NORTH KERN WATER STORAGE DISTRICT

Kern County, California

CONTRACT DOCUMENTS

SPECIFICATIONS NO. NK 625
Calloway Canal Lining: 7th Standard Road to 8-1 Canal

ISSUED FOR BID
August 2026

Zeiders Consulting
1655 Greeley Road
Bakersfield, California 93314

A recommended, but voluntary, pre-bid conference and job-site tour will be held **on 9:00 a.m. on August 12, 2026** commencing at the North Kern Water Storage District office.

Bids will be received at the North Kern Water Storage District office until **2:00 p.m. on September 2, 2026.**

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NORTH KERN WATER STORAGE DISTRICT

Kern County, California

CONTRACT DOCUMENTS

SPECIFICATIONS NO. NK 625
Calloway Canal Lining: 7th Standard Road to 8-1 Canal

Contract Documents were prepared by or under the direction of
the following registered person(s):

8/4/2026

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NORTH KERN WATER STORAGE DISTRICT

Kern County, California

OFFICE LOCATION
33380 Cawelo Avenue
Bakersfield, California 93308

MAILING ADDRESS
PO Box 81435
Bakersfield, California 93380

BOARD OF DIRECTORS
Kevin S. Andrew – President
Joel Ackerknecht – Vice President
Robert Holtermann – Secretary/Treasurer
Monte Mitchell
Winn C. Glende

GENERAL MANAGER
David Hampton

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SECTION A
NOTICE INVITING BIDS

NORTH KERN WATER STORAGE DISTRICT
Kern County, California

FOR CONSTRUCTING THE

Calloway Canal Lining: 7th Standard Road to 8-1 Canal
SPECIFICATIONS NO. NK 625

A-1 Invitation for Bids

NOTICE IS HEREBY GIVEN that sealed bids will be received by the North Kern Water Storage District, hereinafter referred to as the District, for furnishing all labor, services, materials, tools, equipment, supplies, and facilities necessary therefore, transportation, utilities, and all other items as provided in the Contract Documents for the acceptable completion of the Work described in Section A-4, together with all appurtenances thereto, in strict accordance with the Plans and Specifications on file at the office of the District.

Bids shall be made in accordance with the prevailing rate of per diem wages for this locality and project as determined by the Director of Industrial Relations pursuant to Labor Code Section 1770 et seq., and the Davis-Bacon Act, whichever is greater. A copy of the prevailing wage determination current as of the publishing of this solicitation is included in the Appendix. Prevailing wage schedules for Kern County are available from the Department of Industrial Relations-Division of Labor Statistics & Research via the internet at www.dir.ca.gov. Davis-Bacon Act wages can be found at www.dol.gov.

The Contractor, its Subcontractors and Suppliers will be required to comply with all applicable state and federal requirements, including, without limitation, those specifically identified in any Grant Agreement. This Project is being funded in part by a grant from the Bureau of Reclamation (Reclamation) WaterSMART Water and Energy Efficiency Grants program (see Appendix).

A-2 Submitting Bids and Bid Opening

Bids will be received at the office of the District at 33380 Cawelo Avenue, Bakersfield, California 93308, until **2:00 p.m. on September 2, 2026** at which time and place the bids

will be publicly opened and read aloud. Bids shall be timely submitted in sealed envelopes marked as directed in Section A-13. Facsimile and electronic bids will not be accepted.

It is the sole responsibility of the bidder to ensure that their bid is received in proper time and at the proper location and in the proper format. Facsimile bids will not be accepted. Bids received after said deadline time will be returned unopened to the bidder.

A recommended, but voluntary, pre-bid conference and site visit will be held at 9:00 a.m. on August 12, 2026 at the office of the District.

A-3 Location of the Work

The work to be constructed hereunder is located within Kern County, in the vicinity of Bakersfield, California.

A-4 Description of Work

The Work is described as:

Schedule A, Base Contract: (1) preparing, modifying, re-shaping and constructing approximately 6,700 LF of existing canal section extending from the existing lined canal section starting at the north side of 7th Standard Road at the end of the existing concrete lined section, running north to the existing weir structure adjacent to the 8-1 Canal, which includes subgrade preparation, relocation of fill dirt (if necessary), placement, compaction and grading of fill as well as approximately 6,675 LF of concrete lining; (2) construction of a new 55 foot wide reinforced concrete Canal gate structure with Canal gates provided by the District; (3) construction of approximately 3,300 SF of reinforced Canal lining around 4 existing structures within the Canal section; (4) remove and replace an existing Canal turnout with a District provided turnout structure and corrugated HDPE pipeline; (5) remove and dispose of an existing turnout structure and pipeline within the Canal section.

Greater details of the Work are further described in Section D-2, the Proposal Bidding Schedule, Measurement and Payment, the Technical Specifications, and Plans.

A-5 Classification of Contractors License / Contractor Registration

Pursuant to Public Contract Code section 6100(b), any contractor, subcontractor, and/or specialty contractor, as defined under Business and Professions Code section 7026, submitting a proposal shall possess, at the time the Contract is awarded, that classification of contractor's license required by law to enable the contractor to perform

the Work contemplated under the Contract Documents, as more specifically set forth in the Specifications. Contractors shall provide the District with their Contractor's license number and expiration date as provided in the Proposal.

No contractor or subcontractor may bid or be listed on a bid proposal unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded the contract for the Project or engage in Work on the Project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

A-6 Award of Contract

Each bid shall be made on the proposal forms furnished by the District and shall be in accordance with the Contract Documents. The Proposal Bidding Schedule includes places to enter bid prices for each of the various items of work. Bidders will be required to submit prices for all the items on the bid schedule. Award of the Contract, if made by the District, will be to the responsible Bidder submitting the lowest responsive Bid Proposal on the basis of the prices in the Base Bid in accordance with California Public Contract Code Section 20103.8(a). See Section B-17 for further particulars of the bidding and basis of award.

Proposals will be accepted until the date and time specified in the Notice of Inviting Bids. The Contract will be awarded as soon as practicable to the lowest responsible bidder that has submitted a responsive bid, price and other factors considered, provided its Bid is reasonable and is in the best interest of the District to accept.

The District reserves the right, after opening bids, to reject any or all bids, or to make award to the lowest responsive and responsible bidder and reject all other bids. Refer to Paragraph B-3 for information regarding "Responsible Bidder" and submission of a "Responsive Bid".

The successful Bidder will be notified in writing by District of the Award of Contract within 30 days after opening of Bids. Accompanying the Notice of Award will be a copy of the Agreement, which successful Bidder will be required to execute properly and return to District, together with properly executed Performance Bond, Payment Bond, Certificates of Insurance and Endorsement, and Non-Collusion Affidavits, all within 10 days after date of receipt of such Notice of Award. District will promptly determine whether such

Contract, Bonds, and Certificates of Insurance and Endorsement are as required by the Specifications and, upon such determination, will forward a fully signed copy of the Contract to successful Bidder.

A-7 Site Conditions

Each bidder shall carefully examine the Plans, read the Specifications and the forms of the Contract Documents, and may visit the site of the proposed work to fully inform himself as to all existing conditions and limitations that may affect the execution of work under the Contract, and each such bidder shall include in the prices bid the cost of all incidentals and appurtenances. The failure or omission of any bidder to receive or examine any form, instrument, addendum, or other document, or his failure to visit the worksite and acquaint himself with conditions at the construction site, shall in no respect relieve any such bidder from any obligation imposed by his bid or by the Contract. The submittal of a bid shall be taken as prima facie evidence of compliance with all instructions contained herein.

A-8 Certified Checks and Bonds

Each bid shall be under sealed cover and must be accompanied by a Bidder's Bond in the form of either cash, a certified or cashier's check, or by a corporate surety bond on the form furnished by the District and made payable to the North Kern Water Storage District as a guaranty that the bidder will, if an award is made to him in accordance with the terms of his bid, promptly secure worker's compensation insurance, liability insurance, and any other insurance required by the Contract Documents, execute a contract in the required form, and furnish satisfactory bonds for the faithful performance of the Contract and for the payment of claims of all persons supplying labor and materials for the construction of the work. Should the successful bidder fail to so perform, the District shall be entitled to retain the moneys represented by said check or bond as liquidated damages on account of the delay and inconvenience occasioned to the District, it being expressly agreed and understood that the amount of said check or bond constitutes reasonable damages and that it is impracticable or extremely difficult to ascertain actual damages. Said cash, check or Bidder's Bond shall be in an amount not less than five percent (5%) of the amount of the bid. The District reserves the right to reject any bond, if in the opinion of the Engineer or the District's attorney, the Surety's acknowledgment is not legally sufficient. All sureties utilized by bidders shall be legally qualified to do business in the State of California, shall carry a current Best's Insurance Guide rating of "A" or better, Class X or better, and shall furnish such reports as to their financial condition, from time to time, as

may be requested by the District, including the Financial Statement of Bonding Company furnished with the Bond. The premiums for all said bonds shall be paid by the bidder. If any surety becomes unacceptable to the District in the absolute judgment and discretion of the District, then the bidder/contractor shall promptly furnish at its own expense such additional bonds as may be required by the District to protect the District's interests and the interests of persons supplying labor or materials in the prosecution of the work contemplated by these Contract Documents.

In the event of any conflict between the terms of the Contract Documents and the terms of the bonds, the terms of the Contract Documents shall control and the bonds shall be deemed to be amended thereby. The District shall be entitled to exercise any and all rights granted by the Contract Documents in the event of default, without control by the surety, provided that the District promptly notifies the surety at the time or before the exercise of such rights. The exercise by the District of such rights shall not affect the liability of the surety under the bonds.

Bid security of unsuccessful bidder will be returned to the bidder within sixty (60) days of the time the execution of the contract by the District and the successful bidder award of Contract is made.

A-9 Contract Retention

At the request and expense of the Contractor and pursuant to Public Contract Code section 22300, securities equivalent to any amount withheld by the District to ensure the Contractor's performance under the Contract shall be deposited with the District as substitute security, or, at the Contractor's request, with a state or federally chartered bank in California as the escrow agent. Escrow instructions shall conform to the requirements of Public Contract Code section 22300.

A-10 Wage Rates / Compliance Monitoring

Bids shall be made in accordance with the prevailing hourly rate of per diem wages for this locality and project as determined by the Director of Industrial Relations pursuant to Labor Code section 1770 et seq. and the Davis-Bacon Act, whichever is greater. A copy of the prevailing wage rate schedules is incorporated herein by this reference. The Contractor shall post a copy of said documents at each job site. The Contractor and any Subcontractor under him shall pay not less than the specified prevailing rate of per diem wages for general, holiday and overtime work to all workers employed in the execution of this Contract.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Each contractor and subcontractor shall furnish the records specified in Labor Code section 1776 directly to the Labor Commissions, in the manner set forth in Labor Code section 1771.4.

Contractors shall be required to post job site notices, as prescribed by regulation.

A-11 Use of Apprentices

If the project requires the employment of workers in any apprenticeable craft or trade, once awarded, the Contractor or Subcontractors must apply to the Joint Apprenticeship Council unless already covered by local apprenticeship standards under Labor Code Section 1777.5, and the Contractor shall otherwise comply with Section 1777.5.

A-12 Contract Documents

The Contract Documents shall consist of the Notice Inviting Bids, the Instructions to Bidders, the accepted Proposal and Proposal Bidding Schedule, the Contractor's Licensing Statement, the Information Required of Bidders, the Agreement, the Bidder's Bond, the Faithful Performance Bond, the Payment Bond, the Non-Collusion Affidavits, Disadvantaged Business Enterprise (DBE) Checklist, the Notice to Proceed, General Conditions, Special Conditions, Specifications, Plans, Appendices and any Change Order or Addenda, setting forth any modifications or interpretations of any of said documents, and Grant Agreements, all of which documents are on file or will be on file in the office of the District, 33380 Cawelo Avenue, Bakersfield, CA 93308, and which are hereby referred to and made a part of this Notice Inviting Bids.

All questions about the meaning or intent of the Contract Documents or questions regarding the type of work required may be addressed to the following:

Grace Martin
GEI Consultants, Inc.
gemartin@geiconsultants.com

All questions or inquiries regarding the project or the Contract Documents shall be directed solely to the person listed above. Bidders shall not contact any participants in the project regarding the project or the Contract Documents prior to the time that the bids are opened.

Portable Document Format (PDF) Contract Documents will be made available to Bidders either by email or link. No paper (hard) copies of Contract Documents will be provided to Bidders.

Requests for electronic Contract Documents may be requested from Grace Martin, GEI Consultants, Inc. at gemartin@geiconsultants.com. Request must include company name, requesting person's name, requesting person's physical address, requesting person's email address, and requesting person's phone number.

Bidders are required to notify the contact above if they obtain the Contract Documents from a planroom or any means other than from the contact above, in order to be added to the planholders list.

The District may amend any provision or part of the Specifications at any time prior to three days before closing time, provided that the closing time set forth may be extended by District at any time prior to said closing time. Such amendments, if any, will be in the form of addenda which will be issued simultaneously only to all persons who are recorded on the planholders list maintained by the Engineer including persons who have obtained a copy of the Contract Documents from the contact above; are recorded by the Engineer as having received the Contract Documents; or are recorded by the Engineer as having attended the Pre-bid Conference. **Questions received after August 26, 2026, at 5:00 p.m. will not be answered.** Only questions answered by formal written Addenda will be binding. Oral and other interpretations or responses will be without legal effect and are not to be relied upon by the Bidders unless they are integrated into the written Contract Documents.

A-13 Address and Marking of Proposal

The envelope enclosing the proposal shall be sealed and addressed to the North Kern Water Storage District and mailed or delivered to 33380 Cawelo Avenue, Bakersfield, California 93308. The envelope shall be plainly marked in the upper left-hand corner with the name and address of the bidder and shall bear the words "Proposal for", followed by title of the Specifications for the work and the date and hour for opening of bids. The certified or cashier's check, money order, or Bidder's Bond, where applicable, shall be made payable to North Kern Water Storage District. The bid security shall be enclosed in the same envelope with the Proposal.

A-14 Substitute Securities

Pursuant to Public Contract Code Section 22300, equivalent securities may be substituted for monies withheld to ensure performance of the contract. The District reserves the right to solely determine the adequacy of the securities being proposed by the Contractor and the value of those securities. The District shall also be entitled to charge an administrative

fee, as determined by District in its sole discretion, for substituting equivalent securities for retention amounts. The District's decisions with respect to the administration of the provisions of Section 22300 shall be final and shall include, but not be limited to, determinations of what securities are equivalent, the value of the securities, the negotiability of the securities, the costs of administration and the determination of whether or not the administration should be accomplished by an independent agency or by the District. The District shall be entitled, at any time, to request the deposit of additional securities of a value designated by District, in District's sole discretion, to satisfy this requirement. If the District does not receive satisfactory securities within twelve (12) consecutive days of the date of the written request, District shall be entitled to withhold amounts due to Contractor until securities of satisfactory value to District have been received.

Date: August 4, 2026 North Kern Water Storage District

By: s/s Ram Venkatesan
Deputy General Manager

****END OF SECTION****

NOTICE INVITING BIDS (PUBLISHED VERSION)

NORTH KERN WATER STORAGE DISTRICT

Kern County, California

FOR CONSTRUCTING THE

CALLOWAY CANAL LINING: 7th STANDARD ROAD TO 8-1 CANAL SPECIFICATIONS NO. NK 625

NOTICE IS HEREBY GIVEN that sealed bids will be received by the North Kern Water Storage District (hereinafter "District") until **2:00 p.m. on September 2, 2026**, for construction of the Calloway Canal Lining: 7th Standard Road To 8-1 Canal Project, located within Kern County and in the vicinity of the City of Bakersfield in California. Bids will be received at the office of the District, 33380 Cawelo Avenue, Bakersfield, California 93308, until the stated time and date, at which time and place the bids will be publicly opened and read aloud. If a contract is awarded, it will be awarded to the responsible Bidder submitting the lowest responsive Bid Proposal on the basis of prices in the Bid. The bidding requirements and the work are fully described in the Plans and Specifications, referred to as Specifications No. NK 625. Portable Document Format (PDF) of Contract Documents are being made available to Bidders either by email or a download link. No paper (hard) copies of Contract Documents will be provided to Bidders. Requests for electronic Contract Documents may be requested from Grace Martin, GEI Consultants, Inc. at gemartin@geiconsultants.com. Request must include company name, requesting person's name, requesting person's physical address, requesting person's email address, and requesting person's phone number.

A recommended, but voluntary, pre-bid conference and site visit will be held on August 12, 2026 at 9:00 a.m. commencing at the office of the District.

While the work is more fully described and detailed in the Plans and Specifications, it includes the following:

Schedule A, Base Contract: (1) preparing, modifying, re-shaping and constructing approximately 6,700 LF of existing canal section extending from the existing lined canal section starting at the north side of 7th Standard Road at the end of the existing concrete lined section, running north to the existing weir structure adjacent to the 8-1 Canal, which includes subgrade preparation, relocation of fill dirt (if necessary), placement, compaction and grading of fill as well as approximately 6,675 LF of concrete lining; (2) construction of a new 55 foot wide reinforced concrete Canal gate structure with Canal gates provided by the District; (3) construction of

approximately 3,300 SF of reinforced Canal lining around 4 existing structures within the Canal section; (4) remove and replace an existing Canal turnout with a District provided turnout structure and corrugated HDPE pipeline; (5) remove and dispose of an existing turnout structure and pipeline within the Canal section.

The work is described in the Technical Specifications and plans.

The work must be completed during the period identified in the Specifications.

A contractor submitting a proposal shall possess, at the time the Contract is awarded, that classification of contractor's license required by law to enable the contractor to perform the work contemplated under the Contract Documents, as more specifically set forth in the Specifications. Contractors shall provide the District with their Contractor's license number and expiration date as provided in the proposal.

It is the District's intent that "plans," as used in Public Contract Code Section 3300, are defined as the construction contract documents, which include both the drawings and the specifications.

This published notice does NOT reproduce all bidding requirements; accordingly, the above-referenced Plans and Specifications are hereby referred to and made a part of this Notice Inviting Bids. An acceptable bid can only be prepared by reading and following all the instructions that are found in the Specifications, which include Sections A and B thereof.

Each Bidder is required to sign a Noncollusion Affidavit and submit it with their bid.

The successful Bidder is required to furnish a Payment Bond in an amount of 100% of the contract and a Faithful Performance Bond in an amount of 100% of the contract; the bonds to be secured by a surety company or surety companies satisfactory to the District.

Bids shall be based on the payment of not less than the prevailing rate of wages for this locality and project as determined by the Director of the California Department of Industrial Relations pursuant to Labor Code Section 1770 et seq. and as provided in the Davis-Bacon Act, whichever is greater. Prevailing wage schedules for Kern County are available from the Department of Industrial Relations-Division of Labor Statistics & Research via the internet at www.dir.ca.gov. Copies of Davis-Bacon Act wages can be found at www.dol.gov.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Each contractor and subcontractor shall furnish the records specified in Labor Code section 1776 directly to the Labor Commissions, in the manner set forth in Labor Code section 1771.4. Contractors shall be required to post job site notices, as prescribed by regulation.

Pursuant to Public Contract Code Section 22300, equivalent securities may be substituted for

monies withheld to ensure performance of the contract.

All questions about the meaning or intent of the Contract Documents or questions regarding the type of work required may be addressed to the following:

Grace Martin
GEI Consultants, Inc.
gemartin@geiconsultants.com

This Project is being funded in part by a grant from the Bureau of Reclamation (Reclamation) WaterSMART Water and Energy Efficiency Grants program. The Contractor, its Subcontractors and Suppliers will be required to comply with all applicable State and Federal requirements, including, without limitation, those specifically identified in any Grant Agreement.

Date: August 4, 2026

North Kern Water Storage District

By: s/s Ram Venkatesan
Deputy General Manager

****END OF SECTION****

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SECTION B
INSTRUCTIONS TO BIDDERS

B-1 Form of Proposal and Signature

The Proposal shall be submitted only on the form attached hereto or copies thereof and shall be enclosed in a sealed envelope and marked and addressed as hereinafter directed. The bidder shall state in figures the unit prices or the specific sums, as the case may be, for which he proposes to supply the labor, materials, supplies, or machinery, and perform the work required by the Contract and other Contract Documents, including the Specifications. If the unit price and the total amount named by a bidder for any item are not in agreement, the unit price alone will be considered as representing the bidder's intention and the totals will be corrected to conform thereto.

If the Proposal is made and submitted to the District by (1) an individual – the Proposal shall be signed by him and his full name and address shall be given; (2) a partnership - the Proposal shall be signed by a general partner of the partnership with the authority to act as an agent on behalf of the partnership and include the partnership name, the name of the general partner executing the Proposal, and provide the name and address of each member of the partnership; (3) a corporation - the Proposal shall be submitted in the name of the corporation, signed by its duly authorized officer or officers, attested by the corporate seal (optional, include the names and titles of all officers of the corporation, and include the address of the corporation and the state of incorporation; and (4) limited liability company - the Proposal shall be submitted in the name of the limited liability company, signed by an authorized agent of the limited liability company (if member-managed, by a member of the limited liability company authorized to act as an agent thereof; if manager-managed, by a manager of the limited liability company authorized to act as an agent thereof), and include the name and address of the limited liability company, as well as the name of the managers of the limited liability company if manager managed. Proposals will be considered only from a Contractor(s) and/or Subcontractor(s) that is/are licensed as required under applicable provisions of the Contractors' State License Law (California Business and Professional Code, Section 7000 et seq.) and rules and regulations adopted pursuant thereto. Each bidder shall insert his license number in the place provided in the Proposal. All Contractors and/or Subcontractors submitting or included on a Proposal shall be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and include said registration number in the place

provided in the Proposal. No oral, telephonic, or telegraphic proposal or modification of a proposal will be considered.

B-2 Preparation of the Proposal

Blank spaces in the Proposal shall be properly filled. The phraseology of the Proposal must not be changed, and no additions shall be made to the items mentioned therein. Unauthorized conditions, limitations, or provisos attached to a Proposal will render it informal and may cause its rejection. If erasures, interlineations or other changes appear on the form, each erasure, interlineation or change must be initialed by the person signing the Proposal. Alternative proposals will not be considered unless specifically provided for in the Bidding Schedule.

Proposals may be withdrawn without prejudice by written or telegraphic requests received from bidder prior to the time for opening of bids, and Proposals so withdrawn will be returned to bidders unopened when reached in the process of opening bids. No Proposal may be withdrawn after the hour fixed for opening bids without rendering the accompanying certified or cashier's check or Bidder's Bond subject to retention as liquidated damages in like manner as in the case of failure to execute the Contract after award, as in the Contract Documents herein provided.

No Proposal received after the time fixed or at any place other than the place stated in the Notice Inviting Bids will be considered. All bids will be opened and read publicly. Refer to Paragraph B-17 of the "Bid Submission and Opening Procedures" for information regarding the procedures for opening of bids. Bidders, their representatives and other interested parties are invited to be present at the opening. Where bonds are required, the bidder shall name in his Proposal the surety or sureties which have agreed to furnish said bonds.

B-3 Responsible Bidder and Responsive Bid

A "Responsive Bid" is one that materially conforms in all respects to the requirements set forth in Section A–Notice Inviting Bids and Section B–Instructions to Bidders. The District reserves the right to waive any irregularities in the Bids received.

A "Responsible Bidder" is one that has the qualifications, general competency, and resources to perform the Work covered by the Proposal. Among other matters, a Responsible Bidder is one that can demonstrate successful completion of projects involving work of scope and complexity comparable to that being installed under the

Contract Documents. Bids shall identify such projects and provide the information indicated in the "Information Required of Bidder" form. District expressly reserves the right to reject any Bid if it determines that Bidder's business or technical organization, financial resources, plant and equipment to be used in performing work, or lack of successful experience in performing work of similar scope and complexity, is such that it is not in District's best interest to accept the Bid.

B-4 Brokerage of Work Not Favorably Considered

In general, the brokerage of work will not be favorably considered, and, the subletting of the entire Contract or of substantial complete units of it will be permitted only upon an adequate showing of the necessity involving some new condition not reasonably foreseen at the time of the Proposal. Additionally, subletting shall be in compliance with the Subletting and Subcontracting Fair Practices Act, Public Contract Code section 4100, et seq.

B-5 Equalizing Factors

Wherever applicable, equalizing elements or factors not specifically mentioned or provided for herein, such as interest during construction, cost of transportation, inspection (including salaries and travel subsistence expenses), installation and operation, or any other factor or element in addition to that of price which would affect the total cost or value to the District, will be taken into consideration in comparing bids for award of the Contract.

B-6 Servicing and Maintenance

Each bidder must, if requested, furnish evidence that there is an efficient service organization which regularly carries a stock of repair parts for the proposed equipment to be furnished and installed in the work and that the organization is conveniently located for prompt service.

B-7 Local Conditions

Before submitting a Proposal, the Bidder shall carefully examine the Plans, read the Specifications and all other Contract Documents, visit the site of the work, and fully inform himself as to all conditions and limitations, including the character of equipment and facilities needed preliminary to and during the prosecution of the work, the uncertainty of weather, site accessibility, groundwater level, and soil conditions along the line or

work, and as to all other matters which can in any way affect the work to be done. Failure to do so will not release bidders from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The District makes no representation or warranty regarding the accuracy or interpretation of information derived from maps, plans, specifications, profiles, drawings, borings, or other investigations and will not be responsible for any understanding or representations concerning conditions made by any of its officers or agents, including the Engineer or his assistants, prior to the execution of the Contract. The quantities of work or material stated in the unit price items of the Bidding Schedule are given only as a basis for the comparison of bids, and the District does not represent or warrant that the actual amount of work or material will correspond therewith, but reserves the right to increase or decrease the quantity of any unit price items of the work as may be deemed necessary or expedient by the Engineer.

B-8 Execution of Contract

The District reserves the right to accept or reject bids for a period of thirty (30) calendar days after date of opening, and no bid can be withdrawn during said period. A bidder to whom award is made shall execute a written Contract with the District in the form attached hereto and obtain insurance and faithful performance and labor and material bonds of the types and character and in the amounts required in Paragraph B-9, B-10, and B-11, within ten (10) calendar days from the date of the mailing of a notice from the District to the bidder of the acceptance of his Proposal, or such additional time as may be allowed by the Engineer. If a bidder to whom award is made fails or refuses to so perform, his Bidder's Bond shall become the property of the District, as provided for in Paragraph A-8, and the award will be annulled, and in the discretion of the District, an award may be made to the bidder whose Proposal is next most acceptable to the District; and such bidder shall fulfill every requirement hereof as if he were the party to whom the first award was made.

B-9 Bonds

In conformance with Paragraph A-8 of the Notice Inviting Bids, a bidder to whom the Contract is awarded shall, within the time specified in Paragraph B-8, furnish a surety bond conditioned upon the full and faithful performance of all obligations required to be performed under the Contract and full performance and verity of all warranties and guarantees therein contained. Said bond, referred to herein as the Faithful Performance Bond, shall be in an amount equivalent to one-hundred percent (100%) of the total

amount payable under the Contract Documents. The form of the Faithful Performance Bond set forth in these Contract Documents is a mandatory form.

In conformance with Paragraph A-8 of the Notice Inviting Bids, a bidder to whom the Contract is awarded shall, within the time specified in Paragraph B-8, furnish a Payment Bond, approved by the District, in accordance with the provisions of Civil Code sections 8150 et seq., and sections 9550 et seq. Said Payment Bond shall be in the sum of not less than one-hundred percent (100%) of the total amount payable under the Contract Documents. The form of the Payment Bond set forth in these Contract Documents is a mandatory form.

Said bonds shall be of a form satisfactory to the District and shall be obtained from responsible corporate sureties acceptable to the District. All sureties utilized by bidders shall be legally qualified to do business in the State of California, shall carry a current Best's Insurance Guide rating of "A" or better, Class X or better. Said sureties shall furnish reports as to their financial condition from time to time as requested by the District. The premiums for said bonds shall be paid by the bidder.

If any surety becomes unacceptable to the District or fails to furnish reports as to its financial condition as requested by the District, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the District and of persons supplying labor or materials in the prosecution of the work contemplated by this Contract.

In the event of any conflict between the terms of the Contract and the terms of said bonds, the terms of the Contract shall govern and said bonds shall be deemed to be amended thereby. Without limiting the foregoing, the District shall be entitled to exercise all rights granted to it by the Contract in the event of default, without control thereof by the surety, provided that the District gives the surety notice of such default at the time or before the exercise of any such right by the District and, regardless of the terms of said bonds, the exercise of any such right by the District shall in no manner affect the liability of the surety under said bonds.

B-10 Workers' Compensation Insurance

Prior to execution of the Contract as specified under Paragraph C-17 and in conformance with Section 3700 et seq. of the California Labor Code, a bidder to whom the Contract has been awarded shall sign and file with the District the following certification: "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." In addition, before the Contract is executed on behalf of the District, a bidder to whom the Contract has been awarded shall furnish satisfactory evidence that he has secured, in the manner required by law, the payment of the workers' compensation provided for in the California Labor Code and all amendments thereto.

B-11 Public Liability and Property Damage Insurance

The Contractor shall at his own expense maintain in effect at all times during the performance of the work, comprehensive liability insurance in the amounts given below, in a form and with insurance companies acceptable to the District. District shall be added as an additional insured on the following insurance as applicable, and such insurance shall contain endorsements as follows: (a) including the State of California, the California Department of Water Resources, the United States, the U.S. Bureau of Reclamation, North Kern Water Storage District, the Engineer, and their respective directors, officers and agents as additional named insureds; (b) providing contractual liability coverage for the Contractor's indemnification obligations under the Contract documents; (c) providing coverage for explosion, collapse and underground hazards; (d) personal injury coverage, including injury to the Contractor's own employees; (e) providing that the insurance may not be canceled or reduced until thirty days (30) days after the District and the Engineer shall receive written notice of such cancellation or reduction; (f) providing "cross liability" or "severability of interest" coverage for all insureds, providing that the coverage afforded the additional named insureds shall not be prejudiced by any failure of the Contractor to comply with notice requirements of the policy; and (g) providing that any other insurance maintained by the District or the Engineer is excess and not contributing insurance with the insurance required herein.

Contractor shall, at its sole cost and expense, procure and maintain the following insurance coverage:

Commercial General Liability Insurance: This insurance shall contain broad form contractual liability with a combined single limit of a minimum of $5,000,000 each occurrence and an aggregate limit of at least $10,000,000. Coverage must be purchased on a post 2004 ISO occurrence or equivalent and include coverage for, but not limited to, the following:

a. Bodily Injury and Property Damage

b. Personal Injury and Advertising Injury

c. Fire legal liability

d. Products and completed operations

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

a. Waiver of subrogation in favor of District and in a form acceptable to District.

b. Additional insured endorsement in favor of District and in a form acceptable to District.

c. Contractors and subcontractors shall name the District, its officers, agents and employees as additional insureds on liability insurance.

d. Separation of insureds.

Business Automobile Insurance: This insurance shall contain a combined single limit of at least $1,000,000, and include coverage for, but not limited to the following:

a. Bodily injury and property damage.

b. Any and all vehicles owned, used or hired.

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

a. Waiver of subrogation in favor of District and in a form acceptable to District.

b. Additional insured endorsement in favor of District and in a form acceptable to District.

c. Contractors and subcontractors shall name the District, its officers, agents and employees as additional insureds on liability insurance.

d. Separation of insureds.

Workers' Compensation and Employers' Liability Insurance: This insurance shall include coverage for, but not limited to:

a. Contractor's statutory liability under the workers' compensation laws of the state(s) in which the services are to be performed. If optional under state laws, the insurance must cover all employees anyway.

b. Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 by disease policy limit, $500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

a. Waiver of subrogation in favor of and acceptable to District.

Excess Liability (if necessary): The limits of insurance required in these Contract Documents may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the District and other required additional insureds specified above (if agreed to in a written contract or agreement) before the District or other additional insureds' own primary or self-insurance shall be called upon to protect it as a named insured.

The Contractor shall, within the period stated in Paragraph B-8 and as a condition precedent to execution of the Contract by the District, deliver to the District a certificate of insurance issued by the insurer reflecting the existence of the required insurance, together with signed copies of the above-specified endorsements. If required by the District, the Contractor shall also furnish a complete copy of the policy and all endorsements. The Contractor shall also disclose the amount of the deductible under its policy(ies) and if the District determines that the deductible is excessive, may require the Contractor to post a bond guaranteeing payment of any losses and defense costs within the deductible layer.

B-12 Subcontracts

Bidder shall furnish information regarding its Subcontractors in substantially the form set forth in the bid forms. If no Subcontractors are to be used, Bidder shall so state. Bidder's attention is directed to Sections 4100 through 4113 of the California Public Contract Code for requirements and provisions relative to Subcontractors. No substitution of subcontractors by the Bidder shall be consented to or permitted except in accordance with the provisions of Public Contract Code Sections 4107 and 4107.5.

The bidder shall perform with his own organization, work equivalent to at least sixty (60) percent of the total Contract price, and no more than work equivalent to forty (40) percent of the total Contract price may be performed by subcontractors. The cost of Contractor-furnished materials installed by labor carried on the bidder's own payroll may be included in the above required sixty (60) percent.

In conformance with the provisions of Section 4104 of the Public Contract Code of the

State of California, each bidder shall set forth in his or her Proposal on the form provided therefor:

a. The name and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specifically fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half (½) of one percent (1%) of the Contractor's total bid; and

b. The portion of the work which will be done by each such subcontractor and a description of the nature of such work.

B-13 Non-Collusion Affidavits

In accordance with the provisions of Section 7106 of the Public Contract Code, each bidder shall execute and submit with their bid a Non-Collusion Affidavit in the form attached hereto. Additionally, the principal contractor shall secure from each proposed subcontractor a Non-Collusion Affidavit in the form also attached hereto.

