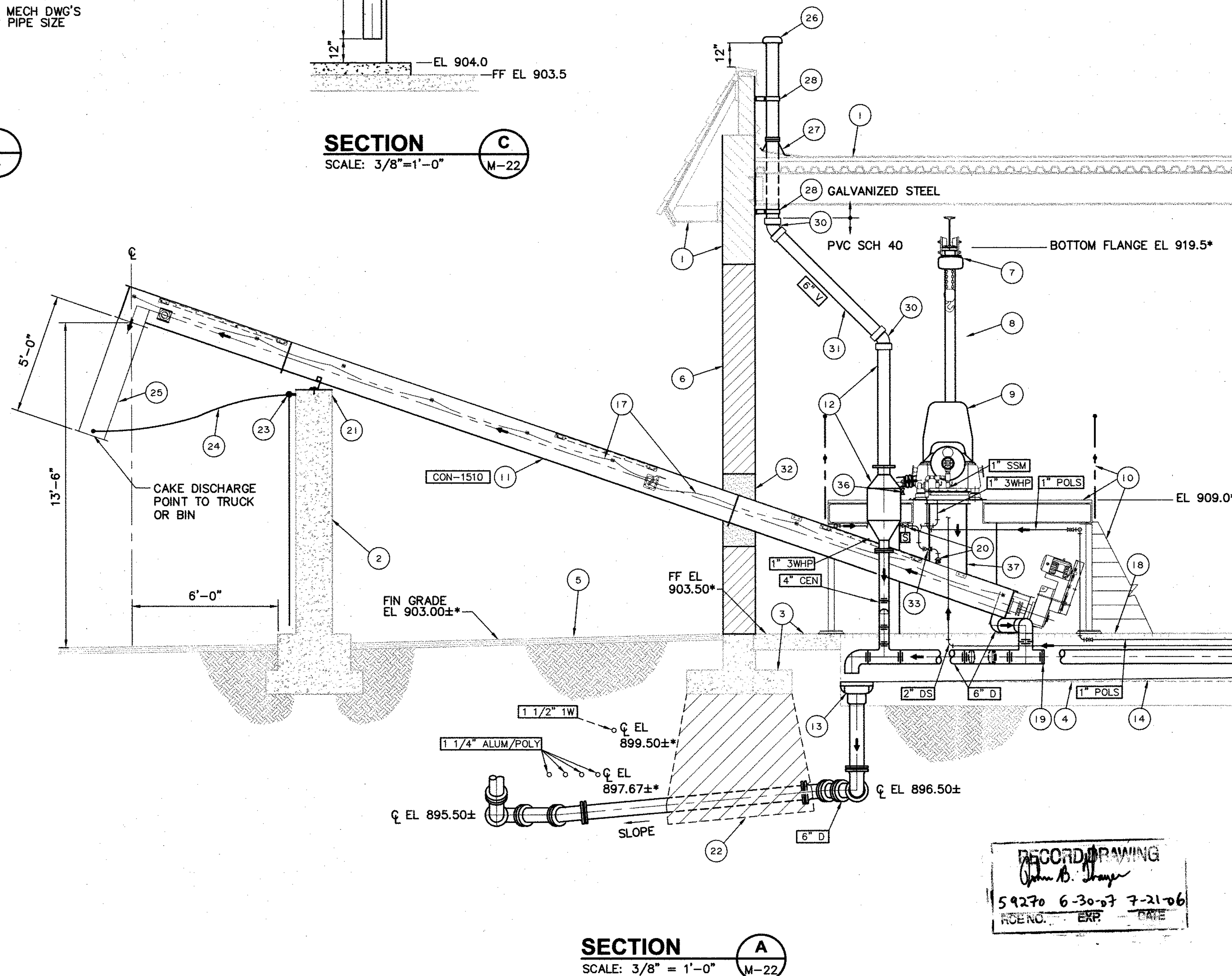
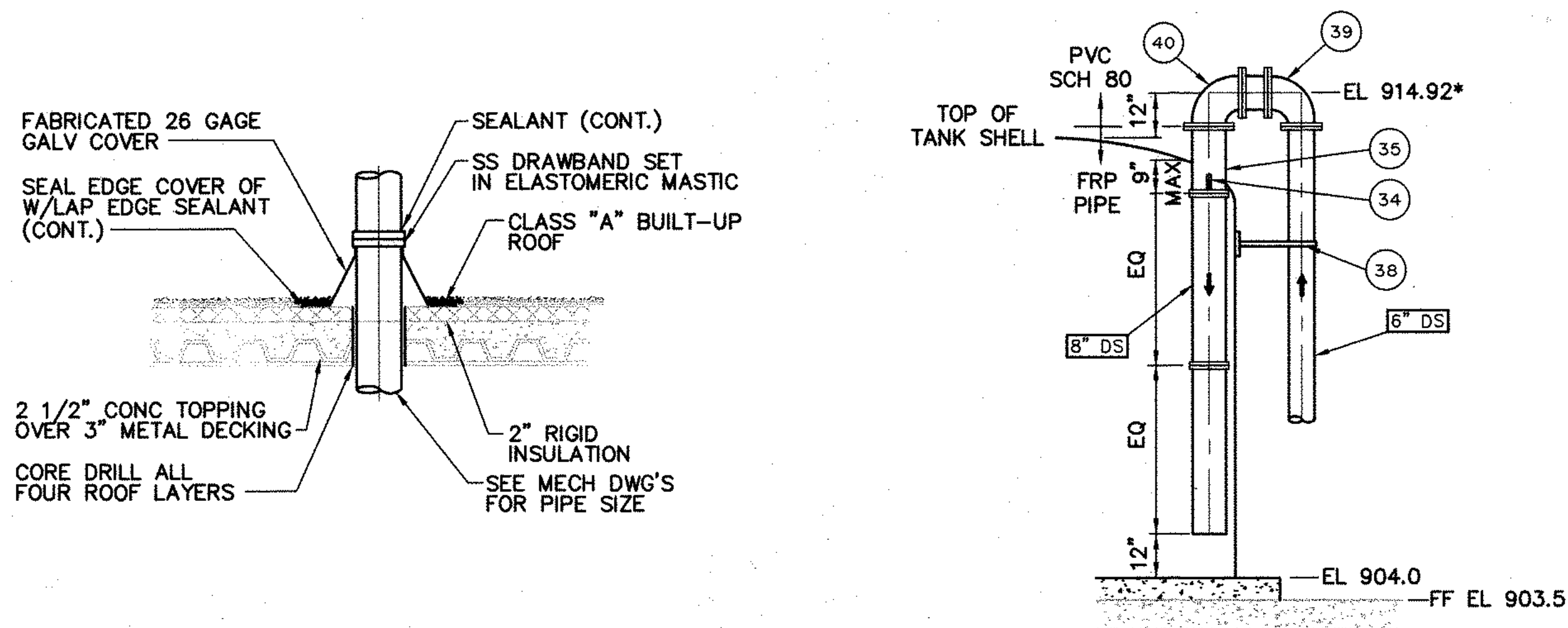
SCALE:
AS SHOWN
SHEET NO. 73
OF 144 SHEETS
DWG. NO.
M-22

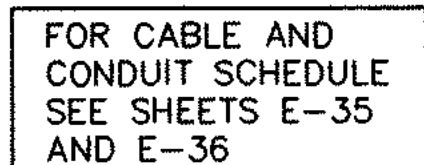
NO.	REVISIONS	INITIALS	DATE

DESIGNED: JT/EC/TE/HA
DRAWN: CS/DL/RR/PC/MG
CHECKED: DMM

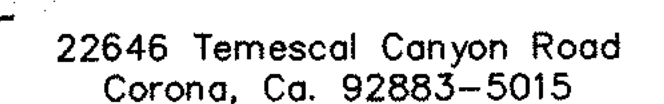
DUDEK & ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

P:\Engineering\Lee Lake WD\3190\01\CADD-DWG\3190-M-23-CENTRI-BLDG-SEC.dwg -- Mar 17, 2003, 10:53am





SCALE: $3/8" = 1'-0"$



SCALE:
AS SHOWN

SHEET NO. 85
OF 144 SHEETS

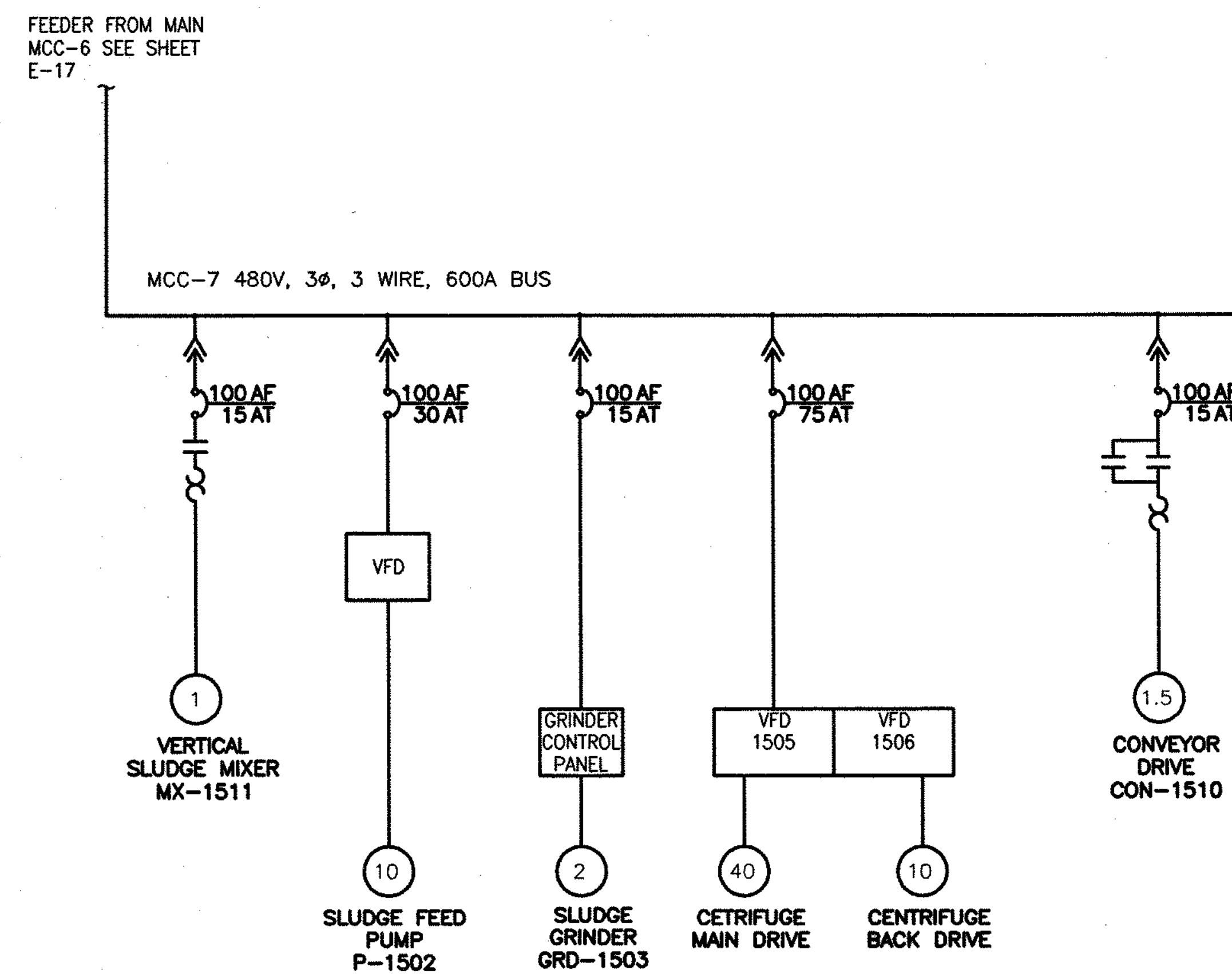
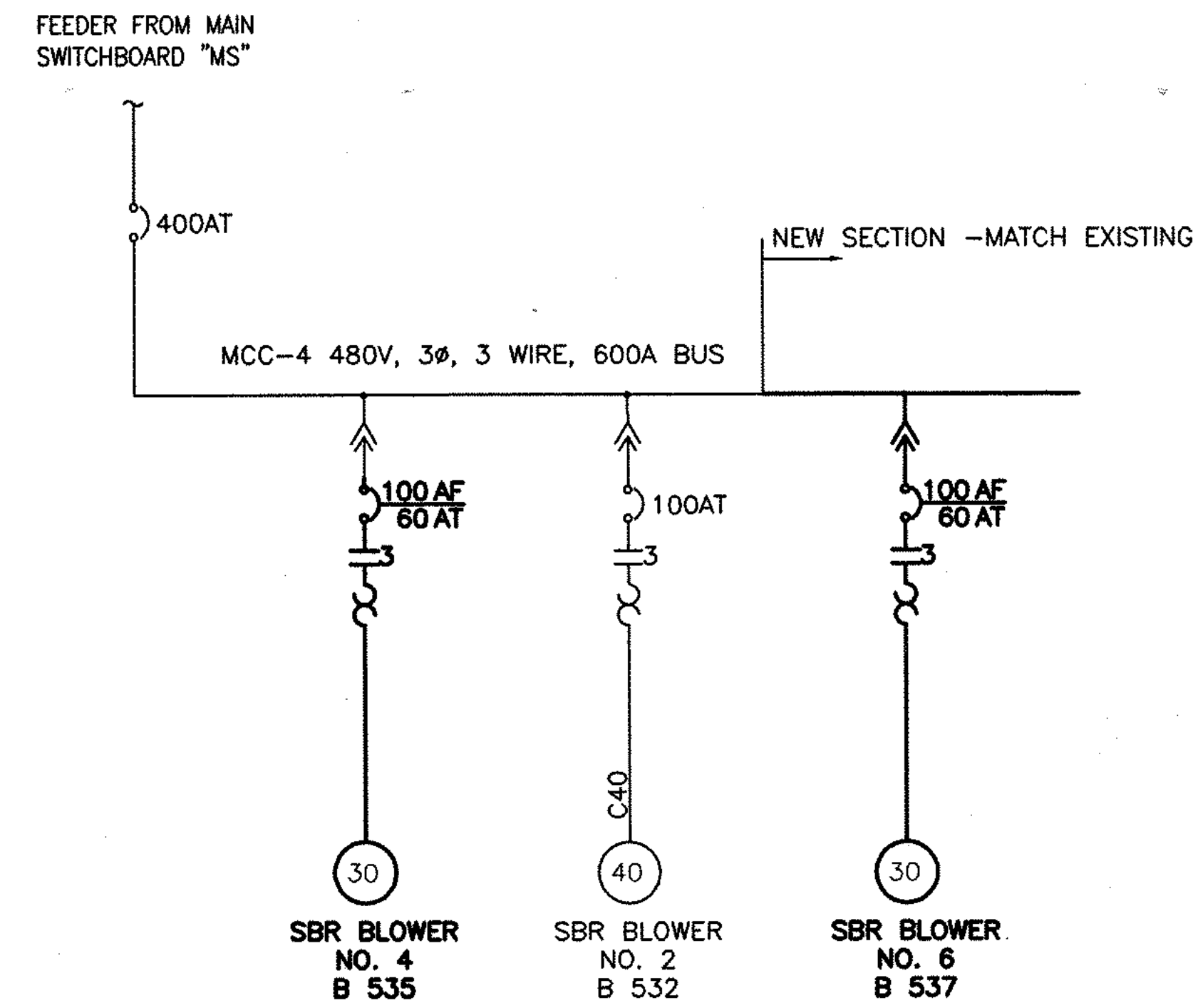
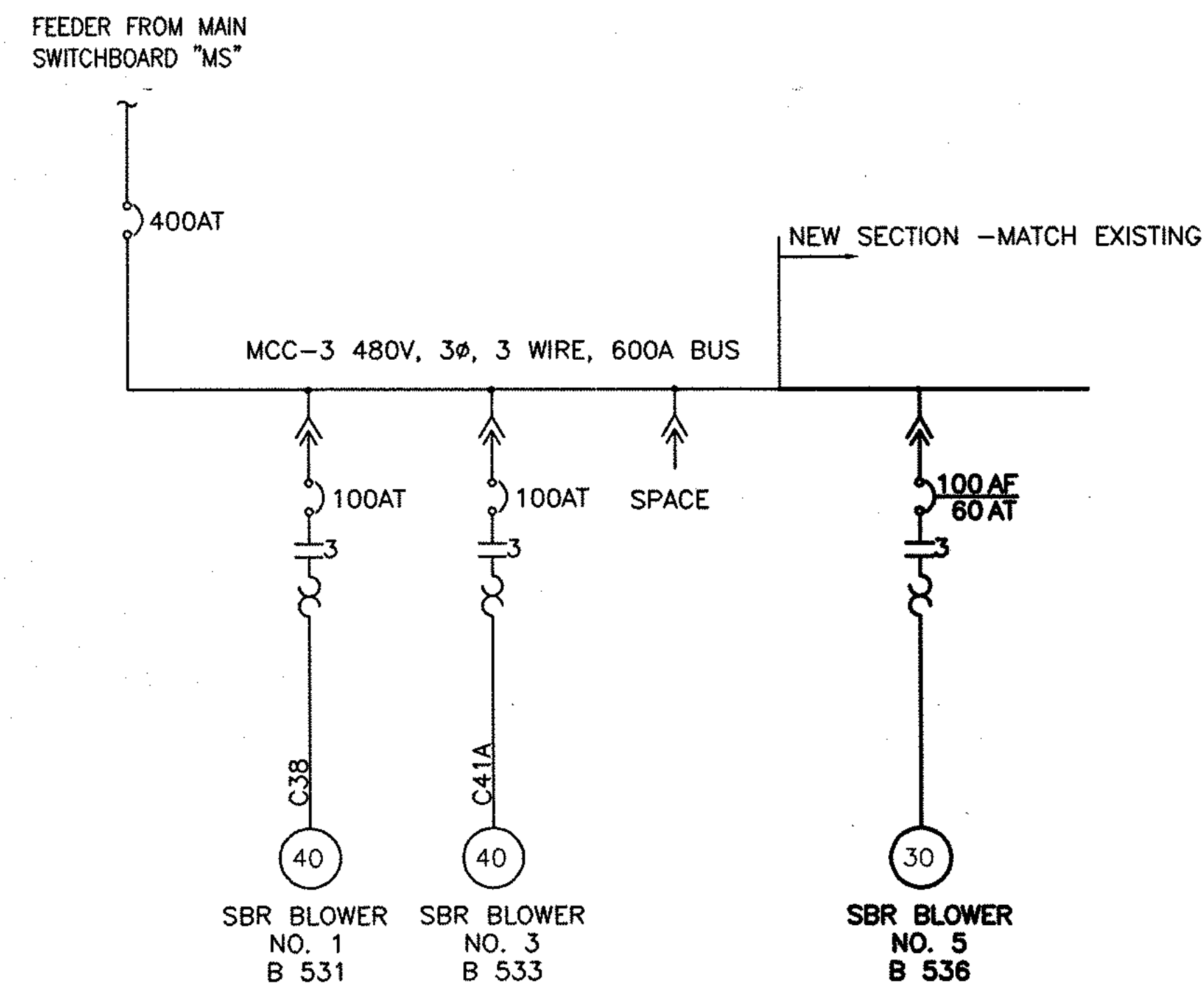
DWG. NO.
E-9

IDUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

DESIGNED:	RSD
DRAWN:	boker
CHECKED:	GLQ
DATE:	

[illegible]

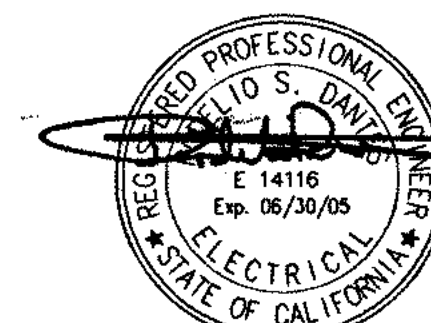
- ① DISCONNECT SWITCH, 30 AMP, 3POLE, 600 VOLTS, NEMA 4X. PROVIDE CONNECTION TO HOIST/TROLLEY.
- ② GROUND RODS TIE TO EXISTING GROUND SYSTEM AND NEW EQUIPMENTS.



RECORD DRAWING

[Signature]

<u>E1411C</u>	<u>6/30/68</u>	<u>7/27/66</u>
REG. NO.	EXP.	DATE



ENGINEER OF WORK:

RODELIO S DANTES
E14116 EXP. DATE 6/30/2005
DATE: _____

APPROVED BY:

DISTRICT MANAGER

DATE:



LEE LAKE WATER DISTRICT
22646 Temescal Canyon Road
Corona, Ca. 92883-5015

[illegible]

DESIGNED: _____
RSD _____
DRAWN: _____
boker _____
CHECKED: _____
GLQ _____
DATE: _____
X _____

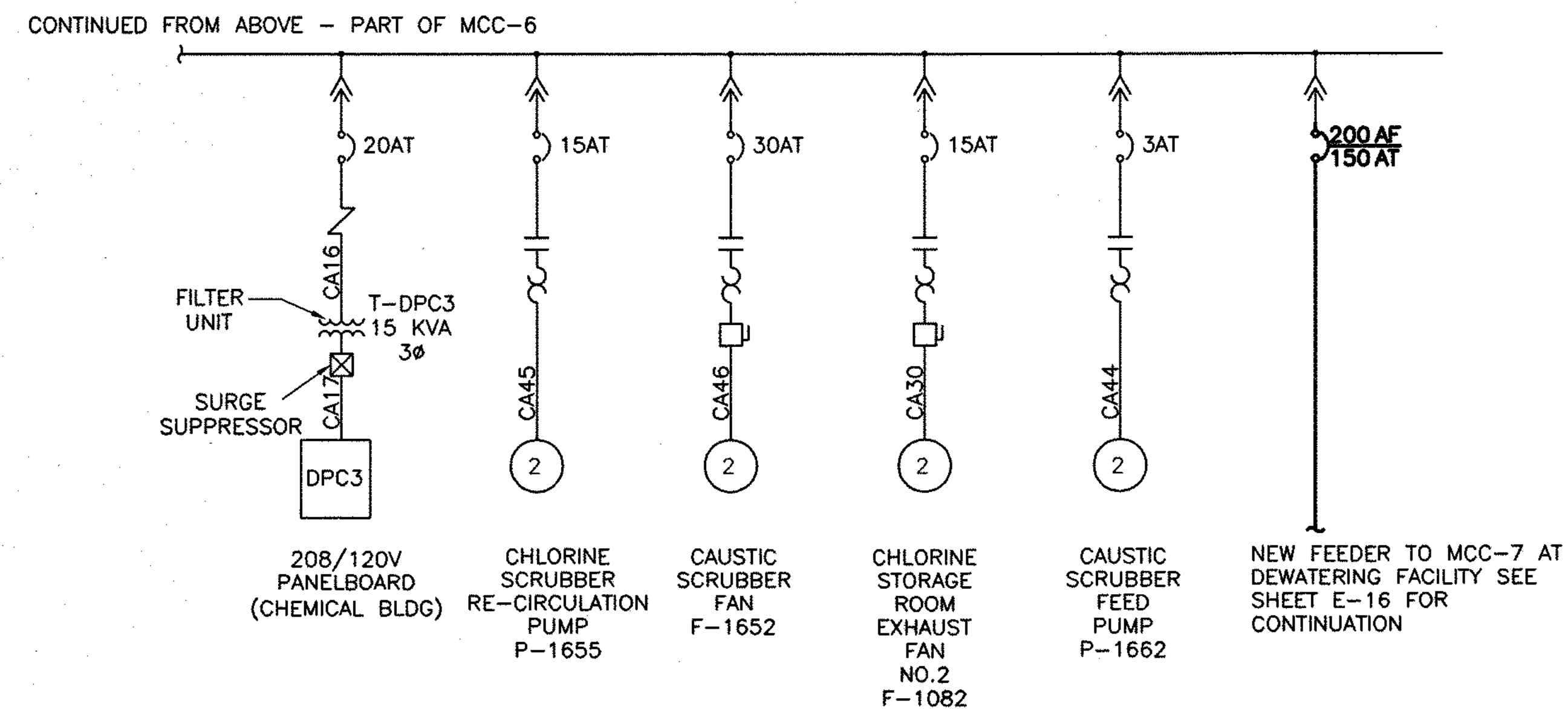
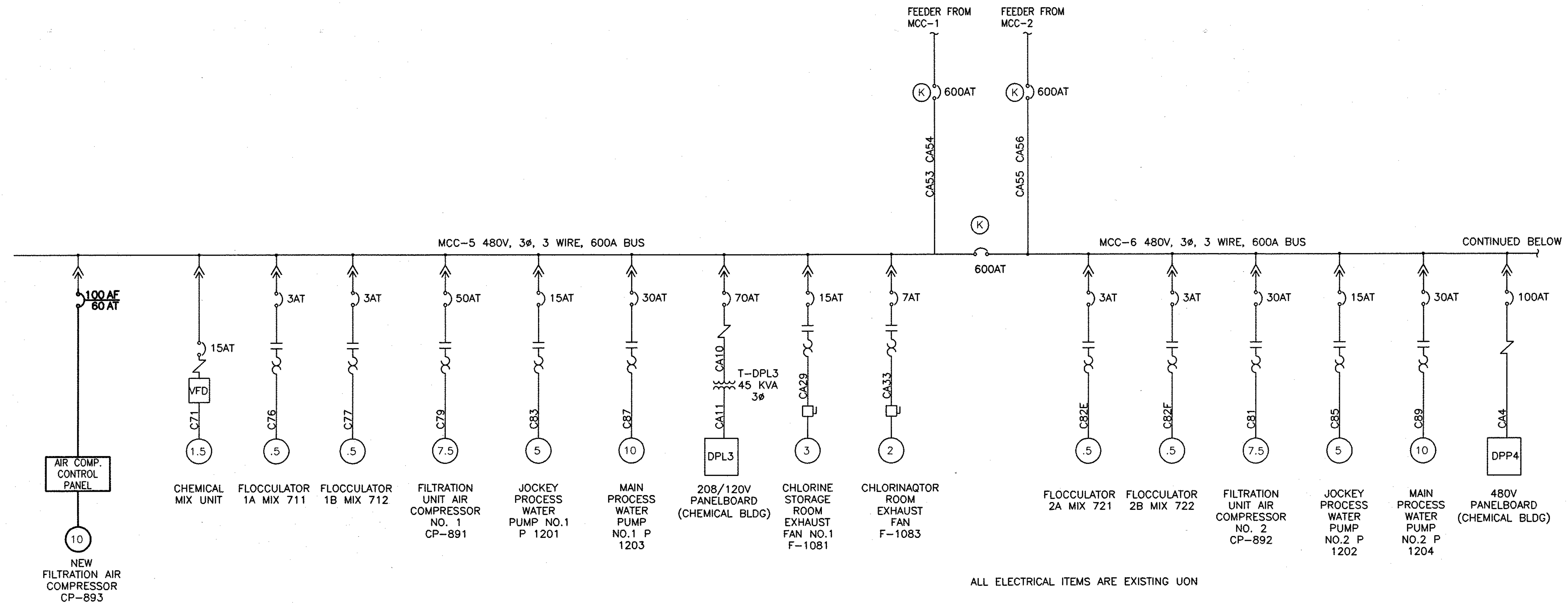
DUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

LEE LAKE WATER RECLAMATION FACILITY EXPANSION

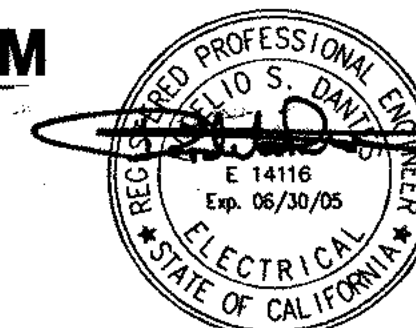
SCALE:
as shown

SHEET NO. 92
OF 144 SHEETS

DWG. NO.
E-16



MCC-5 AND 6 SINGLE LINE DIAGRAM
SCALE: NONE



ENGINEER OF WORK:
RODELIO S DANTES
E14116 EXP. DATE 6/30/2005
DATE:

APPROVED BY:
DISTRICT MANAGER
DATE:

LEE LAKE WATER DISTRICT
22646 Temescal Canyon Road
Corona, Ca. 92883-5015

RECORD DRAWING
E14116 C/30/05 7/21/06
REG. NO. EXP. DATE

LEE LAKE WATER RECLAMATION FACILITY EXPANSION

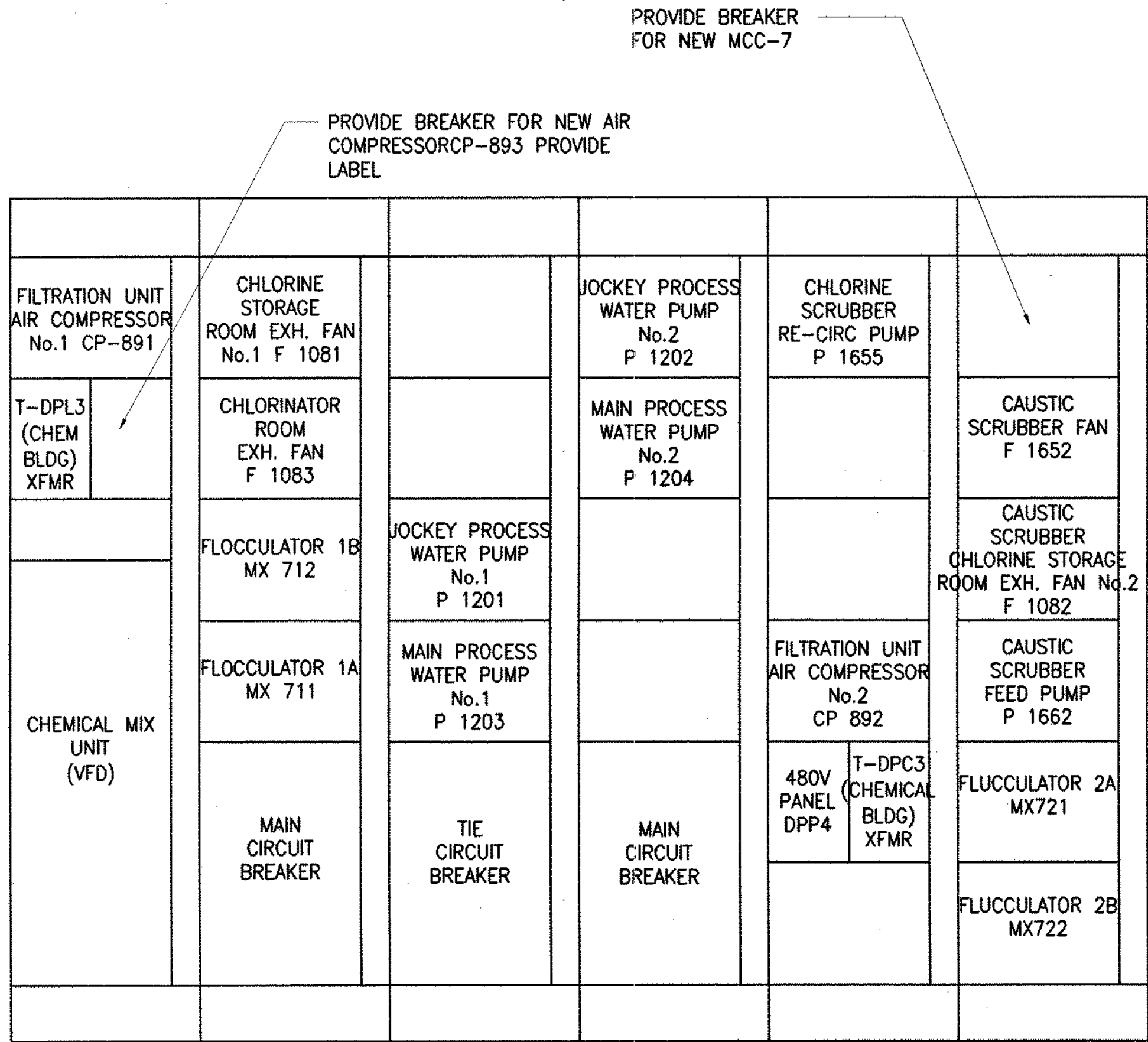
**PHASE II IMPROVEMENTS
MCC-5 AND 6 SINGLE LINE
DIAGRAM - MODIFICATIONS**

SCALE:
as shown
SHEET NO. 93
OF 144 SHEETS
DWG. NO.
E-17

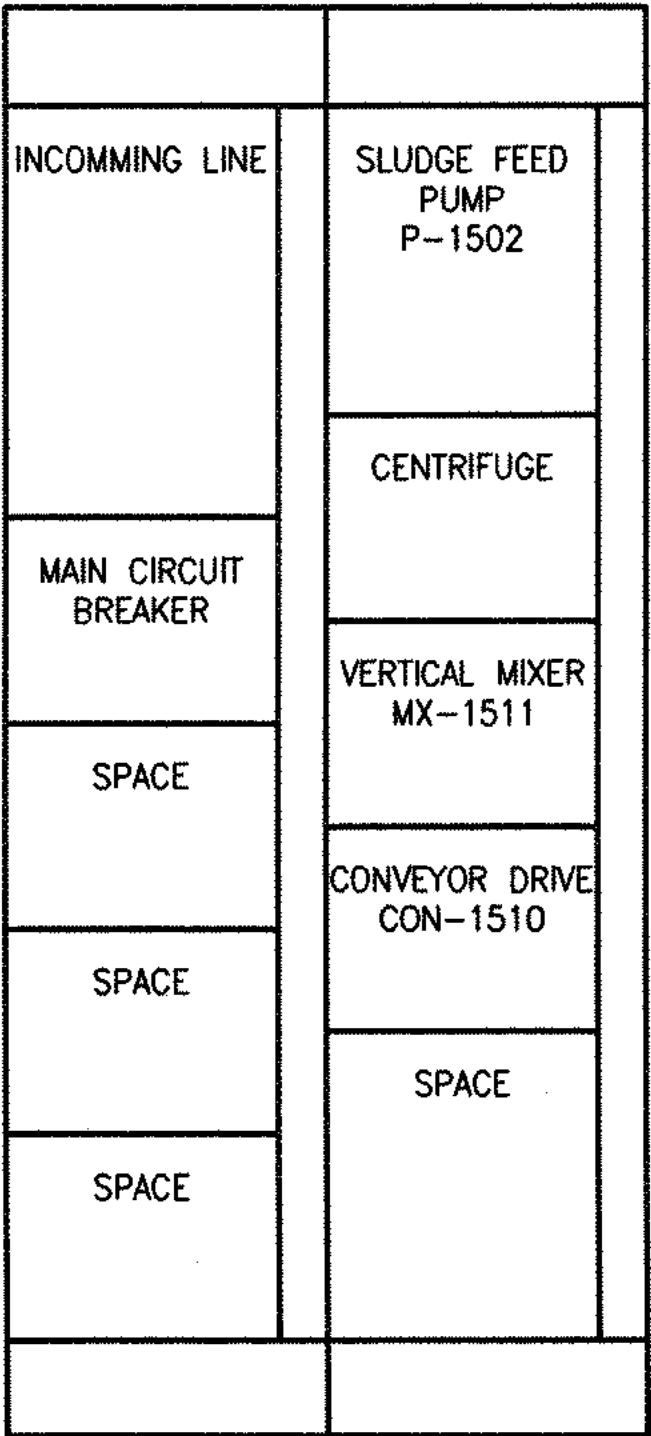
RECORD DRAWING	R.D.	7/13/06
DESIGNED: RSD	NO.	INITIALS
DRAWN: boker	NO.	DATE
CHECKED: GLQ	NO.	DATE
DATE: X	NO.	DATE