B-14 Bidder's Bond

Each proposal must be accompanied by a certified or cashier's check drawn on a responsible bank or a Bidder's Bond made by a responsible corporate surety, payable to the North Kern Water Storage District, as a guarantee that if the bid is accepted, the bidder will, within the time specified in the Instructions to Bidders, enter into a written contract in the form hereinafter set forth and obtain insurance and faithful performance and labor and material payment bonds of the types and character, and in the amounts as required in said Instructions to Bidders. Said check or Bidder's Bond shall be for a sum not less than five percent (5%) of the aggregate sum of the proposal. Checks will be returned (a) to unsuccessful bidders as soon as practicable after the opening of bids and (b) to the successful bidder as soon as he has executed the contract and obtained the required insurance and bonds, provided he so performs in the manner and within the time stated in the Instruction to Bidders. Should the successful bidder fail to so perform, the District shall be entitled to retain the moneys represented by said check or bond as liquidated damages on account of the delay and inconvenience occasioned to the District, it being expressly agreed and understood that the amount of said check or bond constitutes reasonable damages and that it is impracticable or extremely difficult to

ascertain actual damages. There is enclosed following the Proposal for these Specifications a form of Bidder's Bond, and all Bidders submitting bonds as bid guarantees are required to make use of this form and to submit the complete form with submitted proposals.

B-15 Disadvantaged Business Enterprise (DBE) Checklist

Each Bidder must complete and include as part of their proposal the Disadvantaged Business Enterprise (DBE) Checklist. Checking "No" to any step will result in Bid being considered non-responsive.

B-16 Construction Schedule

Preliminary Construction Schedule - The Contractor shall submit with his Bid a preliminary construction schedule for the District's review, which includes important milestones. **For purposes of preparing said Construction Schedule, Contractors should assume the Notice to Proceed will be issued on or about October 19, 2026 and Contractor shall begin work within ten (10) days of receipt of the Notice to Proceed.** The Preliminary Construction Schedule shall be in sufficient detail to show the chronological relationship of all activities of the project, including, but not limited to, estimated starting and completion dates of various activities including shop drawing submittal and approval, mobilization of equipment and resources, procurement of materials, construction of components of project, and completion of closeout of project. The schedule shall be prepared in Critical Path Method (CPM) format.

The CPM schedule shall include at a minimum the following: (1) identification of the basic tasks or activities that must be performed to complete the project; (2) estimation of the duration of the specific activities; and (3) a determination of the logical flow of the work, which includes a determination of which activities must be completed before the subsequent ones can commence.

The Preliminary Construction Schedule shall reflect completion of all work under the Contract within the specified times and in accordance with the Contract Documents, including the Specifications. The Preliminary Construction Schedule will be used by the District in determining award of the Contract.

Post-Bid Pre-Award Schedule - As a condition of award during the period after the opening of bids and prior to actual award of the Contract by the District, the apparent low bidder shall submit a Construction Schedule as set forth in this section. The Construction Schedule shall indicate the time of starting and completion of each major structure or

phase of the Work and such intermediate phases as will serve for well-defined chronological order on the Construction Schedule. The schedule shall also indicate the anticipated date of receipt of major items of equipment, and all items of equipment receipt and installation of which is critical to the scheduled progress of the project. The Construction Schedule shall be prepared in Critical Path Method format.

Within five (5) calendar days after bid date, the apparent low bidder shall designate in writing an authorized representative who will be responsible for the preparation of the post-bid pre-award Construction Schedule as set forth in this Section.

The apparent low bidder's representative shall have the authority to fulfill the requirements of preparing the schedule in a professional and acceptable manner demonstrating competence in use of the Construction Schedule, including scheduling experience on project of similar value and complexity.

B-17 Bid Submission and Opening Procedures

The Proposal Bidding Schedule includes a Base Bid and the lowest bid will be determined based on the submission of a responsive bid from a responsible bidder (refer to Section B-3). Accordingly, the following procedures will be followed:

a. **Bid Envelopes**: Bids must be submitted in a labeled envelope plainly marked in the upper left-hand corner with the name and address of the bidder and shall bear the words “Proposal for”, followed by the title of the Contract Documents for this work and the date and hour for opening bids.

b. Contents of Bid: Bidders shall complete and submit all documents noted as “REQUIRED” listed below for bids to be considered responsive. Bid proposal shall be organized and submitted as follows:

REQUIRED

1. Bidder’s Proposal
2. Proposal Bidding Schedule
3. Information Required of Bidder Form
4. Disadvantaged Business Enterprise (DBE) Checklist
5. Preliminary Construction Schedule (ref. Paragraph B-16)
6. Bidder’s Non-Collusion Affidavit (ref. Paragraph B-13)

7. All Issued Addenda (signed front-covers only)
8. Bid Security (in the form of a certified or cashier's check or Bidder's Bond) (ref. Paragraph B-14)
9. Proof that contractor and subcontractors are registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. Listing the DIR number on the Information Required of Bidder Form is considered sufficient proof.
10. Proof that the Contractor(s) and/or Subcontractor(s) is/are licensed as required under applicable provisions of the Contractors' State License law (see California Business and Professional Code section 7000 et seq.), and as required under all rules and regulations adopted, applicable, and/or relevant with respect thereto. Listing the License number on the Information Required of Bidder Form is considered sufficient proof.

Delivery of Bid: It is the bidder's responsibility to make sure that their bid is submitted within the specified time. Late bids will not be accepted regardless of postmark and will be returned unopened to the bidder.

a. Hand Delivery – Bid shall be sealed and submitted prior to the time and place established for receiving bids.
b. Mail or Courier Delivery – Bid shall be sealed and inserted into another envelope or packaging exhibiting all information as required for delivery of the envelope or package to the place established for receiving bids. Bidders submitting Bid Packages via mail or courier delivery are strongly encouraged to notify the District in advance that a bid is being delivered in this manner.

Opening of Bids: The Bid Opening will be held at the place and time stated in Paragraph A-2. The envelope containing the "Bid" as described in Section B-17b will be publicly opened at the prescribed time and the amount of the Base Bid will be read aloud. This will continue until all bids are announced. A bid tabulation will be prepared during the Bid Opening which lists the Base Bid amounts and the corresponding name of the bidders. At the request of the bidders, the District will transmit a bid tabulation of all bids, to include bidder name and the corresponding Base Bid amount.

Announcement of Bid Ranking and Bidders: The announcement of bid ranking and bidders will be completed after the public bid opening and evaluation of bids.

****END OF SECTION****

PROPOSAL

NORTH KERN WATER STORAGE DISTRICT

Kern County, California

FOR CONSTRUCTING THE

Calloway Canal Lining: 7th Standard Road to 8-1 Canal
SPECIFICATIONS NO. NK 625

Proposals received until 2:00 p.m. on September 2, 2026

To the Board of Directors
North Kern Water Storage District
33380 Cawelo Avenue
Bakersfield, California 93308

The undersigned hereby declares that the only persons or parties interested in this Proposal as principals are those named herein; that no director or officer of the District is in any manner interested, directly or indirectly, in this Proposal or in the profits to be derived from the Contract proposed to be taken; that this bid is made without any connection with any other person or persons making a bid for the same purpose; that the bid is in all respects fair and without collusion or fraud; that the undersigned has read the Notice Inviting Bids and the Instructions to Bidders hereto attached, and agrees to all the provisions thereof; that the undersigned has examined the site of the Work, the form of the Agreement approved by the District, and the Plans and Specifications and other Contract Documents therein referred to, the District's Grant Agreements between the District and the California Department of Water Resources and the U.S. Bureau of Reclamation, and proposes and agrees that if this bid as submitted in the attached Proposal Bidding Schedule be accepted, he will contract in the form so approved to perform all the work mentioned and as provided in said approved form of the Agreement and the Plans and Specifications and other Contract Documents and to complete the same within the time stipulated therein; and that he will accept in full payment therefor the prices named in said Proposal Bidding Schedule. Said prices are to include and cover the furnishing of all materials except as otherwise provided in the Specifications or other Contract Documents, the performing of all labor requisite or proper, and the providing of all necessary machinery, tools, apparatus, and other means of construction, and the performance and completion of all the Work in the manner set forth, described, and shown in the Contract Documents including the Plans and Specifications, for the work and in the form of the Agreement. The undersigned has checked

carefully all words and figures inserted in said Proposal Bidding Schedule and understands that the District will not be responsible for any errors or omissions on the part of the undersigned in making up this Proposal.

The undersigned hereby agrees to execute the Agreement and furnish the required bonds and insurance within ten (10) days from the date of notice of acceptance of this Proposal, or within such additional time as may be allowed by the Engineer. A certified or cashier's check or a Bidder's Bond made payable to the North Kern Water Storage District in the amount of $_____, said amount to be not less than five percent (5%) of the amount of the proposal, is attached hereto as a guarantee that the undersigned will so perform. It is understood and agreed by the undersigned that if he does not so perform, the District shall be entitled to retain the moneys represented by said check or bond.

The bidder further declares that the surety or sureties named in the spaces provided below have agreed to furnish bonds in the form and aggregate amounts set forth in Paragraph B-9 of the Instructions to Bidders, in the event Contract is awarded on the basis of this Proposal.

The bidder further declares under penalty of perjury, in accordance with Business and Professions Code Section 7028.15(e), that the statements contained herein are true and correct.

Dated _____, 20___

_____

_____

Bidder

Bidder's post office address

_____

_____

By

_____

_____

Title

(CORPORATE SEAL)

Names and addresses of all members of the firm or names and titles of all officers

Corporation organized under the laws of the State of

Contractor' License No.

Expiration Date

Surety or Sureties

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BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS

That we, _____ as Principal(s) (hereinafter called the Principal), and the _____ as Surety (hereinafter called the Surety), are held and firmly bound unto NORTH KERN WATER STORAGE DISTRICT (hereinafter called the Obligee) in the penal sum of five percent (5%) of the amount of accompanying bid (_____ dollars) for the payment of which, well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal is submitting herewith a bid, or proposal for Specifications No. NK 625 for the Calloway Canal Lining: 7th Standard Road to 8-1 Canal.

NOW, THEREFORE, if the bid or proposal is not withdrawn within thirty (30) days after the date set for the opening of bids, and notwithstanding the award of the Contract to another bidder, if the bid or proposal of said Principal shall be accepted, and the Contract for such work be awarded to the Principal thereupon by the said Obligee, and said Principal shall within the period specified in the Contract Documents enter into a written Contract and obtain insurance and faithful performance and labor and material bonds of the type and character and in the amount as may be specified, then this obligation shall be null and void; otherwise to be and remain in full force and effect.

In witness whereof, we hereunto set our hands and seals this _____ day of _____, 20__.

_____(SEAL)
(Principal)

By_____

_____(SEAL)
(Surety)

By_____

NOTE: This bond must be acknowledged before a Notary Public, and a legally sufficient power of attorney must be attached to the bond to verify the authority of any party signing on behalf of a surety. This bond must be issued by a California-admitted surety. Sureties must be authorized to do business in and have an agent for service of process in California. A certified copy of Power of Attorney must be attached.

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PROPOSAL BIDDING SCHEDULE

The following Proposal Bid Schedule lists the items necessary to complete the Work. Bidder shall complete the schedule including the unit and total price of each item, including applicable sales and other taxes. If the total cost of any item or the total Base Bid is inconsistent with the unit cost, the unit cost shall prevail. Payment of each item will be based on the Plans and are to be considered as "* Final Pay Quantity" for each item, unless the dimensions of the portion of the work shown on the Plans are revised by the Engineer, or unless the portion of the work is eliminated. If the dimensions of the specific portion of the work are revised, and the revisions result in an increase or decrease in the estimated quantity of the portion of the work, the final quantity for payment will be revised in the amount represented by the changes in the dimensions. If the specific portion of the work is eliminated, the final pay quantity designated for the specific portion of the work will be eliminated. All costs for completing the Work described in the Contract Documents shall be included in the bid items listed below. Contractor shall include all costs to accomplish the project including (but not limited to): mobilization/demobilization, develop water supply, materials, equipment, labor, overhead, profit, taxes, delivery charges, permits etc.

SCHEDULE "A" (Base Bid)
Calloway Canal Lining – Project Wide Items

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
1 *	Mobilization	1	LS	$_____	$_____
2 *	Demobilization	1	LS	$_____	$_____
3 *	Develop and Provide Water Supply	1	LS	$_____	$_____
4 *	Environmental Compliance and Permitting	1	LS	$_____	$_____
5 *	Prepare, Maintain and Restore Access Routes	1	LS	$_____	$_____
6 *	Finish Grading of Project – Roads, Canal Banks & Sideslopes, Around Structures, Ramps, etc.	1	LS	$_____	$_____
				Subtotal (Items 1-6):	$_____

CALLOWAY CANAL LINING

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
7*	Clearing and Grubbing	28.81	AC	$_____	$_____
8*	Over Excavate, Scarify, and Re-Compact Concrete Lining Sub-Grade	731,910	SF	$_____	$_____
9*	Construct/Modify Canal Section - "In Place Fill"	14,720	CY	$_____	$_____
10*	Non-Reinforced Canal Lining	705,210	SF	$_____	$_____
11A*	Furnish and Install PVC Waterstop – Base Bid Layout	1	LS	$_____	$_____
12	Reinforced Canal Lining	3,300	SF	$_____	$_____
13	Safety Ladders	9	EA	$_____	$_____
14*	Construct New 55' Canal Gate Structure	1	LS	$_____	$_____
15*	Remove and Dispose of South CT-1 Intertie Structure	1	LS	$_____	$_____
16*	Remove and Replace North CT-1 Intertie Structure	1	LS	$_____	$_____
				Subtotal (Items 7-16):	$_____

CALLOWAY CANAL LINING - ALTERNATE ITEMS
NOT A PART OF BASE BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
11B*	Furnish and Install PVC Waterstop – Alternate Layout	1	LS	$_____	$_____

TOTAL AMOUNT FOR SCHEDULE “A” (Base Bid)
(Item No. 1 through Item No. 16)

Total Price $_____

* Final Pay Quantity

Bid Submitted by:

Contractor _____

Date _____

Email _____

Phone Number _____

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MEASUREMENT AND PAYMENT

SPECIFICATIONS NO. NK-625
CONSTRUCTING THE CALLOWAY CANAL LINING PROJECT

Payment for the various items of the Proposal Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety, and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Proposal Bid Schedule, but which is necessary for the complete construction of the Work and all costs therefore shall be included in the prices named in the Proposal Bid Schedules for the various appurtenant items of work.

Schedule A-Base Bid

Mobilization (Bid Item No. 1)

a. Mobilization shall include all activities and costs for transportation of personnel, equipment, and operating supplies to and from the site; establishment of portable sanitary and refuse facilities; obtaining an adequate source of fresh water; location, provision and installation of field offices & equipment/materials, storage yards excavation equipment, buildings, and other necessary facilities for the Contractor's operations at the site; insurances, premiums paid for performance and payment bonds, including coinsurance and reinsurance agreements as applicable.

Portions of this site are not fenced, the contractor will be responsible to provide his own security for equipment, materials, fuel, tools, etc. that he may have on site.

The Contractor shall provide all necessary equipment & materials; all tools, accessories, power, fuel, materials, supplies, lighting, water, and other support equipment; and experienced personnel necessary to execute the Work in an orderly an efficient manner.

Mobilization also includes all items necessary to complete the project that are not covered under any other Bid Item.

b. **Measurement and Payment -** The Final Pay Lump Sum (LS) Price paid for Mobilization shall include full compensation for all labor, materials, transportation, supplies, tools,

equipment, and incidentals and for doing all other work and operations which must be performed or costs incurred to complete the mobilization effort and items to complete the project that are not covered under any other line item – including, but not limited to, premiums paid for performance and payment bonds, including coinsurance and reinsurance agreements as applicable.

Demobilization (Bid Item No. 2)

a. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not included in the contract from the site; including the disassembly, removal and site cleanup, of offices, equipment, buildings, restoration of facilities, roads, fences, etc. modified or disturbed during the course of the project and other facilities assembled on the site for this contract.

b. **Measurement and Payment -** The Final Pay Lump Sum Price (LS) paid for Demobilization shall include full compensation for all labor, materials, transportation, supplies, tools, equipment, and incidentals and for doing all other work and operations which must be performed or costs incurred to complete the demobilization effort and items to complete the project that are not covered under any other line item.

Develop and Provide Water Supply (Bid Item No. 3)

a. The District will provide the Contractor with a water source out of either the CT-1 Canal or 8-1 Canal. The Contractor shall develop the water supply provided by the District. It will be the Contractor's responsibility to provide all equipment, personnel, labor, tools, etc. required to utilize the water supply provided by the District.

b. **Measurement and Payment -** The Final Pay Lump Sum (LS) Price paid for Develop and Provide Water Supply shall include full compensation for making all completed arrangements and permission, furnishing all fees, labor, materials, tools, equipment, and incidentals and for doing all work involved in developing a sufficient supply of water, furnish pipeline and other necessary equipment to supply water to the water application equipment for all water required for the work as well as supplying all water necessary for completing the work.

Environmental Compliance and Permitting (Bid Item No. 4) (PM-10 and SWPPP Compliance)

a. The Contractor shall comply with all local, state and federal requirements for Storm Water Pollution Prevention and Site dust control and shall prepare a Storm Water Pollution Prevention Plan (SWPPP) and a PM-10 Dust Management Plan and obtain permits for each. Contractor shall install, construct, maintain all necessary measures to comply with

and keep the necessary records in accordance with the requirements of the Storm Water Pollution Prevention Plan (SWPPP) and the PM-10 Dust Prevention Plan.

The contractor shall prepare all plans and shall obtain all necessary permits prior to commencement of construction.

b. **Measurement and Payment -** The Final Pay Lump Sum (LS) Price paid for Environmental Compliance and Permitting shall include full compensation for making all completed arrangements and permission, furnishing all plans, permits, fees, labor, materials, tools, equipment, and incidentals and for doing all work involved in PM-10 and SWPPP Compliance. **Prepare, Maintain and Restore Access Routes (Bid Item No. 5)**

a. The Contractor shall perform all dirt work, grading, modifications, and/or removal of fencing, etc. as may be necessary for proper preparation and maintenance of Construction Access Routes. Following completion of the project construction, the Contractor shall restore all access routes to original design and fencing to its original location (where applicable).

b. **Measurement and Payment -** The Final Pay Lump Sum (LS) Price paid for Preparing, Maintaining and Restoring Access Routes shall include full compensation for all labor, materials, transportation, supplies, tools, equipment, and incidentals and for doing all other work and operations which must be performed or costs incurred prior to beginning, during and after the completion of the work on this item and no additional allowance shall be made therefore.

Finish Grading of Project (Bid Item No. 6)

a. The Contractor shall provide all materials, equipment, labor and incidentals to finish grade all construction areas including all tops of canal banks and outside slopes of the project to the following tolerances:

Finish Grading

Inside of canal prism – Calloway Canal**,** -0.2’ to +0.0’ horizontally and -0.1’ to +0.0’ vertically. Grade changes that change finished concrete lining invert and thickness beyond finish concrete tolerances (see Section F) must be approved by the Engineer.

Top of banks and outside slopes**,** -0.0’ to +1.0’ horizontally and -0.0’ to +0.3’ vertically (with no more than 0.1’ vertical variance in any given 100’ of lineal length.

All other areas are to be left in a smooth, neat and finished condition without ruts, holes, bumps, humps, etc.

b. **Measurement and Payment -** The Final Pay Lump Sum (LS) Price paid for Finish Grading of Project shall include full compensation for all labor, materials, transportation, supplies, tools, equipment, and incidentals and for doing all other work and operations which must be performed or costs incurred for completing finish grading of the entire project site, including all roads, canal banks and side slopes, around structures and ramps etc. and no additional allowance shall be made therefore.

Clearing and Grubbing (Bid Item No. 7*)

a. The Contractor shall perform all clearing and grubbing work within the Limits of Construction within District right-of-way or property, construction easements, and the Calloway Canal. Such areas shall be cleared and grubbed of all trees, vines, stumps, roots, brush, rubbish, debris, fence materials and other unsuitable or deleterious materials. No waste materials from the clearing operation shall be incorporated into compacted backfill or embankments. The subgrade beneath all permanent embankments shall be grubbed and cleared of all stumps, roots, objectionable organic matter, debris, rubbish, rocks, concrete or other deleterious materials. Where directed by the District, all work specified herein shall be accomplished by the Contractor prior to placement of construction stakes. All cleared and grubbed organic materials may be stored on site in areas designated by Engineer for later re-use. Trash, debris and rubbish shall be disposed of off-site. Subsequent to construction of levees, Contractor shall re-spread cleared and grubbed materials as directed by Engineer. No materials or debris shall be burned within the District right-of-way.

b. **Measurement and Payment -** The Final Pay Quantity Unit Price per Acre (AC) paid for Clearing and Grubbing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work in clearing and grubbing and no additional allowance shall be made therefore.

Over Excavate, Scarify, and Re-Compact Concrete Lining Subgrade (Bid Item No. 8*)

a. The Contractor shall perform work associated with the preparation of the Canal concrete lining subgrade, within the Canal prism from inside crown to inside crown under Canal lining, plus 2 additional feet outside of the concrete lining on either side of the Canal prism. The concrete lining subgrade shall be uniformly over excavated to a depth of not less than twelve (12) inches followed by uniform ripping and scarifying, or over excavating at the Contractor's choice, further to a depth of not less than twelve (12) inches or as required to eliminate rodent burrows below the bottom of the over excavated area. Re-compaction of subgrade is to be completed in a minimum of two (2) twelve (12) inch maximum lifts at no less than **95% relative compaction** and optimum moisture per standard ASTM D698. The first will consist of the lower twelve (12) inch scarified, or over excavated, subgrade re-compaction and the second will consist of the upper twelve (12)

inch over excavated subgrade material re-compaction. This item also includes generation of additional spoil material needed to compensate for shrinkage of over-excavated/scarified and compacted material to complete 2' deep finished depth (minimum) of subgrade.

b. **Measurement and Payment -** The "Final Pay Quantity" per square foot (sq. ft.) for the over-excavation and scarification and re-compaction of concrete lining subgrade shall include full compensation for all over-excavation, scarification, moisture conditioning, manufacturing, blending, the provision of material from cut and borrow areas due to shrinkage, and compacting of the subgrade complete, in-place, including full compensation for all materials, tools, equipment, and labor and no additional allowance shall be made therefore.

Construct/Modify Canal Section- "In-Place Fill" (Bid Item No. 9*)

a. Compacted embankments and Canal prism shall be prepared and constructed of suitable, approved, moisture-conditioned material from within the Canal right-of-way or property and within the overall project area. Before any excavated material for the first layer of the Canal prism is placed, the foundation of the fill material shall be prepared as provided in concrete lining subgrade preparation described above in line item 8 and shall be moistened to optimum moisture or above and compacted to a minimum of 95 percent of the Laboratory Standard Maximum Density as obtained by A.S.T.M. test method D-698. Before any excavated material for the first layer of the Canal embankment is placed, the foundation of the embankment shall be scarified a minimum of six (6) inches and shall be moistened to optimum moisture or above prior to the placement of fill material. The scarified six (6) inches will be included in the first twelve (12) inch compacted lift.

Compacted Canal embankments shall be constructed to the elevations and to the top width and side slope shown on the Drawings. Approved Canal embankment fill materials shall be placed and compaction accomplished in loose level layers not exceeding six (6) inches in compacted thickness carried across the entire width of the embankment from face of slope to face of slope to a minimum of 95 percent of the Laboratory Standard Maximum Density as obtained by A.S.T.M. test method D-698.

The layers shall be brought up in the full required width from the bottom of the embankment to avoid widening lower edges after the center has been brought up to grade. At all times, there shall be an acceptable and uniform gradation of embankment materials. Cobbles and gravel shall be well distributed through other materials and not nested in any position within or under the embankment. When the material has been moisture conditioned as specified, it shall be compacted by sheepsfoot rollers of sufficient weight for proper compaction or by other compaction equipment satisfactory to the Engineer. **Hydro-compaction of levee embankments will not be allowed.**

Classification of Fill – "In-Place" Fill materials will be classified for payment. Fill and backfill shall consist of suitable material from canal bottom excavation or import and shall be free of trash, organic matter or other debris and must be approved by the Engineer. No object having a largest dimension greater than five (5) inches shall be included in any compacted levee embankment over-excavation or backfill. This item also includes all cut and generation of additional spoil material needed to compensate for shrinkage of compacted material to complete all In-Place Fill to the lines and grades shown in the plans.

Final Grading of Banks – Fill dirt for the rough grading of the project must be placed such that grades and alignment are at designed locations that the finish grading will be accomplished by shaving material from the canal prism in preparation of lining of the canal.

Grading tolerances shall be as follows:

Rough Grading

Inside of canal prism**,** -0.0' to +0.5' horizontally and -0.2' to +0.2' vertically.

Top of banks and outside slopes**,** -0.0' to +1.0' horizontally and -0.0' to +0.3' vertically.

Finish Grading

Inside of canal prism**,** -0.2' to +0.0' horizontally and -0.1' to +0.0' vertically. Grade changes that change finished concrete lining invert and thickness beyond finish concrete tolerances (see Section F) must be approved by the Engineer.

Top of banks and outside slopes**,** -0.0' to +1.0' horizontally and -0.0' to +0.3' vertically.

Excess material generated in this operation will be placed on site in areas designated by the Engineer.

b. **Measurement and Payment –** The Final Pay Quantity Unit Price per Cubic Yard (CY) for "In-Place Fill" (In-Place Fill is defined as the actual compacted, "in-place" levee embankment volume **without** any shrinkage factors included) shall include full compensation for all labor, materials, tools, equipment, moisture conditioning, etc. required and no additional allowance shall be made therefore. Contractor shall be responsible to provide his own shrinkage factors necessary for generation of import spoil needed to construct "in-place" lining subgrade and levee embankment. Lining subgrade and levee embankment construction shall include full compensation for all pick up, hauling, placing, moisture conditioning, watering, manufacturing, blending, and compacting the levee embankment complete in-place, deposition of excess spoil

material generated in the process in the areas indicated on the plans and as directed by the Engineer and includes full compensation for all materials, tools, equipment and labor and no additional allowance shall be made therefore.

Non-Reinforced Canal Lining (Bid Item No. 10*)

a. The Contractor shall provide all materials, equipment, labor and incidentals to construct the Non-Reinforced Canal Lining as shown in the plans and described in the specifications. The Contractor shall perform all subgrade preparation, forming, pouring, finishing, curing, water stops, swell stops, and saw-cutting joints for sections of non-reinforced lining. Concrete shall have a minimum strength of 3,200 pounds per square inch after 28 day cure. Concrete for lining shall be poured at no more than a 5 inch slump. This line item includes all 4 inch non-reinforced concrete lining, as well as the approximately 570 square feet of 6" thick non-reinforced concrete around reinforced concrete areas.

b. **Measurement and Payment -** The Final Pay Quantity Unit Price per Square Foot (SF) for Non-Reinforced Lining shall include full compensation for furnishing all labor, materials (including concrete), forms, tools, equipment, and incidentals, and for doing all work in Non-Reinforced Lining including joints, water stops, swell stops curing, saw-cutting, etc. and no additional allowance shall be made therefore.

Furnish and Install PVC Waterstop – Base Bid Layout (Bid Item No. 11A*)

a. The Contractor shall provide all materials, equipment, labor and incidentals to furnish and install PVC Waterstop in the "Base Bid Layout" as described hereafter: Along the two (2) sawcuts eighteen (18) inches up from the Canal invert along the side slope (approximately 13,334 LF) as well as any cold joints (construction joints) made by the Contractor. The Contractor shall perform all prep work, transportation, placement, and PVC welding of waterstops as needed to properly place PVC water stops.

b. **Measurement and Payment -** The Final Pay Quantity Lump Sum Price for Furnishing and Installing PVC Waterstop – Base Bid Layout shall include full compensation for furnishing all labor, materials, forms, tools, equipment, and incidentals, etc. and no additional allowance shall be made therefore.

Furnish and Install PVC Waterstop – Alternate Layout (Bid Item No. 11B*)

a. The Contractor shall provide all materials, equipment, labor and incidentals to furnish and install PVC Waterstop in the "Alternate Layout" as described hereafter: Along all longitudinal and transversal sawcuts as well as any cold joints (construction joints) made by the Contractor. The Contractor shall perform all prep work, transportation, placement, and PVC welding of waterstops as needed to properly place PVC water stops.

b. **Measurement and Payment -** The Final Pay Quantity Lump Sum Price for Furnishing and Installing PVC Waterstop – Alternate Layout shall include full compensation for furnishing all labor, materials, forms, tools, equipment, and incidentals, etc. and no additional allowance shall be made therefore.

Reinforced Canal Lining (Bid Item No. 12)

a. The Contractor shall provide all materials, equipment, labor, and incidentals to construct the Reinforced Lining of all Canal work. The Contractor shall perform all subgrade preparation, forming, rebar placement, pouring, finishing, curing, water stops, swell stops, and saw-cutting joints for sections of reinforced lining as shown in the plans. Concrete shall have a minimum strength of 4,000 pounds per square inch after 28 day cure. Concrete for lining shall be poured at no more than a 5 inch slump.

b. **Measurement and Payment -** The Final Pay Quantity Unit Price per Square Foot (SF) for Reinforced Lining shall include full compensation for furnishing all labor, materials (including concrete), forms, tools, equipment, rebar, and incidentals, and for doing all work in Reinforced Lining including joints, water stops, swell stops curing, saw-cutting, etc. and no additional allowance shall be made therefore.

Safety Ladders (Bid Item No. 13)

a. The Contractor shall provide all materials, equipment, labor and incidentals to procure and install eight (8) Safety Ladders embedded into the concrete lining per the Plans. Safety ladder rungs shall be made from ¾" stainless steel reinforcing bars (rebar) cut, bent, and installed to the lengths, angles, and locations shown in the plans, unless otherwise approved by the Engineer.

b. **Measurement and Payment -** The Final Pay Quantity Unit Price per each (EA) Safety Ladder shall include full compensation for furnishing all labor, materials (including the ladders), tools, equipment, and incidentals, and for doing all work involving the provision and installation of safety ladders and no additional allowance shall be made therefore.

Construct New 55' Canal Gate Structure (Bid Item No. 14)

a. The Contractor shall provide all materials, equipment, labor and incidentals to procure and install a new, reinforced concrete Canal gate structure with five (5) ten (10) foot wide Canal gates (provided by the District), stainless steel catwalk with handrails, epoxied anchors, stainless super structure, etc. as shown in the drawings and described in the specifications. The Contractor shall perform all subgrade preparation, forming, rebar placement, pouring, finishing, curing, water stops, swell stops, saw-cutting joints, fabrication, drilling and epoxying, and gate mounting for the reinforced concrete Canal

gate structure as shown in the plans. Concrete shall have a minimum strength of 5,000 pounds per square inch after 28 day cure.

b. **Measurement and Payment -** The Final Pay Quantity Lump Sum Price for Construct New 50' Weir Structure with Canal Gates shall include full compensation for furnishing all labor, materials (excluding Canal gates, which are provided by the District), tools, equipment, and incidentals, and for doing all work involving the provision and installation of the new weir structure and no additional allowance shall be made therefore.

Remove and Dispose of South CT-1 Intertie Structure (Bid Item No. 15)

a. The Contractor shall provide all materials, equipment, labor and incidentals to Remove and Dispose of South CT-1 Intertie Structure and pipe as shown in the drawings and described in the specifications. The Contractor shall perform all excavation, removal, transportation, disposal, backfill, compaction, and grading to successfully remove the existing South CT-1 Intertie Structure and pipe and dispose of it off site and restore the Calloway Canal and CT-1 Canal to the lines and grades shown in the plans and described in the specifications.

b. **Measurement and Payment -** The Final Pay Quantity Lump Sum Price for Remove and Dispose of South CT-1 Intertie Structure shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involving the removal and disposal of the existing structure, and no additional allowance shall be made therefore.

Remove and Replace North CT-1 Intertie Structure (Bid Item No. 16)

a. The Contractor shall provide all materials, equipment, labor and incidentals to Remove and Replace North CT-1 Intertie Structure as shown in the drawings and described in the specifications. The Contractor shall perform all excavation, removal, transportation, disposal, backfill, compaction, and grading to successfully remove the existing North CT-1 Intertie Structure and dispose of it off site and replace it with the District provided eight (8) foot tall Briggs box and corrugated HDPE pipe stub and one (1) joint of corrugated HDPE pipe (provided by District) as shown in the plans and described in the specifications. The District will provide the eight (8) foot Briggs box and corrugated HDPE pipe for this line item. The Contractor shall install the structure and pipe to the lines and grades shown in the plans, and protect the end of HDPE pipe in place after installation for later connection by the District.

b. **Measurement and Payment -** The Final Pay Quantity Lump Sum Price for Remove and Replace North CT-1 Intertie Structure shall include full compensation for furnishing all labor, materials (excluding the Briggs box, extension, and HDPE pipe which are provided by the District), tools, equipment, and incidentals, and for doing all work involving the

removal and disposal of the existing structure, and installation of new structure, and no additional allowance shall be made therefore.

**** END OF SECTION****

INFORMATION REQUIRED OF BIDDER

EXPERIENCE AND REFERENCES

Listed below are three projects performed under the bidder's supervision during the past ten (10) years involving work of scope and complexity comparable to this Project.

1. Project Name and Location _____

_____

Project Description: _____

_____

_____

_____

Owner: _____

Contract Amount/Completion Date: _____

Reference Contact Name and Telephone Number: _____

_____

2. Project Name and Location _____

_____

Project Description: _____

_____

_____

_____

Owner: _____

Contract Amount/Completion Date: _____

Reference Contact Name and Telephone Number: _____

_____

3. Project Name and Location _____

_____

Project Description: _____

_____

_____

_____

Owner: _____

Contract Amount/Completion Date: _____

Reference Contact Name and Telephone Number: _____

_____

BIDDER'S LICENSE AND DIR (DEPARTMENT OF INDUSTRIAL RELATIONS) REGISTRATION NUMBER

Class _____

License No. _____

DIR No. _____

MATERIAL SUPPLIER INFORMATION

The bidder shall indicate opposite each item of equipment or material listed below the name of the manufacturer and supplier of the equipment or material proposed to be furnished under the bid.

Material	Manufacturer	Supplier
Lining Concrete		
Structural Concrete		
PVC Waterstop		

Awarding of a Contract under this bid will not imply approval by the District or Engineer of the manufacturers or suppliers listed by the bidder. No substitution will be permitted after award of Contract unless equipment or material of the listed manufacturer or supplier does not meet the requirements of the Specifications.

LIST OF SUBCONTRACTORS

The bidder hereby designates below the names and business addresses of each subcontractor who will perform work or labor. Please fill out as completely as possible when submitting your bid. Use Subcontractor's business name style as registered with the License Board.

a. Complete the name and location of the place of business of each Subcontractor (i) who will perform work or labor or render service to the Bidder in or about the construction contemplated in the Plans and Specifications or (ii) licensed by the State who, under subcontract to the Bidder, specially fabricates and installs a portion of the work or improvement according to the detailed drawings contained in the Plans and Specifications in an amount in excess of one-half of one percent of the Bidder's total Bid.

b. Complete the portion of the Work that will be done by each subcontractor. The Bidder shall list only one subcontractor for each portion as is defined by the Bidder in his Bid.

c. Bidders are reminded of the penalties for the improper substitutions of a subcontractor pursuant to Public Contract Code Section 4110.

SUBCONTRACTOR _____

Business Address: _____

Class _____ License No. _____ DIR No. _____

Item No. or Description of Work: _____

Dollar Amount or Percentage of Total Bid: _____

SUBCONTRACTOR _____

Business Address: _____

Class _____ License No. _____ DIR No. _____

Item No. or Description of Work: _____

Dollar Amount or Percentage of Total Bid: _____

SUBCONTRACTOR _____

Business Address: _____

Class _____ License No. _____ DIR No. _____

Item No. or Description of Work: _____

Dollar Amount or Percentage of Total Bid: _____

SUBCONTRACTOR _____

Business Address: _____

Class _____ License No. _____ DIR No. _____

Item No. or Description of Work: _____

Dollar Amount or Percentage of Total Bid: _____

SUBCONTRACTOR _____

Business Address: _____

Class _____ License No. _____ DIR No. _____

Item No. or Description of Work: _____

Dollar Amount or Percentage of Total Bid: _____

NOTE: Bidder shall attach all additional sheets and attachments as required. Failure to supply all items of information required of Bidders may cause the Bid to be considered non-responsive.

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20_____, by and between the North Kern Water Storage District, hereinafter called the "District," and _____, hereinafter called the "Contractor; with respect to _____ (the "Agreement").

WITNESSETH: That the District and the Contractor, for the consideration hereinafter named, agree as follows:

a. This Agreement is for all Work (as that term is defined in the Contract) necessary to complete the items selected by the District from those described in the Contract Documents for Specifications No. NK 625 Calloway Canal Lining: 7th Standard Road to 8-1 Canal, (the "Project").

b. The Contract includes all of the Contract Documents, to wit: the Notice Inviting Bids, the Instructions to Bidders, the accepted Proposal and Proposal Bidding Schedules, the Contractor's Licensing Statement, the Information Required of Bidders, this Agreement, the Bidder's Bond, the Faithful Performance Bond, the Payment Bond, the Non-Collusion Affidavits, the Notice of Award, the Notice to Proceed Checklist, Notice to Proceed Form, the General Conditions, the Special Conditions, the Plans and Specifications, Appendices, any change order or Addenda setting forth any modifications or interpretations of any of the Contract Documents, and Grant Agreements, including, but not limited to, their provisions, terms, conditions, and statements presented therein. All said Contract Documents are hereby incorporated in and made a part of this Agreement by reference thereto.

c. The Contractor shall furnish all labor, materials, equipment, and other facilities and perform in good and workmanlike manner all Work under the Contract for the District in strict conformity with this Agreement and the Contract Documents, including but not limited to the Plans and Specifications, and to the approval and entire satisfaction of the Engineer and District.

d. The Project to which the Work covered by the Contract Documents pertains is being funded in part by a Water and Energy Efficiency Grants program grant which is being administered by the United States Bureau of Reclamation (Reclamation). Notwithstanding anything in this Agreement or the Contract Documents to the contrary, the Contractor hereby makes and shall obtain or caused to be obtained from all subcontractors and

suppliers all certifications, stipulations and agreements required under this Agreement, the Contract Documents, and all applicable State and Federal laws, rules, and regulations, and shall ensure that Contractor and all subcontractors and suppliers comply with all applicable requirements of the Grants and Federal and State law including, but not limited to, as provided in the Grant Agreements. Contractor further agrees to furnish to District any further information or documentation that the District reasonably determines may be necessary for District to comply with the Grant Agreements or any applicable law. The Work shall conform to the requirements of all governmental agencies having jurisdiction over the Work. Contractor shall also comply with all federal, state and local laws, ordinances, rules, regulations and orders under the Contract, including all licensing requirements and occupational, health, safety, employment and environmental laws. Such applicable laws, ordinances, rules, regulations and orders shall include, without limitation, those that are specifically incorporated into any Grant Agreements pertaining to the Work, which Grant Agreements and any amendments thereto the District will provide to Contractor following their execution. Contractor shall bear all costs, expenses and liabilities related to any changes in the Work to conform to such laws, ordinances, rules, regulations and orders.

e. The District will pay the Contractor in current funds for the performance of the Contract the sum stated in the Proposal Bidding Schedule, in the manner, at the time and upon the conditions as stated in the Contract Documents, and will otherwise fulfill its obligations as provided in the Contract.

f. All time limits stated in the Contract Documents are of the essence.

g. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, as well as their heirs, successors, and assigns.

h. Unless otherwise ordered by the Engineer, the Contractor shall begin the Work within ten (10) calendar days after issuance of the Notice to Proceed and complete the Work in accordance with the schedule set forth in the Special Conditions. Pursuant to section 53069.85 of the Government Code, Contractor agrees that if the Work is not completed on or before the expiration of the completion time or times specified in the Special Conditions, or within such extensions of time as may be granted, the District may retain the sum set forth in the Special Conditions each day thereafter, Sundays and holidays included, that the Work remains uncompleted, which sum is agreed upon as the proper measure of liquidated damages which the District will sustain per day by the failure of the Contractor to complete the Work at the time stipulated, and this sum is not to be construed in any sense a penalty or forfeiture.

i. Labor Certification

Contractor states that it is aware of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with provisions of that Code, and Contractor agrees to comply with such provisions before commencing the performance of the Work of this Agreement.

j. Contractor's License

All Contractors and/or Subcontractors are required to be licensed under applicable provisions set forth in the Contractors' State License Law (see California Business and Professional Code section 7000 et seq.) at all times during the course of performance of Work hereunder, and shall comply with all rules and regulations adopted and applicable pursuant to the foregoing.

k. Board of Industrial Relations Registration

Pursuant to Labor Code section 1725.5, Contractor and/or Subcontractor is to be registered with the Department of Industrial Relations at all times during the course of performance of the Work set forth in the Contract Documents. Contractor agrees to comply with the provisions set forth in Labor Code section 1725.5 prior to and through performance of the performance of the Work as set forth under the Contract Documents and this Agreement.

l. Indemnification

1. To the fullest extent of the law, the Contractor shall assume the defense of and indemnify, hold, and save harmless the North Kern Water Storage District, the U.S. Bureau of Reclamation, the California Department of Water Resources, the Landowners, the Design Engineer and the Engineer and their respective directors, officers, employees and agents from any and all loss, damage, liability, claims, or causes of action of every nature whatsoever for damage to or destruction of property, including the District's property, or for injury to or death of persons, including Contractor's employees, in any manner, arising out of or incident to the performance of this Agreement.

2. The Contractor shall at all times preserve and protect the Work installed and performed hereunder and assume full responsibility for the condition thereof until final acceptance by the District. Contractor shall be liable for any loss or damage to any of the Work performed, completed, and/or in place and to any materials on the Site that

may be caused by Contractor, his employees, agents, or guests. Any such damage shall be immediately repaired by Contractor, and, upon failure to do so, the District may remedy the same and deduct the cost thereof from any amount due or to become due to the Contractor.

3. To the fullest extent of the law, the Contractor shall assume the defense of and indemnify, hold, and save harmless the District, the U.S. Bureau of Reclamation, the California Department of Water Resources, the North Kern Water Storage District, the Landowners, the Design Engineer and the Engineer and their respective directors, officers, employees and agents, against any and all liens, claims, demands, and costs, including attorneys' fees, for labor and material furnished to the Contractor or any of his subcontractors in connection with the performance of this Contract. In the event that the Contractor or any of his Subcontractors shall fail to pay for any material or labor used in the performance of this Agreement, or any lien is filed against the said property, or any claim is asserted or action is filed against the said property, or any claim is asserted or action filed on any bond, by any person claiming to have furnished labor or materials to the Contractor or any of his Subcontractors in connection with the performance of this Agreement, the District shall be entitled, at its option, to pay for said material or labor, or discharge any such lien, or to pay or settle any such claim or action and to deduct the amount so paid, together with any and all costs and attorney's fees incurred by or on behalf of the District in connection with any such payment, discharge, or settlement, from amounts due or to become due to the Contractor hereunder. The District may also deduct from any amounts due or to become due to the Contractor, any other amounts owing by the Contractor to the District, including the cost of any materials, labor, services, equipment or facilities supplied by the District as to which the Contractor has the obligation to supply the same hereunder. In the event that the balance that otherwise would be due the Contractor, shall be insufficient to so reimburse the District, the Contractor shall pay the District any deficiency upon demand.

4. The Contractor shall pay all royalties and license fees. He shall, at his own cost, expense and risk, defend any and all suits or claims for infringement of any patent rights and shall indemnify, hold, and save the District and its Directors, officers, employees and agents harmless from loss of account thereof.

5. If the District, North Kern Water Storage District, the Landowners, the Design Engineer or the Engineer and/or their respective Officials, Officers, Employees, Agents, Consultants, and Engineers are required to testify or contribute time and expense in

any other way, in any suit or enforcement action of any kind brought to recover alleged damages or remedy alleged violations resulting from the acts or omissions (including negligent acts or omissions) in connection with, or accidents arising from, the acts, operations, and responsibilities of the Contractor, its Subcontractors, or others associated with or working under Contractor, in direct or indirect relation to the performance of the Work, they shall be reimbursed for any reasonable costs incurred by them for lost time, expert assistance, and incidental expenses in connection with their need to contribute time and expense, whether or not the suit or enforcement action proceeds to final judgment.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

(District Seal)

North Kern Water Storage District

North Kern Water Storage District

By: _____

Contractor

(CORPORATE SEAL)

By: _____

(Title)

And: _____

(Title)

****END OF SECTION****

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FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

THAT, WHEREAS, the NORTH KERN WATER STORAGE DISTRICT, State of California, awarded a contract as of _____ to _____ _____, hereinafter designated as the "Contractor," for _____ pursuant to North Kern Water Storage District Specification No. NK 625; and

WHEREAS, the said Contractor is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract.

NOW, THEREFORE, WE, the undersigned Contractor, as Principal, and _____ (corporate surety), a corporation organized and existing under the laws of the State of _____ and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto NORTH KERN WATER STORAGE DISTRICT in the penal sum of _____ Dollars ($_____), lawful money of the United States, said sum being not less than 100 percent of the total Contract value for faithful performance and for labor and materials the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT, if the above-bounded Contractor, 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 said Contract and any alteration thereof made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the NORTH KERN WATER STORAGE DISTRICT, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contractor or to the work to be performed thereunder or the specifications accompanying the same 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 or to the work or to the Specifications.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation shall hold good for a period of one (1) year(s) after the completion and acceptance of the said work, during which time if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns shall fail to make full, complete and satisfactory repair and replacements or totally protect the said Owner, Engineer, and any design engineer from loss or damage made evident during said period of one (1) year(s) from the date of acceptance of said work and resulting from or caused by defective materials or faulty workmanship, in the prosecution of the work done, the above obligation shall be and remain in full force and virtue.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this_____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.

ATTEST:

(Principal Secretary)	(Principal)
(SEAL)	By _____
	_____
(Witness as to Principal)	(Address)
_____	
(Address)	(Surety)

ATTEST:

(Witness to Surety)	(Attorney-in-Fact)
_____	_____
(Address)	(Address)

If CONTRACTOR is a partnership, all partners must execute BOND.

NOTICE: This bond must be acknowledged before a Notary Public. This bond must be issued by a California-admitted surety; sureties must be authorized to do business in and have an agent for service of process in California. A certified copy of Power of Attorney must be attached.

****END OF SECTION****

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PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS

THAT, WHEREAS, NORTH KERN WATER STORAGE DISTRICT, has awarded to _____ _____hereinafter designated as the "Contractor," a Contract for_____pursuant to North Kern Water Storage District Specifications No. NK 625; and

WHEREAS, said Contractor is required by the provisions of Division 4, Part 6, Title 3, of the Civil Code of the State of California, including, but not limited to Civil Code Sections 9550-9566, inclusive, to furnish a bond in connection with said Contract, as hereinafter set forth.

NOW,THEREFORE,WE,_____, the undersigned Contractor, as Principal, and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto NORTH KERN WATER STORAGE DISTRICT in the sum of_____and_____Dollars ($_____), said sum being not less than one hundred percent (100%) of the total Contract amount payable by the said NORTH KERN WATER STORAGE DISTRICT under the terms of the Contract, for which payment will 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 the foregoing obligations is such that, whereas the above bounden Principal has been awarded a Contract as_____with NORTH KERN WATER STORAGE DISTRICT to do the following work, to-wit: _____ _____ For DISTRICT SPECIFICATIONS NK 625.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT, if said Contractor, his or its heirs, executors, administrators, successors, assigns, or subcontractors shall fail to pay for any materials, provisions, implements, or machinery 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 for amounts due under the Unemployment Insurance Act with respect to such work or labor as required by the provisions of Division 4, Part 6, Title 3, Chapter 5 of the Civil Code; and provided that the claimant shall have complied with the provisions of said Code, the surety or sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case a suit is brought upon this bond, the said

Surety will pay a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Division 4, Part 6, Title 3 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond. And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alternation, or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same 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 or to the work or to the Specifications.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation shall hold good for a period of one (1) year(s) after the completion and acceptance of the said work, during which time if the above bounden Principal, his or its heirs, executors, administrators, successors, subcontractors, or assigns shall fail to pay for any materials, provisions, implements, or machinery 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 for amounts due under the Unemployment Insurance Act with respect to such work or labor as required by the provisions of Division 4, Part 6, Title 3, Chapter 5 of the Civil Code during said period of one (1) year(s) from the date of acceptance of said work, the above obligation shall be and remain in full force and virtue.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this_____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.

ATTEST:

_____	_____
(Principal Secretary)	(Principal)
(SEAL)	By _____
	_____
_____	_____
(Witness as to Principal)	(Address)

(Address)	(Surety)
ATTEST:	
(Witness to Surety)	(Attorney-in-Fact)
(Address)	(Address)

If CONTRACTOR is a partnership, all partners must execute BOND.

NOTICE: This bond must be acknowledged before a Notary Public. This bond must be issued by a California-admitted surety; sureties must be authorized to do business in and have an agent for service of process in California. A certified copy of Power of Attorney must be attached.

CALIFORNIA ALL-PURPOSE 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_____before me,_____, Notary Public, personally appeared

_____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name 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

OPTIONAL

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to an unauthorized document.

CAPACITY CLAIMED BY SIGNER

☐ INDIVIDUAL
☐ CORPORATE OFFICER(S)

_____
TITLE(S)

☐ PARTNER(S)

☐ LIMITED
☐ GENERAL

☐ ATTORNEY-IN-FACT

DESCRIPTION OF ATTACHED DOCUMENT

_____
TITLE OR TYPE OF DOCUMENT

_____
NUMBER OF PAGES

☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

_____
DATE OF DOCUMENT

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

_____

_____

_____
SIGNER(S) OTHER THAN NAMED ABOVE

****END OF SECTION****

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NON–COLLUSION AFFIDAVIT

(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)

STATE OF CALIFORNIA)

)ss

COUNTY OF _____)

I, _____, declare that I am _____

(sole owner, a partner, president, secretary, etc.) of _____

_____

the party making the foregoing bid covering _____; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that such bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communications, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed: _____

Title: _____

NOTE: This affidavit must be acknowledged before a Notary Public.

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SUBCONTRACTOR'S NON–COLLUSION AFFIDAVIT
(TO BE EXECUTED BY EACH SUBCONTRACTOR OF AWARDEE)

STATE OF CALIFORNIA)

)ss

COUNTY OF _____)

I, _____ , declare that I am _____

(sole owner, a partner, president, secretary, etc.) of

_____

the party making the foregoing bid covering _____ that such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such bid is genuine and not collusive or sham; that said bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that said bidder has not in any manner, directly or indirectly, sought by agreement, communications, or conference with anyone to fix the bid price of said bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his general business. The provisions of this affidavit shall not be held as disqualifying a person, firm, or cooperation who has submitted a sub-proposal to one bidder from submitting separate sub-proposals or quoting prices for materials or work to other bidders.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed: _____

Title: _____

NOTE: This affidavit must be acknowledged before a Notary Public.

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DISADVANTAGED BUSINESS ENTERPRISE (DBE) CHECKLIST

Requirements for Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms

(TO BE COMPLETED BY BIDDER AND SUBMITTED WITH BID)

Please complete the checklist to determine if you have complied with the requirements for contracting with small and minority businesses, women's business enterprises, and labor surplus area firms. If subcontracts are to be let, bidder must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Bidder shall maintain documentation of compliance with affirmative steps and shall provide documentation to the District upon request.

Affirmative steps taken by Bidder must include the following. Checking "No" to any step will result in Bid being considered non-responsive.

1. Did you place qualified small and minority businesses and women's business enterprises on solicitation lists?

   ☐ Yes ☐ No

2. Did you assure that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources?

   ☐ Yes ☐ No

3. Did you divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises?

   ☐ Yes ☐ No

4. Did you establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises?

   ☐ Yes ☐ No

5. Did you use the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce?

   ☐ Yes ☐ No

6. List the potential DBE (Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms) subcontractors that were contacted. Only list those whose line of work are consistent with the project's scope of work. If none were identified please note that.

Name	How Contacted (e.g. letter, phone call, fax, e-mail)	Response (e.g. did not respond, not interested, not competitive)

****END OF SECTION****

NOTICE TO BIDDERS OF RECOMMENDED, BUT VOLUNTARY, PRE-BID CONFERENCE AND JOB SITE TOUR

YOU ARE INVITED TO ATTEND A RECOMMENDED, BUT VOLUNTARY, PRE-BID CONFERENCE AND JOB SITE TOUR for the Calloway Canal Lining: 7th Standard Road to 8-1 Canal Project on August 12, 2026 at 9:00 a.m. commencing at the office of the District at 33380 Cawelo Avenue, Bakersfield, California 93308.

/s/ Ram Venkatesan
Deputy General Manager
North Kern Water Storage District
33380 Cawelo Avenue
Bakersfield, California 93308

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NOTICE OF AWARD

TO: _____

PROJECT: NORTH KERN WATER STORAGE DISTRICT
SPECIFICATIONS NO. NK 625
Calloway Canal Lining: 7th Standard Road to 8-1 Canal

The District has considered the BID submitted by you for the above described WORK in response to its Request for Bids dated _____, and Contract Documents.

You are hereby Notified that your BID has been accepted, and the sum of the items amounts to

$_____.

You are required by the Contract Documents to execute the Agreement within ten (10) calendar days from the date of this Notice. You are also required to provide all bonds and certificates of insurance required by the Contract Documents within said ten (10) day period.

If you fail to execute said Agreement within ten (10) days from the date of this Notice or fail to provide the required bonds and certificates of insurance, said District will be entitled to consider all your rights arising out of the District's acceptance of your BID as abandoned. The District will be entitled to such other rights as may be available to it at law, contract, or in equity.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the District.

Dated this _____ day of _____, _____.

NORTH KERN WATER STORAGE DISTRICT
OWNER

By: _____
Ram Venkatesan

Title: Deputy General Manager

ACCEPTANCE OF NOTICE

Receipt of the foregoing NOTICE OF AWARD is hereby acknowledged

By: _____

this the _____ Day of _____, _____

By: _____

Title _____

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NOTICE TO PROCEED FORM

TO: _____

_____

PROJECT: NORTH KERN WATER STORAGE DISTRICT

SPECIFICATIONS NO. NK 625

Calloway Canal Lining: 7th Standard Road to 8-1 Canal

DATE: _____

You are hereby notified to commence work in accordance with the Contract Documents for the above-described project on or before _____. **You are required to complete all Work per Special Conditions Sections D-2 and D-3.**

Owner: NORTH KERN WATER STORAGE DISTRICT

By: _____

Ram Venkatesan
Deputy General Manager

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

_____

this the _____day of_____, 20_____.

By: _____

Title: _____

****END OF SECTION****

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NOTICE TO PROCEED CHECKLIST

TO: _____

_____

_____

FROM: Board of Directors

North Kern Water Storage District

Notice is hereby given that you are authorized and directed to proceed with the following project in accordance with the Contract Documents: Specifications No. NK 625 for constructing the Calloway Canal Lining: 7th Standard Road to 8-1 Canal.

These documents have been received and are on file with the North Kern Water Storage District:

The Agreement, fully executed	[ ]
Payment Bond (100%)	[ ]
Faithful Performance Bond (100%)	[ ]
Worker's Compensation Insurance Certificate	[ ]
Liability Insurance Policy or Certificate, with Endorsements	[ ]
Post-Award Schedule	[ ]
Non-Collusion Affidavits	[ ]
DBE Check List	[ ]

Notification of Award of Contract has been filed by this District with the Department of Industrial Relations.

Under the terms of the Contract, work is to start within ten (10) calendar days after the date set forth below and is to be completed within the time set forth in the Special Conditions.

North Kern Water Storage District

_____ By: _____

Date

Ram Venkatesan
Deputy General Manager

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SECTION C
GENERAL CONDITIONS

C-1 Definitions

The following terms, as used in any of the Contract Documents, are respectively defined as follows:

a. **"Application for Payment" –** the form accepted by Engineer which is to be used by Contractor in requesting payments and which is to include such supporting documentation as is required by the Contract Documents.

b. **"Board of Directors" or "Board"** – the Board of Directors of the District.

c. **"Certificate of Completion and Final Acceptance"** – the certification and acceptance by Engineer of Work when it has been completed in all respects in accordance with the Contract Documents and any Modifications thereof previously approved. Such acceptance is constituted by a Certificate of Completion and Final Acceptance by Engineer to Contractor.

d. **"Change Order"** – a written order to Contractor from Engineer authorizing a substitution, addition, deletion or revision in the Work, or an adjustment in the Contract Price or Contract Time issued after the effective date of the Contract.

e. **"Change Work"** – a substitution, addition, deletion or revision in the Work within the general scope of the Contract necessary to the completion of the Work.

f. **"Construction Schedule"** – an outline of construction activities showing the sequence and timeline for completing the components of the Work.

g. **"Contract"** – the written agreement between District and Contractor covering the Work; other Contract Documents are attached to the Contract and made a part thereof as provided therein.

h. **"Contract Documents"** – the Notice Inviting Bids, the Instructions to Bidders, the accepted Proposal and Proposal Bidding Schedule, the Contractor's Licensing Statement, the Information Required of Bidders, the Agreement, the Bidder's Bond, the Faithful Performance Bond, the Payment Bond, the Non-Collusion Affidavits, the Disadvantaged Business Enterprise (DBE) Checklist, the Notice to

Proceed, General Conditions, Special Conditions, Specifications, Plans, Appendices and any Change Order or Addenda setting forth any modifications or interpretations of any of said documents, and any Grant Agreement.

i. **"Contractor"** – the bidder who submitted the accepted Proposal and who executed a Contract to complete the Work in accordance with the Contract Documents, and the legal representatives of said party.

j. **"Contract Price"** – the monies payable by District to Contractor under the provisions of the Contract Documents.

k. **"Contract Time"** – the length of time stated in the Contract Documents for the completion of the Work.

l. **"County"** – County of Kern, California.

m. **"Day"** – a calendar day of 24 hours measured from midnight to the next midnight.

n. **"Defective"** – an adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment, unless responsibility for the protection thereof has been assumed by District.

o. **"Detail Drawings"** – details of standard structures, devices, or installations referred to on the Project Drawings or in the other Contract Documents.

p. **"District"** – the North Kern Water Storage District.

q. **"DWR"** – the California Department of Water Resources.

r. **"Effective Date of the Contract"** – the date indicated in the Contract in which a fully executed Contract is delivered to the District.

s. **"Engineer"** – Zeiders Consulting, Inc.

t. **"Equipment"** – products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, and other like items).

u. **"Extra Work"** – Work outside the general scope of the Contract.

v. **"Field Order"** – a written order issued to Contractor by Engineer which orders minor Change Work but which does not involve a change in the Contract Price or the Contract Time, or such an order issued when, as determined, the time required for development and execution of a Change Order would result in delay or stoppage of the Work or would allow a hazardous condition to exist.

w. **"Final Inspection"** – determines if the Work has reached Final Completion.

x. **"Final Completion"** – indicates that the Work has been fully completed in accordance with the Contract Documents and is ready for acceptance and final payment by the District.

y. **"Final Punch List"** – contains items that remain uncompleted after Substantial Completion but that must be completed prior to Final Completion.

z. **"Grant Agreement" –** any agreement entered into between the District and any federal or state agency that pertains to this Contract and the Work**.**

aa. **"Materials"** – products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed, or applied to form Work.

bb. **"Modification"** – a Written Amendment to the Contract signed by both parties, a Change Order or a Field Order. Any Modification involving a permit must be supported by the written agreement of the agency issuing the permit. A Modification may be issued only after the effective date of the Contract.

cc. **"Notice of Award"** – the written notice by District to the apparent successful Bidder of District's intent to sign and deliver the Contract upon Contractor's delivery of all Contract Documents.

dd. **"Notice of Completion"** – the written notice filed by District with the County Recorder certifying that the Work has been completed.

ee. **"Notice to Proceed"** – the written notice by District to Contractor fixing the date on which the Contract Time will commence to run and on which Contractor shall start to perform its obligation under the Contract Documents.

ff. **"Owner" -** the North Kern Water Storage District.

gg. **"Plans" or "Drawings"** – means and includes Project Drawings and Detail Drawings.

hh. **"Preconstruction Conference"** – a conference held before Contractor starts Work at the Site, attended by Contractor, Engineer and others as appropriate, to discuss the schedules provided, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a Working understanding among the parties as to the Work.

ii. **"Products" -** includes purchased items for incorporation into the Work regardless of whether specifically purchased for the Project or taken from Contractor's stock of previously purchased products.

jj. **"Project"** – see Work**.**

kk. **"Project Drawings"** – the drawings developed by District or Engineer, or both, specifically for the Project which show the character and scope of the Work and are part of the Contract Documents.

ll. **"Record Drawings"** – set of drawings the Contractor shall maintain on which the Contractor shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the information represented on the original Plans, including buried or concealed construction and utility features which are revealed during the course of construction.

mm. **"Release and Certificate of Final Payment"** – the release by Contractor, in consideration of final payment, of District from all claims and obligations of every nature.

nn. **"Schedule of Values"** – a statement furnished by Contractor to Engineer reflecting the portions of the Contract Price allotted for the various parts of the Work and used as the basis for reviewing Contractor's Application for Payment.

oo. **"Semi-Final Inspection"** – determines if the Work has reached Substantial Completion.

pp. **"Shop Drawings" or "Submittals"** – all drawings, diagrams, illustrations, schedules and other material which are specifically prepared by or for Contractor to illustrate

some portion of the Work, samples, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a Supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

qq. **"Site"** – the location or locations where the Work is to be accomplished.

rr. **"Special Conditions"** – specific clauses setting forth requirements peculiar to the Work and supplementary to the General Conditions.

ss. **"Specifications"** – the manual prepared by District or for District by the Engineer.

tt. **"State"** – the State of California.

uu. **"State Standard Specifications"** – Standard Specifications issued by the State of California, Department of Transportation, latest edition.

vv. **"Subcontractor"** – an individual, firm or corporation having a direct subcontract with Contractor or with any other Subcontractor for the performance of a portion of the Work at the Site, or for the fabrication and installation of a portion of the Work in accordance with drawings contained in the Contract or furnished by Contractor under the Contract.

ww. **"Substantial Completion"** – means the Work has progressed to the point that the Work is ready for beneficial use and occupancy by the District for the intended purpose.

xx. **"Supplier"** – a manufacturer, fabricator, supplier, distributor, materialman or vendor.

yy. **"Technical Conditions"** – specific clauses setting forth conditions or requirements for materials, equipment, construction systems, standards, workmanship, measurement and payment.

zz. **"U.S. Bureau of Reclamation, USBR, Reclamation"** – the United States Bureau of Reclamation Department of the Interior.

aaa. **"Work"** – the entire construction or the total of the separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result

of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

bbb. **"Written Amendment"** – a written amendment of the Contract Documents, signed by District and Contractor on or after the Effective Date of the Contract.

ccc. Whenever in the Specifications or upon the Plans the words **DIRECTED, REQUIRED, PERMITTED, ORDERED, DESIGNATED, PRESCRIBED**, or words of like importance are used, it shall be understood that the direction, requirement, permission, order, designation or prescription of the Engineer is intended, and similarly the words **APPROVED, ACCEPTABLE, SATISFACTORY**, or words of like importance, shall mean approved by or acceptable to, or satisfactory to the Engineer, unless otherwise expressly stated.

ddd. **"AASHTO"** – the American Association of State Highway and Transportation Officials.

eee. **"ACI"** – the American Concrete Institute.

fff. **"AISC"** – the American Institute of Steel Construction.

ggg. **"AISI"** – the American Iron and Steel Institute.

hhh. **"ASME"** – the American Society of Mechanical Engineers.

iii. **"ASTM"** – the American Society for Testing and Materials.

jjj. **"AWS"** – the American Welding Society.

kkk. **"AWWA"** – the American Water Works Association.

lll. **"FWA"** – Friant Water Authority

mmm. **"IEEE"** (formerly AIEE) – the Institute of Electrical and Electronics Engineers.

nnn. **"IPCEA"** – the Insulated Power Cable Engineers Association.

ooo. **"NEMA"** – the National Electrical Manufacturers Association.

ppp. **"SSPC"** – the Steel Structures Painting Council.

qqq. **"USAS"** (formerly ASA) – the United States of America Standard(s) Institute.

rrr. The figures given in the Specifications or upon the Plans after the word **ELEVATION**, or an abbreviation of it, shall mean distances in feet above U.S. Coast and Geodetic Survey sea level datum, as established by the Engineer.

sss. All gender specific pronouns shall be interpreted to include all genders.

C-2 Correlation and Intent of Documents

The Contract Documents are complementary, and what is called for in any one shall be as binding as if called for in all. The intention of the Contract Documents is to require a complete and finished piece of Work including all labor, materials, equipment, facilities, and transportation necessary for the proper execution of the Work, with the exception of such items as are definitely stated in the Specifications or on the Plans to be furnished by the District. Should there be a conflict between the Specifications and the Plans, the Specifications shall be controlling, unless provided at the time of discovery in writing by the District that the plans govern in that case. Should there be a conflict between the General Conditions and the Special Conditions, the Special Conditions shall be controlling.

C-3 Assignment

Neither party to the Contract shall assign the Contract nor sublet it as a whole without the prior written consent of the other, nor shall the Contractor assign any money due or to become due to it hereunder without prior written consent of the Engineer.

C-4 Notice and Service Thereof

Any notice required or given under the contract shall be in writing, be dated, and signed by the party giving such notice or his duly authorized representative, and be served as follows:

a. If to the District or the Engineer, by personal delivery or by deposit in the United States mail;

b. If to the Contractor, by personal delivery to the Contractor or to his authorized representative at the site of the project or by deposit in the United States mail;

c. If to the surety or any other person, by personal delivery to said surety or other person or by deposit in the United States mail;

d. All mailed notices shall be in sealed envelopes, shall be sent by certified mail with postage prepaid, and shall be addressed to the addresses in the Contract Documents or such substitute addresses which a party designates in writing and serves as set forth herein; and,

e. Any notice served in accordance with this Section C-4, shall be deemed received by the addressee seventy-two (72) hours after deposited, postage prepaid, in the United States mail.

Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon the Contractor personally.

C-5 Cooperation with Others

At all times the Contractor shall extend full cooperation to all others performing Work authorized by the District within or adjacent to Contract Work areas including all landholders performing necessary private work. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by District employees. The Contractor shall have no claim for damages on account of interference. Exact methods of coordination of Work involving the Contractor and others will be as determined by the Engineer, whose decision will be final.

C-6 Personal Attention

The Contractor shall give his personal attention constantly to the faithful prosecution of the Work, and shall be present, either in person or by duly authorized and competent representative, on the site of the Work continually during its progress to receive directions or instructions from the Engineer. Whenever the Contractor is not present on any part of the Work, and where it may be desired to give instructions or directions, they may be given by the Engineer and they shall be received and obeyed by the superintendent or foreman who may have charge of the particular part of the Work in reference to which said instructions or directions are given.

C-7 Compliance with Laws, Permits, Licenses, Approvals, Legal Obligations, Taxes

a. The Contractor is an independent contractor and shall, at his sole cost and expense, comply with all laws, rules, ordinances and regulations of all governing bodies having jurisdiction over the Work, obtain all necessary permits and licenses therefor, pay all manufacturers' taxes, sales taxes, use taxes, processing taxes, and all Federal and State taxes, insurance and contributions for Social Security and Unemployment which are measured by wages, salaries or any remuneration paid to the Contractor's employees, whether levied under existing or subsequently enacted laws, rules, or regulations. The Contractor shall also pay all property tax assessments on materials or equipment used until acceptance by the District. Without limitation, materials furnished and performance by the Contractor hereunder shall comply with Safety Orders of the Division of Industrial Safety, State of California.

   The Contractor, upon request, shall furnish evidence satisfactory to the Engineer and/or to the District that any or all of the foregoing obligations have been or are being fulfilled. The Contractor warrants to the District that he is licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the Work, and that he has, and will have, throughout the progress of the Work, the necessary experience, skill, and financial resources to enable him to perform this Contract.

b. Contractor shall be responsible for obtaining any and all permits, licenses, and approvals required for performing its obligations under this Project.

c. Without limiting the foregoing, Contractor shall keep informed of and take all measures necessary to ensure compliance with California Labor Code requirements, including but not limited to Section 1720 et seq. of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5), and payment of prevailing wages for work done under this project.