DESIGNED: RSD	NO.	INITIALS
DRAWN: boker	NO.	DATE
CHECKED: GLQ	NO.	DATE
DATE: X	NO.	DATE

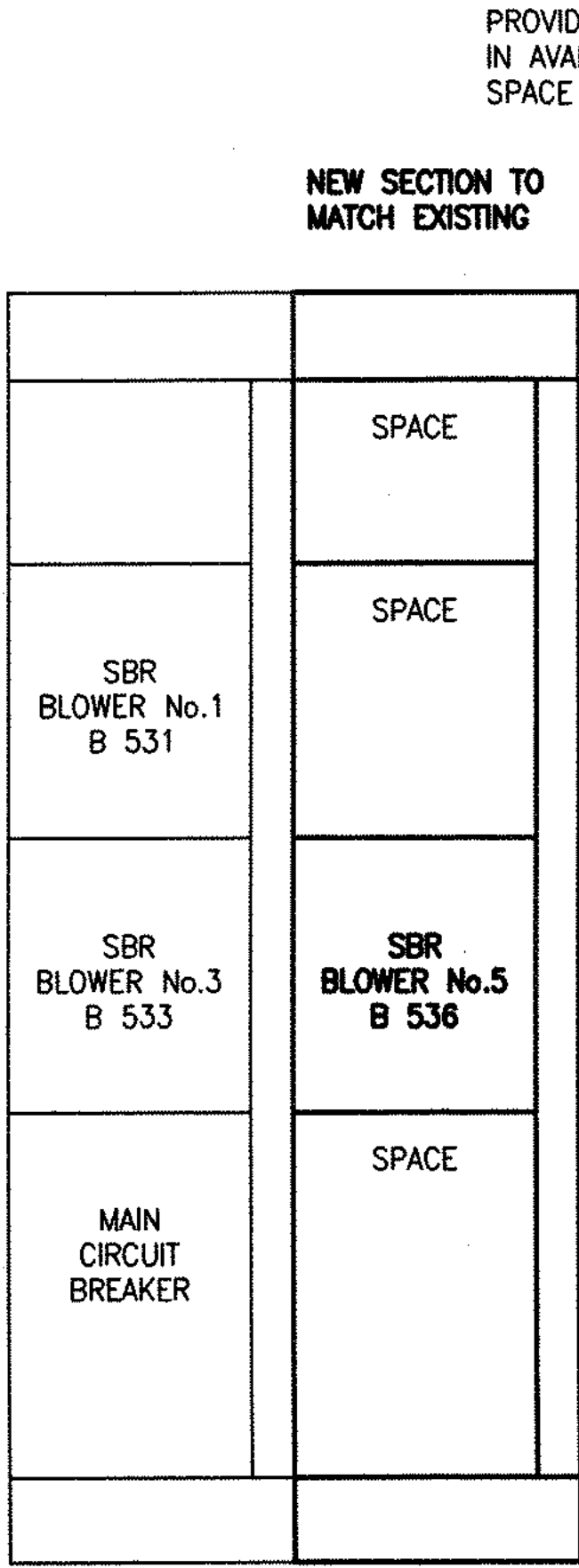
DUDEK & ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164



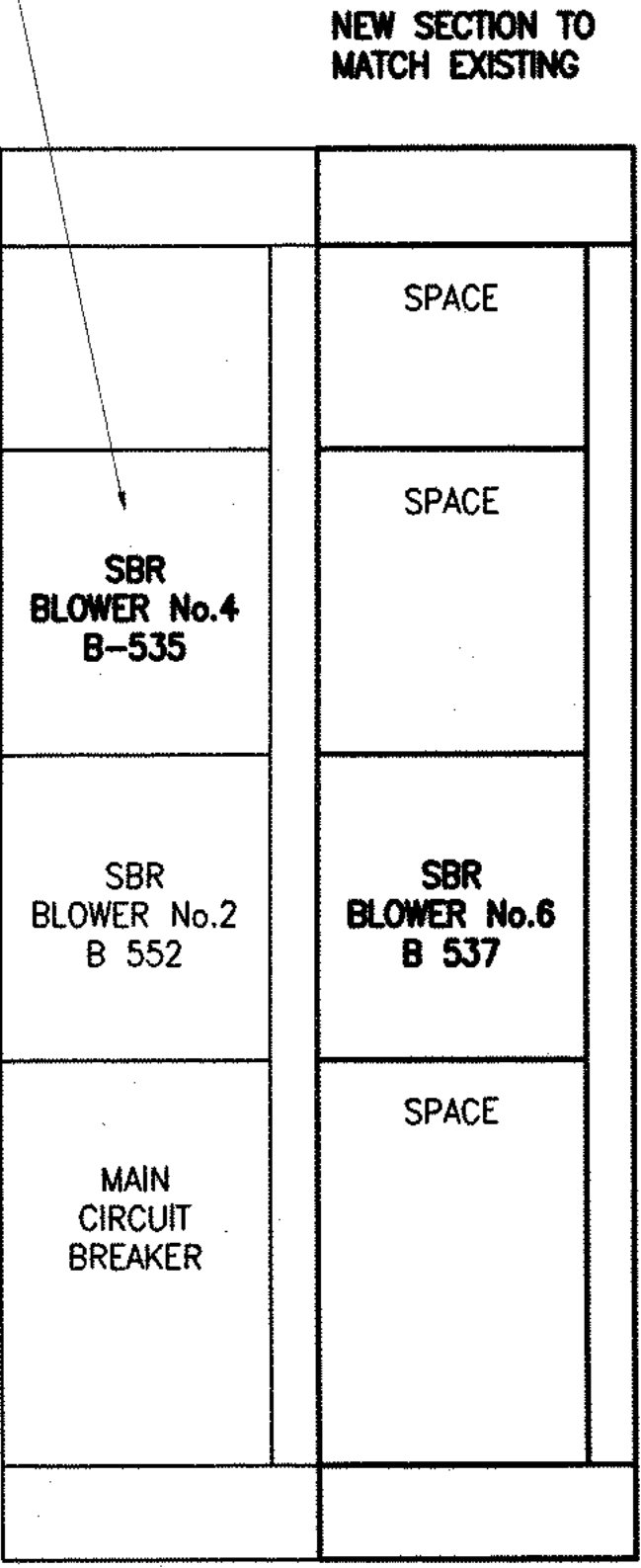
MCC-5 & 6 ELEVATION
scale: N.T.S.



NEW MCC-7 ELEVATION
scale: N.T.S.

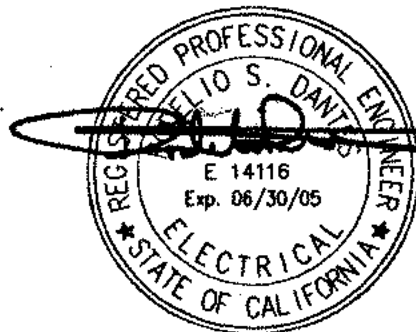


MCC-3 ELEVATION
scale: N.T.S.



MCC-4 ELEVATION
scale: N.T.S.

RECORD DRAWING
E14116 6/30/05 7/27/06
REG. NO. EXP. DATE



ENGINEER OF WORK:
RODELIO S DANTES
E14116 EXP. DATE 6/30/2005
DATE:

APPROVED BY:
DISTRICT MANAGER
DATE:



LEE LAKE WATER DISTRICT
22646 Temescal Canyon Road
Corona, Ca. 92883-5015

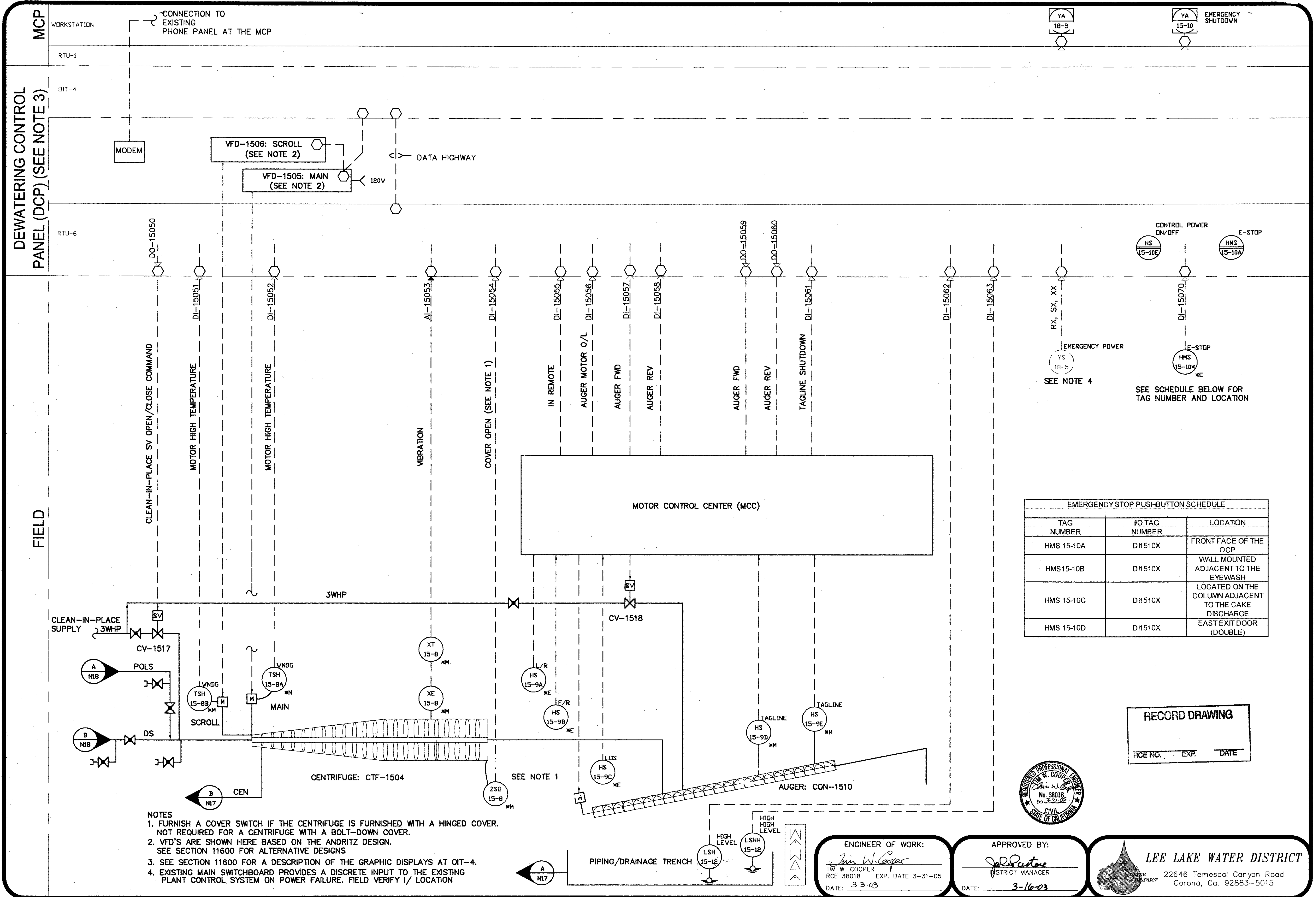
SCALE:
as shown
SHEET NO. 95
OF 144 SHEETS
DWG. NO.
E-19

LEE LAKE WATER RECLAMATION FACILITY EXPANSION
PHASE II IMPROVEMENTS
MCC-3, 4, 5&6, & 7 ELEVATIONS
MODIFICATIONS

DUDEK
& ASSOCIATES, INC.
605 Third Street Encinitas, CA 92024
760.942.5147 Fax 760.632.0164

DESIGNED: RSD
DRAWN: Doker
CHECKED: GLQ
DATE: X

RECORD DRAWING
R.D. 7/13/06
NO. REVISIONS
INITIALS DATE



- NOTES
1. FURNISH A COVER SWITCH IF THE CENTRIFUGE IS FURNISHED WITH A HINGED COVER. NOT REQUIRED FOR A CENTRIFUGE WITH A BOLT-DOWN COVER.
 2. VFD'S ARE SHOWN HERE BASED ON THE ANDRITZ DESIGN. SEE SECTION 11600 FOR ALTERNATIVE DESIGNS
 3. SEE SECTION 11600 FOR A DESCRIPTION OF THE GRAPHIC DISPLAYS AT OIT-4.
 4. EXISTING MAIN SWITCHBOARD PROVIDES A DISCRETE INPUT TO THE EXISTING PLANT CONTROL SYSTEM ON POWER FAILURE. FIELD VERIFY I/ LOCATION

EMERGENCY STOP PUSHBUTTON SCHEDULE		
TAG NUMBER	IVO TAG NUMBER	LOCATION
HMS 15-10A	DI1510X	FRONT FACE OF THE DCP
HMS15-10B	DI1510X	WALL MOUNTED ADJACENT TO THE EYEWASH
HMS 15-10C	DI1510X	LOCATED ON THE COLUMN ADJACENT TO THE CAKE DISCHARGE
HMS 15-10D	DI1510X	EAST EXIT DOOR (DOUBLE)

RECORD DRAWING

RCE NO. EXP. DATE



ENGINEER OF WORK:

Tim W. Cooper

TIM W. COOPER
RCE 38018 EXP. DATE 3-31-05
DATE: 3-3-03

APPROVED BY:

John R. Panton

JOHN R. PANTON
DISTRICT MANAGER
DATE: 3-16-03

LEE LAKE WATER DISTRICT

22646 Temescal Canyon Road
Corona, Ca. 92883-5015

DESIGNED: TWC

DRAWN: GPC

CHECKED: TWC

DATE: 3-3-03

DUDEK & ASSOCIATES, INC.

605 Third Street Encinitas, CA 92024

760.942.5147 Fax 760.632.0164

LEE LAKE WATER RECLAMATION FACILITY EXPANSION

PHASE II IMPROVEMENTS

DEWATERING FACILITIES 2

CENTRIFUGE, AUGER, AND APPURTENANCES

SCALE:

SHEET NO. 133

OF 144 SHEETS

DWG. NO. N-19

NO.