C-8 Indemnification

a. To the fullest extent permitted by law, the Contractor shall assume the defense of and indemnify and save harmless the State of California, the California Department of Water Resources, the United States, the U.S. Bureau of Reclamation, North Kern Water Storage District, the Engineer, and their respective

directors, officers and agents from any and all loss, damage, liability, claims or causes of action of every nature whatsoever for damage to or destruction of property, including the District's property, or for injury to or death of persons, including Contractor's employees, in any manner, including that alleged to have been caused by the negligence of the indemnitees or any of them, arising out of or incident to the performance of this Contract; provided, however, that the Contractor shall have no such obligation with respect to such of the foregoing as are actually caused by the sole negligence or willful misconduct of the indemnitees or any of them; and provided further, that the Contractor shall not be liable for damages resulting solely from error or omission in design which were not due to or contributed to by negligence or fault of the Contractor, his subcontractors, agents or employees.

b. The Contractor shall at all times preserve and protect the Work installed and performed hereunder, and assume full responsibility for the condition thereof until final acceptance by the District. The Contractor shall be liable for any loss or damage to any Work in place and to any materials on the Site which may be caused by the Contractor, his employees, agents or guests. Any such damage shall be immediately repaired by the Contractor, and, upon failure to do so, the District may remedy the same and deduct the cost thereof from any amount due or to become due the Contractor.

c. The Contractor shall assume the defense of and indemnify and save harmless the State of California, the California Department of Water Resources, the United States, the U.S. Bureau of Reclamation, North Kern Water Storage District, the Engineer, and their respective directors, officers and agents against any and all liens, claims, demands and costs, including attorneys' fees, for labor and material furnished to the Contractor or any of his Subcontractors in connection with the performance of this Contract. In the event that the Contractor or any of his Subcontractors shall fail to pay for any material or labor used in the performance of this Contract, or any lien is filed against the said property, or any claim is asserted or action filed on any Bond, by any person claiming to have furnished labor or materials to the Contractor or any of his subcontractors in connection with the performance of this Contract, the District shall be entitled, at its option, to pay for said material or labor, or discharge any such lien, or to pay or settle any such claim or action and to deduct the amount so paid, together with any and all costs and attorney's fees incurred by or on behalf of the District in connection with any

such payment, discharge, or settlement, from amounts due or to become due the Contractor hereunder. The District may also deduct from any amounts due or to become due to the Contractor, any other amounts owing by the Contractor to the District, including the cost of any materials, labor, services, equipment or facilities supplied by the District as to which the Contractor has the obligation to supply the same hereunder. In the event that the balance which otherwise would be due the Contractor shall be insufficient to so reimburse the District, the Contractor shall pay the District any deficiency upon demand.

d. The Contractor shall pay all royalties and license fees. Contractor shall, at his own cost, expense and risk, defend any and all suits or claims for infringement of any patent rights and shall save the District and its directors, officers, employees and agents harmless from loss on account thereof; except that the District shall be responsible for all such loss when a particular manufacturer is specified by it unless the Contractor has information that the process or article specified is or may be an infringement of a patent, in which case Contractor shall be responsible for such loss unless he promptly gives such information, in writing, to the Engineer.

C-9 Assignments of Antitrust Actions

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing 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. Section 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, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

In entering into a public works contract or 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. Section 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.

C-10 Claims and Payment of Attorneys' Fees

Claims by the Contractor shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed with the District on or before the date of final payment. Nothing herein is intended to extend the time limit or supersede notice requirements otherwise provided by the Contract for the filing of claims.

For claims of less than fifty-thousand dollars ($50,000), the District will respond in writing to any written claim within forty-five (45) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim any additional documentation supporting the claim or relating to defenses to the claim or claims the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the District and the Contractor. The District's written response to the claim, as further documented, shall be submitted to the Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

For claims greater than or equal to fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the District will respond in writing to all written claims within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim or claims the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the District and Contractor. The District's written response to the claim, as further documented, will be submitted to the Contractor within thirty (30) days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or request documentation, whichever is greater.

If the Contractor disputes the District's written response, or the District fails to respond within the time prescribed, the Contractor may so notify the District, in writing, either within fifteen (15) days of receipt of the District's response or within fifteen (15) days of

the District's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the District will schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

If following the meet and confer conference the claim or any portion remains in dispute, the Contractor may file a claim pursuant to Government Code Section 900 et seq. and a lawsuit on the claim may be filed in the appropriate state court.

The court shall submit the matter to non-binding mediation. The parties are to select a mediator within fifteen (15) days of submittal to mediation, and the mediation must be commenced within thirty (30) days of the submittal to mediation.

If the matter remains in dispute, the case shall be submitted to judicial (non-binding) arbitration pursuant to Code of Civil Procedure Section 1141.10 et seq. If either party objects to the arbitrator's award, the matter can then go to trial de novo in the trial court. Any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees as provided by applicable law, pay the attorney's fees of the other party arising out of the trial de novo.

In the event that any litigation of any nature between the District and the Contractor becomes necessary to enforce or interpret all or any portion of this Contract, it is mutually agreed that the prevailing party therein shall receive from the other, in addition to such sums as may be reduced to judgment, an amount sufficient to reimburse such prevailing party for reasonable attorneys' fees and litigation costs paid or owing as a result of such litigation.

<u>Compliance with Public Contract Section 9204</u>

Contractor shall comply with Public Contract Code Section 9204, the provisions of which are replicated, specifically, below:

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, 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 sent by registered mail or certified mail, return receipt requested, the public entity shall

have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) 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 public entity shall provide the claimant 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 public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. 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. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, 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 section.

(D) Unless otherwise agreed to by the public entity and the contractor 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.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on their own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

Compliance with Public Contract Section 20104

Following compliance with Public Contract Code Section 9204 as provided herein, Contractor shall comply with Public Contract Code Section 20104 et seq., if applicable. The applicable provisions of Public Contract Code Section 20104 et seq. are replicated, specifically, below:

(a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars ($375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b) (1) “Public work” means “public works contract” as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) “Claim” means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not

otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

20104.2

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars ($50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars ($50,000) and less than or equal to three hundred seventy-five thousand dollars ($375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) 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 3.6 of Title 1 of the Government Code.

20104.4

The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual

stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) 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.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

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

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

20104.6

(a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

C-11 Authority of the Engineer

a. The Engineer shall give all orders, lines, grades, and directions contemplated under the Contract. The Engineer may determine the adequacy of the Contractor's methods, tools, plant, equipment, and appurtenances and he shall determine in all cases the quantity, quality, acceptability, and fitness of the several kinds of Work and materials which are to be paid for. The Engineer shall have the authority to determine all questions in relation to said Work and the construction thereof and decide in all cases questions which may arise relative to the fulfillment of this Contract on the part of the Contractor. The Engineer shall also have the authority to reject all Work and materials which do not conform to the Contract and to stop the Work when necessary to prevent its improper execution. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the Specifications or Drawings, the matter shall be referred to the Engineer, who shall decide the same in accordance with the true intent and meaning. Any differences or conflicts which may arise between the Contractor and other contractors of the District in regard to their Work will be adjusted and determined by the Engineer. All instructions, rulings, and decisions of the Engineer shall be made promptly and in writing, if so requested, and they shall be final and binding.

b. If at any time the Contractor's Work force, tools, plant or equipment appear to the Engineer to be insufficient, inefficient or inappropriate to secure the required quality of Work or the proper rate of progress, the Engineer may order the Contractor to increase their efficiency, improve their character, to augment their number or to substitute other personnel, new tools, plant, or equipment, as the case may be, and the Contractor shall comply with such order.

c. The undertaking of inspections by the Engineer or the giving of instructions as herein authorized shall not be construed as supervision of the actual construction or make the Engineer or the District responsible for providing a safe place for the performance of Work by the Contractor, Subcontractor, or Suppliers; or for access, visits, use, Work, travel or occupancy by any person.

C-12 Qualifications of Bidders

The Contractor's attention is directed to Paragraph B-3 which requires that, in addition to certifying to financial ability to perform Contract Work, each bidder shall submit a statement verifying his experience in performing Work comparable to that required under the Contract. Bids will be considered only from contractors who can demonstrate a record of experience satisfactory to the District. Under "Information Required of Bidder," each bidder shall submit with his proposal a listing of at least three projects constructed under the supervision of his organization during the past ten (10) years involving work of size and complexity comparable to that to be installed under these Contract Documents. In conformance with Paragraph B-12, it is further required that the Contractor shall perform with his own organization, work equivalent to at least sixty percent (60%) of the total Contract price. The cost of Contractor-furnished materials installed by labor carried on the Contractor's own payroll may be included in the above required sixty percent (60%).

C-13 Contractor's License

Contractor, including all Subcontractors and Specialty Contractors, shall possess a valid California Contractor's license, of the required class for the Work to be performed and completed as required by the Project, the Contract Documents, and the Specification, at the time the Bid/Proposal is submitted and during the entire course of performance under the Contract. The following statement, in pertinent part, shall be included in at least 10-point type on all written contracts with respect to which the person is a prime contractor in accordance with Section 7030 of the California Business and Professions Code:

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

C-14 Subcontracts

a. The attention of the Contractor is directed to the provisions of Public Contract Code, Section 4100 et seq. as amended, and said provisions are by this reference incorporated herein and made a part hereof.

b. Each subcontract shall contain a suitable provision for the suspension or termination of that subcontract should the Work be suspended or terminated or should the Subcontractor neglect or fail to conform to every provision of the Contract Documents insofar as such provisions are relevant. The Contractor shall be as fully responsible to the District for the acts or omissions of his Subcontractors and of the persons either directly or indirectly employed by them as he is for the acts or omissions of persons directly employed by him. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the District. If a legal action against the District is initiated by a subcontractor, the Contractor shall reimburse the District for the amount of legal expenses incurred by the District in defending itself in said action.

c. A copy of each subcontract, if in writing, or if not in writing then a written statement signed by Contractor, giving the name of the subcontractor, and the terms and conditions of such subcontract, shall be filed with Owner before the subcontractor commences performance of the Work. Each subcontract shall contain a reference to the agreement between Owner and Contractor, and the terms of that agreement and all parts thereof shall be made a part of such subcontract insofar as applicable to the Work covered thereby. Each subcontract shall provide for its annulment by Contractor at the order of Owner, if, in Owner's opinion, the subcontractor fails to comply with the requirements of the principal agreement insofar as the same may be applicable to his work. Nothing herein contained shall create any contractual relation between any subcontractor and Owner or relieve Contractor of any liability or obligation hereunder.

d. Contractor is hereby alerted to provisions of Section 7107 of the Public Contract Code, requiring Contractor to pay to each of its subcontractors from whom retention has been withheld, each subcontractor's share of the retention received, within seven (7) days from receipt of all or any portion of such retention proceeds from Owner.

e. Pursuant to Public Contract Code Section 6109, subcontractors who are ineligible to perform work on a public works project as determined by the Department of Industrial Relations pursuant to Section 1777.1 or Section 1777.7 of the California Labor Code shall not perform any portion of the work contemplated herein. Any subcontract between the Contractor and an ineligible subcontractor shall be void as a matter of law, and the ineligible subcontractor shall not receive any payment for performing such work.

C-15 Plans and Specifications

Plans furnished herewith are for bidding purposes. The Engineer will furnish the Contractor electronic copies of conformed Plans and Specifications. The Contractor shall have no claim for excusable delay on account of the failure of the Engineer to deliver necessary Plans or Specifications unless the Engineer shall have failed to deliver the same within two (2) weeks after receipt of written demand for the Plans and Specifications by the Contractor.

The Contractor shall keep one (1) paper copy of all current Plans and Specifications relating to the Work, in good order, available to the Engineer and his representatives, and convenient to the Site, on site at all times.

If the Contractor, in the course of the Work, finds any discrepancy between the Plans and the physical condition of the locality, or any errors or omissions in the drawings, or in the layout as given by points and instructions, it shall be his duty to inform the Engineer in writing, and the Engineer will promptly verify the same. Any Work done after such discovery, until authorized, will be done at the Contractor's risk. All Plans, Specifications, and copies thereof furnished by the Engineer shall not be reused on other Work and, with the exception of the signed Contract sets, are to be returned to him, on request, at the completion of the Work.

The Contractor shall not take advantage of any errors, discrepancies or omissions which may exist in the Plans and Specifications but shall immediately call them to the attention of the Engineer whose interpretation or correction thereof shall be conclusive.

It is intended that the information pertaining to conditions that may affect the cost of the Work will be shown on the Drawings or indicated in the Specifications; however, the District does not warrant the completeness or accuracy of such information. The

Contractor shall ascertain the existence of conditions that would affect the cost of the Work which would have been disclosed by a reasonable examination.

Existing improvements visible at the Site for which no specific disposition is made on the Plans but which could reasonably be assumed to interfere with the satisfactory completion of the improvements contemplated by the Plans shall be removed and disposed of by the Contractor.

When deemed necessary by the Engineer, additional Detailed Drawings will be furnished to the Contractor during the progress of the Work.

The location of the Work, its general nature and extent, and the form and general dimensions of all appurtenant works are shown on the Plans to be attached to and made a part of these Specifications. Drawings applicable to the Work described in the Contract Documents are listed on the front page of the Plans.

C-16 Department of Industrial Relations Registration

Pursuant to Labor Code Section 1725.5, all Contractors, including Subcontractors and Specialty Contractors, are to be registered with the Department of Industrial Relations in order to be qualified to bid on, be listed in a bid proposal, or engage in the performance of any public work contract. The foregoing are required to register with the Department of Industrial Relations prior to bidding, being included on a bid, or engaging in Work set forth herein. Said Registration shall be maintained by the Contractor at all times prior to and throughout the course of completion of the Project, and the cost and renewal thereof is to be the sole responsibility of the Contractor, Subcontractor, and/or Specialty Contractor.

C-17 Workers and Wages

a. **Character of Workers** – Only qualified, careful and efficient Workers shall be employed. When required in writing by the Engineer, the Contractor or any subcontractor shall remove from the Work any person who is, in the opinion of the Engineer, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, and shall not again employ such person on the Work except with the consent of the Engineer. Such removal shall not be the basis for any claim for compensation or damages against the District, or any of its officers or agents.

b. **Convicts** – No convict labor shall be directly employed by the Contractor or any subcontractor in the performance of any Work done under this Contract.

c. **Hours of Work** – Eight (8) hours of labor shall constitute a legal day's work upon all the Work hereunder and the time of service of any worker employed by the Contractor or by any Subcontractor under him shall be limited and restricted to eight (8) hours during any one (1) calendar day, except that work performed by employees in excess of eight (8) hours per day and forty (40) hours in any one (1) calendar week will be permitted upon compensation for all hours worked in excess of said limitations at not less than one and one-half times the basic rate of pay or as otherwise may be required by applicable law. The Contractor and all Subcontractors under him shall keep record of hours worked as required by Section 1812 of the California Labor Code. As required by Section 1813 of the California Labor Code, the Contractor shall forfeit as a penalty to the District twenty-five dollars ($25) for each worker employed in the execution of the Contract by him or by any Subcontractor under him for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of the provisions of this subsection.

d. **Compliance with State Requirements for Employment of Apprentices** – The Contractor's attention is directed to Section 1777.5 of the California Labor Code; provisions of said section pertaining to employment of registered apprentices are hereby incorporated by reference into these Specifications. As applicable, the Contractor or any Subcontractor employed by him in the performance of Contract Work shall take such actions as necessary to comply with provisions of said Section 1777.5.

e. **Wage Rates** – Bids shall be made in accordance with the prevailing rate of per diem wages for this locality and project as determined by the Director of Industrial Relations pursuant to Labor Code Section 1770 et seq. and the Davis-Bacon Act, whichever is greater.

The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Article 2 (commencing at Section 1770), of the California Labor Code, the Director of the State of California, Department of Industrial Relations has ascertained the generally prevailing rate of

per diem wages and the generally prevailing rates for legal holiday and overtime work in the locality in which the work is to be performed, for each craft or type of worker needed to execute the Contract. The Contractor and all Subcontractors under him shall pay not less than said specified rates to all workers employed in the execution of the Contract, which is incorporated herein by this reference. The Contractor shall post a copy of said documents at each job site. As required by Section 1775 of the California Labor Code, the Contractor shall, as a penalty to the District, forfeit an amount determined by the Labor Commissioner, not more than fifty dollars ($50), for each calendar day, or portion thereof, for each worker paid less than the specified prevailing rates for work done under the Contract by him or by any subcontractor under him. The Contractor and all subcontractors under him shall keep records of wages paid as required by Section 1776 of the California Labor Code. The Contract and each Subcontractor shall furnish the record specified in section 1776 of the California Labor Code to the Labor Commission in the manner required by section 1171.4 of the California Labor Code. The Contractor and each Subcontractor shall pay travel and subsistence payments to each worker needed to execute the Work required by the Contract, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the California Labor Code. The labor rates determined by the Department of Industrial Relations are set forth in a schedule located at the District office, and is available to any interested party upon request.

Prevailing wage schedules for Kern County are also available from the Department of Industrial Relations-Division of Labor Statistics & Research via the internet at www.dir.ca.gov. Davis-Bacon Act wages can be found at www.dol.gov.

f. **Worker's Compensation Insurance** – In accordance with the provisions of Section 3700 of the California Labor Code, every Contractor shall secure the payment of compensation to his employees. Prior to commencing Work, Contractor shall sign and file with the District a certification as follows: "I am aware of the provisions of Section 3700 of the 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 I will comply with such provisions before commencing the performance of the Work of this Contract."

g. **Labor Discrimination** – The Contractor's attention is directed to Section 1735 of the California Labor Code. The Contractor agrees to comply with provisions of said section that read as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, mental condition, marital status or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

The Contractor's attention is further directed to Section 1777.6 of the California Labor Code, and the Contractor agrees to ensure compliance with the provisions of said section which provide as follows:

"It shall be unlawful for an employer or a labor union to refuse to accept otherwise qualified employees as registered apprentices on any public works, on the ground of the race, religious creed, color, national origin, ancestry, sex or age, except as provided in Section 3077, of such employee."

C-18 Quality Control

All items specified under the Specifications shall be of the sizes, shapes and materials as specified herein. All materials shall be new, free from defects impairing strength, durability and appearance, shall be of the best commercial quality for the purposes specified and made with structural properties to withstand all stresses and strains to which they normally will be subjected. Items furnished, unless otherwise specified, shall be standard, approved products of recognized manufacturers and fabricated in accordance with the best shop methods. All incidental items and accessories not specified herein, but which are required to fully carry out the specified intent of the Work, shall be furnished without additional cost. Welding shall be in accordance with the latest revision of the Standard Code for Arc and Gas Welding in Building Construction as issued by the AWS. All welding shall be performed by certified welders qualified under the standard qualification procedures of the AWS. At all times, the manufacturer shall provide and maintain adequate inspection and quality control procedures for all items or Work, whether manufactured or fabricated in manufacturer's plant or elsewhere. In order to insure that all items of Work meet material quality and performance requirements of the Specifications, if so directed by the Engineer, for those items of Work manufactured or fabricated elsewhere than his plant, the Contractor shall furnish written

certification that adequate supervision, inspection and quality control procedures have been provided.

Refer to section D-13 for Quality Control – Testing responsibility.

C-19 Construction Program (Schedule)

Post-Award Schedule - Within five (5) days of award of Contract by the District, the Engineer will return the post-bid pre-award Construction Schedule to the Contractor. The Contractor shall modify the schedule to include any modifications, or changes and to reflect final phasing and scheduling of Work.

The Contractor shall complete these modifications within five (5) calendar days from date the schedule is returned to him and shall resubmit it for review. Upon receiving written notice from the Engineer that the schedule, as revised, has been accepted, it will then become the Construction Schedule by which the Contractor shall construct the Work and shall be subject to progress reporting, revision, and updating procedures implemented during the course of construction.

The initial Construction Schedule shall contain no Contract changes or delays which may have occurred during the interim submittal period. Changes shall be entered at the first update revision as specified under revisions to Construction Schedule produced below.

At any time during the progress of the project, if Contractor's progress has fallen behind the accepted Construction Schedule, Contractor shall take such corrective steps as may be required, including but not limited to, increasing the number of personnel, shifts, overtime operations, days of work, and amount of construction equipment until such time as the Work is back on schedule, at no additional cost to the District. He shall also submit at the next weekly construction progress meeting such supplementary schedule or schedules as may be deemed necessary to demonstrate the manner in which the approved rate of progress will be regained.

Revisions to Construction Schedule - The Contractor shall submit a revised Construction Schedule within five (5) days of the occurrence of any of the following:

a. When delay in completion of any activity or group of activities indicates an overrun of the Contract time by thirty (30) working days.

b. Delays in submittals, deliveries, or work stoppage are encountered which make re-planning or rescheduling of the Work necessary.

c. The schedule does not represent the actual prosecution and progress of the project as being performed in the field.

The revised Construction Schedule shall be submitted to the Engineer for review with a letter describing the reasons for submitting a revised Construction Schedule with any supporting documentation. The cost of revisions to the Construction Schedule resulting from Contract changes will be included in the cost for the change in the Work.

The cost of revision to the Construction Schedule not resulting from authorized changes in the Work shall be the responsibility of the Contractor.

C-20 Superintendence

a. The Contractor shall submit a statement of the qualifications of its proposed superintendent to the Engineer for review. The statement shall include the superintendent's name, the name of each project that is the basis of the qualifications, each project site location, a brief description of each project, and the name and mailing address of the owner for each project.

b. The Contractor shall assign a duly authorized and competent person continually on the site during the Work. The superintendent shall have not less than 7 years' experience as a contractor's general superintendent on heavy engineering work with not less than 4 years as a superintendent on projects with complexity and configuration similar to the Work described in the contract documents.

c. If the superintendent is not deemed qualified or if the superintendent's performance on the Work is determined to be unsatisfactory by the Engineer, the superintendent shall be immediately removed from the project.

d. The Contractor shall furnish to the Engineer a written statement of the qualifications of the proposed substitute superintendent if a substitute superintendent is required.

e. A substitute superintendent shall meet the same requirements and shall be subject to approval by the Engineer.

C-21 Suspension of Work – Damages for Delay

a. The Engineer may at any time, by notice in writing to the Contractor, suspend any part of the Work for such period of time as may be necessary to prevent improper execution of the Work on the Project, and the Contractor shall have no claim for

an extension of time to complete the Work, or for damages or additional compensation on account of any such suspension.

b. The District may at any time suspend any part or all of the Work upon ten (10) days' written notice to the Contractor, who shall thereupon discontinue all Work suspended except for all operations to prevent loss or damage to Work already executed as may be directed by the Engineer. The Contractor shall be paid on the same basis as Extra Work for costs of Work performed in accordance with such orders of the Engineer during such suspension, provided that this shall not include any costs pertaining to Work not suspended by said notice. Work shall be resumed by Contractor after such suspension on ten (10) days' written notice from the District. In the event of suspension of the entire Work by the District, the Contractor shall be paid the sum of one-hundred fifty dollars ($150.00) for each calendar day during which the entire Work shall have been suspended. Said sum is hereby mutually agreed upon as fixed and liquidated damages in full settlement of all costs and expenses, losses and damages resulting to the Contractor from such suspension.

c. In the event of any suspension of the Work in whole or in part, the Contractor shall be entitled to any extension of time to complete the Work in a length equal to the length of the suspension of the Work. Provided, however, that the Contractor shall not be entitled to an extension of time to complete the Work in the event that the Work is suspended by the Engineer to prevent or correct improper execution of the Work.

C-22 Time of Work –Termination for Delay – Time Extensions

a. The Contractor shall at all times employ such force, plant, materials, and tools as will be sufficient, in the opinion of the Engineer, to prosecute the Work at not less than the rates fixed under the terms of the Contract and to complete the Work or any separable portions thereof within the time limits fixed therein. If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will insure its completion within the time specified in the Contract, or any extension thereof, or fails to complete said Work within such time, the District may, by written notice to the Contractor, terminate his right to proceed with the Work or such part of the Work as to which there has been delay. In such event the District may take over the Work and prosecute the same to completion,

by contract or otherwise, and may take possession of, and utilize in completing the Work such materials, appliances, equipment, and plant as may be on the site of the Work and necessary for its prosecution. Whether or not the Contractor's right to proceed with the Work is terminated, he and his sureties shall be liable for all damages, including attorney's fees, sustained or incurred by the District in enforcing the provisions hereof against the Contractor due to any refusal or failure to prosecute the Work.

b. The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

1. The delay in the completion of the Work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to Acts of God (herein to include only the following occurrences or conditions and effect: earthquakes affecting the Site in excess of a magnitude of 3.5 on the Richter Scale and tidal waves), acts of the public enemy, a war in which the United States of America is a participant, acts of the District in either its governmental or contractual capacity, acts of another contractor in the performance of a contract with the District, fires, floods (excluding site flooding due to ground water), epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, unusually severe weather, or delays of subcontractors or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of either the Contractor or such subcontractors and suppliers; and

2. The Contractor, within ten (10) days from the beginning of any such delay (unless the Engineer grants a further period of time before the date of final payment under the Contract), shall notify the Engineer in writing of the causes of delay and request an extension of time. The Engineer shall ascertain the facts and the extent of the delay and extend the time for completing the Work when, in his judgment, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties.

c. The rights and remedies of the District provided in this clause are in addition to any other rights and remedies provided by law or under this Contract.

d. A request for an extension of time, or the granting of an extension of time, shall not constitute a basis for any claim against the District for additional compensation. The Contractor shall be deemed to have waived any claim for additional compensation, and does hereby waive any such claim.

e. No additional time extensions will be granted for inclement weather conditions, only as provided under this paragraph. Contract time extensions will be granted as provided in this Paragraph C-22; however, the Contractor is advised that weather-related time extensions will be granted only if conditions are such that it is impossible to perform any productive Work. The Contractor shall make every effort to protect the Work from adverse weather and shall minimize delays and time extensions by taking mitigative measures such as pumping of surface water, utilizing equipment best suited for adverse weather, etc.

C-23 Termination for Reasons Other Than Delay

a. If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed for the Contractor on account of his insolvency and not be discharged within ten (10) days after his appointment, or if the Contractor should fail to make prompt payment to Subcontractors or for material or labor, or should persistently disregard laws, ordinances, or the instructions of the Engineer, or otherwise be guilty of a substantial violation of any provisions of the Contract, then the District, upon the certification of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, and after giving the Contractor ten (10) days written notice, terminate the employment of the Contractor and take possession of the Site and of all equipment, materials, tools, and other facilities thereon and finish the Work by whatever method the District may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If upon completion of the Work the total cost to the District, including attorney's fees, in connection therewith shall be less than the amount which would have been paid if the Work had been completed by the Contractor in accordance with the terms of the Contract, then said difference shall be paid to the Contractor in the same manner as the final payment under the Contract. If the expense, including attorney's fees, incurred by the District on account of termination of employment of the Contractor and subsequent completion of the Work by the District by whatever method the

District may deem expedient shall exceed said amount which the Contractor would otherwise have been paid, the Contractor and his sureties shall be liable to the District for the full amount of such excess expense.

b. In addition to its rights under Paragraph C-23, Subsection (a) hereof, if at any time before completion of the Work under the Contract it shall be determined by the District that reasons beyond the control of the parties hereto render it impossible or against the interests of the District to complete the Work, or if the Work shall be stopped by an injunction of a court of competent jurisdiction or by order of any competent authority, the District may, upon ten days written notice to the Contractor, discontinue the Work, and terminate the Contract. Upon service of such notice of termination the Contractor shall discontinue the Work in such manner, sequence, and at such times as the Engineer may direct, continuing and doing after said notice only such Work until such time or times as the Engineer may direct. The Contractor shall have no claim for damages for such discontinuance or termination, nor any claim for anticipated profits on the Work thus dispensed with, nor any other claim except (1) for the Work actually performed up to the time of complete discontinuance, including any Extra Work ordered by the Engineer to be done, and (2) for any liquidated damages due hereunder in accordance with the provisions relating to suspension of Work.

c. This Agreement may be terminated:

1. By either Party for a material breach of any provision of this Agreement by the other Party if the other Party's material breach is not cured within 30 days of receipt of written notice thereof.

2. By the Owner, if the Contractor defaults or persistently fails or neglects to carry out the Work or fails to perform any provision of this Agreement after 30 days' written notice to the Contractor. Without prejudice to any other remedy the Owner may have, the Owner may make good such deficiencies and may deduct the cost thereof from the payment due the Contractor or, at the Owner's option, may terminate this Agreement and take possession of the site and of all materials and equipment.

3. By the Owner at any time and without prior notice, if the Contractor is convicted of any crime or offense, fails or refuses to comply with the

written policies or reasonable directives of the Owner, or is guilty of serious misconduct in connection with performance under this Agreement.

4. Should the performance of this Agreement become impossible or impracticable in Owner's reasonable discretion, Owner may terminate this Agreement after 10 days written notice to Contractor. In the event of termination pursuant to this Section 14(d), Owner shall promptly pay the Contractor according to the terms of Exhibit A for services rendered before the effective date of the termination. The Contractor acknowledges and agrees that no other compensation, of any nature or type, shall be payable hereunder following the termination of this Agreement.

5. By the Owner in whole or in part if the Owner determines that termination is in the Owner's interest. Owner may terminate this Agreement after 10 days written notice to Contractor. In the event of termination pursuant to this Section 14(d), Owner shall promptly pay the Contractor according to the terms of Exhibit A for services rendered before the effective date of the termination. The Contractor acknowledges and agrees that no other compensation, of any nature or type, shall be payable hereunder following the termination of this Agreement.

6. In the event of termination not the fault of the Contractor, the Owner shall promptly pay the Contractor according to the terms of Exhibit A for services rendered before the effective date of the termination. The Contractor acknowledges and agrees that no other compensation, of any nature or type, shall be payable hereunder following the termination of this Agreement.

C-24 Changes and Extra Work

a. Without invalidating the Contract, District may, at any time or from time to time, order Change Work or request Extra Work to be performed by the Contractor. Change Work may involve increasing or decreasing the quantity of an item or portion of the Work; deleting any item, or items, of the Work; or adding items to the Work.

b. Engineer will provide Contractor with a written description of the scope of Work involved. Unless otherwise required, Contractor shall, within 10 days after receipt

of such written material, submit in writing to Engineer a proposal for accomplishing such Work.

The proposal shall reflect any change in cost to Contractor for performing the proposed Change Work or Extra Work under the Contract, in comparison to what the cost would have been otherwise. The proposal shall state the basis for compensation for such Work. Sufficient detail shall be given in the proposal to permit thorough analysis.

The proposal shall state also the basis for any change of Contract Time, or for a change in the time required for completion of any items of Work for which a specific completion time or date is set forth in the Contract, due to the Change Work or Extra Work. Sufficient detail shall be given in the proposal to permit thorough analysis.

The proposal shall state if the performance of such Change Work or Extra Work would result in any change in the time required for completion of any items of the Work as shown on Contractor's current construction schedule. A revised construction schedule shall be submitted with the proposal if any such changes are involved.

Engineer will analyze the proposal data, clarify as needed and, if necessary, attempt to reach agreement on the terms of the proposal through negotiations with Contractor.

Engineer will then determine one of the following:

1. A Change Order will be issued ordering Change Work or Extra Work, based upon the Contractor's proposal covering such Work, or on the proposal as modified by mutual agreement.
2. The proposed Change Work or Extra Work will not be performed under the Contract.

Change Work and Extra Work must be authorized through a Change Order or Field Order. Upon receipt of a Change Order, Contractor shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If, as determined by District, any Change Order causes a change in Contract Price or a change in Contract Time, an equitable adjustment will be made.

c. Engineer may authorize minor Change Work not involving a change in Contract Price or Contract Time, which is consistent with the intentions of the Contract Documents. This will be accomplished by Field Order and shall be binding on District and on Contractor who shall perform the change promptly. If Contractor believes that Work under a Field Order justifies an increase in Contract Price or an extension of Contract Time, Contractor may make a claim as provided for in Paragraphs C-25 and C-27.

Engineer may also issue a Field Order for Change Work where, as determined, the time required for development and execution of a Change Order would result in delay or stoppage of the Work or would allow a hazardous condition to exist. In these cases, a Change Order will be developed as soon as possible to replace the Field Order.

Additional Work performed without authorization of a Change Order will not entitle Contractor to an increase in Contract Price or an extension of Contract Time.

It shall be solely the responsibility of Contractor to provide any notice to sureties of any change affecting the general scope of the Work or change in Contract Price or Contract Time.

d. Any Change Work or Extra Work will be authorized by written orders to Contractor by Engineer, except that in the event of an emergency which Engineer determines endangers life or property and only in such an event, Engineer may issue oral orders to Contractor for any Work required by reason of such emergency. Any such oral orders will be confirmed in writing as soon as practicable. Such orders, whether written or oral, may be accompanied by drawings and data as are necessary to show the extent of such ordered Work.

Contractor shall commence such Work so that all current Contract Time requirements will be met, except that in the event of an emergency which Engineer determines endangers life or property, Contractor shall commence such Work as required by Engineer.

e. If the time required for completion of any items for which a specific completion date is set forth in the Contract is changed because of the performance of Change Work or Extra Work, an adjustment in the time for completion for the affected items will be made. The construction schedule shall be revised to reflect such adjustment and resubmitted for approval.

C-25 Changes of Contract Price

a. The Contract Price constitutes the total compensation payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at its expense without change in the Contract Price.

The Contract Price may be changed only by a Change Order. Any claim by Contractor for an increase in the Contract Price shall be based on written notice delivered to Engineer within 15 days after the occurrence of the event giving rise to the claim. Failing such notice, the claim shall be deemed to have been waived by Contractor. Notice of the amount of the claim with supporting data, shall be delivered within 45 days after such occurrence unless Engineer agrees in writing to allow an additional period of time. Any change in the Contract Price will be determined by Engineer.

b. The basis for change of Contract Price through a Change Order shall be either Contract unit or lump sum prices, if applicable, or new unit or lump sum prices, unless otherwise specified.

If the basis of compensation proposed by Contractor for Change Work, or any part thereof, is not acceptable, and if a basis of compensation for such Work, or any part thereof, cannot be agreed upon, the basis of compensation will be determined by Engineer and set forth in the Change Order.

In the event that an agreement cannot be reached for the basis of compensation, such basis of compensation will either be as developed by Engineer (considering the character, location and extent of the Change Work and Contract unit or lump sum prices) or cost-plus as provided in Paragraph C-25.c.

If at any time after Contractor commences such Change Work, another basis of compensation for such Work, or any part thereof, is agreed upon, compensation will be made in accordance with such agreement. In any event Contractor shall keep accurate records of its actual costs for such Change Work.

If the Change Order in a situation where a basis of compensation must be determined by the Engineer, involves deletion of an entire item, or items of Work, payment will be made to Contractor for Work performed prior to the date

Contractor was notified by Engineer in writing of such deletion. If acceptable material for use in the deleted Work was ordered by Contractor prior to notification, and if the order for such material cannot be cancelled, as determined by Engineer, Contractor will be paid for such material. Upon such payment said material will become the property of District and District will arrange for its disposition at District expense. All payments to Contractor for material order's that cannot be cancelled will be on a cost-plus basis as provided in Paragraph C-25.c. below. If the order for said material can be cancelled, Contractor will be paid for only actual costs of ordering and canceling.

c. Any Work performed under the Contract on a cost-plus basis shall be in accordance with the following:

1. **Direct Labor Cost** - Payment shall be made for all manual classifications up to and including foremen, but shall not include superintendents, assistant superintendents, general foremen, surveyors, office personnel, time-keepers and maintenance mechanics. The direct labor cost for foremen shall be proportioned to all of their assigned work and only that portion applicable to cost-plus Change Work or Extra Work shall be paid for such Work. The time charged to Change Work or Extra Work shall be subject to daily approval and no charges shall be accepted unless evidence of such approval is submitted by Contractor with its billing. Labor rates used to calculate the direct labor costs shall be those rates in effect during the accomplishment of Change Work or Extra Work. In addition to the direct payroll costs, the direct labor costs shall include payroll taxes and insurance, vacation allowance, subsistence, travel time, overtime premium and any other payroll additives required to be paid by Contractor by law or collective bargaining agreements. Copies of certified pertinent payrolls shall be submitted to Engineer. Overtime shall not be worked without prior written approval by the Engineer. No time or charges will be allowed except when the employees are actually engaged in the proper, efficient, and diligent performance or completion of the Change Work or Extra Work as authorized.

2. **Equipment Costs** - Payment for the rental and operation of the equipment furnished and used by Contractor shall be made for all construction and automotive equipment, except equipment or tools with a current new cost at point of origin of $500 or less each.

Equipment time charged to Change Work or Extra Work will be subject to daily approval and no charges will be accepted unless evidence of such approval is submitted with Contractor's billing.

The equipment rental rates used shall be those rates listed in "Labor Surcharge and Equipment Rental Rates" as published by Caltrans, in effect as of the date of the Contract. These rates shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Such rates shall not include costs for operating labor, which will be paid as provided in Paragraph C-25.c., Item 1. Direct Labor Cost, or for transportation of equipment to and from the location of Change Work or Extra Work. For equipment proposed to be used for which rental rates are not set forth in said publication, the rental rates shall be negotiated with Engineer and agreed upon in writing before such equipment is used on any Change Work or Extra Work.

When the operated use of equipment is infrequent and, as determined, the equipment need not remain at the Site continuously, payment shall be limited to actual hours of use. Equipment not operating but retained at the location of Change Work or Extra Work at Engineer's direction shall be paid for at a rate equal to the rental rate times the right of way delay factor in the above-referenced Caltrans publication.

Transportation costs for bringing equipment that will be used exclusively for cost-plus Work to the Site and for returning equipment to the point of origin, will be reimbursed to Contractor based on invoices, provided that prior written approval for such transport has been given by Engineer to Contractor.

3. **Material Costs** - Payment for the cost of materials furnished and used by Contractor in performing any Change Work or Extra Work shall be made, provided such furnishing and use of materials was as specifically

authorized in a Modification and the actual use was verified by Engineer. Charges shall be the net cost to Contractor for such materials delivered at the Site and vendor's invoice shall accompany the billing along with verification by Engineer of use of such materials.

4. **Subcontract and Outside Service Costs** - Payment for Work and services subcontracted by Contractor in the performance of Change Work or Extra Work will be allowed only when both the Subcontractor and the terms of payment to such Subcontractor have been approved in writing before the Subcontractor starts to Work on Change Work or Extra Work. Such charges will be allowed at net cost to Contractor on the same basis as provided in Items (1) through (3) above.

   Markups on Work performed by Subcontractors shall not exceed five percent (5%).

5. **Tools, Supplies, Overhead, Supervision and Profit** - Payment for use of tools and equipment with a current new cost of $500 or less each and for supplies, overhead, supervision and profit will be made in an amount determined as follows:

   a) For Work performed by Contractor an amount equal to the following percentages of Items (1), (2) and (3) above:

Direct Labor Costs	20
Equipment Costs	15
Material Costs	15

   b) For Work performed by Subcontractor or through outside services an amount equal to the following percentages of Items (1), (2) and (3) above:

Direct Labor Costs	25
Equipment Costs	15
Material Costs	15

No payment shall be made for cost-plus Work except as provided in Items (1) through (5) above. No payment shall be made for extended home office overhead costs. Any other costs for such Work shall be considered to be included in these payments.

C-26 Claims for Extra Cost

If the Contractor claims that any instructions by Plans or otherwise that are issued after the Notice to Proceed involve extra cost under the Contract, he shall give the Engineer written notice thereof within ten (10) calendar days after the receipt of such instructions. No such claim shall be valid unless so made.

C-27 Changes of Contract Time

a. All time limits stated in the Contract Documents are of the essence of the Contract. The Contract Time may be changed only by a Change Order.

b. If any Change Work or Extra Work requires a change of Contract Time, or in the time required for the completion of any items of Work for which a specific completion time or date is set forth in the Contract, an adjustment shall be made by Change Order to allow sufficient time for the required Work to be efficiently performed by Contractor, as determined by the Engineer.

c. If Contractor's performance is prevented or delayed by any cause, existing or future, which is beyond the reasonable control and without the fault or negligence of Contractor and which condition was not foreseeable by Contractor at the time the Contract was entered into, such as an act, omission or neglect of the District, or its representatives, Acts of God (herein to include only the following occurrences or conditions and effect: earthquakes affecting the Site in excess of a magnitude of 3.5 on the Richter Scale and tidal waves), acts of the public enemy, a war in which the United States of America is a participant, acts of the District in either its governmental or contractual capacity, acts of another contractor in the performance of a contract with the District, fires, floods (excluding site flooding due to ground water), epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, or unusually severe weather, Contractor shall, within ten (10) days after the commencement of any such delay, give to Engineer written notice thereof and of the anticipated results thereof. Within seven (7) days after the termination of any such delay, Contractor shall file a written notice with Engineer specifying the actual duration of the delay and claim for increase of Contract Time. Failing to meet either of the above notice requirement the claim shall be deemed to have been waived by Contractor. If District determines that the delay was beyond the control and without the fault or negligence of Contractor and not foreseeable by Contractor at the time the Contract was entered into, the Contract

Time will be extended in an amount equal to time lost due to such delay and the Contract will be modified by Change Order accordingly.

The Contract Time will not be extended if any such delay is attributed by Contractor to any Subcontractor(s) or Supplier(s) and District determines that the cause of the delay was not beyond the reasonable control or due to the fault or negligence of said Subcontractor(s) or Suppliers(s); or 1) the services, equipment or supplies involved were available in adequate time from other sources; 2) Engineer directed Contractor, in writing, to obtain such services, equipment or supplies from said other sources; and 3) Contractor failed to comply with such directions.

d. When Contractor requests an increase of Contract Time for delay due to inability to obtain materials or equipment, its last written notice, as provided in Paragraph C-27.c., shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promised delivery schedule.
6. Documentation of actual delivery schedule.
7. Description of how late delivery caused delay (include current construction schedule).
8. Documentation of measures taken to try and get prompt delivery.
9. Documentation of attempts to get timely delivery from other sources.
10. Description of steps taken to minimize effects of late delivery on progress of Work.
11. Description of steps taken to stay within Contract Time after actual delivery.
12. Statement of actual days lost as a result of late delivery.

C-28 Inspection of Work

a. The State of California, the California Department of Water Resources, the US Bureau of Reclamation, North Kern Water Storage District, the Engineer and their respective directors, officers, and their representatives shall at all times have access to the Work wherever it is in preparation or progress, and the Contractor shall provide safe and convenient facilities for such access and for inspection. If the Specifications, the Engineer's instructions, laws, ordinances, or any public authority require any material, equipment or Work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer, of the time fixed for inspection. Inspections by the Engineer will be made promptly and, where practicable, at the source of supply.

b. Work performed without inspection or proper testing may be required to be removed and replaced under proper inspection and testing and the entire cost of removal and replacing, including the cost of District-furnished materials used in the Work, shall be borne by the Contractor, regardless of whether or not the Work exposed is found to be defective. Examination of questioned Work may be ordered by the Engineer and, if so ordered, the Work must be uncovered by Contractor. If such Work is found to be in accordance with the Contract Documents, the District will pay the cost of reexamination and replacement. If such Work is found to be not in accordance with the Contract Documents, Contractor shall pay such cost, unless he shows that the defect in the Work was caused by another contractor, and in that event the District will assume responsibility for such costs.

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

may make the ordered repairs, or remove the condemned materials, and deduct the cost thereof from any moneys due the Contractor.

d. Refer to Section D-13 for quality control testing responsibility.

C-29 Field Verification of Existing Dimensions and Ground Profiles

Layout dimensions shown on the Plans are subject to change to meet field conditions and/or based upon the final in-place location of Contractor-furnished and installed facilities, as determined by Engineer. It shall be the responsibility of the Contractor to verify all pertinent dimensions, to ensure satisfactory fitting of all existing facilities with new Contract materials and equipment, and to insure that the proper earth cover is provided over all new and existing buried pipe. Depth of existing buried utilities shall be verified prior to construction.

C-30 Conditions Affecting Work

The Contractor shall be responsible for ascertaining the nature and location of the Work, and the general and local conditions which can affect the Work or the cost thereof. Any failure by the Contractor to do so will not relieve him from responsibility for successfully performing the Work without additional expense to the District. Except as expressly provided to the contrary in the Contract, the Contractor assumes all risk with respect to unforeseen difficulties which may be encountered in performance of the Work, including and without limiting the generality of the foregoing: obstacles, obstructions or adverse groundwater conditions in or along the line of Work and variance of the quality or quantity of surface and subsurface materials from that which was assumed.

C-31 Underground Facilities

a. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the site is based on information and data furnished to District or Engineer by the owners of such underground facilities, including District, or by others. Unless it is otherwise expressly provided in the Special Conditions:

   1. District and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

   2. The cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a) Reviewing and checking all such information and data;

b) Locating all Underground Facilities shown or indicated in the Contract Documents;

c) Coordination of the Work with the districts of such underground facilities, including District, during construction; and

d) The safety and protection of all such underground facilities and repairing any damage thereto resulting from the Work.

3. The Contractor shall expose and demarcate, prior to staking, earthwork, and excavation, all existing utilities and existing facilities which could be damaged by or conflict with the Work. Two working days' notice shall be given to the Engineer prior to commencing the Work. The Contractor shall contact Underground Service Alert (USA) at 1-800-227-2600 at least two working days prior to any excavation work to identify any buried utilities within the proposed excavation area. Full compensation for all costs involved in locating, verifying, protecting, exposing, and otherwise providing for utilities shall be included in the amounts bid for the various items of work, and no separate payment shall be made therefore.

4. Protection - The Contractor shall not interrupt the service function or disturb the supporting base of any utility by disrupting any facility identified in the Plans and Specifications without authority from the District or order from the Engineer. Where protection of such facilities is required to ensure support of utilities, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at the Contractor's expense. The Contractor shall develop and execute a workplan, subject to Engineer's approval to protect underground facilities. The Contractor shall be prepared at all times with labor, equipment, and materials to make repair on damaged mains or utility facilities. The Contractor shall immediately notify the Engineer and the utility district if he disturbs, disconnects or damages any utility. The Contractor shall bear the costs of repair or replacement of any utility facility described with reasonable accuracy in the Plans and Specifications which is damaged by the Contractor. No extra compensation will be made for the repair of any services or mains damaged by the Contractor, nor for any damage incurred if the neglect or failure of providing protective barriers, lights and other devises or means required to protect such existing utilities or facilities described with reasonable accuracy in the Plans and Specifications.

5. **Relocation** - When the Plans or Specifications provide for the Contractor to alter, relocate or reconstruct a utility, or landowner facility (pipeline, fence, etc.) all costs for such work shall be absorbed in the Contractor's bid or paid for at the unit price indicated. Temporary or permanent relocation or alteration of utilities desired by the Contractor for the Contractor's own convenience shall be the Contractor's responsibility, and the Contractor shall make all arrangements and bear all costs. The Contractor may, for the Contractor's own convenience or to expedite the Work, agree with the District of any utility to disconnect and reconnect interfering service connections. The District shall not be involved in any such agreement, but the Contractor shall give the District written notice of such an agreement upon its execution.

b. **Not Shown or Indicated**

1. If an underground facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith, identify the district of such underground facility and give written notice to District and Engineer. Engineer will promptly review the underground facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the underground facility. During such time, Contractor shall be responsible for the safety and protection of such underground facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any underground facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If District and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, District or Contractor may make a Claim therefore as provided in the contract specification.

3. Contractor shall develop and execute a work-plan, subject to Engineer's approval to protect underground facilities.

4. The Contractor shall expose, prior to staking and trenching, all existing utilities and existing facilities which may control proposed facility grades, and alignment. Two (2) working days' notice shall be given to the Engineer prior to commencing the Work. Full compensation for all costs involved in locating, verifying, protecting, exposing, and otherwise providing for utilities shall be included in the amounts bid for the various items of Work, and no separate payment shall be made therefore.

5. As specified in Government Code, Section 4215, the Contractor shall be compensated as Extra Work for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment on the project necessarily idled during such work. As specified in Government Code, Section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of the District or the district of the utility to provide for removal or relocation of such utility facilities.

c. **Protection** - The Contractor shall not interrupt the service function or disturb the supporting base of any utility by disrupting any facility identified in the Plans and Specifications without authority from the District or order from the Engineer. Where protection of such facilities is required to ensure support of utilities, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at the Contractor's expense.

The Contractor shall be prepared at all times with labor, equipment and materials to make repair on damaged mains or utility facilities. The Contractor shall immediately notify the Engineer and the Utility district if he disturbs, disconnects or damages any Utility. The Contractor shall bear the costs of repair or replacement of any utility facility described with reasonable accuracy in the Plans and Specifications that is damaged by the Contractor. No extra compensation will be made for the repair of any services or mains damaged by the Contractor, nor for any damage incurred if the neglect or failure of providing protective barriers, lights and other devices or means required to protect such existing utilities or facilities described with reasonable accuracy in the Plans and Specifications.

d. **Relocation** - When the Plans or Specifications provide for the Contractor to alter, relocate or reconstruct a Utility, or landowner facility (pipeline, fence, etc.) all costs for such work shall be absorbed in the Contractor's Bid or paid for at the unit price indicated. Temporary or permanent relocation or alteration of utilities desired by the Contractor for his own convenience shall be his responsibility, and he shall make all arrangements and bear all costs. The Contractor may, for his own convenience or to expedite the Work, agree with the District of any utility to disconnect and reconnect interfering service connections. The District shall not be involved in any such agreement.

C-32 Protection of Work Site, Existing Structures, Roadways, Utilities, Vegetation, and Private Property

a. The Contractor shall effectively secure and protect adjacent property and structures, livestock, crops and other vegetation.

b. The Contractor shall open fences on or crossing the right of way and install temporary gates of sound construction thereon so as to prevent the escape of livestock (if applicable). Adjacent fence posts shall be adequately braced to prevent the sagging or slackening of the wire. Before such fences are opened, the Contractor shall notify the District or tenant of the property and, where practicable, the opening of the fences shall be in accordance with the wishes of said District or tenant. The Contractor shall be responsible that no loss or inconvenience shall accrue to the District or tenant by virtue of his fences having been opened or the gate not having been either shut or attended at all times. Where special types of fences are encountered, the Contractor shall install temporary gates made of similar materials and of suitable quality to serve the purposes of the original fences. In all cases where the Contractor removes fences to obtain Work room, he shall provide and install temporary fencing as required, and on completion of construction shall restore the original fence to the satisfaction of the Engineer. All cost of providing, maintaining and restoring gates and fencing shall be borne by the Contractor.

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

d. The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor or his employees in the course of their employment, whether such trespass was committed with or without the consent or knowledge of the Contractor.

e. The Contractor shall see that the Site is kept drained and free of all ground water.

f. The Contractor shall be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas.

g. In the event of an emergency or unusual conditions endangering life, the Work, or adjacent property, the Contractor may, without special instructions or authorization, act at his discretion to prevent or eliminate such danger. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final. Any claims for compensation made by the Contractor on account of emergency Work shall be determined by agreement.

h. The Contractor shall be responsible for locating, removal, relocation and protection of all public and private utility facilities, including irrigation facilities, located on the site of the Project and the Contractor shall not be entitled to any extension of time or claim for damages or extra compensation in connection therewith. Provided however, if and to the extent that existing main or trunkline public utility facilities as defined by Government Code Section 4215 ("Public Utility Facilities") are not identified in the Contract Documents, as between the Contractor and the District, the District will be responsible for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating Public Utility Facilities not indicated in the plans and specifications with reasonable accuracy, and for equipment on the project necessarily idled during such Work regarding said Public Utility Facilities, as the case may be, but the Contractor shall perform any such Work in conformance with applicable provisions of Paragraphs C-24 and C-25 if so directed by the Engineer. The Contractor will not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the public agency or the District of the Public Utility Facilities to provide for removal or relocation of any Public Utility Facilities. If the Contractor, while performing the Contract Work,

discovers utility facilities not identified by the District in the Contract Documents, he shall immediately notify the Engineer in writing.

i. Subject to the provisions of Paragraph C-32.h., where the Work to be performed under the Contract crosses or otherwise interferes with existing streams, water courses, canals, farm ditches, pipelines, drainage channels, or water supplies, the Contractor shall provide for such water courses or pipelines and shall perform such construction during the progress of Work so that no damage will result to either public or private interests, and the Contractor shall be liable for all damage that may result from failure to so provide during the progress of the Work.

C-33 Temporary Use of District Facilities

Subject to the approval of the District, the Contractor will be permitted to make temporary use of any available, District-owned facilities in the vicinity of the Site or storage areas and all such areas shall be returned to a neat and presentable condition as approved by the Engineer, upon termination of such usage.

C-34 Responsibility for Repair of Facilities

All existing District facilities or other public or private facilities, including but not limited to pipelines, structures, telephone or power cables, roadways and driveways and embankments disturbed by the Contract construction shall be repaired and replaced to match existing. In addition, the Contractor shall be responsible for any settlement damage to such facilities or adjoining areas, for a period of one (1) year after District acceptance of such repaired facilities.

C-35 Products, Material and Equipment

a. **General** – The word "Products" as used in the Contract Documents, is defined to include purchased items for incorporation into the Work regardless of whether specifically purchased for the Project or taken from Contractor's stock of previously purchased products. The word "Materials" is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed, or applied to form Work. The word "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, and other like items). Definitions in this Paragraph are not intended to negate the meaning of other terms used in the Contract Documents,

including "specialties", "systems", "structure", "finishes", "accessories" "furnishings", “special construction", and similar terms, which are self-explanatory and have recognized meanings in the construction industry.

Neither "Products" nor "Materials" nor "Equipment" includes machinery and equipment used for preparation, fabrication, conveying, and erection of the Work.

b. **Product Delivery and Storage** – The Contractor shall deliver and store the Work in accordance with manufacturer’s written recommendations and by methods and means that will prevent damage, deterioration, and loss including theft.

c. **Transportation and Handling** – Products shall be transported by methods to avoid damage and shall be delivered in undamaged condition in manufacturer's unopened containers and packaging. The Contractor shall provide Equipment and personnel to handle Products by methods to prevent soiling and damage. The Contractor shall provide additional protection during handling to prevent marring and otherwise damaging Products, packaging, and surrounding surfaces.

d. **Storage and Protection** – Products shall be stored in accordance with manufacturer’s written instructions and with seals and labels intact and legible. Sensitive Products shall be stored in weather-tight climate controlled enclosures and temperature and humidity ranges shall be maintained within tolerances required by manufacturer's recommendations.

For exterior storage of Products, items shall be placed on sloped supports above ground. Products subject to deterioration shall be covered with impervious sheet covering and ventilation shall be provided to avoid condensation.

Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to assure Products are undamaged and are maintained under required conditions.

Storage shall be arranged in a manner to provide access for maintenance of stored items and for inspection.

e. **Maintenance of Products in Storage** – Stored Products shall be periodically inspected on a scheduled basis. The Contractor shall maintain a log of inspections and shall make the log available on request. The Contractor shall comply with

manufacturer's Product storage requirements and recommendations. The Contractor shall maintain manufacturer-required environmental conditions continuously. The Contractor shall ensure that surfaces of Products exposed to the elements are not adversely affected and that weathering of finishes does not occur.

For mechanical and electrical equipment, the Contractor shall provide a copy of the manufacturer's service instructions with each item and the exterior of the package shall contain notice that instructions are included.

C-36 Trade Names or Approved Equals

a. Where shown in the Contract Documents, or whenever materials or other items are **specified** using the trade name or the name of a particular Supplier, the specification is intended to establish the type, function, appearance, craftsmanship and quality required. Unless the specification or description contains "Or-Equal" after the manufacturer/supplier name, no substitution is permitted, and the material must be supplied by the manufacturer or supplier as listed.

1. *"Or Equal" Items:* A proposed item of material or equipment will be considered functionally equal to an item so named if:

a) It is at least equal in materials of construction, quality, durability, appearance, strength, craftsmanship and design characteristics;

b) It will reliably perform at least equally and achieve the results imposed by the design concept;

c) It has a proven record of performance and availability of responsive service; and

d) If approved and incorporated into the Work:

1) There will be no increase in cost to the District or increase in Contract Time; and

2) It will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a) If in the opinion of the Engineer an item of material or equipment does not qualify as an “or equal” item, it will be considered a proposed substitute item. Below is a description of the steps that the Contractor must follow when submitting requests for substitution.

b) Contractor shall submit sufficient information to the Engineer to allow the Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute. Requests for substitutions of material or proposed equipment will not be accepted by the Engineer unless it is submitted by the Contractor. Subcontractors or Suppliers shall not submit such requests.

c) The Contractor shall submit a request to the Engineer requesting review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The written request:

1) Shall demonstrate that the proposed substitute item will:

a. Perform adequately;

b. Be similar in substance to that specified; and

c. Be suited to the same use as that specified.

2) will state:

a. Whether the use of such proposed substitute item require any changes in Contract price or Contract Time; and

b. Whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents.

3) And shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item.

4) Contractor shall submit a Substitution Request Form as provided by the Engineer when requesting any substitutions. The form must be filled out entirely.

C-37 Special Controls

a. **Traffic Control** – Contractor shall conduct his Work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways and walks, whether public or private, Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when Contractor has obtained written permission from the owner and tenant of private property involved, to obstruct traffic at the designated point.

Where required by the authority having jurisdiction thereover that traffic be maintained over any construction Work in or around a public street, road, or highway, and the traffic cannot be maintained on the alignment of the original roadbed or pavement, Contractor shall, at his own expense, construct and maintain a detour around the construction Work. Each detour shall include all necessary barricades, guardrails, approaches, lights, signals, signs, and other devices and precautions necessary for protection of the Work and safety of the public.

a. **Surface and Stormwater Control** – The Contractor shall divert or otherwise control surface water and waters flowing from existing projects or structures from coming onto its Work areas. The method of diversions or control shall be adequate to ensure the safety of stored materials and of personnel using these areas. Following completion of Work under the Contract, ditches, dikes, or other ground alterations made by the Contractor shall be removed and the ground surfaces shall be returned to their former condition, or as near as practicable, in the Engineer's opinion. Surface and storm water that enters the Contractor's Work area shall be controlled, treated, and disposed in a lawful manner.

b. **Dust Control** – The Contractor shall provide effective measures to prevent operations from producing dust in amounts damaging to personnel, property, District plant operations, plants, or animals, and to prevent causing a nuisance to persons living or occupying buildings in the vicinity.

Areas used by the Contractor for construction roads or other purposes in connection with the Work shall be given an approved dust inhibiting surface treatment to avoid production of dust. This surface condition shall be continuously maintained during the entire construction period. The Contractor's construction facilities shall be operated in a manner ensuring minimum dust production.

Trucks transporting soil, or cement, or debris shall be covered or moistened with water to suppress the dispersion of dust.

c. **Light Abatement** – The Contractor shall exercise special care to direct floodlights to shine downward at an angle less than horizontal. These floodlights shall also be shielded to avoid a nuisance to the surrounding areas. No lighting shall include a residence in its direct beam. The Contractor shall correct lighting nuisance whenever it occurs.

d. **Air Pollution Control** – The Contractor shall not discharge smoke, dust, or other air contaminants into the atmosphere in a quantity that exceeds the legal limit.

The Contractor shall maintain equipment in proper mechanical adjustment to minimize the volume of exhaust emissions.

e. **Noise Control** – The Contractor shall conduct operations to abate noise wherever possible and to minimize noise where complete abatement is not possible.

To limit noise, construction vehicle equipment shall be kept in proper working order for the duration of the construction activities.

f. **Restoration of Improvements** – Upon completion of the Work, the Contractor shall reconstruct existing roads to a condition equivalent to that which existed before the start of Work.

C-38 Security

The Contractor shall prevent unauthorized personnel or vehicular entry into the project site.

The Contractor shall be responsible for providing security within the Site as the Contractor deems necessary for the protection of its own equipment, materials, or Work from

vandalism or theft. District shall not be responsible for theft or damage to the Contractor's equipment, materials, or Work.

All staff working for or representing the Contractor, including Subcontractors, shall possess a valid California identification with a photograph of the staff member.

The Contractor shall provide the names of its lead persons, supervisors and all employees working on the project.

C-39 Relief from Duty of Protecting Work

The Contractor's responsibility for protection of, and liability for, damage to the Work shall be as stated in the Contract Documents. However, the District may issue written permission to relieve the Contractor of the duty of maintaining and protecting portions of the Contract Work which have been completed in all respects in accordance with applicable requirements of the Specifications. Relief from the duty of maintaining and protecting any portion of the Contract Work shall not release the Contractor from his obligations under Paragraph C-32 of the General Conditions.

C-40 Guarantee and Maintenance Warranties

a. In addition to any other warranties, representations and guarantees stated elsewhere in the Contract and any warranties implied by law, the Contractor guarantees the Work for a period of one (1) year after the date of acceptance of the work by the District. Acceptance of the Work by the District will be in the form of the fully-executed and recorded Notice of Completion, which will be filed with the Kern County Recorder's office.

   The Contractor shall repair or remove and replace any and all such Work, together with any other Work which may be displaced in so doing, that is found to be defective in workmanship and/or materials within said one (1) year period, without expense whatsoever to the District, ordinary wear and tear and unusual abuse or neglect excepted. In the event of a failure to comply with the above-mentioned conditions within seven (7) days after being notified in writing, the District is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges therefor immediately on demand. Such action by the District will not relieve the Contractor of the guarantees required by this Paragraph or elsewhere in the Contract Documents.

   The performance bond and the payment bond shall continue in full force and effect for the duration of the guarantee period.

If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District or to prevent interruption of operations of the District, the District will attempt to give the notice required by this Paragraph. If the Contractor cannot be contacted or does not comply with the District's request for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this Paragraph, proceed to make such correction or provide such attention; the costs of such correction or attention shall be charged against the Contractor. Such action by the District will not relieve the Contractor of the guarantees required by this Paragraph or elsewhere in the Contract Documents.

No guarantee, whether provided in this Paragraph or elsewhere in the Contract, shall in any way limit the guarantee of any items for which a longer guarantee is specified, or any items for which a manufacturer or Supplier gives a guarantee for a longer period. The Contractor agrees to act as co-guarantor with such manufacturer or Supplier, and the Contractor shall furnish the District with all appropriate guarantee or warranty certificates upon completion of the Project. No guarantee period, whether provided in this provision or elsewhere, shall in any way limit the liability of the Contractor or his sureties or insurers under the indemnity.

b. In addition to any other warranties, representations and guarantees stated elsewhere in the Contract and any warranties implied by law, the Contractor agrees that, for a maintenance warranty period of three (3) years after the acceptance of the Work, the Contractor shall be responsible for the repair of all defects, leaks, or failures occurring in the pipe, pipe joints, and fittings (if applicable) from any cause whatsoever, except as hereinafter provided. The Contractor will be reimbursed the actual and necessary cost, plus twenty percent (20%) for profit and general expense of any Work or materials pertaining to repairs or replacements that are determined as not the responsibility of the Contractor.

The Contractor, upon notice from the District, shall promptly commence and diligently prosecute the repair of any defects, leaks, or failures that develop during the maintenance warranty period. The Work of repairing any defects, leaks, or failures includes the necessary excavation, pipe repair, backfill, and replacement of any appurtenances destroyed or disturbed by reason of such Work. Repairs as may be required shall be made by the Contractor in such a manner as to cause the least practicable interference with the use of the pipelines in service. The Contractor shall make necessary arrangements to have competent personnel and suitable equipment available so that repairs may be commenced within 48 hours after receipt of notice from the District.

The obligations of the Contractor under this Paragraph shall be enforceable against his surety or sureties for the Faithful Performance Bond under the Contract, and for one (1) year after final acceptance of all Work under the Contract. Prior to final payment under the contract, the Contractor shall furnish a maintenance warranty bond in the penal sum of five percent (5%) of the total original Contract price, to assure performance of the Contractor's obligations under this Paragraph after the expiration of the obligation under the Performance Bond, for the remainder of the maintenance warranty period.

The maintenance warranty bond or the extended Faithful Performance Bond shall contain a clause specifically incorporating the requirements of this paragraph by reference or otherwise.

c. The cost of furnishing the maintenance warranty bond shall be included in the prices bid in the schedule for other items of Work.

d. The District's remedies, whether provided in this part or elsewhere in the Contract, shall be in addition to any other available legal and equitable remedies.

C-41 Guarantee

In addition to warranties, representations and guarantees stated elsewhere in the Contract and in addition to any warranties implied by law, the Contractor unconditionally guarantees all Contractor furnished materials and workmanship furnished hereunder, and agrees to replace at Contractor's sole cost and expense, and to the satisfaction of the Engineer and the District, any and all materials which may be defective or improperly installed, whether such defects of material and installation are of patent or latent nature.

C-42 Right to Operate Unsatisfactory Equipment

If, following installation of any equipment or facilities furnished by the Contractor, defects requiring correction by the Contractor are found, the District shall have the right to operate such unsatisfactory equipment and make reasonable use thereof until the equipment can be shut down for correction of defects without injury to the District.

C-43 Notice of Latent or Hazardous Conditions

In accordance with Section 7104 of the Public Contract Code, where the Specifications require digging trenches or excavating deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:

a. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;

b. Subsurface or latent physical conditions at the Site differing from those indicated in the Plans and Specifications;

c. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Specifications.

Upon receipt of written notice by the Contractor of such conditions, the District shall promptly investigate the conditions. If the District finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, the District will issue a change order under the procedures described in the Contract.

In the event a dispute arises between the District and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause decrease or increase in the cost of or time required for performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, and Contractor shall retain any and all rights provided either under the Contract or by law which pertain to the resolution of disputes and protests between the District and the Contractor.

C-44 Safety

a. Contractor shall be solely and completely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The duty of the Engineer to conduct construction review of the Contractor's performance and the undertaking of inspections by the Engineer or the giving of instructions as authorized herein is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site and shall not be construed as supervision of the actual construction nor make the Engineer or the District responsible for providing a safe place for the performance of Work by the Contractor, Subcontractors, or Suppliers; or for access, visits, use, work, travel or occupancy by any person. Contractor 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 crops, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

b. Contractor shall comply with all applicable Laws and Regulations 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. Contractor shall notify owners of adjacent property and/or underground facilities (including districts and utility districts) when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

c. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, 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 Contractor.

d. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is fully completed and accepted. Such duties and responsibilities shall be extended, however, to include any time period in which warranty Work or other Work by Contractor, 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, remains in progress.

e. The Contractor shall have at the Site, copies or suitable extracts of Construction Safety Orders, issued by Cal-OSHA. The Contractor shall comply with the provisions of these and all other applicable laws, ordinances and regulations.

The Contractor shall submit to the District a copy of his permit for the project

issued by Cal-OSHA, within ten (10) calendar days after the mailing of the Notice of Award and before the commencement of any operations.

f. If there is any non-compliance with the Cal-OSHA Construction Safety Orders, the Contractor shall stop forthwith all affected Work until there is compliance in the opinion of the State Division of Industrial Safety. The District, Engineer, officers, employees, consultants, and agents of the aforementioned, shall not be liable for costs incurred by the Contractor due to work stoppage. The Contractor will not be eligible for an extension of time to complete the Work within the time set forth in this Contract due to the Work stoppage.

C-45 Accidents

The Contractor shall provide, at the site, such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the Work. The Contractor must promptly report to the Engineer in a writing giving full details and statements of witnesses of all accidents whatsoever arising out of, or in connection with the performance of the Work, whether on or adjacent to the Site, which cause death, personal injury, or property damage. In addition, if death or serious injury or serious damage are caused, the accident shall be reported immediately by telephone or messenger to the Engineer. If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

C-46 Fire Protection

The Contractor shall use all precautions to prevent fires and shall provide adequate facilities and equipment for extinguishing fires at no cost to the District. Waste disposal by burning will not be allowed at any time.