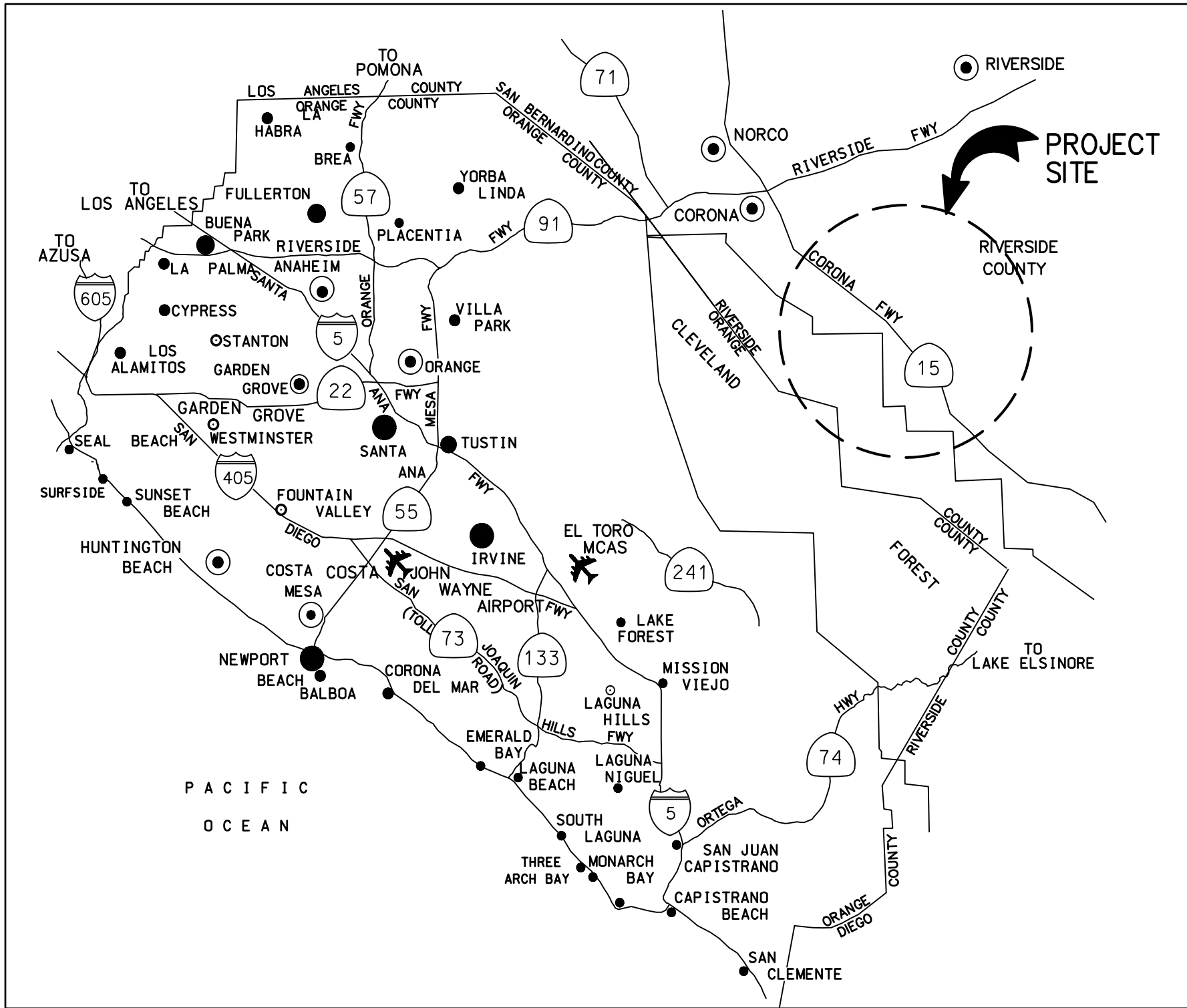
REVISIONS

INITIALS

DATE

TEMESCAL VALLEY WATER DISTRICT

CONSTRUCTION PLANS FOR TVWD WATER RECLAMATION FACILITY PHASE IV TREATMENT PLANT EXPANSION



VICINITY MAP
SCALE: NTS

SHEET	NO.	DESCRIPTION
<u>TITLE</u>		
T0.0	1	TITLE SHEET - INDEX SHEET
<u>GENERAL</u>		
G0.0	2	NOTES AND ABBREVIATIONS
G0.1	3	HYDRAULIC PROFILE
G0.2	4	PROCESS SCHEMATIC
G0.3	5	DESIGN CRITERIA 1
G0.4	6	DESIGN CRITERIA 2
<u>CIVIL</u>		
C0.0	7	EXISTING SITE PLAN
C0.1	8	DEMOLITION PLAN - AREA 1
C0.2	9	DEMOLITION PLAN - AREA 2
C0.3	10	DEMOLITION PLAN - AREA 3
C0.4	11	DEMOLITION PLAN - AREA 4
C0.5	12	DEMOLITION PLAN - AREA 5
C0.6	13	PROPOSED SITE PLAN
C0.7	14	PIPELINE AND STRUCTURE COORDINATE DATA
C0.8	15	YARD PIPING PLAN - AREA 1
C0.9	16	YARD PIPING PLAN - AREA 2
C0.10	17	YARD PIPING PLAN - AREA 3
C0.11	18	YARD PIPING PLAN - AREA 4
C0.12	19	YARD PIPING PLAN - AREA 5
C0.12A	19A	YARD PIPING PLAN - AREA 6
C0.13	20	PAVING AND GRADING PLAN - AREA 1
C0.14	21	PAVING AND GRADING PLAN - AREA 2
C0.15	22	PAVING AND GRADING PLAN - AREA 3
C0.16	23	PAVING AND GRADING PLAN - AREA 4
C0.17	24	ROUGH GRADING PLAN AT EXISTING GRIT CHAMBER
C0.18	25	CONSTRUCTION SEQUENCE PLAN
C0.19	26	PRIMARY INFLUENT/EFFLUENT PROFILE
C0.20	27	SBF FEED PIPE PROFILES
C0.21	28	SCUM AND SLUDGE PIPE PROFILES
C0.22	29	CIVIL DETAILS 1
<u>EQUALIZATION BASIN BY-PASS PIPE VAULT</u>		
C1.0	30	EQUALIZATION BASIN BYPASS VAULT
		MECHANICAL PLAN AND SECTIONS
C2.0	30A	STORM WATER PUMP STATION
<u>STRUCTURAL</u>		
<u>GENERAL</u>		
S0.1	31	GENERAL STRUCTURAL NOTES
S0.2	32	TYPICAL DETAILS
S0.3	33	TYPICAL DETAILS
S0.4	34	TYPICAL DETAILS
S0.5	35	TYPICAL DETAILS
S0.6	36	TYPICAL DETAILS
S0.10	37	GENERAL LAYOUT PLAN

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM: _____ DEXTER WILSON ENGINEERING, INC.

ADDRESS: _____ 2234 FARADAY AVENUE

CITY, ST.: _____ CARLSBAD, CA 92008

BY: _____ 
(DEXTER S. WILSON)

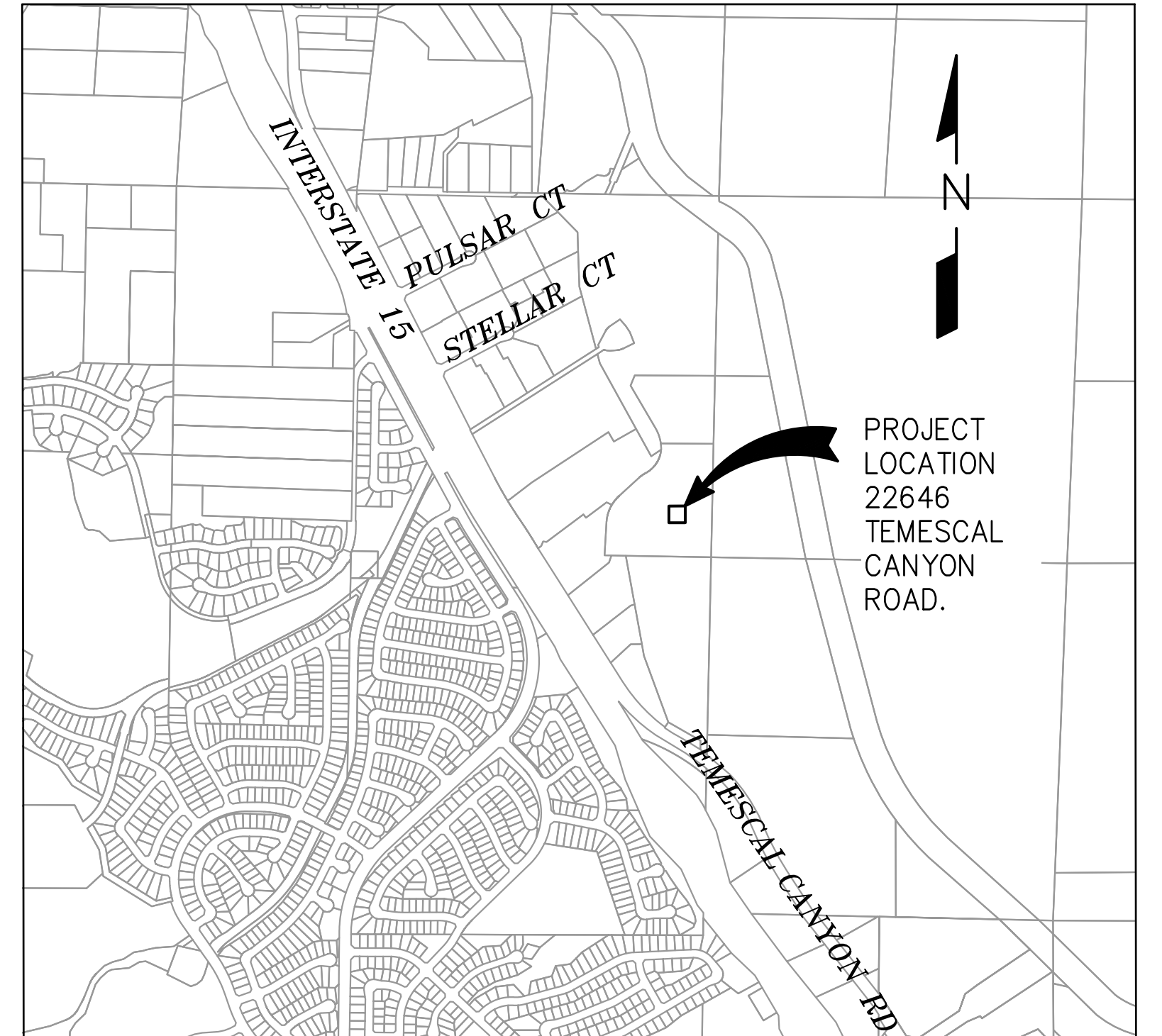
R.C.E. NO.: _____ 33692

EXPIRATION DATE: _____ 6/30/20

NO. 3		
INFLUENT PUMP STATION		
S1.0	38	INFLUENT PUMP VAULTS FOUNDATION & TOP PLANS
S1.1	39	INFLUENT PUMP VAULTS SECTIONS
PRIMARY SEDIMENTATION TANKS		
S2.0	40	PRIMARY SEDIMENTATION TANK FOUNDATION PLAN
S2.1	41	PRIMARY SEDIMENTATION TANK TOP PLAN & CATWALK
S2.2	42	PRIMARY SEDIMENTATION TANK SECTIONS
S2.3	43	PRIMARY SEDIMENTATION TANK SECTIONS
S2.4	44	PRIMARY SEDIMENTATION TANK SECTIONS
S2.5	45	PRIMARY SEDIMENTATION TANK SECTIONS
S2.6	46	PRIMARY SEDIMENTATION TANK SECTIONS
S2.7	47	PRIMARY SEDIMENTATION TANK SECTIONS
SEQUENCING BATCH REACTORS		
S4.0	48	SEQUENCING BATCH REACTORS FOUNDATION PLAN
S4.1	49	SEQUENCING BATCH REACTORS TOP PLAN & CATWALK
S4.2	50	SEQUENCING BATCH REACTORS SECTIONS
S4.3	51	SEQUENCING BATCH REACTORS SECTIONS
FILTERS		
S5.0	52	TERTIARY FILTERS FOUNDATION & TOP PLANS
S5.1	53	TERTIARY FILTERS SECTIONS
AEROBIC DIGESTERS		
S6.0	54	AEROBIC DIGESTERS FOUNDATION PLAN
S6.1	55	AEROBIC DIGESTERS TOP PLAN & CATWALK
S6.2	56	AEROBIC DIGESTERS 4 & 5 SECTIONS
S6.3	57	AEROBIC DIGESTERS 4 & 5 SECTIONS
MECHANICAL		
GENERAL		
M0.1	58	MATERIALS LIST
M0.2	59	EQUIPMENT LIST
M0.3	60	MECHANICAL DETAILS 1
M0.4	61	MECHANICAL DETAILS 2
M0.5	62	MECHANICAL DETAILS 3
M0.6	63	SHADE STRUCTURE DETAILS
INFLUENT PUMP STATION		
M1.0	64	INFLUENT PUMP STATION MECHANICAL PLAN
M1.1	65	INFLUENT PUMP STATION MECHANICAL SECTIONS
M1.2	66	HEADWORKS/DEBRIS TROUGH DEMO PLAN AND SECTION
M1.3	67	HEADWORKS BAR SCREENINGS TROUGH MECHANICAL PLAN
M1.4	68	HEADWORKS BAR SCREENINGS TROUGH MECHANICAL SECTION
PRIMARY SEDIMENTATION TANKS		
M2.0	69	PRIMARY SEDIMENTATION TANK OVERALL MECHANICAL PLAN
M2.1	70	PRIMARY SEDIMENTATION AREA 1 MECHANICAL PLAN
M2.2	71	PRIMARY SEDIMENTATION AREA 2 MECHANICAL PLAN
M2.3	72	PRIMARY SEDIMENTATION AREA 3 MECHANICAL PLAN
M2.4	73	PRIMARY SEDIMENTATION AREA 4 MECHANICAL PLAN
M2.5	74	PRIMARY SEDIMENTATION TANK MECHANICAL SECTIONS 1
M2.6	75	PRIMARY SEDIMENTATION TANK MECHANICAL SECTIONS 2
M2.7	76	PRIMARY SEDIMENTATION TANK MECHANICAL SECTIONS 3

SHEET	NO.	DESCRIPTION
M2.8	77	PRIMARY SEDIMENTATION TANK SLUDGE GALLERY MECHANICAL PLAN
M2.9	78	PRIMARY SEDIMENTATION TANK SLUDGE GALLERY MECHANICAL SECTIONS
M2.10	79	PRIMARY SEDIMENTATION TANK BIOFILTER PLAN AND SECTIONS
M2.11	80	PRIMARY SEDIMENTATION SCUM PUMP PLAN AND SECTIONS
<u>EQUALIZATION BASIN INFLUENT PUMP STATION</u>		
M3.0	81	EQUALIZATION BASIN PUMP STATION MECHANICAL PLAN
M3.1	82	EQUALIZATION BASIN PUMP STATION MECHANICAL SECTIONS
<u>SEQUENCING BATCH REACTORS</u>		
M4.0	83	SEQUENCING BATCH REACTORS MECHANICAL PLAN
M4.1	84	SEQUENCING BATCH REACTORS PUMP PAD AREA MECHANICAL PLAN
M4.2	85	SEQUENCING BATCH REACTORS MECHANICAL SECTIONS
M4.3	86	SEQUENCING BATCH REACTORS MECHANICAL BLOWER PLAN AND SECTION
M4.4	87	SEQUENCING BATCH REACTORS OVERALL PLAN
<u>FILTERS</u>		
M5.0	88	TERTIARY FILTER MECHANICAL PLAN
M5.1	89	TERTIARY FILTER MECHANICAL SECTION
M5.2	90	TERTIARY FILTER MECHANICAL SECTION
M5.3	91	TERTIARY FILTER COMPRESSOR REPLACEMENT
<u>AEROBIC DIGESTERS</u>		
M6.0	92	AEROBIC DIGESTERS OVERALL MECHANICAL PLAN
M6.1	93	AEROBIC DIGESTERS SLUDGE PUMP MECHANICAL PLAN
M6.2	94	AEROBIC DIGESTERS ODOR CONTROL BLOWER PLAN AREA 1
M6.3	95	AEROBIC DIGESTERS ODOR CONTROL BLOWER PLAN AREA 2
M6.4	96	AEROBIC DIGESTERS MECHANICAL SECTIONS 1
M6.5	97	AEROBIC DIGESTERS MECHANICAL SECTIONS 2
M6.6	98	AEROBIC DIGESTERS MECHANICAL SECTIONS 3
M6.7	99	AEROBIC DIGESTERS PUMP PAD SECTION 1
M6.8	100	AEROBIC DIGESTERS PUMP PAD SECTION 2
M6.9	101	AEROBIC DIGESTERS BIOFILTER PLAN AND SECTION
<u>ELECTRICAL</u>		
DE0.0	102	ELECTRICAL DEMOLITION SITE PLAN
E1.0	103	STANDARD ELECTRICAL SYMBOLS & ABBREVIATIONS
E2.0	104	ELECTRICAL SITE PLAN
E3.0	105	SINGLE LINE DIAGRAM-1
E3.1	106	SINGLE LINE DIAGRAM-2
E3.2	107	SINGLE LINE DIAGRAM-3
E3.3	108	SINGLE LINE DIAGRAM-4
E4.0	109	INFLUENT PUMP STATION ELECTRICAL PLAN
E4.1	110	HEADWORKS BAR SCREENINGS TROUGH ELECTRICAL PLAN
E5.0	111	PRIMARY SEDIMENTATION TANK ELECTRICAL PLAN
E5.1	112	PRIMARY SEDIMENTATION TANK SLUDGE GALLERY ELECTRICAL PLAN
E6.0	113	EQUALIZATION BASIN PUMP STATION ELECTRICAL PLAN
E7.0	114	SEQUENCING BATCH REACTOR ELECTRICAL PLAN
E7.1	115	SEQUENCING BATCH REACTOR BLOWER ELECTRICAL PLAN
E7.2	116	SEQUENCING BATCH REACTORS 1,2,6,& 7 AREA PLAN
E8.0	117	TERTIARY FILTER ELECTRICAL PLAN
E8.1	118	TERTIARY FILTER AIR COMPRESSOR REPLACEMENT PLAN
E9.0	119	AEROBIC DIGESTERS ELECTRICAL PLAN
E10.0	120	ELECTRICAL ROOM ELECTRICAL PLAN

SHEET	NO.	DESCRIPTION
E11.0	121	SCHEDULES - 1
E11.1	122	SCHEDULES - 2
E11.2	123	SCHEDULES - 3
E11.3	124	SCHEDULES - 4
E12.0	125	ELEVATIONS - 1
E12.1	126	ELEVATIONS - 2
E13.0	127	CONTROLS - 1
E13.1	128	CONTROLS - 2
E13.2	129	CONTROLS - 3
E13.3	130	CONTROLS - 4
E13.4	131	CONTROLS - 5
E13.5	132	CONTROLS - 6
E13.6	133	CONTROLS - 7
E13.7	134	CONTROLS - 8
E13.8	135	CONTROLS - 9
E13.9	136	CONTROLS - 10
E13.10	137	CONTROLS - 11
E14.0	138	ELECTRICAL DETAILS - 1
E14.1	139	ELECTRICAL DETAILS - 2
E14.2	140	ELECTRICAL DETAILS - 3
<u>INSTRUMENTATION</u>		
N1.0	141	P&ID STANDARD SYMBOLS & ABBREVIATIONS
N2.0	142	SBR NETWORK DIAGRAM
N3.0	143	SBR NO.8 P&ID
N3.1	144	SBR NO.9 P&ID
N3.2	145	SBR NO.10 P&ID
N3.3	146	SBR BLOWERS P&ID 1
N3.4	147	SBR BLOWERS P&ID 2
N3.5	148	SBR BLOWERS P&ID 3
N3.6	149	SBR BLOWERS P&ID 4
N3.7	150	LCP-SBR3 LAYOUT
N3.8	151	LCP-SBR1 AND 2 MODIFICATIONS
N4.0	152	INFLUENT PUMP STATION MODIFICATIONS EAST WET WELL
N4.1	153	INFLUENT PUMP STATION MODIFICATIONS WEST WET WELL
N5.0	154	GRIT REMOVAL AND HANDLING FACILITIES
N6.0	155	SBR FEED PUMP STATION
N7.0	156	DIGESTER FACILITY
N8.0	157	FILTRATION FACILITY
N9.0	158	PRIMARY SEDIMENTATION TANKS
N9.1	159	PRIMARY SLUDGE PUMP STATION
N9.2	160	PRIMARY SEDIMENTATION DRAIN PUMP
N9.3	161	PRIMARY SEDIMENTATION SCUM PUMP



LOCATION MAP
SCALE: NTS



**Know what's below.
Call before you dig.**

BASIS OF BEARINGS:

BEING THE SOUTH LINE OF THE SOUTHWEST 1/4 OF
SECTION 26, T.4S., R.6E. AS SHOWN ON R.S., 14/93,
TAKEN AS N89°32'30"E.