C-47 Landscape Preservation

a. **General** – The Contractor shall exercise care to preserve the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the Work. Except where clearing is required for permanent works, for approved construction roads and for excavation operations, all trees, native shrubbery, and vegetation shall be preserved and shall be protected from damage which may be caused by the Contractor's construction operations and equipment. No special

reseeding or replanting will be required under the Specifications; however, on completion of the Work, and in addition to the requirements of Section C and E relative to site clean-up operations, all Work areas shall be smoothed and graded in a manner to conform to the natural appearance of the landscape. Where unnecessary destruction, scarring, damage, or defacing may occur as a result of the Contractor's operations, the same shall be repaired, replanted, reseeded, or otherwise corrected at the Contractor's expense.

b. **Construction Roads** – The location, alignment, and grade of construction roads shall be subject to approval of the Engineer. When no longer required by the Contractor, construction roads shall be made impassable to vehicular traffic and the surfaces shall be scarified and left in a condition which will facilitate natural revegetation.

c. **Contractor's Campsite** – The Contractor's camp, shop, office, and yard area shall be located and arranged in a manner to preserve trees and vegetations to the maximum practicable extent. On abandonment, all camp, storage, and construction buildings, including concrete footings and slabs, and all construction materials and debris shall be removed from the site. The camp area shall be left in a neat and natural appearing condition.

d. **Borrow Areas and Quarry Sites** – The Contractor shall obtain locations of borrow areas for fill from District along with limits of borrow areas. Borrow pits and quarry sites shall be so excavated that water will not collect and stand therein. Before being abandoned, the sides of borrow pits and quarry sites shall be brought to stable slopes with slope intersections rounded and shaped to provide a natural appearance. All rubbish, Contractor's equipment and structures shall be removed from the Site. Waste piles shall be leveled and trimmed to regular lines and shaped to provide a neat appearance.

e. **Blasting Precautions** – No blasting is allowed.

f. **Costs** – No separate payment will be made for Work or materials specified under this Paragraph. All costs therefore shall be borne by the Contractor.

C-48 Clean-up

During the progress of the Work, the Contractor shall maintain the site and related structures and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of the Work and before the final Application for Payment is submitted, the Contractor shall at his own cost and expense remove from the vicinity of the Work all plants, buildings, rubbish, unused Work materials, concrete

forms, and temporary bridging and other like material, belonging to him or used under his direction during construction. In the event of Contractor's failure to do so, the same may be removed by the District after ten (10) calendar days notice to the Contractor at the expense of the Contractor. Where the construction has crossed yards or driveways, the yards and driveways shall be restored by the Contractor to the complete satisfaction of the Engineer at the Contractor's expense.

C-49 Submittals

a. **Schedule of Submittals** - Within ten (10) calendar days after the effective date of the Notice to Proceed, the Contractor shall submit a completed submittal schedule and list of products for all items requiring the Engineer's review and approval as follows:

1. Submittals, including description of the item and name of manufacturer, trade name, and model number.

2. Specification section reference.

3. Intended submission/resubmission dates.

4. Order release date.

5. Lead time to delivery/anticipated delivery date(s).

6. Highlight any items that require expedited review to meet the project schedule.

These schedules shall be presented in a form acceptable to the Engineer in both electronic and hardcopy and shall be updated. Identify all submittals that are required by the Contract Documents and determine the date on which each submittal will be submitted in conformance with the schedule submitted.

b. Technical Submittals – General

1. Each submittal shall contain material pertaining to no more than one equipment or material item, and shall have the specification section and applicable paragraph number clearly identified. Each submittal shall be sequentially numbered starting with the first one delivered. Re-submittals shall include the number of the original submittal plus the suffix ".1" for the first re-submittal, ".2" for the second re-submittal, etc. (e.g. submittal

3.0, 3.1, 3.2, etc.) Submittals not conforming to these requirements will be rejected.

2. Designation of Work "by others," if shown on Shop Drawings, shall mean that the Work will be the responsibility of the Contractor rather than the Subcontractor or Supplier who has prepared the Shop Drawings.

3. Submittals shall be submitted at least 30 calendar days before the specified installation date. Submittals will be acted upon by the Engineer as promptly as possible, and returned to the contractor not later than the time allowed for in Paragraph C-49.c.1 below. The Contractor shall provide in his Construction Schedule the time for this review. If the Contractor is required by the Engineer to resubmit data, then the time required for the Contractor to prepare and resubmit such data, and the required time for Engineer review, shall not be a cause for delay in Contract completion or a cause for an extension of Contract time delay shall be assigned solely to the Contractor.

4. Additional costs of the Engineer's review beyond the second submission shall be borne by the Contractor. This applies to all submittals including Shop Drawings.

5. After a submittal has been reviewed and accepted, no changes or substitutions in that submittal will be allowed.

6. Shop Drawings and submittals will be reviewed for general conformance with the Plans and Specifications. The intent of the review is to determine if the Contractor is submitting materials and equipment which are in general conformance with the Contract Documents. Detailed review of dimensions, sizes, space requirements, coordination with other equipment, and other construction details is not performed. Engineer’s review of submittals shall not relieve Contractor from responsibility for errors, omissions, or deviations, nor responsibility for compliance with the Contract Documents. The Contractor shall indicate on the submittal transmittal form any deviation, the reasons, and how the submittal deviates from the Contract requirements.

c. **Submittal Procedures**

1. The Contractor shall submit to the Engineer for review one (1) electronic copy in pdf format of each submittal (Shop Drawings, electrical diagrams, and catalog cuts for fabricated items and manufactured items furnished under the Contract, etc.). Only an electronic copy of each submittal with

review comments will be returned to the Contractor. Shop Drawings shall be submitted in sufficient time to allow the Engineer not less than fifteen (15) calendar days for examining the Shop Drawings.

2. Unless otherwise specified, submittals shall be delivered to:

   Bill Zeiders, wzeiders@zeidersconsulting.com
   Wade Frey, wfrey@zeidersconsulting.com

3. The Contractor shall prepare and maintain an accurate submittal log for the duration of the project. The log shall contain a listing of submittals and shall include the following information for each listed item:

   a) Specification section reference

   b) Projected submission date

   c) Actual submission date

   d) Projected need date for approval of the submittal

   e) Actual return date from the Engineer

   f) Notation of the Engineer's response

   g) Notation if resubmittal or record copy is required

4. A separate letter of transmittal, in a form acceptable to the Engineer, shall be used to transmit submittals for each specific item or class of material or equipment. A sample letter of transmittal has been provided at the end of this Section.

5. Submittal of multiple items using a single letter of transmittal will be permitted only when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates review of the group or package as a whole. If multiple submittal items are transmitted under one transmittal letter, then the Contractor shall tab each individual submittal item in the package and provide a table of contents at the beginning of the submittal package.

6. The letter of transmittal for each submittal shall show the transmittal number, date of transmittal, project title, construction contract number, specifications section or drawing number to which the submittal pertains, brief description of the material or equipment submitted, and the

company name or the originator of the submittal. Material descriptions shall include the following: type, size, trade name, manufacturer's/supplier's name, and other appropriate summarizing information. Submittal letters for Shop Drawing descriptions shall include the complete list of drawings/sheet numbers that are included in the submittal package. Each letter of transmittal shall be clearly marked to indicate the cases when the material is being submitted as a variation.

7. The transmittal number shall be indicated on every page of each copy of each submittal, and shall correspond to the number given in the letter of transmittal. Only the first sheet of a bound set of originally published or printed brochures or catalogs shall be numbered.

    a) Submittals shall be consecutively numbered beginning with the number 1.

    b) Multiple-page submittals (more than 25 pages) shall be collated into sets, and each set shall be put in a folder or bound before transmittal to the Engineer.

    c) When material or equipment is resubmitted for any reason, a new letter of transmittal shall have the original submittal number followed by a decimal and a number corresponding to the number of resubmittal. An example is 50.2, where 50 is the submittal number and 2 is the number of times submittal 50 has been resubmitted. The letter of transmittal shall indicate that it is a resubmittal.

8. Shop Drawings shall be accurate and complete, and shall contain all required information, including satisfactory identification of items in relation to the Plans and Specifications.

9. Shop Drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the Shop Drawings, or other approved means, that Contractor has checked and approved the Shop Drawings, and that the Work shown is in accordance with Contract requirements and has been checked for dimensions and relationship with Work of all other trades involved. Incomplete Shop Drawings and Shop Drawings that have not been checked by the Contractor will be returned to the Contractor for resubmission in the proper form.

10. After review by the Engineer, the appropriate number of submittals will be returned to the Contractor appropriately marked. If major changes or corrections are necessary, the Shop Drawing shall be rejected and returned to the Contractor with the need for such changes or corrections indicated. The Contractor shall correct and resubmit rejected Shop Drawings in the same manner and quantity as specified for the original submittal. If changes are made by the Contractor (in addition to those requested by the Engineer) on the resubmitted Shop Drawings, such changes shall be clearly explained in a transmittal letter accompanying the resubmitted Shop Drawings.

11. The review of Shop Drawings and catalog cuts by the Engineer shall not relieve the Contractor from responsibility for correctness of dimensions, fabrication details, coordination with other Work, space requirements, or for deviations from the Plans or Specifications, unless the Contractor has called attention to such deviations in writing by a letter accompanying the Shop Drawings and the Engineer approves the change or deviation in writing at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the Shop Drawings.

12. The Contractor agrees that Shop Drawing submittals processed by the Engineer do not become Contract Documents and are not Change Orders; that the purpose of the Shop Drawing review is to establish a reporting procedure and to permit the Engineer to monitor the Contractor's progress and understanding of the design.

13. Submittals of substitutions, changes, and deviations shall be in accordance with this section and may be permitted subject to the following requirements:

    a) The proposed substitution, change, or deviation is conspicuously marked on the Shop Drawings or data.

    b) The corresponding line item on the letter of transmittal is conspicuously marked as a variation.

    c) Proof shall be provided of the comparative quality and suitability of alternative equipment or materials for proposed substitutions. Description, information, performance data, and other information as may be required by the Engineer shall be submitted showing the equality of the materials or equipment offered to those specified.

d) A written explanation of the necessity for the proposed change or deviation shall be indicated in the Letter of Transmittal.

e) The Engineer will be the sole judge as to the comparative quality and suitability of alternative equipment or materials, and his decision will be final.

d. **Shop Drawing Requirements**

1. General

Shop Drawings shall include catalog cuts, information schematic diagrams, and other submittals for both shop and field-fabricated items. The Contractor shall submit, as applicable, the following for all prefabricated or manufactured structural items, material, and equipment.

2. For structures, submit all shop, setting, equipment, miscellaneous iron and reinforcement drawings and schedules necessary for construction. The foregoing shall include detailed "pour drawings" which shall show the sequence of concrete placement, and the type, quantity and location of all embedment items (sleeves, anchor bolts, etc.).

3. For exposed and buried pipelines, submit a detailed layout of the pipeline with details of bends and fabricated specials, and furnish any other details necessary.

4. For electrical submittals, submit detailed information to show power supply requirements, MCC and control panel elevations, wiring diagrams, control and protection schematics, shop test data, operation and maintenance procedures, outline drawings, and manufacturer's recommendation of the interface/interlock among the equipment.

5. For mechanical equipment submit all data pertinent to the installation and maintenance of the equipment including Shop Drawings, anchorage requirements, manufacturer's recommended installation procedure, detailed installation drawings, performance data, test data and curves, operation and maintenance manuals, and other details necessary.

6. For architectural fabrication submit all data pertinent to the installation of the fabrications, including Shop Drawings, manufacturer's recommended installation procedure, detailed installation drawings, and other details necessary for operation and maintenance.

7. Installation or placing drawings for equipment, drives, and bases, include dimensions, size and location of connections to other Work, and weight of equipment.

8. Supporting calculations for equipment and associated supports, or hangers required or specified to be designed by equipment manufacturers. Include seismic restraint information and details.

9. Complete manufacturer's specifications, including materials description and paint system.

10. Seismic design calculations and restraint details for equipment and piping supports.

11. Samples of finish colors for selection.

e. **Review by Engineer**

1. One copy of each submittal will be returned to the Contractor marked with one of the following notations:

a) No Exceptions Taken

b) Make Corrections Noted

c) Revise and Resubmit

d) Rejected – Resubmit

e) For Informational Purposes Only

Returned copies of submittals marked with either notation (a) or (b) authorize the Contractor to proceed with the fabrication, installation or construction, or any combination thereof, covered by such returned drawings, provided that such fabrication, installation or construction shall be subject to the comments, if any, shown on such returned copies. Although fabrication may proceed on a notation (b), Contractor shall incorporate the comments, resubmit, and obtain notation (a) before release for shipment can be granted.

Returned copies of submittals marked with notation (c) shall be corrected as necessary and revised drawings shall be submitted in the same manner as before. Returned copies of drawings marked with notation (c) shall be resubmitted not later than ten (10) calendar days after date of transmittal by Engineer of such copies of such drawings.

Returned copies of submittals marked with notation (d) are found not acceptable. Submittals shall be corrected as necessary and be resubmitted in its entirety in the same manner as before. Returned copies of drawings marked with notation (d) shall be resubmitted not later than 7 calendar days after date of transmittal by Engineer of such copies of such drawings.

2. Engineer will review with reasonable promptness Contractor's submittals, but Engineer's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The Engineer's review shall not extend to means, methods, techniques, sequences or procedures of construction, except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, or to safety precautions or programs incident thereto. Contractor shall make corrections required by Engineer.

   Neither the Engineer's review or failure to review Contractor's submittals, nor the Engineer's authorization for Work to proceed, shall relieve Contractor of any of its obligations to meet all the requirements of the Contract, or relieve Contractor of the responsibility for the correctness of any items submitted, including full compliance with the Contract Documents, and the performance of the Work in a safe and satisfactory manner. Contractor shall, at its expense, make any changes in the design which are necessary to make the Work conform to the provisions and intent of the Contract.

f. **Requests for Information**

1. Requests for information about the Contract Documents shall be directed by Contractor to Engineer using a Request for information (RFI) form. Such requests will not be accepted by the Engineer from a Subcontractor or Supplier.

2. A separate RFI form shall be used for each specific item for which information is required. Requests for information for more than one item using a single RFI form will be permitted only when the items are so functionally related that expediency indicates review of the group of items as a whole.

3. The Engineer will reply to the Contractor's request for information within seven (7) regular working days following receipt by the Engineer.

g. **Operation and Maintenance Manuals –** Refer to Section C-53.i. of the Specifications for information.

C-50 Payments to Contractor and Completion

a. **Schedule of Values** – Within fourteen (14) calendar days after receiving the Notice to Proceed, the Contractor shall submit a detailed Schedule of Values to the Engineer for approval. The Schedule of Values shall be used as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. The Schedule of Values shall be a schedule of cost loaded construction activities equal, in total, to the lump sum bid and shall be in such form and sufficient detail to correctly represent a reasonable apportionment of the lump sum.

Each lump sum bid item on the Bid Schedule must be broken down separately. The breakdown of each lump sum bid item must cover the cost of construction required by the Contract Drawings and Contract Documents for that item. The sum of the values for the construction activities, within a bid item, must equal the total bid amount for that item. The breakdown shall include subcontract amounts which shall not deviate from the amounts submitted in the Proposal Bidding Schedule. The Contractor shall provide certification from the Subcontractors certifying the subcontract amounts.

b. **Applications for Payment**

1. An Application for Payment for each calendar month of Contract Work (but not more often than once a month), shall be submitted by the Contractor to Engineer for review covering the Work completed as of the date of the Application for Payment and accompanied by all supporting documentation as is required by the Contract Documents.
2. Contractor may apply for payment for materials and equipment to be used in the Work but not yet incorporated therein, which have been delivered to, and are suitably stored, at the Site. The application shall be accompanied by data satisfactory to District to establish District's title to such materials and equipment or otherwise protect District's interest, and shall be subject to approval by Engineer. Payment for such materials and equipment will not include any amount for Contractor's overhead or profit, or relieve Contractor of

its obligation to protect and install such materials and equipment in accordance with the Contract Documents, or to restore damaged or defective Work involving such materials and equipment.

3. Beginning with the second Application for Payment, each Application for Payment shall be submitted with all release forms confirming that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. As provided in Section 7201 of the Public Contract Code, a five percent (5%) retention of payment will be withheld on all progress payments.

5. The provisions pertaining to the withholding of specified percentages of the Contract price, may, at the Contractor's request and expense, be satisfied by depositing with the District or State or Federally chartered bank as escrow agent, securities equivalent to the amount to be withheld. Securities eligible for investment include those listed in California Government Code Section 16430 and bank and savings and loan certificates of deposit.

c. **Review** of **Applications**

1. Engineer will, within five (5) days after receipt of each Application for Payment, either prepare a recommendation of payment and present to the District or return the Application of Payment to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. If the Application for Payment has been returned to the Contractor, the Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will represent by Engineer to District, that:

    a) The Work has progressed to the point indicated; and

    b) The quality of the Work is generally in accordance with the Contract Documents.

3. Engineer may refuse to recommend the whole or any part of any payment for any of the following reasons:

    a) Any claims are filed against Contractor by District, Engineer, or third parties, or if reasonable evidence indicates the probability that such claims will be filed;

    b) Contractor is in default of any Contract condition;

    c) The Work is defective, or completed Work has been damaged, which will require that the Work be corrected or replace;

    d) District has been required to correct defective Work or complete Work; or

    e) The Contractor has failed to provide the required waivers and releases.

d. **Payment Becomes Due**

Partial payments will be made as the Work progresses and following the District's monthly Board meeting, or as soon thereafter as practical.

The Contractor is hereby notified that because of the need for payments to be reviewed by the District's Board of Directors and because the Board only regularly meets once a month, delays of as much as sixty (60) days may occur in Contractor's receipt of payment for progress pay estimates and the final pay estimate. The Contractor is urged to process his request for payment in a timely manner to minimize payment delays. The Contractor agrees that such a delay shall not entitle Contractor to any remedy provided for in the Contract Documents or law.

e. **Reduction in Payment**

1. The District may refuse to make payment of the full amount recommended by Engineer because:

    a) Claims have been made against District on account of Contractor's performance;

    b) Stop notices or liens have been filed in connection with the Work;

    c) There are other items entitling the District to a set-off against the amount recommended;

d) Failure of the Contractor to make payment properly to Subcontractors or for material or labor;

e) A reasonable doubt that the Contract can be completed for the balance then unpaid;

f) Damage to another Contractor, Subcontractor, Supplier, or Individual;

g) Failure of the Contractor to keep his Work progressing in accordance with the time schedule; or

h) Where Work on unit price items is substantially complete but lack clean-up and/or correction ordered by the Engineer.

2. If District refuses to make payment of the full amount recommended by Engineer, District will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. District shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by District and Contractor, when Contractor corrects to District's satisfaction the reasons for such action.

f. **Substantial Completion and Final Review**

1. When the Work has been completed and ready for its intended use, Contractor shall notify District and Engineer in writing that the Work is Substantially Complete and request that Engineer issue a certificate of Substantial Completion, which will be in the form of a letter.

2. When the Work has been Substantially Completed and the Contractor so notifies the Engineer in writing, the Engineer and Contractor will jointly make a Semi-Final Inspection and may prepare a Punch List. As a result of this inspection, the Engineer may determine that (l) the Work is not sufficiently complete to warrant a Semi-Final Inspection or the preparation of a Final Punch List, (2) the Work is sufficiently complete for the Engineer to prepare a Final Punch List but certain incomplete or Defective Work prohibits use of the Work for its intended purpose and therefore, the Work is not Substantially Complete, or (3) that the Work is Substantially Complete and usable for its intended purpose and the Engineer can prepare a Final Punch List. In preceding cases 1 and 2, the Contractor shall continue the Work and call for a second Semi-Final

Inspection when the Work is ready. In case (3), the Engineer will prepare a Final Punch List and a notice of Substantial Completion which shall establish the date of Substantial Completion and shall state the time agreed to by the District and the Contractor (not to exceed 30 days) in which the Contractor shall complete all Work ready for Final Inspection. The date of Substantial Completion shall be revised if necessary such that it is no more than 30 days prior to the actual date of Final Completion. The Engineer shall attach a copy of the Final Punch List to the notice of Substantial Completion. If the Contractor does not achieve Substantial Completion on the second attempt, it shall reimburse the District the cost of the Engineer's services for additional inspections.

3. When the Contractor has completed or corrected all the items on the Engineer's Final Punch List, the Contractor shall give the Engineer written notice that the Work is ready for Final Inspection and acceptance and the Engineer shall make a Final Inspection. If the Engineer finds the Work is not fully complete, it shall notify the Contractor of items still requiring completion or correction. The Contractor shall immediately correct these deficiencies and call for a re-inspection. When the Engineer finds to the best of the Engineer’s knowledge, information and belief, and on the basis of the Engineer's observations and inspections, the Work is acceptable and fully complete in accordance with the Contract Documents, the Engineer will recommend that the District issue and file a Notice of Completion, designating Final Completion, and accept the Work in accordance with the terms and conditions of the Contract Documents. The Notice of Completion will be file once the Final Completion has been achieved.

4. The District shall file the Notice of Completion with the Kern County Recorder’s office within 10 days of acceptance of the Work and Final Completion. This will be the date when the Contractor is relieved from responsibility to protect the Work.

5. Contractor is herein put on notice and acknowledges that the date of the filing of the Notice of Completion is the date by which any liquidated damages will be computed for the Work as a whole and that the District is under no duty to place the Contractor on notice that liquidated damages are about to run, or have begun to run.

g. **Partial Utilization**

1. Prior to Substantial Completion of all the Work, District may use or occupy any Substantially Completed part of the Work which District and Engineer agree constitutes a separately functioning and usable part of the Work that can be used by District for its intended purpose without significant interference with Contractor's performance of the remainder of the Work.

2. When provided for in the Contract Documents or agreed to in writing by the District and the Contractor, the District may notify the Contractor and begin using a portion of the Work even though the overall Work is not Substantially Complete. The Contractor, the District and the Engineer shall agree on and document responsibilities for security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that portion of the Work being used by the District. The District, the Contractor and the Engineer shall inspect such portion of the Work and shall prepare a list of Work to be completed or corrected before final acceptance. The District's use of any portion of the Work shall not constitute final acceptance of that portion of the Work prior to Final Completion and acceptance of the Work as a whole. Provided, however, the warranty for such Work will commence upon Substantial Completion for that portion of the Work that is Substantially Complete. The District shall allow the Contractor reasonable access to complete or correct Work in areas being used by the District. Partial beneficial occupancy shall not relieve the Contractor of liquidated damages unless the Contract Documents expressly provide for and identify the portion of Work that may be considered Substantially Complete before the remaining portions of the Work.

h. **Final Payment**

1. Application for Payment

a) After Contractor has, in the opinion of Engineer, satisfactorily addressed all items in the Final Punch List and has delivered, in accordance with the Contract Documents, all operation and maintenance manuals, warranties, Record Drawings, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents etc. and other documents, Contractor may make application for final payment following the procedure for progress payments.

b) The final Application for Payment shall be accompanied (except as previously delivered) by:

1) All documentation called for in the Contract Documents;

2) Consent of the surety, if any, to final payment;

3) A list of all claims against District that Contractor believes are unsettled; and

4) Complete and legally effective releases or waivers (satisfactory to District) of all lien rights arising out of or liens filed in connection with the Work.

2. Engineer's Review of Application and Acceptance

a) If, on the basis of Engineer's observation of the Work during construction and Final Inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within five (5) days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to District for payment. At the same time Engineer will also give written notice to District and Contractor that the Work is acceptable. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

b) Neither the acceptance of the Work by the District nor the payment of all or part of the sum due the Contractor hereunder shall constitute a waiver by the District of any claim which the District may have against the Contractor or surety under this Contract or otherwise.

3. Payment Becomes Due

Final payment shall not be due until thirty-five (35) days after either the Notice of Completion has been recorded in compliance with the Code of Civil

Procedure of the State of California or after such time as the Contractor has submitted all documents required in Paragraph C-50.h. and has addressed all items in the Final Punch List, whichever is later. The Contractor is hereby notified that because of the need for payments to be reviewed by the District's Board of Directors and because the Board only regularly meets once a month, delays of as much as sixty (60) days may occur in his receipt of payment for progress pay estimates and the final pay estimate. The Contractor is urged to process his request for payment in a timely manner to minimize payment delays. The Contractor agrees that such a delay shall not entitle Contractor to any remedy provided for in the Contract Documents or law.

C-51 Project Meetings

a. **Pre-Construction Conference** – Upon receipt of the Notice to Proceed, or at an earlier time if mutually agreeable, the District will arrange a preconstruction conference to be attended by the Contractor, Contractor's superintendent, the District, the Engineer or his representative, and representatives of utilities, major Subcontractors, and others involved in the execution of the Work.

The purpose of this conference shall be to establish a working understanding between the parties and to discuss the Construction Schedule (Critical Path Method format required), Shop Drawing submittals and processing, applications for payment and their processing, and such other subjects as may be pertinent for the execution of the Work.

b. **Progress Meetings**

1. The District may arrange and conduct progress meetings. These meetings shall be attended by the Engineer or his representative, Contractor, Contractor's superintendent and representatives of all Subcontractors, utilities, and others, that are active in the execution of the Work. The purpose of these meetings shall be to expedite the Work of any Subcontractor (if acceptable to the District) or other organization that is not up to schedule, resolve conflicts, and in general, coordinate and expedite the execution of the Work.

2. The agenda of progress meetings shall include review of progress and schedule, of payment request, of the latest Construction Schedule update,

and of the record documents. To the maximum extent practicable, Contractor shall contact the District and Engineer at least twenty-four (24) hours in advance of the meetings regarding items the Contractor wishes to have added to the agenda.

3. Persons designated by the Contractor to attend and participate in project meetings shall have the authority to commit the Contractor to the resolution of problems as agreed upon in the project meetings.

4. A meeting will be held every week (unless the District determines otherwise) for the duration of the Project to review, evaluate, and discuss each Construction Schedule submittal. The location of the meetings shall be determined by the District prior to the first meeting.

5. The Contractor shall designate persons to attend these Construction Schedule review meetings who are familiar with the Construction Schedule and with the current construction problems and activities and with the logic of the Work sequences used in preparing the schedule and the updates.

6. On the last working day of every week, Contractor shall submit to Engineer, Contractor's plan of activities for the following two (2) weeks (a "two-week look-ahead schedule"). The plan of activities shall describe the activity and location of the activity. Failure to submit a two-week look-ahead schedule, shall subject the contractor to withholding of monthly progress payment for month that the schedule(s) was not submitted.

c. **Progress and Schedule Review**

1. The progress of the Work and the Construction Schedule shall be reviewed to verify:

   a) Actual start and finish dates of completed activities since the last progress meeting.

   b) Durations and progress of all activities not completed.

   c) Reason, time, and cost data for Change Order Work that is to be incorporated into the Construction Schedule or payment request form.

   d) Payment due to the Contractor based on percentage complete of items in the submitted payment request.

e) Reasons for, and duration of, required revisions in the Construction Schedule.

f) After each progress meeting, upon request the Contractor shall submit to the Engineer three (3) prints of the last accepted Construction Schedule, revised in accordance with the progress review.

g) If the progress meeting coincides with the beginning of the month when Applications for Payment are due, the Contractor shall have his copy of the payment request form and all other data required by the Contract Documents completed prior to the progress meeting. The Engineer will process Contractor's payment request after satisfactory review of the schedule update.

C-52 Record Drawings

a. The Contractor shall maintain one set of Record Drawings at the Site. On these, it shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the information represented on the original Plans, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Plans. 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 Contractor's representation of as-built conditions, including all revisions made necessary by addenda and change orders shall be maintained up-to-date during the progress of the Work. Red ink shall be used for alterations and notes. Notes shall identify relevant Change Orders by number and date. Record Drawings shall be maintained up to date on a daily basis.

b. Changes shall be marked directly on the drawings. Green color-coding shall be used when showing information deleted from Drawings. Red color-coding shall be used when showing information added to Drawings. Blue color shall be used for clouding an area or areas affected by the change(s). Information shall be legible and completely detailed. The level of detail shall be sufficient to allow a draftsman to incorporate the changes into a CAD file without reference to other documents

besides the marked-up drawing(s). It is not acceptable to simply reference change directives or to mark drawings: "see RFI-XX" or "see survey notes". If there is insufficient space on a drawing to markup the change, the Contractor will be required to draw additional sketches to completely explain the change and attach the sketches to the drawing.

c. The Engineer has the right to inspect the Contractor's marked-up drawings at any time to ascertain that they are being kept up to date and show sufficient details. The Engineer may require that all as-built records, survey field notes and other documentation be submitted at the completion of certain construction elements of the overall project. Should the Contractor's marked-up drawings, survey field notes, and other as-built documentation not be up to date or lack necessary details, the Engineer may withhold five percent (5%) from each monthly progress payment, until the drawings, survey field notes and other as-built documentation are brought up to date and properly detailed.

d. Copies of the Record Drawings shall be submitted upon completion of all Work.

e. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, such as motor control centers and the like, the Record Drawings shall be updated by indicating those portions which are superseded by Change Order drawings or final Shop Drawings, and by including appropriate reference information describing the change orders by number and the Shop Drawings by manufacturer, drawing, and revision numbers.

f. Record Drawings shall be accessible to the Engineer at all times during the construction period.

g. Final payment will not be acted upon until the Record Drawings have been prepared and delivered to the Engineer. Said up-to-date Record Drawings shall be in the form of a set of prints with carefully plotted information overlaid.

h. Prior to final acceptance of the Work, the Contractor shall finalize and deliver a complete set of Record Drawings to the Engineer for transmittal to the District, conforming to the construction records of the Contractor. This set of Record Drawings shall consist of corrected drawings showing the reported location of the Work. The information submitted by the Contractor and incorporated by the Engineer into the Record Drawings will be assumed to be correct, and the

Contractor shall be responsible for the accuracy of such information, and for any errors or omissions which may appear on the Record Drawings as a result.

i. Contractor shall refer to Paragraph C-53 for requirements regarding Contract Closeout.

C-53 Contract Closeout

Prior to submitting the Final Application for Payment and issuance of the Final Payment, as described in Paragraph C-50.h., the Contractor must complete the Work described below.

a. **Cleaning** – Throughout the period of construction the Contractor shall keep the Work site free and clean of all rubbish and debris, and shall promptly remove from the Site, or from property adjacent to the Site, all unused and rejected materials, surplus earth, concrete, plaster, and debris, excepting select material which may be required for refilling or grading.

b. **Final Site Clean-Up** – Upon completion of the Work, and prior to final acceptance, the Contractor **shall** remove from the vicinity of the Work all surplus material, and equipment belonging to him or used under his direction during construction.

c. **Waste** Disposal – The Contractor shall dispose of surplus materials, waste products, demolition materials, and debris. The Contractor shall transport and dispose of waste materials in accordance with applicable laws and regulations.

d. **Project Record Documents** – The Contractor shall maintain at the Site, available to the District and Engineer, one copy of the Contract Documents, Record Drawings, Change Orders, and other modifications in good order and marked to record all changes made during construction. These foregoing documents shall be delivered to the Engineer upon completion of the Work and will be known as Project Record Documents. Project Record Documents shall be reviewed during progress meetings to ascertain that all changes have been recorded. Contractor shall store Project Record Documents separately from other documents used for construction.

e. **Touch-Up and Repair** – The Contractor shall touch-up or repair finished surfaces on structures, equipment, fixtures, or installations that have been damaged prior to final acceptance. Surfaces on which such touch-up or repair cannot be successfully accomplished shall be completely refinished or in the case of hardware and similar small items, the item shall be replaced. Such items shall include, but not be limited to, the following:

1. Road surfaces (paved and unpaved)
2. All concrete surfaces
3. Equipment exposed surfaces
4. Piping exposed surfaces

f. **Final Equipment Check** – After test operation and before final acceptance, each piece of machinery shall be lubricated and all components and couplings checked for proper alignment and adjustment.

Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's and District's final review.

Provide submittals to District that are required by governing or other authorities.

Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

g. **Warranties**

1. Provide Manufacturer's Equipment Warranties as required by these Specifications.
2. Execute and assemble documents from Subcontractors, Suppliers, and manufacturers.
3. Provide Table of Contents and assemble in binder with durable plastic cover.
4. Submit prior to final Application for Payment.

5. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

h. **Record Drawings –** Refer to Section C-52.

i. **Operation and Maintenance (O&M) Manuals (Where applicable)**

1. Provide one (1) original O&M manuals and one (1) electronic copy (in pdf) to the Engineer prior to final Application for Payment. All O&M manuals shall be provided in a three-ring binder, with tabs and an index describing the contents of the binder. One binder containing the O&M manual for each piece of equipment shall be furnished and be included in a separate binder. All O&M manual copies whose original pages are color shall be provided in color. The binder/pdf cover sheet shall include at a minimum: (1) the name of the project; (2) the contents of the binder; (3) the District's name; (4) the date; and (5) the volume number (i.e. Vol 1 of 2 etc.).

2. Operation and maintenance instructions shall include, at a minimum, the below listed data for each item of mechanical, electrical, and instrumentation equipment. All equipment manufacturers shall be made aware of these requirements and all associated costs shall be included in the costs for furnishing the equipment or system.

a) All information provided as part of the Shop Drawings.

b) All information required as part of equipment Specification Section.

c) Manufacturer's O&M manual customized for equipment provided. Cross out equipment not provided.

d) Bill of material listing every component of equipment listed by make and part number. An insufficient bill of materials shall result in O&M manual submittal rejection.

e) An itemized list of all data provided.

f) Name and location of the manufacturer, the manufacturer's local representative, the nearest supplier, and spare parts warehouse.

g) Equipment function, normal operating characteristics, and limiting conditions.

h) Recommended maintenance procedures during storage of equipment prior to installation and after installation but prior to start-up.

i) Recommended installation, adjustment, start-up, calibration, and troubleshooting procedures.

j) Recommended lubrication, lubrication intervals, and an estimate of yearly quantity needed.

k) Recommended step-by-step procedures for all modes of operation. Operating instructions for startup, routine and normal operation, regulation and control, shutdown, and emergency conditions. Instructions shall include keystrokes and procedures required for adjusting control setpoints for equipment operation.

l) Complete internal and connection wiring diagrams of actual installation.

m) Equipment maintenance.

n) Test data and performance curves, where applicable.

o) Recommended preventive maintenance procedures and schedule.

p) Complete parts lists (bill of materials), by generic title and identification number (part number), with exploded views of each assembly.