BENCHMARK:

1.5 MILES NORTHWEST OF THE POST OFFICE IN ALBERHILL ALONG STATE 71, ON THE WILLOW BROOK RANCH WHICH IS OWNED BY MR. L.P. GORDEN 30 FEET NORTHWEST OF THE CENTER OF THE HIGHWAY, 26 FEET NORTHWEST OF THE CENTER OF THE HIGHWAY AND 1 FOOT WEST OF THE FENCE. A BRASS DISK FLUSH IN THE CONCRETE TAB ON N'LY SIDE OF TEMESCAL CANYON RD. +/- 1700 FEET N'WLY OF EAST 1/4 CONER SECTION 17 T5S R5W.

DATED: 1929 ELEVATION: 1182.819

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT
COMMENCE UNTIL AN ENCROACHMENT PERMIT
AND/OR A GRADING PERMIT HAS BEEN ISSUED.

8/15/19	DWEI	1
3/4/20	DWEI	2
9/16/22	DWEI	3
DATE	BY	MARK
ENGINEER		

[illegible]

DESCRIPTION
REVISIONS

APPR.	DATE
COUNTY	

PREPARED BY:
DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
2234 FARADAY AVENUE
CARLSBAD, CA 92008
(760) 438-4422

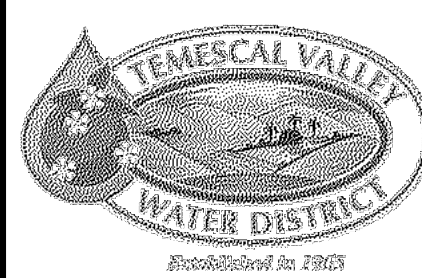

DEXTER S. WILSON

R.C.E. 33692

SEAL:



DESIGN BY:	DSW
DRAWN BY:	DLW
CHECKED BY:	SMN
SCALE:	AS SHOWN
DATE:	04/08/2019
JOB NUMBER:	



TEMESCAL VALLEY WATER DISTRICT APPROVED FOR CONSTRUCTION:  GENERAL MANAGER		04/19/19 DATE
 ENGINEERING R.C.E.		04/19/19 DATE

PHASE IV TREATMENT PLANT EXPANSION

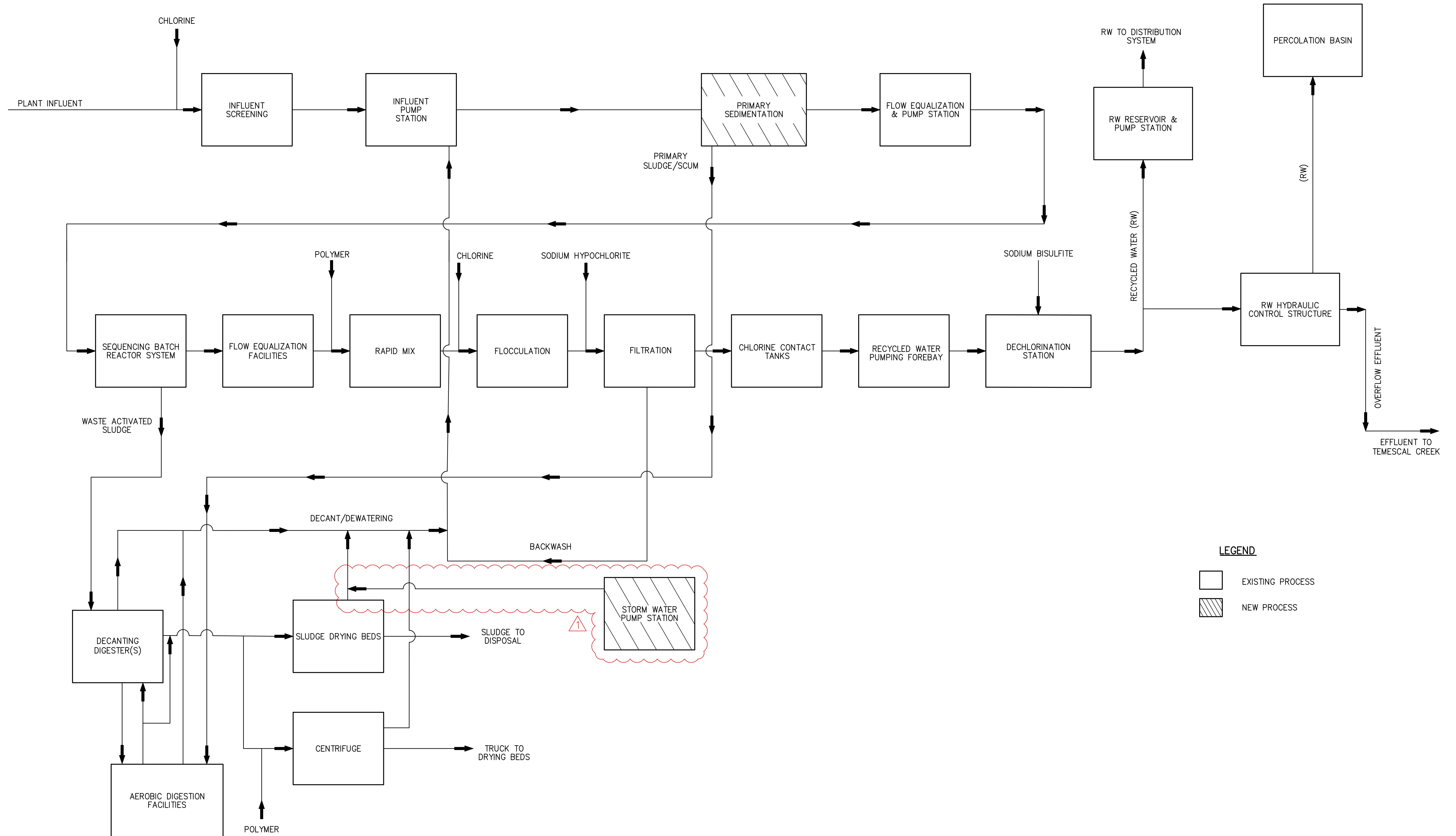
TITLE SHEET - INDEX SHEET

SHEET No.

1

161 SHEETS

FOR:	W.O.	COUNTY FILE NO.
—		



LEGEND

- EXISTING PROCESS
- NEW PROCESS

AS BUILT 9/16/22

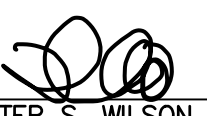
G0.2

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

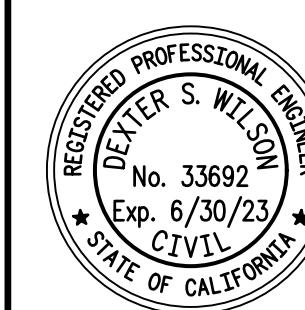
NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

3/4/20	DWEI	Δ	CONSTRUCTION CHANGE -- STORM WATER PUMP STATION		
9/16/22	DWEI	Δ	AS BUILT		
DATE	BY	MARK	DESCRIPTION	APPR.	DATE
	ENGINEER		REVISIONS		COUNTY

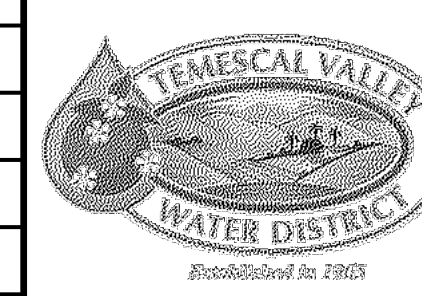
PREPARED BY:
DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
2234 FARADAY AVENUE
CARLSBAD, CA 92008
(760) 438-4422


DEXTER S. WILSON R.C.E. 33692 04/19/19 DATE

SEAL:



DESIGN BY: DSW
DRAWN BY: DLW
CHECKED BY: SMN
SCALE: AS SHOWN
DATE: 04/08/2019
JOB NUMBER:



TEMESCAL VALLEY WATER DISTRICT
APPROVED FOR CONSTRUCTION:
 04/19/19
GENERAL MANAGER DATE
 04/19/19
ENGINEERING R.C.E. DATE

PHASE IV TREATMENT PLANT EXPANSION

PROCESS SCHEMATIC

SHEET No.

4

OF 161 SHEETS

FOR: - W.O. COUNTY FILE NO.

[illegible]

[illegible]

1. FOR ADDITIONAL DEMOLITION REQUIREMENTS, SEE SPECIFICATION SECTION 02050.
2. THE EXTENT OF DEMOLITION WORK IS GENERALLY SHOWN ON THE DRAWINGS, BUT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND/OR ABANDONMENT OF ALL FACILITIES AND EQUIPMENT AT THE SITE TO SUCCESSFULLY COMPLETE THE WORK.
3. THE LIMITS OF UTILITIES AND EQUIPMENT THAT MAY BE ABANDONED IN PLACE IS SHOWN APPROXIMATELY ON THE DRAWINGS, BUT THE CONTRACTOR SHALL DETERMINE THE PRECISE LIMITS NECESSARY TO COMPLETE THE WORK.
4. THE DEMOLITION OF EQUIPMENT, WHERE SHOWN, SHALL INCLUDE THE DEMOLITION OF ALL CONDUIT, WIRING, PANELS, PIPING, SUPPORTS, AND EQUIPMENT SLABS AS NECESSARY SO AS NOT TO INTERFERE WITH THE PROPOSED WORK.
5. ALL UTILITIES TO BE ABANDONED IN PLACE SHALL BE ABANDONED PER SECTION 306-3.3 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2018 GREEN BOOK).
6. ALL REMOVALS AND SALVAGE, UNLESS SPECIFICALLY INDICATED BY THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
7. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS AND SPOILS TO ENSURE MINIMAL INTERFERENCE WITH FACILITY OPERATIONS.
8. ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION REMOVAL FROM SITE ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND LAWFULLY DISPOSE OF SAME.
9. NOTIFY OWNER 48 HOURS IN ADVANCE OF ANY UTILITY SHUTDOWN.
10. IF ANY ITEMS ARE ENCOUNTERED IN THE FIELD THAT ARE NOT SHOWN ON THE PLAN WHICH REQUIRE DEMOLITION OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
11. THE CONTRACTOR WILL PROTECT ALL UTILITIES DESIGNATED TO REMAIN. ANY DAMAGE BY THE CONTRACTOR TO UTILITIES OR ADJACENT EQUIPMENT WILL BE REPLACED/REPAIRED AT THE CONTRACTOR'S EXPENSE.

CHEMICAL HANDLING BUILDING

CHLORINE CONTACT BASIN

- ① REMOVE EXISTING GRIT CLASSIFIER AND ASSOCIATED EQUIPMENT ON TOP OF BUILDING
- ② REMOVE EXISTING 4" D.I. GRIT EFFLUENT LINE
- ③ REMOVE EXISTING SEQUENCE BATCH REACTOR AIR BLOWERS AND ASSOCIATED PIPING
- ④ REMOVE AIR COMPRESSOR AND RECEIVER, CONTROL PANELS, AIR LINES, PNEUMATIC ACTUATOR, AND ALL ASSOCIATED, VALVES, SUPPORTS, AND APPURTENANCES
- ⑤ REMOVE STAIRS AND HANDRAIL TO GRIT CLASSIFIER

PRIOR TO DEMOLITION OF ANY ITEMS OR EQUIPMENT, REFER TO
CONSTRUCTION SEQUENCING REQUIREMENTS PER DRAWING CO.18 AND
SPECIFICATION SECTION 01010.

MATCH LINE SEE SHEET C0.4

MATCH LINE SEE SHEET C0.1

AS BUILT 9/16/22

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

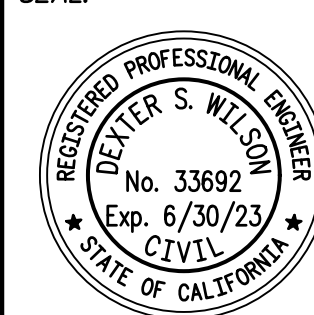
NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT
COMMENCE UNTIL AN ENCROACHMENT PERMIT
AND/OR A GRADING PERMIT HAS BEEN ISSUED.

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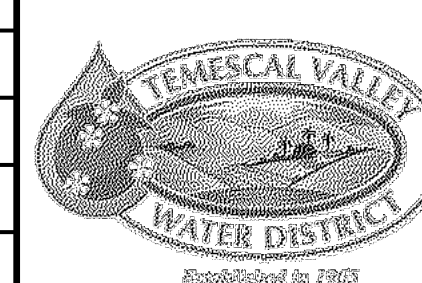
PREPARED BY:
DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
2234 FARADAY AVENUE
CARLSBAD, CA 92008
(760) 438-4422


DEXTER S. WILSON R.C.E. 33692 04/19/19
DATE

SEAL:



DESIGN BY:	DSW
DRAWN BY:	DLW
CHECKED BY:	SMN
SCALE:	AS SHOWN
DATE:	04/08/2019
JOB NUMBER:	



TEMESCAL VALLEY WATER DISTRICT	
APPROVED FOR CONSTRUCTION:	
<i>Jeff R. Pope</i>	04/19/19
GENERAL MANAGER	DATE
<i>Justin Schridel</i>	
ENGINEERING P.E.	04/19/19
	DATE

PHASE IV TREATMENT PLANT EXPANSION

DEMOLITION PLAN - AREA 3

FOR:	W.O.	COUNTY FILE NO.
------	------	--------------------

SHEET No. _____

10

OF *161* SHEETS

VOLTS 480V MAIN 100 AMP CB			PANEL DDP2 (EXISTING) LOCATION ELECTRIC ROOM			FEED BOTTOM MOUNTING SURFACE			
CKT	BKR	LOAD/LOCATION	WATTAGE ØA ØB ØC			LTG REC MISC	LOAD/LOCATION	BKR	CKT
1	15/3	SLG-337	1000				SBR No.2 CONTROL VALVE ACTUATORS	15/3	2
3			4000	1000					4
5			4000	1000					6
7	15/3	JIB CRANE	1000				SBR No.4 CONTROL VALVE ACTUATORS	15/3	8
9			4000	1000					10
11			4000	1000					12
13	15/3	SBR NO. 1 CONTROL VALVE ACTUATORS	1000				SBR No.6 CONTROL VALVE ACTUATORS	30/3	14
15			6000	1000					16
17			6000	1000					18
19	15/3	SBR No.7 CONTROL VALVE ACTUATORS	1000				SBR No.8 CONTROL VALVE ACTUATORS	30/3	20
21			6000	1000					22
23			6000	1000					24
25	15/3	SBR NO. 2 CONTROL VALVE ACTUATORS	1000				SBR No.10 CONTROL VALVE ACTUATORS	30/3	26
27			6000	1000					28
29			6000	1000					30
31	15/3	SBR NO. 5 CONTROL VALVE ACTUATORS	1000				DIGESTER 1 WAS MOV 6V-34	30/3	32
33			300	1000					34
35			300	1000					36
37	15/3	SBR NO. 6 CONTROL VALVE ACTUATORS	1000						38
39			-	1000					40
41			-	1000					42
WATTS/PHASE			33300	33300	33300		WATTS/PHASE		
PANEL TOTAL WATTS = 96900 116 AMPERES									
* NEW LOAD DEMAND FACTOR = 50%									
** PROVIDE NEW BREAKER									

① REMOVED LOAD – RELABEL 'SPARE'.

DPL1	
1	U.P.S. SYSTEM
3	BLOWER AREA LIGHTING
5	CV-1421
7	ELECTRIC ROOM LIGHTING
9	HOIST AEROBIC DIGESTER
11	SPARE
13	EM GENERATOR ENG. HEATER
17	EM GEN. BATTERY CHARGER
19	CHEMICAL FEED PUMP
21	FANS
23	FANS
25	GENERATOR SUB PANEL
27	GENERATOR SUB PANEL
29	SPARE
31	SPARE
33	SPARE
35	SPARE
37	SPARE
39	SPARE
41	SPARE
2	ELECTRICAL BUILDING RECEPT.
4	BLOWER AREA RECEPTACLES
6	CV-1422
8	SPARE
10	ROADWAY LIGHTING
12	PHOTOCEL PLANTER LIGHTS
14	HEADWORKS AREA LIGHTING
16	SBR 1-4 RECEPTACLES
18	SBR AREA LIGHTING
20	SPARE
22	FEB AREA LIGHTING
24	FAN
26	SPACE
28	BIOFILTER PRIMARY
30	SPARE
32	SPARE
34	SPARE
36	SPARE
38	SPARE
40	SPARE
42	SPARE

VOLTS 208/120 3Ø 4wire			LOCATION DPC3 (EXISTING)				FEED TOP			
MAIN 50A CB			LOCATION CHEMICAL BUILDING				MOUNTING SURFACE			
CKT	BKR	LOAD/LOCATION	WATTAGE			LTG REC	MISC	LOAD/LOCATION	BKR	CKT
			ØA	ØB	ØC					
1	15/1	CHLORINE LEAK DETECTOR NO.1	50					CBCP	30/2	2
3	30/1	SO2 LEAK DETECTOR NO.1	250	50						
				250						
5	15/1	CHLORINE LEAK DETECTOR NO.2			50			P.H. ANALYZER	15/1	6
7	15/1	SO2 LEAK DETECTOR NO.2	50		50			FILTER EFFLUENT TURBIDITY ANALYZER	15/1	8
9	15/1	CHLORINE LEAK DETECTOR NO.3		50	50			RESIDUAL CHLORINE ANALYZER CL2 CONTACT	15/1	10
11	15/1	SO2 LEAK DETECTOR NO.3			50			POST CHLORINATION 1	15/1	12
13	15/1	WAS FLOWMETER	—		—			SULFONATOR NO.1	15/1	14
15	15/1	CL2 CONTACT TANK FILTERED EFFLUENT FLOW		—				POST CHLORINATOR 2	15/1	16
17	15/1	FILTER 1A AIR CONTROL PANEL		—				SULFONATOR NO.2	15/1	18
19	15/1	FILTER 1B AIR CONTROL PANEL		—				CHLORINE ANALYZER	15/1	20
21	20/1	FILTER 2A AIR CONTROL PANEL		—				PWCP—POWER	15/1	22
23	15/1	FILTER 2BAIR CONTROL PANEL		—				CL2 HEATER	15/1	24
25	15/1	SPARE		—				SAMPLER PUMP	15/1	26
27	15/1	FILTER 3B AIR CONTROL PANEL		—				SAMPLER	15/1	28
29	15/1	FILTER 4A AIR CONTROL PANEL		—				DIGESTER 5 DO ANALYZER	15/1	30
31	15/1	FILTER 4B AIR CONTROL PANEL		—		100		DIGESTER 4 DO ANALYZER	15/1	32
33	15/1	FILTER 5A AIR CONTROL PANEL	100		100			POLYMER LCP	15/1	34
35	15/1	FILTER 5B AIR CONTROL PANEL			100			SPACE		36
37	15/1	FILTER 3A AIR CONTROL PANEL		—				SPACE		38
39		SPACE		—				SPACE		40
41		SPACE		—				SPACE		42
WATTS/PHASE			400	500	250			WATTS/PHASE		
PANEL TOTAL WATTS = 1150 3.2 AMPERES										
* NEW LOAD										
** PROVIDE NEW BREAKER										

VOLTS208/120 3Ø 4wire			PANELDPC1 (EXISTING)			FEED TOP					
MAIN 50A CB			LOCATIONELECTRICAL ROOM			MOUNTING SURFACE					
CKT	BKR	LOAD/LOCATION	ØA	ØB	ØC	LTG	REC	MISC	LOAD/LOCATION	BKR	CKT
**	1	15/1 SBR NO.3 DO ANALYZER	100						SCRUBBER PH METER	15/1	2
	3	15/1 SBR NO.4 DO ANALYZER	500	100					SPARE	15/1	4
	5	15/1 SBR PANEL		50							
*	7	15/1 SBR NO.1 DO ANALYZER	100			100			AIR FLOW METER FE 4-1	15/1	6
	9	15/1 INFLUENT WETWELL LEVEL XMTR	50			50			SBR NO.3 LEVEL XMTR	15/1	8
	11	15/1 LCP-SBR-2		50		50			SBR NO.1 LEVEL XMTR	15/1	10
	13	15/1 LCP-SBR-2	50			XXX			SBR NO.2 LEVEL XMTR	15/1	12
	15	15/1 SGCP	50			50			AIR FLOW METER FE 5-7	15/1	14
	17	15/1 SBR NO.2 DO ANALYZER		50		100			AIR FLOW METER FE 5-11	15/1	16
*	19	15/1 FEB EFFLUENT FLOWMETER	50			50			AIR FLOW METER FE 5-27	15/1	18
	21	15/1 SBR NO.5 DO ANALYZER	50	100					AIR FLOW METER FE 5-31	15/1	20
	23	15/1 INFLUENT PUMP NO.1 MOISTURE DETECTOR	50	200					WET WELL CONTROL	15/1	22
	25	15/1 INFLUENT PUMP NO.2 MOISTURE DETECTOR	50			50			FEB WETWELL LEVEL XMTR	15/1	24
	27	15/1 INFLUENT FLUME LEVEL XMTR	50			50			INFLUENT SAMPLER	15/1	26
	29	15/1 SBR NO.6 DO ANALYZER		50					SBR NO.4 LEVEL XMTR	15/1	28
**	31	15/1 SBR NO.7 DO ANALYZER	100			100			LCP-SBR3	20/1	30
	33		-			800			FAN 1	15/1	32
	35	SPACE		-					FAN 2	15/1	34
	37	SPACE				-			FAN 3		36
	39	30 TRANSIENT VOLTAGE	100						SBR NO.8 DO ANALYZER /FIT ⚠	15/1	38
	41	3 SURGE SUPPRESSOR		100					SBR NO.9 DO ANALYZER /FIT ⚠	15/1	40
									SBR NO.10 DO ANALYZER /FIT ⚠	15/1	42
WATTS/PHASE			1450	1700	400				WATTS/PHASE		
PANEL TOTAL WATTS = 3550 10 AMPERES											
* NEW LOAD											
** PROVIDE NEW BREAKER											

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NOTE:

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PREPARED BY: **M A**
MORAES / PHAM & ASSOCIATES
 2131 Palomar Airport Rd. #120
 Carlsbad, CA 92011
 JOSEPH M. MORAES R.C.E. E11023 4/19

SEAL:



JOSEPH M. MORAES
No. E11023
Exp. 6/30/21
ELECTRICAL
STATE OF CALIFORNIA

DESIGN BY:	JMM
DRAWN BY:	AH
CHECKED BY:	JMM
SCALE:	SHOWN
DATE:	4/19/2019
JOB NUMBER:	



<i>TEMESCAL VALLEY WATER DISTRICT</i>		
<i>APPROVED FOR CONSTRUCTION:</i>		
GENERAL MANAGER		DATE
ENGINEERING	R.C.E.	DATE

PHASE IV TREATMENT PLANT EXPANSION

SCHEDULES - 1

-	W.O.	COUNTY FILE NO.
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SHEET No. 121

161 SHEETS

E11.0

CONDUIT		FROM	TO	CABLE			VOLTAGE		REMARKS	CONDUIT		FROM	TO	CABLE			VOLTAGE		REMARKS
NO.	SIZE			QTY.	SIZE	GND. *				NO.	SIZE			QTY.	SIZE	GND. *			
		<u>SBR</u>								SBR300	1"	LCP-SBR3	HANDHOLE	6	#14	#14	120	CONTROL	SBR86 & SBR95
SBR80	1"	MCC-2	4P-01	3	#8	#10	480	POWER											
				2	#14	#14	120	CONTROL	LOS	SBR301	2"	DPC1	HANDHOLE	20	#10	#10	120	POWER	SBR82,SBR87,SBR92,SBR303,SBR304
SBR81	1"	DPP2	PB-8	3	#10	#10	480	POWER	DPP2-20,22,24 VALVES (SBR8)	SBR302	3"	LCP-SBR3	HANDHOLE	<u>△</u> 2 16	#16STP	-	24	SIGNAL	SBR83,SBR88,SBR96,SBR305,SBR306
SBR82	1"	HANDHOLE	AIT 5-98	2	#10	#10	120	POWER	SBR8 DO ANALYZER DPC1-38	SBR303	1"	HANDHOLE	NORTH SBR DO'S	10	#10	#10	120	POWER	VIA PULLBOXES
SBR83	1"	HANDHOLE	AIT 5-98	<u>△</u> 2 2	#16STP	-	24	SIGNAL	SBR8 DO ANALYZER & FIT <u>△</u> 2	SBR304	1"	HANDHOLE	SBR 3 (6) & 4 (7) DO'S	4	#10	#10	120	POWER	
SBR84	1"	VALVE 5V-01	PULLBOX 8	3	#12	#12	480	POWER		SBR305	2"	NORTH SBR DO'S	HANDHOLE	5	#16STP	-	24	SIGNAL	
				8	#14	#14	120	CONTROL											
SBR85	1"	LE 5-98	J-BOX	1	#16STP	-	24	SIGNAL	SBR8 LEVEL	SBR306	1"	SBR 6 & 7 DO'S	HANDHOLE	2	#16STP	-	24	SIGNAL	
SBR86	1"	LSHH 5-98	HANDHOLE	2	#14	#14	120	CONTROL	SBR8 LEVEL ALARM	SBR307	1-1/2"	HANDHOLE	SBR1 SLUDGE WASTING VALVES	3	#10	#10	480	POWER	DPP2-13,15,17
														16	#14	#14	120	CONTROL	
SBR87	1"	AIT 5-99	HANDHOLE	2	#10	#10	120	POWER	SBR9 DO ANALYZER DPC1-40	SBR307A	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
														8	#14	#14	120	CONTROL	
SBR88	1"	J-BOX	HANDHOLE	<u>△</u> 2 3	#16STP	-	24	SIGNAL	SBR8 LEVEL & AIT & FIT <u>△</u> 2	SBR307B	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
														8	#14	#14	120	CONTROL	
SBR89	2"	PB-8	LCP-SBR3	72	#14	#14	120	CONTROL	SBR8 VALVES	SBR308	1-1/2"	HANDHOLE	SBR2 SLUDGE WASTING VALVES	3	#10	#10	480	POWER	DPP2-25,27,29
														16	#14	#14	120	CONTROL	
SBR90	1"	MCC-1	4P-02	3	#8	#10	480	POWER		SBR308A	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
				2	#14	#14	120	CONTROL						8	#14	#14	120	CONTROL	
										SBR308B	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
SBR91	1"	DPP1	PB-9	3	#10	#10	480	POWER	DPP1-14,16,18 VALVES (SBR9)					8	#14	#14	120	CONTROL	
SBR92	1"	HANDHOLE	AIT 5-100	2	#10	#10	120	POWER	SBR10 DO ANALYZER DPC1-42	SBR309	1-1/2"	HANDHOLE	SBR5 SLUDGE WASTING VALVES	3	#10	#10	480	POWER	DPP2-31,33,35
														16	#14	#14	120	CONTROL	
SBR93	1"	LE 5-99 & LE 5-100	J-BOX	2	#16STP	-	24	SIGNAL	SBR9 AND SBR10 LEVELS	SBR309A	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
														8	#14	#14	120	CONTROL	
SBR94	1"	VALVE 5V-09	PULLBOX 9	3	#12	#12	480	POWER		SBR309B	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
				8	#14	#14	120	CONTROL						8	#14	#14	120	CONTROL	
SBR95	1"	LSHH 5-99 & LSHH 5-100	HANDHOLE	4	#14	#14	120	CONTROL	SBR9 AND SBR10 LEVEL ALARM	SBR310	1-1/2"	HANDHOLE	SBR6 SLUDGE WASTING VALVES	3	#10	#10	480	POWER	DPP2-37,39,41
														16	#14	#14	120	CONTROL	
SBR96	1"	J-BOX	HANDHOLE	<u>△</u> 2 4	#16STP	-	24	SIGNAL	AIT 5-100, LE 5-99 & LE 5-100	SBR310A	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
									& FIT 4-107 <u>△</u> 2					8	#14	#14	120	CONTROL	
SBR97									NOT USED	SBR310B	1"	SAFETY SWITCH J-BOX	VALVE	3	#10	#10	480	POWER	
														8	#14	#14	120	CONTROL	
SBR98									NOT USED										
										SBR311									NOT USED
SBR99	2"	PB-9	LCP-SBR3	72	#14	#14	120	CONTROL	SBR 9 VALVES										
SBR100	1"	MCC-2	4P-03	3	#8	#10	480	POWER		SBR312	1-1/5"	DPP2	HANDHOLE	12	#10	#10	480	POWER	DPP2-13,15,17,25,27,29,31,33,35,37,39,41
				2	#14	#14	120	CONTROL	LOS	SBR313	1-1/2"	HANDHOLE	LCP-SBR	64	#14	#14	120	CONTROL	VALVE CONTROL SBR'S 1,2 & 5,6
SBR101	1"	DPP2	PB-10	3	#10	#10	480	POWER	DPP2-26,28,30 VALVES (SBR10)										
SBR104	1"	4V-17	PB-10	3	#12	#12	480	POWER				<u>SBR FEED PUMPS</u>							
				8	#14	#14	120	CONTROL		P301	1"	PANEL P	3P-03 VFD	3	#6	#8	480	POWER	
SBR109	2"	PB-10	LCP-SBR3	72	#14	#14	120	CONTROL	SBR10 VALVES	P301A	2"	3P-03 VFD	3P-03	1	MFR CABLE		480	POWER	
SBR200	1.5"	MCC-3	SBR BLOWER NO. 7	3	#6	#8	480	POWER											
				8	#14	#14	120	CONTROL	4 SPARES										
SBR201	1.5"	MCC-4	SBR BLOWER NO. 8	3	#6	#8	480	POWER		C301	1"	3P-03 VFD	ZS-307 & PSH-307	4	#14	#14	120	CONTROL	
		RFI #62 2/24/20		8	#14	#14	120	CONTROL	4 SPARES										
										C302	1"	3P-01 VFD	ZS-301 & PSH-301	4	#14	#14	120	CONTROL	
										C303	1"	3P-02 VFD	ZS-302 & PSH-302	4	#14	#14	120	CONTROL	
										C304									

*—ONE GROUND CONDUCTOR PER CONDUIT

*—ONE GROUND CONDUCTOR PER CONDUIT

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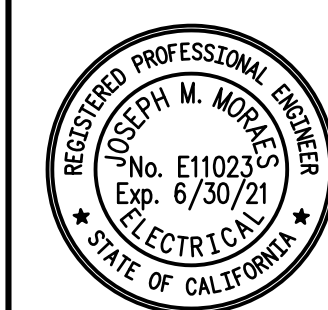
[illegible]

PREPARED BY:

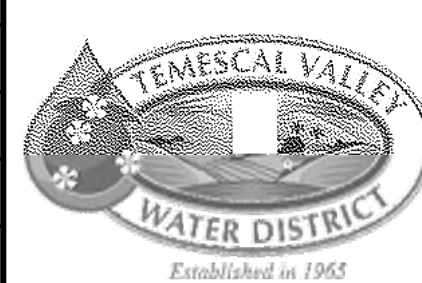
PREPARED BY: **M P A**
MORAES / PHAM & ASSOCIATES
 2131 Palomar Airport Rd. #120
 Carlsbad, CA 92011

JOSEPH M. MORAES R.C.E. E11023

SEAL:



DESIGN BY:	JMM
DRAWN BY:	AH
CHECKED BY:	JMM
SCALE:	SHOWN
DATE:	4/19/2019
JOB NUMBER:	



TEMESCAL VALLEY WATER DISTRICT

APPROVED FOR CONSTRUCTION:

GENERAL MANAGER _____ DATE _____

ENGINEERING	R.C.E.	DATE
-------------	--------	------

PHASE IV TREATMENT PLANT EXPANSION

SCHEDULES - 3

FOR:

—

N.C.

FILE NO

SHEET No.

123

OF *161* SHEETS

DL	RECORD DRAWING
	THIS RECORD DRAWING IS NOT WARRANTED BUT IS BELIEVED TO REPRESENT CONDITIONS UPON COMPLETION OF CONSTRUCTION, BASED UPON THE INFORMATION FURNISHED TO THE ENGINEER PERTAINING TO CHANGES MADE DURING CONSTRUCTION.