1) Every component shall be listed on the bill of material with its corresponding part number.

2) A recommended spare parts list shall include generic title and identification numbers (part numbers).

q) Recommended spare parts and any special tools required.

r) Disassembly, overhaul, and reassembly instructions.

s) Factory and field test results (if applicable).

t) Manufacturer's contact information and local certified service representative's contact information.

3. Following completion of an item, instructions and procedures shall be modified by the Contractor to reflect field changes. In addition, the O&M manuals shall contain reproducible prints of the Contract record wiring diagrams, schematics, and installation drawings required. Information not applicable to equipment installed in the Work shall be excluded.

4. Individual O&M manuals shall be broken into sections and indexed. Under each section there shall be a description of the operation and maintenance, and installation instructions of each item. Sections shall be labeled and each item shall be sub-labeled. No acceptance of equipment will be made until the individual O&M manual has been approved. Contractor's copy of each individual O&M manual shall be available at the site of the Work for use by field personnel and the Engineer during start-up and testing of the equipment.

C-54 Satisfaction of Liens

If any liens or claims remain unsatisfied after final payment to the Contractor, the Contractor shall pay or refund to the District any money that the latter may be compelled to pay to discharge such liens and costs together with reasonable attorneys' fees incurred by the District in enforcing the Contractor's obligations hereunder.

C-55 Waiver of Interest in Certain Situations

The District shall have no obligation to pay and the Contractor hereby waives the right to recover interest with regard to monies which the District is required to withhold by reason of judgment, order, statute or judicial process.

C-56 Protest Procedure

a. **Notice of Intent to Protest**

A bidder who wishes to protest the award of a Contract shall submit a Notice of Intent to Protest via email to the contact in A-12 no later than 1 business day after the bid opening. Failure to provide a Notice of Intent to Protest, by 5pm 1 business day after the bid opening and as described above, waives the right to protest.

b. **Filing a Protest**

By 5pm 2 business days after submitting the Notice of Intent to Protest, the protester shall submit a Protest to the contact in A-12. If protester is not a Disadvantaged Business Enterprise (DBE), a check made out to North Kern Water Storage District, in the amount of $50, for an administrative fee, shall accompany the Protest. If protester is a DBE, a copy of documentation of such shall accompany the Protest.

The burden of proof is on the protester. The Protest shall include:

- A detailed basis for the Protest, supported by facts.
- References to the specific alleged deficiencies of the bid(s) being protested.
- The reason that the protester is the lowest responsible and responsive bidder, supported by facts.
- All referenced documents shall be attached to the Protest.

The Protest shall not be on the basis of or include any item not identified in the Specifications. There will not be an opportunity for a Protest to be amended. Failure to comply with this section waives the right to protest.

c. **Review of Protest**

The District shall provide the bidder(s) whose bid was protested with the Protest within 2 business days of receipt of the Protest. The bidder(s) whose bid was protested will have 5 business days from receipt of the Protest to respond in writing to the District, if they wish. Failure to comply with this section forfeits the bidder's right to respond to the Protest.

The District shall have 10 business days from receipt of the Protest to respond to the protester.

d. **Resolution of Protest**

The protester may withdraw the Protest at any time. Upon withdrawal, the Protest shall be considered resolved and the District shall proceed with award of Contract, as appropriate.

The District's response to the Protest shall be final, without opportunity for further commentary or challenge from the protester. Should the Contract not be awarded to a bidder as a result of the Protest, the bidder shall be notified at least 1 day prior to award of Contract.

****END OF SECTION****

SECTION D
SPECIAL CONDITIONS

D-1 The Requirement

It is required that the Project be constructed in accordance with the Contract Documents. The Work is to be performed in Kern County, within the vicinity of Bakersfield, California.

D-2 Description of Work

The principal components of Work to be performed under these Specifications includes the following:

Base Bid

a. **Project-Wide:**

1. Mobilization includes all activities and costs for transportation of personnel, equipment, and operating supplies to and from the site; establishment of portable sanitary and refuse facilities; procuring an adequate source of fresh water; location, provision and installation of field offices & equipment/materials, storage yards excavation equipment, buildings, and other necessary facilities for the Contractor's operations at the site; site safety and site security; insurances, premiums paid for performance and payment bonds, including coinsurance and reinsurance agreements as applicable and any other items required to complete the project that is not specifically located and identified within other line items within this bid.

2. Demobilization provides for the removal of all work-related items from the job site and reversal of temporary items completed in mobilization and construction.

3. Contractor shall develop the water supply from either the CT-1 Canal or 8-1 Canal as provided by the District. It will be the Contractor's responsibility to provide all equipment, personnel, labor, tools, etc. required to utilize the water supply provided by the District.

4. Contractor will need to prepare a Storm Water Pollution Prevention Plan (SWPPP) and a PM-10 Dust Management Plan and obtain approval for each. He will comply with all local, state and federal requirements for Storm Water Pollution Prevention and Site dust control on the Calloway Canal Project site.

5. Preparation before construction, maintenance during construction and restoration after construction of access routes will be required to maintain ingress, egress and inter-site traffic.

6. The Contractor shall provide all materials, equipment, labor and incidentals to finish grade all construction areas including all tops of canal banks and outside slopes of the project.

b. **Calloway Canal**

7. Clearing and Grubbing of approximately 20.63 Acres of work area within the project site.

8. Over-Excavation, Scarification or Over-Excavation, and Re-Compaction of Subgrade for lining of approximately 731,910 Square Feet.

9. Construction/modification of approximately 6,700 LF of canal section and embankment which includes subgrade preparation, placement, compaction and grading of approximately 14,720 CY of "In Place Fill." Fill material will need to be generated by the Contractor on the construction site.

10. Construction of approximately 705,210 square feet of 4 inch thick non-reinforced concrete Canal lining and approximately 570 square feet of 6 inch thick non-reinforced concrete Canal lining.

11. Furnishing and installation of PVC waterstops as depicted in the plans.

    i. NOTE: The basis of bid utilizes line item 11A, which is shown in the plans. Line item 11B is an alternative waterstop configuration that utilizes more PVC waterstop than 11A, and is not considered for the basis of bid.

12. Construction of approximately 3,300 square feet of new reinforced concrete lining around existing structures and at the new access ramps.

13. Construction and installation of 9 Safety Ladders into the canal lining per the locations and specifications on the Plans.

14. Construction of the new 55 foot reinforced concrete Canal gate structure and installation of 5 – 10 feet wide Canal gates provided by the District. The Contractor is responsible for the construction of the reinforced concrete structure, stainless steel superstructure, walkway, and handrail, and the installation of the 5 – 10 feet wide Canal gates which will be provided by the District.

15. Removal and disposal offsite of the existing south CT-1 Canal intertie structure.

16. Removal and replacement of the existing north CT-1 Canal intertie structure. The District will provide the new diversion box and 36" HDPE pipe.

The Work is described in the Proposal Bidding Schedule, Measurement and Payment, Specifications, and Plans.

D-3 Beginning and Completion of Work

a. **General**

Unless otherwise ordered by the Engineer, as hereinafter provided, the Contractor shall begin the Work within ten (10) calendar days after issuance of the Notice to Proceed and in accordance with Paragraph D-3b. below.

b. Special Timing for Construction

Commencement of the Work is dependent on hydrology. In this regard, the Work shall be implemented under one of the two scenarios listed as follows:

Scenario 1 ("dry" year):

Anticipated Start of Construction:	October 19, 2026
Completion Date for all in-canal Work:	March 19, 2027
Completion Date for all Contract Work:	April 5, 2027

Scenario 2 ("wet" year):

Anticipated Start of Construction:	April 30, 2027
Completion Date for all in-canal Work:	August 30, 2027
Completion Date for all Contract Work:	September 14, 2027

Actual start dates shall be coordinated with the Engineer.

If Work proceeds under the schedule in Scenario 1, all in-canal work shall be accomplished during the time frame referenced above so that water may begin flowing in the Calloway Canal on March 20, 2027.

If Work proceeds under the schedule in Scenario 2, the following requirements shall apply. Shutdown and dewatering of the Calloway Canal will be limited to the period from April 1, 2027 through August 30, 2027. This is the guaranteed shutdown period. It is anticipated that the District will begin dewatering the Calloway Canal by April 1, 2027 and will drawdown the canal to approximately one (1) foot of water above the canal invert. Contractor is responsible for employing all labor, equipment, and materials which are necessary to dewater the construction area for the satisfactory construction of the Work. All in-canal Work shall be accomplished during this time frame so that water may begin flowing in the Calloway Canal on August 31, 2027.

Failure to perform and complete the construction Work within the time period

described in Paragraph D-3b shall subject the Contractor to the assessment of liquidated damages provisions of Paragraph D-7. The provisions of liquidated damages shall apply equally to both completion dates, i.e. all in-canal work and Contract Work.

c. Contractor Notifications

1. Schedule

   a) The Contractor shall submit a schedule per the requirements of paragraph C-19 of the General Conditions. The schedule shall contain sufficient detail to allow the District and the Engineer to schedule personnel.

   b) Work shall not commence until the schedule has been submitted and approved.

2. Regular Updates

   a) After receiving the Notice to Proceed, the Contractor is expected to notify the Engineer daily of the progress of work and any scheduling changes.

   b) The Contractor shall notify the Engineer 24 hours prior to periods when the Engineer is to be present as identified in each of the items identified in the technical specifications, of this document. Failure to notify the Engineer in a timely manner may cause delays in the work, which shall not impact the District's cost. Failure to notify the Engineer when they are to observe the work may cause the Contractor to repeat the work in the presence of the Engineer at no additional cost to the District.

D-4 Labor Compliance Program

1. The District will implement the provisions of a Labor Compliance Program (LCP) to monitor and enforce prevailing wage requirements. In this regard, by submission of this Bid or the execution of the Contract, or subcontract as appropriate, the Contractor, and Subcontractors, as appropriate, agrees to provide any and all information the District may need to be in compliance.

2. The LCP will be implemented by a third-party consultant that will strictly be focused on enforcing labor compliance. Type of monitoring activities will include but not be limited to the following: a) onsite inspections; b) visual monitoring of construction activities; c) interviews with field personnel; d) verification of Contractors and Subcontractors State License

Board licensing and Workers Compensation Insurance; e) review and confirmation of monthly submittal/accuracy of certified payroll reports; f) inspection of time records and other source documents maintained by the Contractor and Subcontractors; and g) verification of compliance with LC 226 and other laws enforced by the Labor Commissioner.

3. The Contractor and its Subcontractors will be required to submit all of their Certified Payroll Records (CPR) to the Engineer and the third-party consultant at least monthly, or more frequently if required. In addition, The Contractor and its Subcontractors will be required to register online with the Department of Industrial Relations Compliance Monitoring at the following website: https://efiling.dir.ca.gov/PWCR/ . Once registered, the Contractor and its Subcontractor's will upload CPRs to the eCPR system.

4. The District will provide the DIR Project ID # to the Contractor for the project. The Contractor and its Subcontractors will be required to submit all of their Certified Payroll Records (CPR) electronically to the Labor Commissioner using DIR's electronic certified payroll reporting system at least monthly, or more frequently if required.

5. The Department will undertake those activities it deems necessary to monitor and enforce compliance.

6. In the event of non-compliance, the District may withhold payment due to delinquent, inadequate, or untimely submission of CPRs. Additionally, if the DIR identifies any non-compliance, there may be civil wage and penalty assessments and BOFE citations imposed by the regulating agencies.

7. The Contractor shall be responsible for monitoring the payment of prevailing wages by its Subcontractors by periodic review of the CPR's. If the Contractor becomes aware of non-compliance, the Contractor shall take corrective measures to rectify the non-compliance.

8. The Contractor shall be responsible for posting job site notices, as prescribed by regulation including per Labor Code Section 1771.4(a)(2) a copy of the prevailing wage determination for each craft, classification or type of worker needed to execute the Contract at the jobsite in accordance with Labor Code section 1773.2.

9. The Contractor is directed to the following website for additional information regarding the public works contractor responsibilities: http://www.dir.ca.gov/Public-Works/publicworks.html. Not all of the requirements have been presented herein and it is the Contractor's

responsibility to become informed about the requirements.

D-5 Federal Grant Special Provisions

a. **General**

1. These special provisions shall apply to all Work performed on the Contract by the contractor's own organization and with the assistance of workers under the Contractor's immediate superintendence and to all Work performed on the Contract by piecework, station work, or by subcontract. The Work shall conform to the requirements of all governmental agencies having jurisdiction over the Work. Contractor shall also comply with all federal, state and local laws, ordinances, rules, regulations and orders under the Contract, including all licensing requirements and occupational, health, safety, employment and environmental laws. Such applicable laws, ordinances, rules, regulations and orders shall include, without limitation, those that are specifically incorporated into any Grant Agreements pertaining to the Work, which Grant Agreements and any amendments thereto the District will provide to Contractor following their execution. Contractor shall bear all costs, expenses and liabilities related to any changes in the Work to conform to such laws, ordinances, rules, regulations and orders.

2. Except as otherwise provided for in each section, the Contractor shall insert in each subcontract all of the stipulations contained in these special provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The special provisions shall not be incorporated by reference in any case. The prime Contractor shall be responsible for compliance by any Subcontractor or lower tier subcontractor with these special provisions.

3. A breach of any of the stipulations contained in these special provisions shall be sufficient grounds for termination of the Contract.

b. **Contract Provisions**

1. By submission of this bid, the execution of the Contract or subcontract, or the consummation of the Contract, as appropriate, the bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that it will comply with all applicable Contract provisions as described in this section.

2. Federal agencies are permitted to require changes, remedies, changed

conditions, access and records retention, suspension of work, and other clauses approved by the Office of Federal Procurement Policy.

c. **Contracting With Small And Minority Businesses, Women's Business Enterprises, And Labor Surplus Area Firms (Disadvantaged Business Enterprises (DBE) Checklist)**

1. If subcontracts are to be let, the Bidder must take all affirmative steps below to assure that minority businesses, women business enterprises, and labor surplus area firms are used when possible.

2. Affirmative steps taken by Bidder must include the following.

a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

b) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

d) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

e) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

3. As part of the Bid Proposal, the Bidder shall complete and include the Disadvantaged Business Enterprises (DBE) Checklist. Bidder shall maintain documentation of compliance with affirmative steps and shall provide documentation to the District upon request.

4. Checking “No” on the DBE Checklist to any step will result in Bid being considered non-responsive.

d. **Equal Employment Opportunity**

Compliance with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended Order 11375 of October 13, 1967, and as

supplemented in Department of Labor regulations 41 CFR chapter 60.

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is

not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

e. **Davis-Bacon Act**

Compliance with the Davis-Bacon Act (440 U.S.C. 3141-3148) as supplemented by Department of Labor regulations (29 CFR Part 5). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination.

f. **Anti-Kickback Act**

Compliance with Copeland “Anti-Kickback” Act (40 U.S.C. 3145) as supplemented in Department of Labor regulations (29 CFR Part 3).

g. **Contract Work Hours and Safety Standards Act**

Compliance with 40 U.S.C. 3702 and 3704 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708) as supplemented by Department of Labor Regulations (29 CFR Part 5).

h. **Clean Air Act and Federal Water Pollution Control Act**

Compliance with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387).

i. **Debarment and Suspension**

By submission of this bid, the execution of the Contract or subcontract, or the consummation of the Contract, as appropriate, the bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that they will comply with all standards and policies contained in the Department of the Interior regulations at 2 CFR 180, and 2 CFR 1400 Subpart C.

j. **New Restrictions on Lobbying**

1. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

2. By submission of this bid, the execution of the Contract or subcontract, or the consummation of the Contract, as appropriate, the bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that they will comply with all standards and policies contained in the Department of the Interior regulations at 43 CFR 18-New Restrictions on Lobbying, including the following certification:

    a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Recipient, to any person for influencing or

attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or amendment of any Federal contract, grant, loan, or cooperative agreement.

b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

c) The language of the certification shall be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

k. **Procurement of Recovered Materials**

The District and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

l. **Prohibition on Certain Telecommunications and Video Surveillance Equipment or Services**

2 C.F.R. § 200.216 prohibits the obligation or expending of federal award funds on certain telecommunication products or from certain entities for national security reasons. The Contractor shall comply with 2 CFR 200.216 Prohibition on Certain

Telecommunications and Video Surveillance Equipment or Services. The Contractor is prohibited from obligating or expending loan or grant funds to:

a. Procure or obtain covered telecommunications equipment or services;

b. Extend or renew a contract to procure or obtain covered telecommunications equipment or services; or

c. Enter into a contract (or extend or renew a contract) to procure or obtain covered telecommunications equipment or services.

The Contractor or subcontractors shall not use covered telecommunications equipment or services as described in section 889 of the 2019 National Defense Authorization Act. This prohibition applies even if the contract is not intended to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services.

m. **Domestic Preferences for Procurements**

As appropriate and to the extent consistent with law, the Contractor should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for Work or products under this award.

For purposes of this section:

1. "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

n. **Inspection**

Reclamation shall have the right to inspect and evaluate the Work performed or being performed, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work.

o. **Drug-Free Workplace**

By submission of this bid, the execution of the Contract or subcontract, or the consummation of the Contract, as appropriate, the bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that they will comply with all standards and policies contained in the Department of the Interior regulations at 2 CFR 1401-Government Requirements for Drug-Free Workplace, and 2 CFR 182.

p. **Assurances and Certifications**

1. By submission of this bid, the execution of the Contract or subcontract, or the consummation of the Contract, as appropriate, the bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that they will comply with all of the Assurances, SF 424B or SF 424D as applicable. All antidiscrimination and equal opportunity statues, regulations and Executive orders that apply to the expenditure of funds under federal contracts, grants, and cooperative agreements, loans, and other forms of Federal assistance.

2. The bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, shall comply with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the rehabilitation Act of 1973, The Age Discrimination Act of 1975, and any program-specific statues with anti-discrimination requirements.

3. The bidder, contractor, subcontractor, material supplier, or vendor, as appropriate, shall comply with civil rights laws including, but not limited to, the Fair Housing Act, the Fair Credit Reporting Act, The Americans with Disabilities Act, Title VII of the Civil Rights Act of 1964, the Equal Educational Opportunities Act, the Age Discrimination in Employment Act, and the Uniform Relocation Act.

q. **Nondiscrimination**

1. During the performance of this Project, the Contractors, its Subcontractors and Suppliers shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, de ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. Contractors, its Subcontractors and Suppliers shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractors, its Subcontractors and Suppliers shall comply with the

provisions of the Fair Employment and Housing Act (Government Code Section 12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated by reference and made a part hereof as if set forth in full. Contractors, its Subcontractors and Suppliers shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Contractors shall include the nondiscrimination and compliance provisions of this clause in all contracts to perform Work under the project.

r. **Recipient Employee Whistleblower Rights and Requirement to Inform Employees of Whistleblower Rights (Sep 2013)**

(a) This award and employees working on this financial assistance agreement will be subject to the whistleblower rights and remedies in the pilot program on Award Recipient employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub.L. 112-239).

(b) The Award Recipient shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712.

(c) The Award Recipient shall insert the substance of this clause, including this paragraph (c), in all subawards or subcontracts over the simplified acquisition threshold. 48 CFR 52.203-17 (as referenced in 48 CFR 3.908-9).

D-6 Not Used

D-7 Liquidated Damages for Delays

It will be impractical or extremely difficult to fix the actual damages to the District which may result from any delays in completion of the Work beyond the time agreed upon. It is, therefore, stipulated and agreed that if all of the Work as described in D-2, is not completed on or before the expiration of the completion time or times specified in D-2 and D-3, or within such extensions of time as may be granted, the District may retain the sum of $5,000 each day thereafter, Sundays and holidays included, that the Work remains uncompleted, which sum is agreed upon as the proper measure of liquidated damages which the District will sustain per day by the failure of the Contractor to complete the Work at the time stipulated, and this sum is not to be construed in any sense a penalty or forfeiture.

D-8 Materials

a. **Materials Furnished by the Contractor**

Unless otherwise specified, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, lights, power, fuel, transportation and other facilities necessary for the execution and completion of the Work. All materials shall be new and both workmanship and materials shall be of a good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials, including the furnishing of written manufacturers' certifications of compliance with applicable designated governing reference specifications.

b. **Materials Furnished by the District**

The District will Furnish the following materials for this project:

1. Five (5) Canal Slide Gates as manufactured by Fresno Valves and Castings, inc.

2. One (1) Eight-foot Concrete Diversion Box as manufactured by Briggs Manufacturing

3. One (1) Joint of 36" Double-Wall Corrugated HDPE Pipeline as manufactured by Advanced Drainage Systems, inc.

c. **Use of District Water**

It is expressly understood that the District makes no warranty or guarantee as to availability or time of availability of District water. Water from the Friant-Kern Canal shall not be used by the Contractor. Use of District water for Work and testing shall be made available by the District subject to verification by the Contractor and determination of exact details as to location of delivery; cost and methods of obtaining and conveying water shall be the responsibility of the Contractor. It is the responsibility of the Contractor to furnish all water necessary for Contract Construction Work, including sufficient water for earthwork, fire protection, dust abatement, and testing requirements.

d. **Equipment and Materials to be Furnished as Listed**

As requested, each bidder shall submit with his proposal under the "Information Required of Bidder" form, a listing of the names of manufacturers and model numbers or types of listed items of Contractor-furnished Equipment and Materials

and said Equipment and Materials shall be furnished without change or deviation from the listing unless a change or deviation is approved in writing by the Engineer, and unless equipment or material of the listed manufacturer or supplier does not meet the requirements of the Specifications.

D-9 Right-of-Way, Construction Roads, Site Access

a. The site may be accessed as detailed on the Plans. The Contractor may not at any time block the access routes.

b. The District will provide the necessary right-of-way and access for construction of the facilities covered by these Specifications.

c. The right of way for the Work to be constructed under these Specifications will be provided by the District. Nothing herein contained, however, and nothing marked on the Plans, shall be interpreted as giving the Contractor exclusive occupancy of the territory provided. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that Work on one contract may interfere with that on another, the Engineer shall decide which contractor shall cease Work and which shall continue; or, whether the Work on both contracts shall progress at the same time, and if so, in what manner. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Engineer to the Contractor so desiring, to the extent, amount, in the manner, and at the time permitted. No such decision as to the method or time of conducting the Work or the use of territory shall be the basis of any claim for delay or damage.

d. Lands to be furnished by the District for construction operations will be specifically shown on the Plans or provided for in the Special Conditions. Should the Contractor find it necessary to use additional land for his purposes during the construction of the Work, he shall provide for the use of such lands at his own expense. A copy of each written agreement between the Contractor and affected landholder(s) for the use of additional lands shall be filed with the Engineer prior to the use of land.

e. The Contractor shall construct and maintain all roads necessary to reach the various parts of the Work and for the transportation thereto of construction

material and personnel. The cost of constructing and maintaining such roads shall be borne by the Contractor.

D-10 Access Roads and Staging Area

a. The Contractor shall maintain access roads to and on the Site to provide for delivery of material and for access to existing and operating facilities on the Site. For a road to be considered adequately maintained, it shall be reasonably dust free.

b. Adequately maintained access roads shall be maintained to all storage areas and other areas to which frequent access is required. Similar roads shall be maintained to all existing facilities on the Site to provide access for maintenance and operation. Where such temporary roads cross, buried utilities that might be injured by the loads likely to be imposed, such utilities shall be adequately protected by steel plates or work planking, or bridges shall be provided so that no loads shall discharge on such buried utilities.

c. The District may designate a storage area for Contractor's use while constructing the Project. It shall be the Contractor's responsibility and he shall bear all expense for any temporary fence and/or other security measures the Contractor may deem necessary for protection of the equipment and materials.

d. The Contractor shall provide any additional temporary storage required for the protection of equipment and materials as recommended by manufacturers of such materials.

e. Storage and protection:

    1. Materials and equipment shall be stored in accordance with Supplier's written instructions, with seals and labels intact and legible. Exposed metal surfaces of valves, fittings and similar materials shall be coated in accordance with manufacturers' recommendations to prevent corrosion.

    2. Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to assure materials and equipment are undamaged and are maintained under required conditions.

D-11 Surveys

With the exception of the initial survey and site control points provided by the District as described below, the Contractor shall provide all construction surveys necessary to perform the Work including as-built cross section and elevation profiles of the levees.

The Contractor shall have all surveys, including surveys for measurement and payment purposes, supervised by a surveyor licensed to practice land surveying in the State of California. The Engineer may spot-check the Contractor's surveys. Any discrepancies between the Contractor's survey and the Engineer's spot-check will be resolved between the Contractor and the Engineer. The Engineer will make the final determination in the event a satisfactory resolution is not obtained.

Survey reference and control staking for construction will be done by a Licensed Land Surveyor provided by the District, at the District's expense. Contractor shall be provided with adequate Survey Site Control to establish the grade, position and alignment to complete the construction project per the plans and specifications. Any grade stakes or reference points which may be lost or destroyed by the Contractor during the progress of his work shall be replaced at the Contractor's expense. Said reference staking and control staking shall be provided as follows:

Canal Grading, Lining and Access Ramps One set of offset stakes with hubs on each side of the canal at on approximate 100' spacing shall be provided for the full length of the canal, on approximate 50' spacing in transition and curve areas, and at angle points, beginning of curves (BC) and end of curves (EC) and at the ends of each reach.

At least Two (2) site control points will be set for the duration of the Project. Contractor will be given coordinates and elevations of the control points for reference.

The Contractor shall be responsible for preserving permanent survey monuments and benchmarks. If any permanent or temporary survey monuments or benchmarks are lost or disturbed and need to be replaced as set forth in Section 8771 of the California Business and Professions Code, such replacement shall be made by the Engineer at the expense of the Contractor.

The Contractor shall notify the Engineer at least ten (10) working days before he will require survey services in connection with constructing any portion of the Work Contractor shall compile and maintain all survey notes in an approved form and shall furnish to the Engineer one copy of said notes as they are compiled and, upon completion of Contract work, Contractor shall furnish to the Engineer all original survey notes.

Contractor shall provide at its cost an experienced instrument person, competent assistants, and such instruments, tools, stakes and other materials required to complete the survey, layout, and measurement work. In addition, Contractor shall furnish at its cost competent persons and such tools, stakes, and other materials as District (and/or any Engineer) may require in establishing or designating control points, or in checking survey, layout, and measurement work performed by Contractor.

Contractor shall compile and maintain all survey notes in an approved form and shall furnish to the Engineer one copy of said notes as they are compiled and, upon completion of Contract Work, Contractor shall furnish to the Engineer all original survey notes. At the completion of the Work, Contractor shall submit a topographic map, sealed by the licensed surveyor who supervised the surveying, that includes locations of all permanent features within the Work Area.

Survey control for construction will be provided by the District.

D-12 Crossing of Existing Creeks, Reservoirs, and Ponds

The Contractor shall repair and replace all existing embankments, dikes, and/or levees for existing canals, creeks, sumps, reservoirs, and ponds that are disturbed during construction. Suitable earth materials for affected dikes and levees shall be placed and compacted in conformance with requirements of Section E. No separate payment, unless specified, will be made for repair and replacement of existing dikes and levees, including compaction thereof.

D-13 Quality Control – Testing

a. Contractor shall give Engineer timely notice of the Work for all required inspections, tests or approvals and shall cooperate with inspection and testing personnel to facilitate the required inspections or test.

b. Testing of materials for construction (soils, concrete, compaction, etc.) will be provided by the District at District's expense. In the event of a failed test, the Contractor shall be responsible to pay for all costs associated with retesting.

c. The Contractor shall furnish promptly, without additional charge, all facilities, labor and materials reasonably needed by the Engineer for performing all inspection and tests. Contractor shall be charged with any additional cost of

inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.

D-14 Noise During Construction

In accordance with Kern County Code of Ordinances, title 8, Chapter 8.36, noise during construction is allowed between the hours of 6 a.m. and 9 p.m. during the weekdays, and between the hours of 8 a.m. and 9 p.m. on the weekends. Should the contractor work for extended hours during the week, or work weekends or holidays, prior written notice should be provided to the District.

D-15 Soils Report

It is the Contractor's responsibility to carefully and independently examine the Contract Documents, including Plans and Specifications, and other matters provided by District or its representatives and any other matter that may be necessary to determine local conditions of the Project Site, visit the project site, and be fully informed of all conditions and limitations.

A soils report is included in the Appendix. The District makes no representation or warranty regarding the accuracy or interpretation of information regarding local conditions contained in the Contract Documents, including Plans and Specifications, or other documents, including soils reports, provided by District or its representatives concerning the project site. It is expressly understood that the District will not be responsible for the accuracy of any data derived from any provided documents, including indicated ground water levels, nor for any deduction, interpretation or conclusion drawn from such informational data.

D-16 Excavation Safety Plan

a. Not less than fourteen (14) calendar days before beginning excavation required under the Contract, the Contractor shall furnish to the Engineer for review working drawings of his excavation safety plan. Contractor shall not begin excavation until said plan has been reviewed by the Engineer.

b. The excavation safety plan shall include all of the Contractor's excavation operations, and working drawings shall be a detailed plan showing the design or shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. Plans varying from the shoring system standards established by the Construction Safety Orders of the Cal-OSHA or the Federal Safety Standards of the Department of Health, Education and Welfare, must be prepared by a registered civil or structural engineer. In no event shall the

Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders, or less effective than that required by said Federal Safety Standards.

D-17 Damage to Growing Crops

Contractor shall have the right to make temporary use of the Site, and in this regard, to remove or cut back any vegetation growing within the working area; provided that the Contractor shall make every reasonable effort to minimize damage to growing crops within the Site and if, in the judgment of the Engineer, Contractor shall have at any time caused unwarranted damage to such crops, the District may deduct from payments due the Contractor pursuant to the Specifications the appraised value of crops judged by the Engineer to have been unnecessarily damaged. Nothing in this Paragraph shall be construed as relieving the Contractor from his obligations under Paragraph C-32 or other provisions of the Specifications. Specifically, the District reserves the right to have its agents or designees prune or remove from and replace in the Site trees or other plantings for the purpose of minimizing damages. No permanent crop shall be disturbed or removed without prior approval of the Engineer. The Contractor shall attempt to schedule construction to minimize damage and loss of crops.

D-18 Destruction of Boll Weevil Host Plants

The Contractor shall be responsible for ascertaining the current regulations of the State Department of Agriculture relative to destruction of "host" plants capable of sustaining the pink boll worm and boll weevil. When required by said regulations, the Contractor shall be responsible for the disposal or destruction of "host" plants or residue of "host" plants remaining within Contract right of way; methods of disposal shall be as applicable prescribed in said State regulations and as approved by the Engineer. The cost of all Work and materials as required for disposal or destruction of "host" plants and residue shall be borne by the Contractor.

D-19 Prevention of Water Pollution and Prevention of Air Pollution

As applicable, and if required by law, the Contractor shall prepare and submit to the Engineer a Stormwater Pollution Prevention Plan (SWPPP) within 10 calendar days after the Notice to Proceed is issued.

As applicable, and if required by law, the Contractor shall maintain a copy of SWPPP onsite at all times and shall abide by the SWPPP throughout the duration of the Project. It will be the Contractor's responsibility to 1) obtain, on behalf of the District, a Construction Storm Water Permit from the State Water Resources Control Board online via their website; 2) submit all the reports to maintain compliance; and 3) close out the Permit

upon completion of the Work. Additionally, the Contractor shall take measures as necessary to effect water pollution control. Construction operations shall be so conducted as to prevent discharge of wastes and pollutants into surface waters and underground water sources. Such water pollution control measures shall be directed toward eliminating discharge, or averting accidental spillage, of such industrial and domestic wastes as oils, gasses, fuels, sewage, toxic materials, and other substances which may be hazardous to public health and welfare or harmful to fish and wildlife. The Contractor shall be responsible for compliance with the applicable State and local regulations for prevention and abatement of pollution of surface and underground water. The Contractor's pollution control methods shall be subject to approval of the Engineer. The District shall have the right to require the Contractor, at his expense, to initiate and maintain such pollution control measures as deemed necessary to eliminate pollution of water caused by, or resulting from the contractor's operation. No separate payment will be made for prevention of water pollution, the costs for all Work and materials required under this paragraph shall be borne by the Contractor.

As applicable, and if required by law, the Contractor shall prepare and submit to the Engineer and all appropriate parties, a Site dust control and PM-10 Dust Management Plan within 10 calendar days after the Notice to Proceed is issued. The Contractor shall maintain a copy of said plan onsite at all times. The Contractor shall take measures as necessary to effect air pollution control. Construction operations shall be so conducted as to prevent generation of fugitive dust and dispersion of pollutants into the air. Such air pollution control measures shall be directed toward eliminating particulates and potentially toxic or harmful materials from becoming airborne and polluting the air, as these airborne substances may be harmful to public health and/or harmful to wildlife. The Contractor shall be responsible for compliance with the applicable State, regional (APCD) and local regulations for prevention and abatement of pollution of the air and any associated reporting requirements. The Contractor's pollution control methods shall be subject to approval of the Engineer as well as applicable governmental entities with regulative power over air quality. The District shall have the right to require the Contractor, at his expense, to initiate and maintain such pollution control measures as deemed necessary to eliminate pollution of air (and/or nuisance or fugitive dust) caused by, or resulting from the contractor's operation. No separate payment will be made for prevention of air pollution, the costs for all Work and materials required under this paragraph shall be borne by the Contractor.

D-20 Valley Fever – Notices to Employees

A special biological problem of the Project area is the presence of tiny organisms living in the soil which can cause Valley Fever (coccidioidomycosis) in humans. As is typical of many desert areas in the southwestern United States, Valley Fever is endemic to Kern County. Although everyone living in the valley has some contact with the disease-causing organisms, the illness is especially hazardous to those whose work brings them into close contact with the soil, as for example, agricultural and construction workers. The Contractor and all his Subcontractors shall advise all their employees, in writing, of the dangers of Valley Fever, and of precautions which can be taken such as wearing dust masks while working under dusty conditions.