E11.2

CONDUIT		FROM	TO	QTY.	CABLE		VOLTAGE		REMARKS	CONDUIT		FROM	TO	QTY.	CABLE		VOLTAGE		REMARKS
NO.	SIZE				SIZE	GND.*				NO.	SIZE				SIZE	GND.*			
C305										C206	1"	RTU-6	PRIMARY SLUDGE MOV 1	4	#14	#14	120	CONTROL	OPEN/CLOSE
C306										C207	1"	RTU-6	PRIMARY SLUDGE MOV 2	4	#14	#14	120	CONTROL	OPEN/CLOSE
C307	1"	PLC	VFD 3P-01	13	#14	-	24	CONTROL	STATUS	C208	1"	RTU-6	PRIMARY SLUDGE MOV 3	4	#14	#14	120	CONTROL	OPEN/CLOSE
C308										C209	1"	RTU-6	PRIMARY SLUDGE MOV 4	4	#14	#14	120	CONTROL	OPEN/CLOSE
C309	1"	PLC	VFD 3P-01	2	#14	#14	120	CONTROL	ON/OFF	C210	1"	RTU-6	PRIMARY SLUDGE MOV 5	4	#14	#14	120	CONTROL	OPEN/CLOSE
S300										C211	1"	RTU-6	PRIMARY SLUDGE MOV 6	4	#14	#14	120	CONTROL	OPEN/CLOSE
S301	1"	FE-307	FIT-307	1	MFR CABLE	-	-	SIGNAL	FLOW	C212	2"	PLC (RTU-2)	POWER PULL BOX PPB-1	-	-	-	24	CONTROL	EXISTING CONDUIT C.O.
S302	1"	FE-306	FIT-306	1	MFR CABLE	-	-	SIGNAL	FLOW	C213	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 1 LCP	12	#14	#14	24	CONTROL	STATUS
S303										C214	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 2 LCP	12	#14	#14	24	CONTROL	STATUS
S304	1"	PLC	VFD 3P-01	2	#16STP	-	24	SIGNAL	SPEED	C215	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 3 LCP	12	#14	#14	24	CONTROL	STATUS
P201	2"	MCC-1	PP-P	3	#3	#8	480	POWER		C216	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT SCUM PUMP	6	#14	#14	24	CONTROL	STATUS
P202	2"	MCC-2	PRIMARY SLUDGE PUMP 2P-01	1	VFD CABLE	-	480	POWER	BELDEN 29503F #10/4C	C217	1"	RTU-6	PRIMARY SLUDGE MOV 1	6	#14	#14	24	CONTROL	STATUS
P203	2"	MCC-2	PRIMARY SLUDGE PUMP 2P-02	1	VFD CABLE	-	480	POWER	BELDEN 29503F #10/4C	C218	1"	RTU-6	PRIMARY SLUDGE MOV 2	6	#14	#14	24	CONTROL	STATUS
P204	2"	MCC-2	PRIMARY SLUDGE PUMP 2P-03	1	VFD CABLE	-	480	POWER	BELDEN 29503F #10/4C	C219	1"	RTU-6	PRIMARY SLUDGE MOV 3	6	#14	#14	24	CONTROL	STATUS
P205	1"	PP-P	PRIMARY SLUDGE MOV 1	3	#10	#10	480	POWER	CKTS 1, 3, 5	C220	1"	RTU-6	PRIMARY SLUDGE MOV 4	6	#14	#14	24	CONTROL	STATUS
P206	1"	PP-P	PRIMARY SLUDGE MOV 2	3	#10	#10	480	POWER	CKTS 7, 9, 11	C221	1"	RTU-6	PRIMARY SLUDGE MOV 5	6	#14	#14	24	CONTROL	STATUS
P207	1"	PP-P	PRIMARY SLUDGE MOV 3	3	#10	#10	480	POWER	CKTS 13, 15, 17	C222	1"	RTU-6	PRIMARY SLUDGE MOV 6	6	#14	#14	24	CONTROL	STATUS
P208	1"	PP-P	PRIMARY SLUDGE MOV 4	3	#10	#10	480	POWER	CKTS 19, 21, 23	C223	1"	RTU-6 PLC2-RIO4	SUMP PUMP LCP	6	#14	#14	24	CONTROL	STATUS
P209	1"	PP-P	PRIMARY SLUDGE MOV 5	3	#10	#10	480	POWER	CKTS 25, 27, 29	C224	1-1/4"	MCC-1	POWER PULL BOX PPB-1	32	#14	#14	120	CONTROL	EXISTING CONDUIT
P210	1"	PP-P	PRIMARY SLUDGE MOV 6	3	#10	#10	480	POWER	CKTS 31, 33, 35	C225	1"	POWER PULL BOX PPB-1	PRIMARY SLUDGE PUMP 2P-01	12	#14	#14	120	CONTROL	LOS, PSH-224, TSH-224, HTR
P211	1"	MCC-1	PRIMARY SLUDGE DRAIN PUMP	3	#10	#10	480	POWER		C226	1"	POWER PULL BOX PPB-1	PRIMARY SLUDGE PUMP 2P-02	12	#14	#14	120	CONTROL	LOS, PSH-226, TSH-226, HTR
P212	3/4"	MPZ-P	FIT-230	2	#12	#12	120	POWER	CKT 5	C227	1"	POWER PULL BOX PPB-1	PRIMARY SLUDGE PUMP 2P-03	12	#14	#14	120	CONTROL	LOS, PSH-228, TSH-228, HTR
P213	3/4"	MPZ-P	AIT-230	2	#10	#10	120	POWER	CKT 7	C228	1"	POWER PULL BOX PPB-1	PRIMARY SLUDGE DRAIN PUMP	8	#14	#14	120	CONTROL	LOS, PSH-241, TSH-241, HTR
P214	3/4"	MPZ-P	SUMP PUMP LCP	2	#10	#10	120	POWER	CKT 4	C229	1"	RTU-6 PLC2-RIO4	VENT MONITOR PNL	2	#14	#14	24	CONTROL	VENT ALARM
P215	3/4"	MPZ-P	PRIMARY SLUDGE GALLERY LIGHTING	2	#10	#10	120	POWER	CKT 1	C230	1"	STORM WATER LCP	RTU-5	10	#14	#14	120	CONTROL	PUMP STATUS
P216	3/4"	MPZ-P	PRIMARY SLUDGE GALLERY RECEP. & FANS	4	#10	#10	120	POWER	CKTS 2, 3	C231	1"	STORM WATER LCP	RTU-5	-	-	-	120	-	SPARE
P217	1-1/2"	MCC-1	POWER PULL BOX PPB-1	-	-	-	480	POWER	EXISTING CONDUIT C.O.	S201	1"	PLC (RTU-2)	RTU-6	1	F.O.	-	-	SIGNAL	FIBER CABLE
P218	1"	PP-P	PRIMARY SEDIMENT TANK 1 LCP	3	#10	#10	480	POWER	CKTS 2, 4, 6	S202	1-2"	RTU-6 PLC2-RIO4	LIT-201, LIT-202, 203, 204	2-4	#16STP	-	24	SIGNAL	
P219	1"	PP-P	PRIMARY SEDIMENT TANK 2 LCP	3	#10	#10	480	POWER	CKTS 8, 10, 12	S203	1"	LIT-202 AND LIT-202	LE-202 AND LE-202	2-1	VENDOR	CABLE	-	SIGNAL	
P220	1"	PP-P	PRIMARY SEDIMENT TANK 3 LCP	3	#10	#10	480	POWER	CKTS 14, 16, 18	S204	1"	RTU-6 PLC2-RIO4	LIT-209	1	#16STP	-	24	SIGNAL	
P221	1"	PP-P	PRIMARY SEDIMENT SCUM PUMP	3	#10	#10	480	POWER	CKTS 37, 39, 41	S205	1"	RTU-6 PLC2-RIO4	FIT-230	1	#16STP	-	24	SIGNAL	
P222	1"	MCC-1	BIOFILTER BLOWER	3	#10	#10	480	POWER		S206	1"	RTU-6 PLC2-RIO4	AIT-230	1	#16STP	-	24	SIGNAL	
P223	3/4"	MPZ-P	LIT-201, 202, 203, 204	4-8	#10	#10	120	POWER	CKTS 6, 8, 18, 20	S207	(2)1"	RTU-6 PLC2-RIO4	PULLBOX @ PRIMARY SLUDGE GALLERY-	-	-	-	-	-	C.O.
P224	3/4"	MPZ-P	LIT-209	2	#10	#10	120	POWER	CKT 10	S208	(2)1"	SIGNAL PULL BOX SPB-1	SIGNAL PULL BOX SPB-2	-	-	-	-	-	C.O.
P225	1"	MPZ-P	PRIMARY SEDIMENT TANK LIGHTING	2	#10	#10	120	POWER	CKT 9	S209	1"	SCUM PUMP LCP	RTU-6	2	#16STP	-	24	SIGNAL	
P226	1"	PP-P	PRIMARY SCUM COLLECTOR 1	3	#10	#10	480	POWER	CKTS 20, 22, 24	S210	1"	LIT-203	LE-203	1	VENDOR	CABLE	-	SIGNAL	
P227	1"	PP-P	PRIMARY SCUM COLLECTOR 2	3	#10	#10	480	POWER	CKTS 26, 28, 30	S211	1"	LIT-204	LE-204	1	VENDOR	CABLE	-	SIGNAL	
P228	1"	PP-P	PRIMARY SCUM COLLECTOR 3	3	#10	#10	480	POWER	CKTS 32, 34, 36	P232	1"	PANEL PP-P	MPZ-P	2	#8	#10	480	POWER	CKTS 38, 40
P229	(2)1"	POWER PULL BOX PPB-1	PULLBOX @ PRIMARY SLUDGE GALLERY	-	-	-	-	-	C.O.	P233	3/4"	MPZ-P	RTU-6 PLC2-RIO4	2	#12	#12	120	POWER	CKT 11
P230	(2)1"	POWER PULL BOX PPB-1	POWER PULL BOX PPB-2	-	-	-	-	-	C.O.	P234	3/4"	MPZ-P	RECEPT	2	#12	#12	120	POWER	CKT 13
P231	1"	STORM WATER PCP	FILTER PANEL BOARD	3	#10	#10	480	POWER		C232	1"	PRIMARY SCUM COLLECTOR 3	RTU-6 PLC2-RIO4	9	#14	#14	120	CONTROL	
C201	1-1/2"	PLC (RTU 2)	POWER PULL BOX PPB-1	-	-	-	120	CONTROL	EXISTING CONDUIT C.O.	C232	1"	PRIMARY SCUM COLLECTOR 2	RTU-6 PLC2-RIO4	9	#14	#14	120	CONTROL	
C202	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 1 LCP	4	#14	#14	120	CONTROL	ON/OFF	C232	1"	PRIMARY SCUM COLLECTOR 1	RTU-6 PLC2-RIO4	9	#14	#14	120	CONTROL	
C203	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 2 LCP	4	#14	#14	120	CONTROL	ON/OFF										
C204	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT TANK 3 LCP	4	#14	#14	120	CONTROL	ON/OFF										
C205	1"	RTU-6 PLC2-RIO4	PRIMARY SEDIMENT SCUM PUMP	2	#14	#14	120	CONTROL	ON/OFF										
																			RECORD DRAWING THIS RECORD DRAWING IS NOT WARRANTED BUT IS BELIEVED TO REPRESENT CONDITIONS UPON COMPLETION OF CONSTRUCTION BASED

*-ONE GROUND CONDUCTOR PER CONDUIT

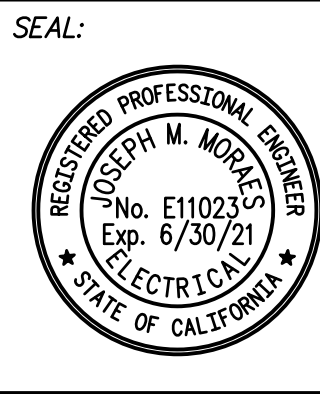
*-ONE GROUND CONDUCTOR PER CONDUIT

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

NOTE:
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10/3/22	DATE	BY	MARK	RECORD DRAWINGS	DESCRIPTION	APPR.	DATE												
					REVISIONS			COUNTY											

PREPARED BY:
MORAES / PHAM & ASSOCIATES
2131 Palomar Airport Rd. #120
Carlsbad, CA 92011
Joseph M. Moraes
JOSEPH M. MORAES R.C.E. E11023 4/19/2019 DATE



DESIGN BY: JMM
DRAWN BY: AH
CHECKED BY: JMM
SCALE: SHOWN
DATE: 4/19/2019
JOB NUMBER:



TEMESCAL VALLEY WATER DISTRICT	
APPROVED FOR CONSTRUCTION:	
GENERAL MANAGER	DATE
ENGINEERING	R.C.E. DATE

PHASE IV TREATMENT PLANT EXPANSION

SCHEDULES - 4

FOR: - W.O. COUNTY FILE NO.

SHEET No.
124
OF 161 SHEETS

RECORD DRAWING
THIS RECORD DRAWING IS NOT WARRANTED BUT IS BELIEVED TO REPRESENT CONDITIONS UPON COMPLETION OF CONSTRUCTION. BASED UPON THE INFORMATION FURNISHED TO THE ENGINEER PERTAINING TO CHANGES MADE DURING CONSTRUCTION.

E11.3

SPACE

MOUNTING SURFACE NEMA 4X										PANEL PP-P										30,000			A.I.C. SYM.		
480		VOLT		3		PHASE		3		WIRE		PRIMARY SED TK					MAIN		100A		BUS 225A Cu				
LOCATION		WATTAGE			REC	LTG	POLE	BKR	CKT NO.	ØA	ØB	ØC	CKT NO.	BKR	POLE	LTG	REC	WATTAGE			LOCATION				
		ØA	ØB	ØC														ØA	ØB	ØC					
PRIMARY SLUDGE		600					3	15	1				2	15	3				200			PRIMARY TANK 1			
MOV 1			600				-	-	3				4	-	-				200			LCP			
-				600				-	5				6	-	-					200		-			
PRIMARY SLUDGE		600					3	15	7				8	15	3				200			PRIMARY TANK 2			
MOV 2			600				-	-	9				10	-	-				200			LCP			
-				600			-	-	11				12	-	-					200		-			
PRIMARY SLUDGE		600					3	15	13				14	15	3				200			PRIMARY TANK 3			
MOV 3			600				-	-	15				16	-	-				200			LCP			
-				600			-	-	17				18	-	-					200		-			
PRIMARY SLUDGE		600					3	15	19				20	15	3				100			PRIMARY TANK 1			
MOV 4			600				-	-	21				22	-	-				100			SCUM COLLECTOR			
-				600			-	-	23				24	-	-					100		-			
PRIMARY SLUDGE		600					3	15	25				26	15	3				100			PRIMARY TANK 2			
MOV 5			600				-	-	27				28	-	-				100			SCUM COLLECTOR			
-				600			-	-	29				30	-	-					100		-			
PRIMARY SLUDGE		600					3	15	31				32	15	3				100			PRIMARY TANK 3			
MOV 6			600				-	-	33				34	-	-				100			SCUM COLLECTOR			
-				600			-	-	35				36	-	-					100		-			
PRIMARY		600					3	25	37				38	50	2				2000			MPZ-P			
SEDIMENT			600				-	-	39				40	-	-				2000			-			
SCUM PUMP				600			-	-	41				42	-	-					-		-			
		600	600	600						WATTS/LINE								2900	2900	900					
ØA= 3500		ØB= 3500								ØC= 1500															
TOTAL WATTS= 8,500		AMPS/LINE= 11								LCL AMPS=															

MOUNTING SURFACE NEMA 4X										PANEL MPZ-P										10,000				A.I.C. SYM.	
120/240 VOLT 1 PHASE 3 WIRE										PRIMARY SED TK MAIN										50A MCB				BUS 100A Cu	
LOCATION		WATTAGE		REC	LTG	POLE	BKR	CKT NO.	ØA	ØB	CKT NO.	BKR	POLE	LTG	REC	WATTAGE		LOCATION							
		ØA	ØB													ØA	ØB								
GALLERY LIGHTS		540			7	1	15	1	●		2	15	1				1000		GALLERY FANS						
GALLERY RECEPT			360	2		1	15	3	●	●	4	30	1				800		GALLERY SUMP PUMP						
FIT-230		100				1	15	5	●		6	15	1						LIT-204						
AIT-230			100			1	15	7	●	●	8	15	1				100		LIT-203						
GALLERY STAIR LIGHTS		540			2	1	15	9	●	●	10	15	1			100			LIT-209						
RTU-RIO4			750			1	20	11	●	●	12	20	1						SPARE						
OUTSIDE RECPT		180		1		1	20	13	●	●	14	20	1						↓						
SPARE						1	20	15	●	●	16	20	1						↓						
↓						1	20	17	●	●	18	20	1			100			LIT-202						
						1	20	19	●	●	20	20	1				100		LIT-201						
		1360	1210	WATTS/LINE												1200	1000								
ØA= 2560		ØB= 2210																							
TOTAL WATTS= 4770		AMPS/LINE= 20																		LCL AMPS=					

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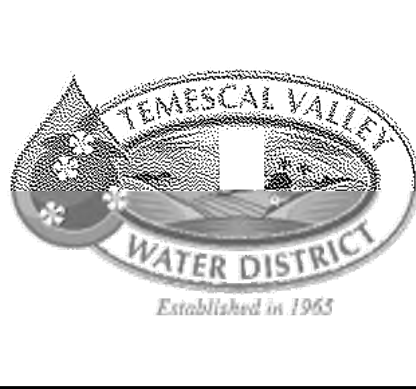
NOTE:
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10/3/22	BY	MARK	RECORD DRAWINGS	DESCRIPTION	APPR.	DATE
	ENGINEER			REVISIONS	COUNTY	

PREPARED BY: **MORAES / PHAM & ASSOCIATES**
2131 Palomar Airport Rd. #120
Carlsbad, CA 92011
JOSEPH M. MORAES R.C.E. E11023 4/19/2019 DATE



DESIGN BY: JMM
DRAWN BY: AH
CHECKED BY: JMM
SCALE: SHOWN
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JOB NUMBER:



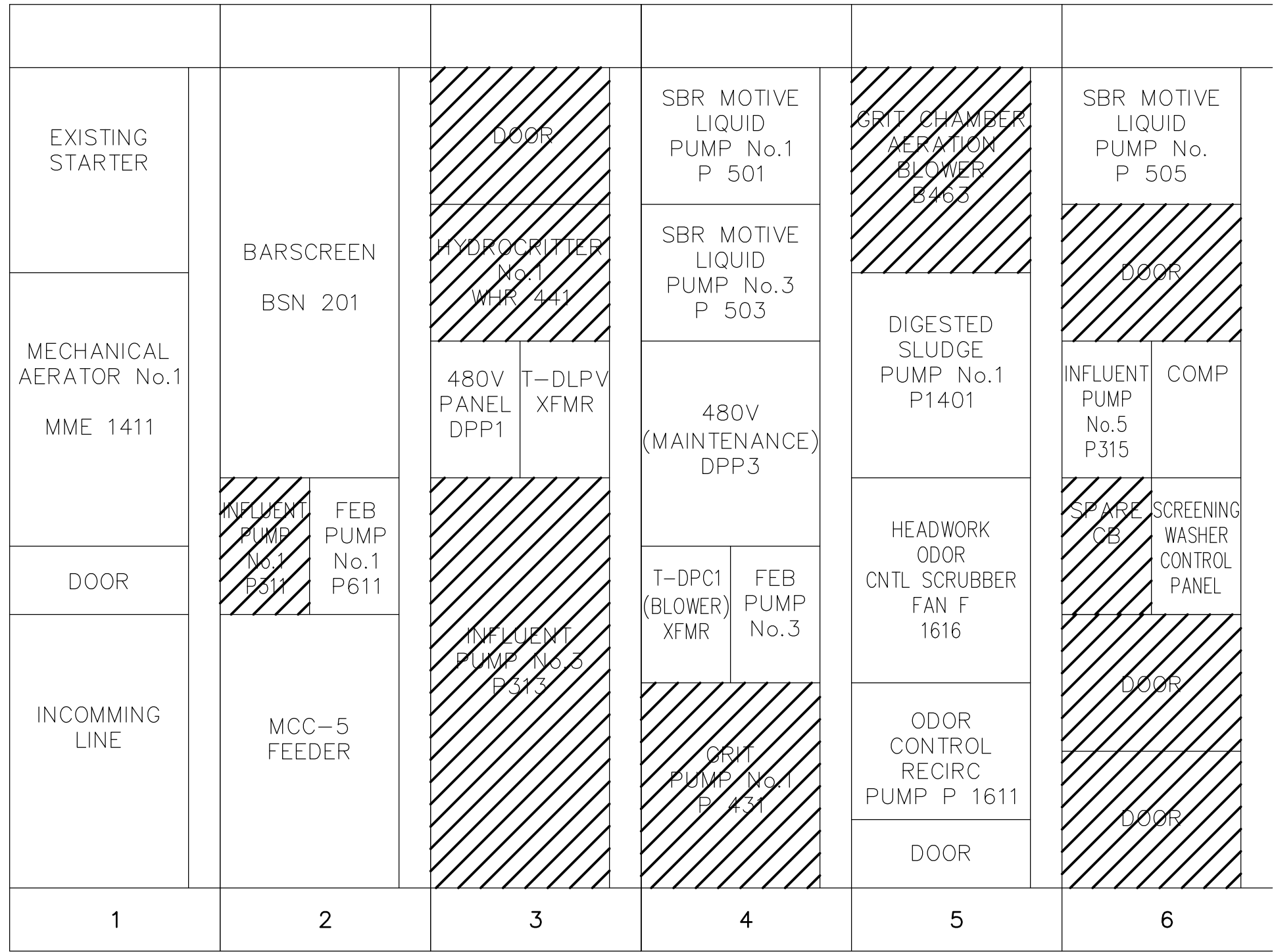
TEMESCAL VALLEY WATER DISTRICT
APPROVED FOR CONSTRUCTION:
GENERAL MANAGER DATE
ENGINEERING R.C.E. DATE

PHASE IV TREATMENT PLANT EXPANSION
SCHEDULES - 5
FOR: - W.O. COUNTY FILE NO.

SHEET No. 124A
OF 161 SHEETS

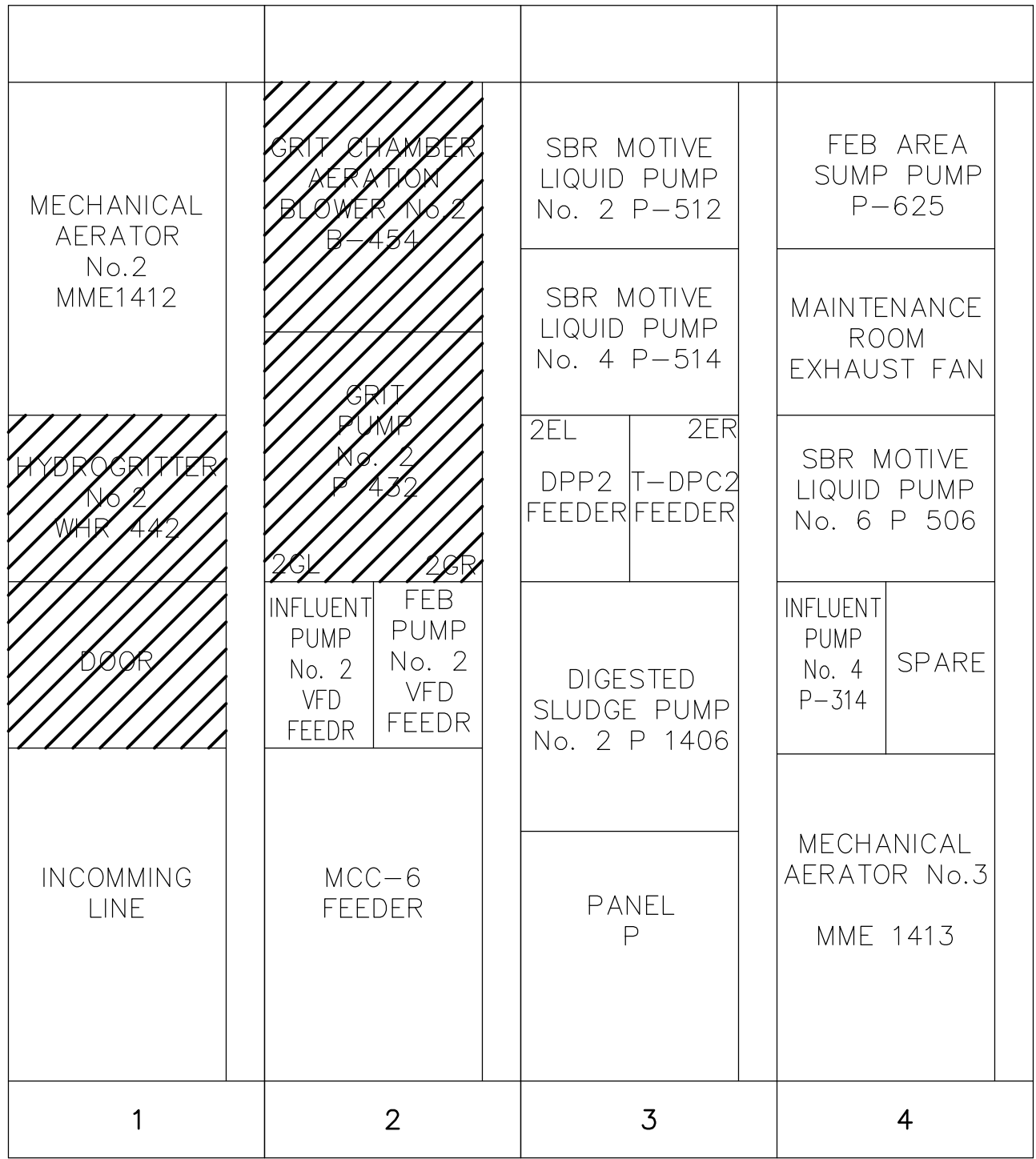
RECORD DRAWING
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E11.4



MCC-1 ELEVATION (EXISTING)

SCALE: NONE

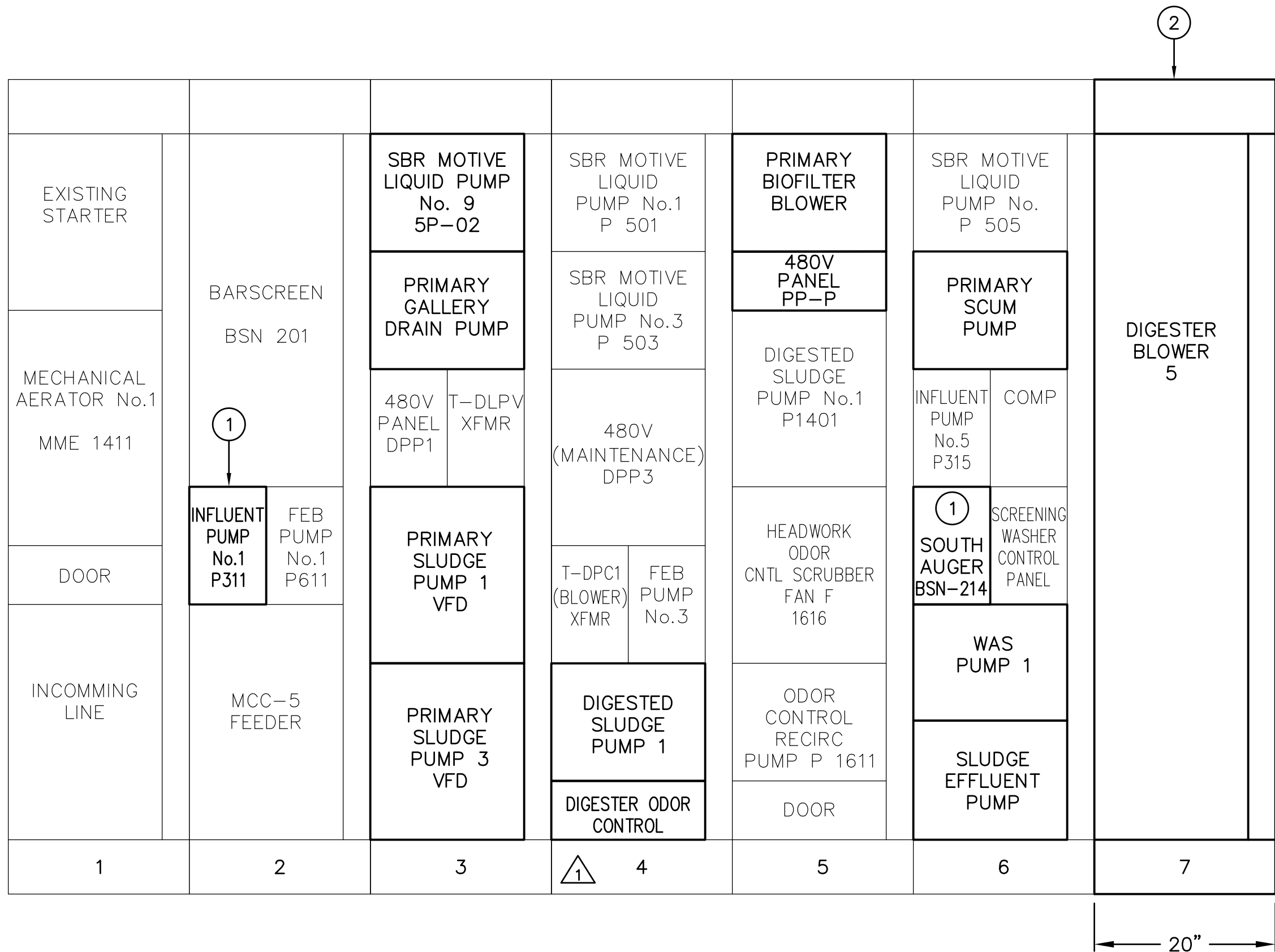


MCC-2 ELEVATION (EXISTING)

SCALE: NONE

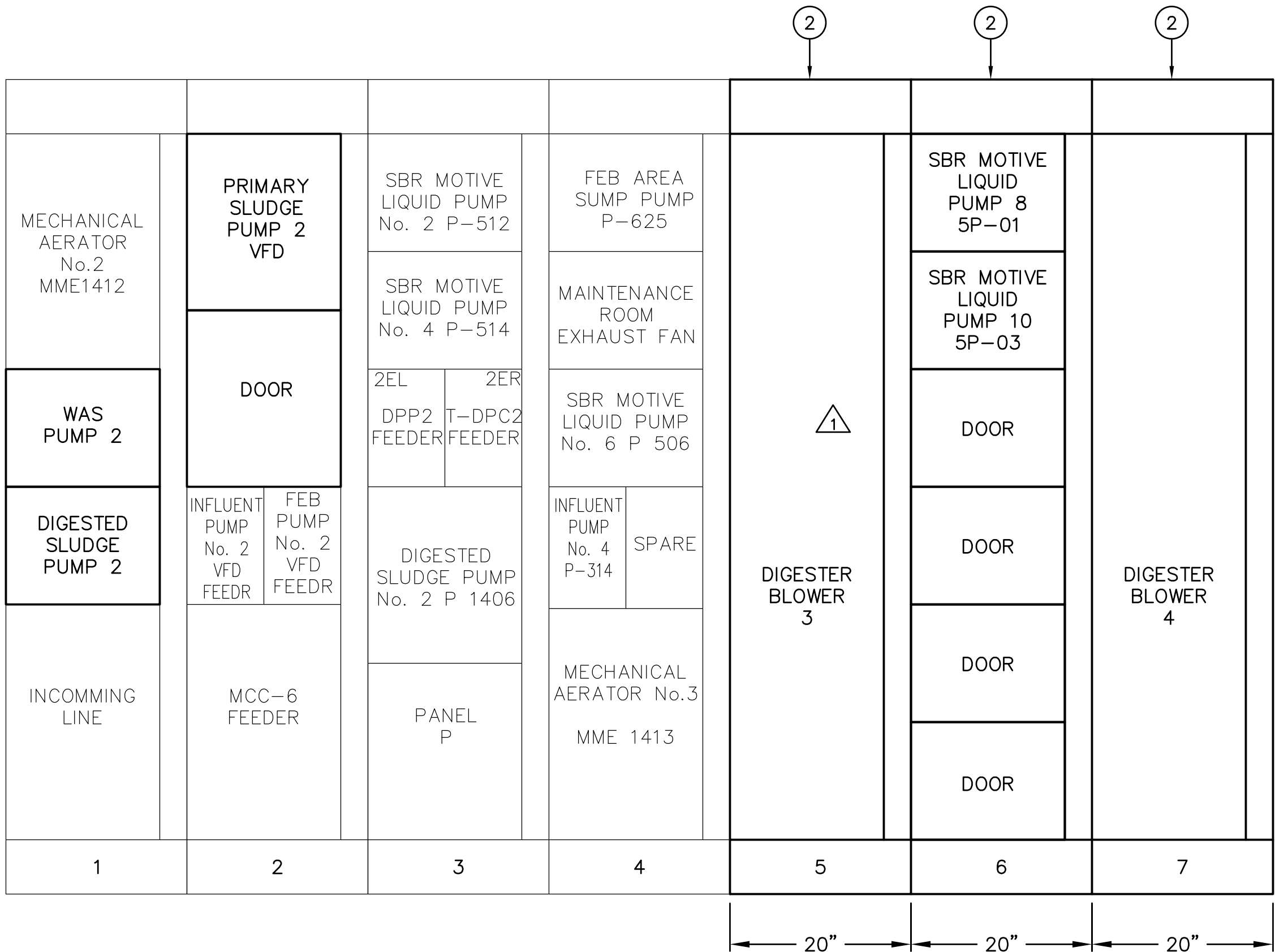
NOTES:

- 1 REPLACE BREAKER (SEE SLD).
- 2 NEW MCC SECTION.



MCC-1 ELEVATION (REVISED)

SCALE: NONE



MCC-2 ELEVATION (REVISED)

SCALE: NONE

- EXISTING
- NEW
- REMOVE

RECORD DRAWING
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WARRANTED BUT IS BELIEVED TO
REPRESENT CONDITIONS UPON
COMPLETION OF CONSTRUCTION, BASED
UPON THE INFORMATION FURNISHED TO
THE ENGINEER PERTAINING TO CHANGES
MADE DURING CONSTRUCTION.

E12.0

THE PRIVATE ENGINEER SIGNING THESE PLANS IS
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ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF
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AND REVISIONS TO THE PLANS FOR APPROVAL BY THE COUNTY.

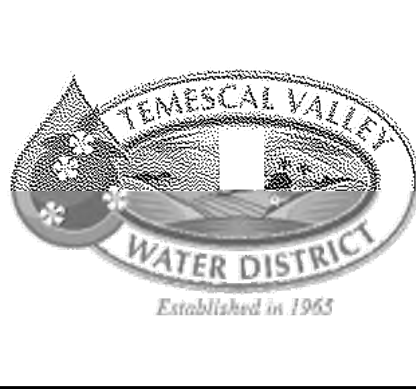
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DATE	BY	MARK	RECORD DRAWINGS	DESCRIPTION	APPR.	DATE
10/3/22	BY	MARK	RECORD DRAWINGS	DESCRIPTION	APPR.	DATE
ENGINEER				REVISIONS	COUNTY	

PREPARED BY:
MORAES / PHAM & ASSOCIATES
2131 Palomar Airport Rd. #120
Carlsbad, CA 92011
JOSEPH M. MORAES R.C.E. E11023 4/19/2019 DATE

SEAL:
REGISTERED PROFESSIONAL ENGINEER
JOSEPH M. MORAES
No. E11023
Exp. 6/30/21
ELECTRICAL
STATE OF CALIFORNIA

DESIGN BY: JMM
DRAWN BY: AH
CHECKED BY: JMM
SCALE: SHOWN
DATE: 4/19/2019
JOB NUMBER:



TEMESCAL VALLEY WATER DISTRICT
APPROVED FOR CONSTRUCTION:
GENERAL MANAGER DATE
ENGINEERING R.C.E. DATE

PHASE IV TREATMENT PLANT EXPANSION
ELEVATIONS - 1
FOR: - W.O. COUNTY FILE NO.

SHEET No.
125
OF 161 SHEETS