D-21 Special Environmental Requirements

a. Cultural Resources Requirements

1. If cultural resources or archeological materials are identified during Project-related ground-disturbing activities, all potentially destructive work in the immediate vicinity of the find shall cease immediately and the District shall be notified. In the event of an inadvertent discovery, additional CEQA review might be necessary to make a determination on a properties' eligibility for listing in the CRHR and any actions that would be necessary to avoid adverse effects. A qualified archaeologist should assess the significance of the find, make a preliminary determination, and if appropriate, provide recommendations for treatment. Any treatment plan should be reviewed by the District prior to implementation. Ground-disturbing activities shall not resume near the find until treatment, if any is recommended, the find is complete or if the qualified archaeologist determines the find is not significant.

2. If human remains are found, the District shall be immediately notified. The California Health and Safety Code requires that excavation be halted in the immediate area and that the County coroner be notified to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) by telephone within 24 hours of making that determination (Health and Safety Code, Section 7050.5[c]). Once notified by the coroner, the NAHC shall identify the person determined to be the Most Likely Descendant (MLD) of the Native American remains. With permission of the legal landowner(s), the MLD may visit the site and make recommendations

regarding the treatment and disposition of the human remains and any associated grave goods. This visit should be conducted within 24 hours of the MLD's notification by the NAHC (PRC Section 5097.98[a]). If a satisfactory agreement for treatment of the remains cannot be reached, any of the parties may request mediation by the NAHC (PRC, Section 5097.94[k]). Should mediation fail, the landowner or the landowner's representative must reinter the remains and associated items with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC, Section 5097.98[b]).

b. Biological Resources Requirements

1. Worker Environmental Awareness Program Training

An Environmental Awareness Program will be presented to all Project personnel working in the field before Project activities begin and before new personnel begin work on the Project site. The program will be presented by a qualified biologist, provided by the District, with knowledge of special-status wildlife that could occur on the Project site. The program will address each species biology and habitat needs, regulatory status and protection, measures required to reduce potential impacts during project construction, penalties for non-compliance, and benefits of compliance.

2. Pre-construction Survey

A qualified biologist, provided by the District, will conduct a pre-construction survey to determine the potential for applicable species to occur on or adjacent to the Project site. If suitable habitat or sign of presence is observed, additional monitoring will be conducted by the District and a protective buffer or exclusionary zone may be established and implemented. The size of the buffer and/or exclusionary zone will depend on type and intensity of Project disturbance, presence of visual buffers, and other variables that could affect the species to disturbance.

3. Construction and Operational Requirements

a) A qualified biologist (familiar with kit fox biology, natural history, and recognition of potential dens) will be on call during all construction activities. If a potential kit fox is observed, construction activities within 100 feet of the animal will cease and the qualified biologist will be notified immediately. Construction activities may not resume until the kit fox has left the construction area on its own and the qualified biologist confirms construction can resume.

b) Habitat subject to permanent and temporary construction disturbances and other types of project related disturbance shall be minimized.

c) To minimize temporary disturbances, all project-related vehicle traffic shall be restricted to established roads, construction areas, and other designated areas.

d) Project-related vehicles shall observe a 20 mile per hour speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, construction activities shall be limited to daylight hours. Off-road traffic outside the designated construction area shall be prohibited.

e) To prevent inadvertent entrapment of kit foxes or other animals during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the end of each working day by plywood or similar materials. If such holes or trenches cannot be covered, one or more escape ramps of no more than a 45-degree slope will be constructed of earth fill or wooden planks.

All covered or uncovered excavations will be inspected at the beginning, middle, and end of each day. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If a trapped or injured animal is discovered, the biologist shall be notified immediately. Project activities in the immediate vicinity will stop and escape ramps or structures will be installed immediately to allow the animal(s) to escape and the procedures below must be followed. If a San Joaquin kit fox is unable to escape voluntarily, a qualified biologist will be summoned, and the biologist will notify the Service to determine what action should be taken.

f) Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored on the construction site for one or more overnight periods shall be thoroughly inspected for wildlife before the pipe is buried, capped, or otherwise used or moved in any way.

Pipes laid in trenches overnight will be capped.

If an animal is discovered inside a pipe or other structure, the pipe/structure will not be moved, and the animal will be allowed to leave on its own. If a San Joaquin kit fox is unable to escape voluntarily, a qualified biologist will be summoned.

g) If a San Joaquin kit fox or other special-status species is inadvertently killed or injured, a qualified biologist will be notified immediately. The biologist, in consultation with agency staff as necessary, shall identify the appropriate action.

h) All food-related trash items such as wrappers, cans, bottles or food scraps generated during Project activities will be disposed of in closed containers and removed daily from the Project site.

i) No deliberate feeding of wildlife will be allowed.

j) No firearms shall be allowed on the project site.

k) To prevent harassment and mortality of kit foxes and wildlife or destruction of dens by dogs or cats, no domestic pets shall be permitted on project sites.

l) Use of rodenticides and herbicides in project areas shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide shall be used because of proven lower risk to kit fox.

m) A representative shall be appointed by the District who will be the contact for any employee or contractor who finds a dead, injured or entrapped kit fox or other special-status species.

n) Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. shall be re-contoured

if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated.

o) Inspect under vehicles and equipment before the vehicles and equipment is moved. If a San Joaquin kit fox or other special-status species is present, the worker shall wait for it to move unimpeded to a safe location. If the animal does not move, the worker shall notify a qualified biologist.

p) Contractor to post signs and/or fencing around the work sites to restrict access of vehicles and equipment unrelated to site operations.

q) Immediately clean up all spills of hazardous materials (oil, grease and other potentially toxic materials).

r) Boundaries of approved work areas shall be clearly delineated by stakes, flagging, and/or rope or cord to minimize inadvertent degradation or loss of adjacent wildlife habitats during facility construction.

c. Environmental Requirements

In addition to all other applicable provisions of these Specifications, the Contractor shall comply with the following protections and measures required to reduce impacts to the species during Project construction.

1. Control of fugitive dust is required by San Joaquin Valley Air Pollution Control District Regulation VIII. The Contractor shall implement all of the following measures as identified by San Joaquin Valley Air Pollution Control District:

a) Apply water to unpaved surfaces and areas.

b) Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas.

c) Limit or reduce vehicle speed on unpaved roads and traffic areas.

d) Maintain areas in a stabilized condition by restricting vehicle access.

e) Install wind barriers.

f) During high winds, cease outdoor activities that disturb the soil.

g) Keep bulk materials sufficiently wet when handling.

h) Store and hand material in a three-sided structure.

i) When storing bulk material, apply water to the surface or cover the stage pile with a tarp.

j) Do not overload haul trucks. Overlanded trucks are likely to spill bulk materials.

k) Cover haul trucks with a tarp or other suitable cover. Or, wet the top of the load enough to limit visible dust emissions.

l) Clean the interior of cargo compartments on emptied haul trucks prior to leaving the site.

m) Prevent track-out by installing a track-out control device.

n) Clean up track-out at least once a day. If along a busy road or highway, clean up track-out immediately.

o) Monitor dust-generating actives and implement appropriate measures for maximum dust control.

D-22 Other Special Construction Conditions

a. **Groundwater Conditions** – The Contractor shall have full responsibility for evaluation of available data, including logs of exploration, and development of any necessary additional information on groundwater condition at construction site(s) and for draining and dewatering the sites of any groundwater or surface water during execution and completion of the Contract Work.

b. **Existing Uses of Lands and Roads** – In addition to all other applicable provisions of these Specifications, the Contractor shall:

1. Effectively secure and protect adjacent property, structures, livestock, crops and other vegetation;

2. Exercise extreme care during construction to prevent damage from dust to crops and adjacent property;

3. Be responsible for all damage to any property resulting from trespass by the Contractor or his employees in the course of their employment, whether such trespass was committed with or without the consent or knowledge of the Contractor;

4. See that the Work site is kept drained and free of all surface and ground water;

5. Be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas;

6. Maintain all existing roadways, roadway traffic, and irrigation or other water utilities and utility crossings, in an adequate and safe manner to meet all existing service requirements and shall not interfere with any roadway or utility system without prior written permission of the district/operator thereof, and only for any time period permitted by said district/operator; and

7. Provide for all water courses, ditches and pipelines and perform the construction Work so that no damage will result to either public or private interests, and be liable for all damage that may result from failure to so provide during the progress of the Work.

c. **Existing Facilities** – Existing facilities are owned, operated, and maintained by the District, City of Shafter, Oildale Mutual Water District, Pacific Gas & Electric Company, SoCalGas, Southern California Edison, Frontier Communications, AT&T, and private landowners may have utilities located within or contiguous to the project site. Others may have utilities located contiguous to or in the vicinity of the project site.

1. The Contractor shall not obstruct or inhibit the ability of any of the afore mentioned utility companies to access, operate, and maintain their facilities on or adjacent to the project site.

2. The Contractor shall be responsible for contacting and coordinating with the appropriate party prior to conducting Work within 10’ of existing facilities. The pipe alignment is in close proximity of the existing Overhead electrical power lines.

3. The Contractor shall, at all times, protect in place all existing facilities except those explicitly identified in the Plans and Contract Documents for removal. The contractor shall be solely liable in any instance of physical or liquidated damages that occur during construction.

D-23 Spill Prevention and Mitigation Plan

The Contractor shall provide, as a submittal prior to mobilization, a plan acceptable to the District describing how they will prevent an oil spill, and how they will mitigate an oil spill if an oil spill occurs. The plan shall include reporting procedures to the appropriate parties in the event that there is an oil spill. This includes spills, leaks, etc. associated with equipment and construction facilities on site during the construction period.

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SECTION E

EARTHWORK AND SITE WORK

E-1 General

The Contractor shall provide all labor, materials, and equipment and perform all operations necessary to complete all required sitework and earthwork as specified, shown on the Drawings, or as directed. Included is all clearing and grubbing for work site areas, excavation, placement and compaction of embankments, canal sections, roadways, preparation for canal lining, earthwork for all structures, excavation and backfill for pipe trenches, site grading and all other required miscellaneous sitework and earthwork. Also included under this Section of the Specifications is all site work and earthwork at canal embankments, including provisions for aggregate base course and paving materials for roadway resurfacing (where applicable).

E-2 Clearing and Grubbing

a. General

As shown on the Drawings and as directed, the Contractor shall perform all clearing and grubbing work for areas within the work site. Such areas shall be cleared and grubbed of all trees, vines, stumps, roots, brush, rubbish, fences, and other unsuitable materials including buried irrigation pipe to be abandoned. No waste materials from the clearing operation shall be incorporated into compacted backfill or embankments. The subgrade beneath all permanent embankments shall be grubbed and cleared of all stumps, roots, and objectionable organic matter. Where directed by the Engineer, all work specified herein shall be accomplished by the Contractor prior to placement of construction stakes. All cleared, grubbed, and demolished materials shall become the property of the Contractor and shall be removed from the work site or District right-of-way before the date of completion of Contract or otherwise disposed of as approved by the Engineer. Upon completion of the work, the Contractor shall perform all required clean-up operations as directed, including all excavation, backfill and grading to lines shown on the Drawings or as directed in order to leave affected areas in a condition satisfactory to the Engineer. No materials or debris shall be burned within the work site, except as directed or approved by the Engineer.

b. Payment

The Final Pay Quantity Unit Price per Acre paid for Clearing and Grubbing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work in clearing and grubbing and no additional allowance shall be made therefore.

E-3 Excavation

a. Classification of Excavation

Excavated materials will not be classified for payment. Re-compacted material, Fill and backfill shall consist of suitable unclassified material from Contract excavation or selected imported material as approved by the Engineer, and shall be free of trash, organic matter or other debris. No object having a largest dimension greater than five (5) inches shall be included in any compacted embankment or structural fill or backfill. No object having a largest dimension of greater than two (2) inches shall be included in any compacted embankment within two (2) inches of the finished subgrade for canal lining.

b. Tolerances

All excavation and embankment shall be graded to provide uniform surfaces to the lines and grades shown on the Drawings, or as specified, or as directed by the Engineer. Tolerances for finished earth line and grade elevations and thicknesses shall be as given below.

1. All excavation or compacted embankment lines, including such lines for earthwork adjacent to concrete construction, shall have a tolerance of plus or minus 0.1 foot or be governed by concrete tolerances, whichever is more restrictive with the exception of the following:

   Inside of the canal prism – 0.2’ to 0.0’ horizontally and -0.1’ to 0.0’ vertically.Top of banks and outside slopes, -0.0’ to +1.0’ horizontally and -0.0’ to +0.3’ vertically (with no more than 0.1’ vertical variance in any given 100’ of lineal length.

   NOTE: Concrete Canal lining tolerances will govern subgrade tolerances where stricter.

2. All specified material thicknesses shall have a tolerance of plus 10 percent (+10%) or minus 5 percent (-5%).

c. Excavation for Pipe Trenches

Excavation for pipe trenches includes excavation for pipe portions of siphons, delivery pipelines, pipeline accessories, pumping plant, manifold piping, etc. The Contractor shall perform all necessary excavation for pipelines to the required lines, grades, and depths, all in conformance with these Specifications and details shown on the Drawings, or as directed. All trench widths shall be of adequate width for proper pipe installation based upon the particular method of backfilling allowed by the Engineer.

The minimum trench width to be excavated shall be the width of the pipe outer diameter plus forty-eight (+48) inches. Trench excavation shall include removal and disposal of all materials of whatever nature encountered, including all obstructions that would interfere with the proper construction and completion of the work, and shall include furnishing, placing, and maintaining all shoring necessary to safely support the sides of the excavation. The work shall also include all pumping, ditching, and other required measures for the removal or exclusion of water. Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, at private driveways, or where parcels of land have been severed by the excavation, or elsewhere, the Contractor shall provide suitable temporary bridges over unfilled excavations, except in such cases where the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges. Not more than 2,000 feet of trench in any reach shall be open at any one time, nor shall more than a total of 4,000 feet of trench be open in the entire Contract work area. Subject to the determination of the Engineer, if any of the following conditions are encountered in pipe trench excavation, separate payment will be made in conformance with Paragraph C-10 for required additional work authorized or directed by the Engineer:

1. If the bottom of the pipe trench is in soft, unstable material, it shall be excavated below grade for the full width of the trench as directed and the below-grade excavation subsequently refilled with approved compacted materials.

2. If the pipe trench is excavated in rock, hardpan, or other similar hard and unyielding material, or has rocks or cobbles which, in the opinion of the Engineer, will be detrimental to the pipe, the bottom of the trench shall be over-excavated six (6) inches below grade, and said over-excavation refilled with approved compacted material.

The Engineer's assessment of unstable or unsuitable material will not be made until the material has been properly dewatered. For the purpose of the assessment, “properly dewatered” shall be defined as the groundwater level being 3 feet below the pipe invert elevation. If, after dewatering and excavation of the trench, it is determined that the pipe trench is in soft, unstable material, it shall be excavated below grade as directed by the Engineer and the below-grade excavation subsequently refilled with approved compacted materials. Payment for authorized removal and replacement of soft, unstable material will be made in accordance with Paragraph C-10.

If natural foundation or subgrade material is disturbed or loosened during the excavation process or otherwise, it shall be compacted to a degree satisfactory to the Engineer, or where directed, it shall be removed and replaced with approved material and compacted in accordance with requirements of Paragraph E-6 and details shown on the Drawings, all at no additional cost to the District. Any and all

excess excavation or over-excavation performed by the Contractor for any purpose or reason, except as may be authorized in writing by the Engineer, and whether or not due to the fault of the Contractor, shall be at the expense of the Contractor. Fill and compacting of fill for such unauthorized excess excavation or over-excavation shall be placed and compacted by and at the expense of the Contractor. Insofar as practicable, material excavated shall be used for backfill; otherwise, it shall be wasted as directed. When water is encountered in the trench, it shall be removed by pumping or draining.

d. **Excavation for Structures, Canal Lining and Concrete Slabs**

The Contractor shall perform all excavation required to construct or furnish and install structures, canal lining or concrete slabs to the lines and grades as specified or shown on the Drawings or to such lines and grades as are directed by the Engineer. The Contractor shall prepare the foundations at structure sites by methods which will provide firm foundations for the concrete structures in accordance with the plans and soils report (which is hereby attached). The existing surface soil within the structure foundation area shall be removed to 12-inches below the existing grade, extending 5 feet beyond all exterior wall/column lines (including adjacent concreted areas). The existing subgrade shall then be scarified to a depth of 12-inches, uniformly conditioned to at least 2% over optimum moisture contents, and re-compacted to a minimum of 95% of the maximum density per ASTM D698-91 methods.

In areas to receive concrete slabs or canal lining, other than for structures, the surface soil shall be over-excavated or scarified to a minimum depth of 12-inches, uniformly conditioned to at least 2% over optimum moisture contents, and re-compacted to a minimum of 95% of the maximum density per ASTM D698-91 methods.

In the event that there are voids or unconsolidated (soft) areas such as rodent holes, washouts, ruts or other unconsolidated or areas in the subgrade below the over-excavation zone, the contractor shall excavate and backfill the voids and otherwise compact those areas to the required minimum compaction prior to and along with the re-compaction of subgrade to provide a uniform foundation for support of the concrete structures, canal lining and concrete slabs.

The bottom and side slopes of excavation upon or against which concrete is to be placed shall be finished to the prescribed dimensions, and the surfaces so prepared shall be moistened and tamped with suitable tools for the purpose of thoroughly compacting them and forming firm foundations upon or against which to place the concrete structures including slabs and canal lining. If at any point in excavation the foundation material is over-excavated, the over-excavation shall be filled with select materials and compacted in accordance with the requirements of Paragraphs E-5 and E-6. Any and all excess excavation or over-excavation performed by the Contractor for any purpose or reason, except as may be ordered in writing by the

Engineer, and whether or not due to the fault of the Contractor, shall be at the expense of the Contractor. Fill and compacting of fill for such excess excavation or over-excavation shall be placed and compacted at the expense of the Contractor. Insofar as practicable, the material removed in excavation for structures shall be used for backfill and embankments; otherwise, it shall be wasted as directed.

e. **Payment**

Exclusive of authorized excavation in excess of specified requirements, no separate payment will be made for any excavation work. All cut and generation of additional spoil material needed to compensate for shrinkage of compacted material for all subgrade preparation and in-place fill shall be included in the cost of over-excavation and re-compaction and in-place fill, and no additional allowance will be made therefore. All costs therefore shall be included in the price bid in the Proposal Bidding Schedule for the item of work requiring excavation. Costs for excavation for concrete structures shall be included in the lump sum price bid for the item of work of which the structure is a part. Payment for authorized excess excavation will be made in accordance with Paragraph C-24.

E-4 Dewatering

a. **General**

The Contractor shall design, furnish, install, maintain, and operate all necessary facilities for the control, collection, and disposal of all surface water and groundwater for proper construction of the work. Adequate standby equipment shall be kept available at all times to insure efficient dewatering and maintenance of the dewatering operation during power failure. The Contractor shall maintain prepared foundations and all other parts of the work free from seepage of standing water as required for constructing each part of the work. All dewatering operations shall be adequate to ensure proper construction of the work and to maintain the integrity of the work until the work is accepted by the District. The Contractor shall remove all components of the dewatering systems when no longer required for completion or protection of the work.

b. **Execution**

1. Where excavations extend below the groundwater level, the portion below the groundwater level shall be dewatered in advance of excavation work.

2. At all times during construction, provide ample means and devices to remove and promptly dispose of properly all water entering excavations and keep the bottoms of the excavations firm and free of standing water until backfilling is complete and all field inspection and soil testing has been completed. Dewatering systems shall prevent loss of fines, development of boils, quick conditions, or softening of foundation strata and maintain

stability of excavation slopes and bottom of excavation so that every phase of the Work can be performed in the dry. If well points or wells are used, they shall be adequately spaced to provide the necessary dewatering, and filter pack material shall be suitable to prevent pumping of fine sands or silts from the subsurface.

3. The dewatering operations shall be performed such that no disturbance to the bearing soil or the soil supporting any other work will result. The dewatering system shall be operated continuously as necessary to prevent flotation of partially completed structures or other work. The dewatering operations shall be such that the bottoms of all excavations shall be kept firm at all times and in all respects acceptable to the Engineer. If at any point during the work, the dewatering system does not meet the specified requirements, and as a consequence loosening or disturbance of the foundations strata, instability of the slopes, or damage to the foundations or structures or any other problem that could adversely impact the integrity of the structure or its foundation occurs, the Contractor shall restore the foundation, fill soil, slopes, or structures, to the satisfaction of Engineer.

c. **Dewater for Pipeline Construction**

Before excavating within high groundwater areas, the groundwater level shall be lowered to a minimum of 2 feet below the working level or trench subgrade at all times. The water level shall be maintained at that level until backfilling is completed.

d. **Structure Dewatering**

Before excavating to final grade at structure locations that require dewatering, the groundwater level shall be lowered to a depth below the structure subgrade sufficient to prevent rutting. At minimum the groundwater level shall be a maintained at a depth of 2 feet below the working level or final grade until the backfill work has been completed to a point 2 feet above the groundwater level or if necessary, until the canal is filled. The Contractor is responsible for preventing floatation of the structures. Foundation damage caused by inadequate dewatering shall be repaired as necessary in accordance with the specifications at the Contractor's expense.

e. **Payment**

No direct payment will be made for dewatering any excavation or constructing observation holes. All costs therefore shall be included in the bid price included in the Proposal Bidding Schedule for the item of work requiring dewatering.

E-5 Compaction and Moisture Conditioning

a. Laboratory Density Determination

For cohesive materials, the maximum laboratory density at optimum moisture content will be determined by test methods in conformance with ASTM D698. For cohesionless materials, the relative density shall be based on the following formula, wherein the maximum density is the highest dry unit weight of the soil (determined by test methods in conformance with ASTM D4253), the minimum density is the lowest dry unit weight of the soil (determined by test methods in conformance with ASTM D4254), and the in-place density is the dry unit weight of the soil in place (determined by test methods in conformance with ASTM D4914):

$$\text{Rel. Den.} = \frac{\text{max. den} \times (\text{in - place den.} - \text{min. den.})}{\text{in - place den.} \times (\text{max. den.} - \text{min. den.})} \times 100 \ (\%)$$

b. Compaction Requirements

In all cases, compaction equipment and methods shall be adequate for and consistent with achieving the specified degree of compaction. Unless otherwise specified or directed, a minimum of 95 percent of the laboratory standard maximum density will be required. In addition to all other compaction requirements provided by the Specifications or shown on the Drawings, placement and compaction of earthwork material within City/County road right-of-way limits shall be in conformance with all applicable standards of the City or County having jurisdiction.

c. Moisture Conditioning of Cohesive Materials

Unless otherwise stated or directed, prior to and during compaction operations, the materials shall have a moisture content of not more than 4 percentage points wet or 0 percentage points dry of optimum moisture content and the moisture content shall be uniform throughout each layer. If the moisture content is less than the approved requirement, compaction operations shall not proceed until the Contractor has added the necessary amount of water. If the moisture content is greater than the approved requirement, compaction operations shall not proceed until such time as the materials have dried sufficiently or have been otherwise mechanically dewatered or replaced with materials having the approved moisture content. The term “moisture conditioning,” as used in the Specifications, is defined to refer to the above methods of obtaining an approved moisture content for materials to be compacted. Included under moisture conditioning requirements are the furnishing of all required water and the furnishing of all other necessary labor, materials, and equipment required to provide the approved percent of moisture content. Moisture conditioning, where required, shall be performed for all materials specified to be compacted regardless of whether or not such requirement is specifically stated.

d. **Payment**

No adjustment in the price of any bid item will be made for any or all operations of the Contractor pertaining to moisture conditioning or from delays occasioned thereby. The cost of all such work shall be included in the price bid included in the Proposal Bidding Schedule for the item of work requiring compaction of earthwork materials.

E-6 Backfill

a. **General**

Methods allowed for placement of compacted backfill shall be one or both of the methods listed following:

1. Mechanical compaction of native materials;

b. **Structure Backfill**

Prior to backfilling any structure, all forms shall be removed and the excavation to be backfilled cleaned of all trash and debris. The Contractor shall place all backfill about structures to the lines shown on the Drawings or as directed. Backfill shall be obtained from approved materials removed in excavating for structures, or from other contract excavation. Backfill about structures shall be compacted by bringing the backfill material to an approved moisture content, depositing it in layers eight (8) inches thick after compaction, and compacting it by means of hand or mechanical tampers to the appropriate density specified in Paragraph E-5. Material to be hydro-compacted shall be placed in layers not exceeding two (2) feet in depth before consolidation. Backfill shall be brought up uniformly about any structure, and at no time during backfilling operations shall the differential elevation at the top of backfill on any two sides of a structure exceed two (2) feet. Each layer of compacted backfill shall be inspected and approved by the Engineer before placement of any subsequent layer of material, including testing for specified densities in conformance with Paragraph E-5 if so required, as determined by the Engineer. It shall be the Contractor's responsibility to limit application of water to which will not cause flotation of the structure.

c. **Backfill in Pipe Trenches**

Backfill in pipe trenches shall be placed to the required level of the top of trench, or original ground surface with additional backfill placed, as required to allow for settlement or as otherwise directed by the Engineer or shown on the drawings. Backfill shall be obtained from approved, suitable material removed during Contract excavation or imported from a source approved by the Engineer. Prior to backfilling, the excavated area shall be cleaned of all trash and debris. Backfill shall be thoroughly worked under the haunches and shall be a minimum of 95

percent relative compaction (ASTM D698). Backfill shall not be dropped directly on the pipe and all materials within six (6) inches of the pipe shall be free from rocks, hard lumps, and clods greater than three (3) inches in diameter. Backfill shall be compacted to the limit lines shown on the Drawings, or as specified herein. To prevent unequal loading and displacement of the pipe, backfill shall be placed at approximately the same elevation on both sides of the pipe. The Contractor shall take all necessary precautions to prevent water from flooding the trenches. Unless otherwise directed, pipe trenches shall be backfilled within 48 hours after the time the pipe has been installed; provided, however, that no backfilling shall be performed until trenching and pipe installation have been approved. Sufficient over-backfill shall be placed as directed to compensate for subsequent settlement or shrinkage of fill material. Pipe trench backfill under all structures or compacted embankments shall be consolidated or compacted for the full height of the trench or to the bottom of embankment or to other limits if so shown. Methods of placement of compacted backfill shall be in conformance with applicable requirements as specified for backfill about structures in Paragraph E-6b. As shown on the drawings and as directed by the Engineer, the Contractor shall perform all pipe-related final grading/restoration work.

d. **Excess Trench Spoil**

Except in roads, excess trench spoil shall be spread uniformly over the work area, as directed by the Engineer.

e. **Payment**

Exclusive of authorized backfill in excess of specified requirements, no separate payment will be made for any backfill work. All costs therefor shall be included in the prices bid for other items of work. Costs for backfill of pipe trenches shall be included in the prices bid for applicable sizes and classes of piping. Costs for backfill of concrete structures shall be included in the lump sum price bid for the item of work of which the structure is a part. Payment for authorized excess backfill will be made in accordance with Paragraph C-10

E-7 Embankment Construction

a. **General**

Compacted embankments shall be constructed of suitable, approved material from Contract excavation or shall be constructed of suitable material obtained from approved local borrow sites in the vicinity of Contract work. Embankments shall be built in approximately horizontal layers carried across the entire width of the embankment to the required slopes. Embankments shall not be widened with loose material dumped from the top. At all times, there shall be an acceptable and uniform gradation of embankment materials so that a stable structure shall result.

Cobbles and gravel shall be well distributed through the other materials and not nested in any position within or under the embankment.

b. **Preparation of Surfaces Beneath Embankments**

Where the existing ground surfaces beneath permanently constructed embankments contain unsuitable materials, as determined by the Engineer, the Contractor shall strip these areas of such unsuitable materials to a depth as directed by the Engineer. Removed material shall be disposed of as provided in Paragraph E-8. All depressions or holes in the foundations of compacted embankments, whether caused by removal of debris, unacceptable materials or other conditions, shall be backfilled with approved material and compacted to a level surface before the construction of overlying embankment layers.

For all Canal sections and 2 additional feet outside of Canal sections, the Canal lining subgrade shall be uniformly over-excavated to a depth of not less than twelve (12) inches, followed by further uniform ripping and scarifying, or over-excavation, to a depth of not less than twelve (12) inches below the one foot of over-excavation, or as required to eliminate rodent burrows, moisture conditioned to a range between optimum and 4% above optimum, and compacted to a minimum of 95 percent of the Laboratory Standard Maximum Density as obtained by A.S.T.M. test method D698, before subsequent layers of the embankment are placed thereon. The remaining area of Canal embankment, from 2’ outside of Canal lining to outside daylight line, shall be scarified and moisture conditioned to a minimum depth of 3” prior to constructing Canal embankments on top of existing ground.

c. **Compacted Embankments**

The Contractor shall construct compacted embankments to a minimum of 95 percent of the maximum laboratory density as determined by ASTM D698. When the material has been moisture conditioned as specified under Paragraph E-5, it shall be compacted by equipment that is suitable for the type of material being placed. In general, coarse grained sands and gravels will require compaction with smooth-drum, vibratory rollers, and fine-grained materials will require compaction with sheeps-foot rollers. The Contractor shall demonstrate to the Engineer that the selected compaction equipment is suitable for the proposed use and achieves the required densities. No hydro-compaction of embankments will be allowed. Approved embankment materials shall be deposited in horizontal layers with a maximum loose lift thickness of 10 inches. Embankment areas immediately adjacent to structures shall be compacted by hand equipment in maximum 6-inch loose lifts. The layers shall be brought up in the full required width from the bottom of the embankment to avoid widening lower edges after the center has been brought up to grade.

d. **Embankment Materials**

Embankment material will be generated from required excavations. Contractor is responsible for selectively separating, stockpiling, and transporting suitable embankment backfill material from required excavations for reuse in embankment construction or for providing imported materials that satisfy these requirements.

e. **Trimming Earth Foundation for Lining**

The Contractor shall trim and finish the earth surfaces of the Canal to provide a firm foundation for the lining. The bottom and side slopes, including the surfaces of compacted embankment, over which the lining is to be placed shall be finished accurately to the dimensions shown on the drawings.

The Contractor shall provide all materials, equipment, labor and incidentals to finish grade all construction areas including all tops of canal banks and outside slopes of the project to the following tolerances:

Finish Grading

Inside of canal prism – Calloway Canal**,** -0.2’ to 0.0’ horizontally and -0.1’ to 0.0’ vertically.

All other areas are to be left in a smooth, neat and finished condition without ruts, holes, bumps, humps, etc.

f. **Site Grading**

As shown on the drawings and as directed, the Contractor shall perform all rough and final grading work at the various crossings, structures, canal banks, roads, etc. as shown on the drawings.

Final Grading of Embankment – Fill dirt for the rough grading of the project must be placed such that grades and alignment are at designed locations that the finish grading will be accomplished by shaving material from the canal prism in preparation of lining of the canal.

Grading tolerances shall be as follows:

Rough Grading
Inside of canal prism**,** -0.0’ to +0.5’ horizontally and -0.2’ to +0.2’ vertically.
Top of banks and outside slopes**,** -0.0’ to +1.0’ horizontally and -0.0’ to +0.3’ vertically.

Finish Grading
Inside of canal prism**,** -0.2’ to 0.0’ horizontally and -0.1’ to 0.0’ vertically.

Top of banks and outside slopes**,** -0.0' to +1.0' horizontally and -0.0' to +0.3' vertically (with no more than 0.1′ vertical variance in any given 100′ of lineal length).

g. **Payment**

The Final Pay Lump Sum Price paid for Finish Grading of Project shall include full compensation for all labor, materials, transportation, supplies, tools, equipment, and incidentals and for doing all other work and operations which must be performed or costs incurred for completing finish grading of the entire project site, including all roads, canal banks and side slopes, around structures and ramps etc. and no additional allowance shall be made therefore.

E-8 Disposal of Materials

a. **General**

Unless otherwise specified, all suitable materials removed in contract excavation, or as much thereof as required, shall be used in the construction of embankments or for backfill. All additional excess or unsuitable excavated material shall be wasted within District-owned right-of-way or deposited at other specified locations, all as shown on the Drawings or as designated by the Engineer.

b. **Payment**

No separate payment will be made for disposal of suitable or unsuitable materials as described above or for any required stockpiling or rehandling of excavated materials. The cost of all such work shall be included in the lump sum price bid in the Proposal Bidding Schedule for the item of work requiring any stockpiling, rehandling, or for disposal of materials.

E-9 Construction at Roadways, Crossings and Private Driveways

a. **General**

Unless otherwise specified or directed, all roads subject to interference by Contract work shall be kept open or suitable detours shall be provided by the Contractor. The cost of providing and maintaining detours, including dust abatement by sprinkling or other effective methods, shall be borne by the Contractor. Any excavation or embankment construction required for the construction of temporary crossings or for the construction of approaches to the temporary crossings shall be performed by the Contractor. After the crossings have been completed and are open to traffic, the material forming the temporary roadways shall be excavated by the Contractor and, when the affected area is farmland it shall be re-graded to meet existing ground surface and meet or exceed prior conditions. The portion of the roadway disturbed by the construction of the permanent roadway crossing shall be

as small as practicable. After the permanent roadway crossing has been completed, any excavation, backfill, embankment and resurfacing construction required for approaches to the permanent crossing shall be performed by the Contractor. Roadway approach embankments shall be constructed from approved earth material from Contract excavation compacted as specified. Replacement of existing roadway pavement and sub base shall be effected within 14 days after construction affecting the roadway has been completed.

b. **Payment**

No separate payment will be made for labor, equipment and materials for temporary or permanent construction work at roadway crossings as specified hereinafter. All costs therefore shall be included in the bid prices stated in the Proposal Bidding Schedule for related items of work.

E-10 Paving and Surfacing

a. **General**

The Contractor shall provide all labor, materials and equipment and perform all operations to complete all paving and surfacing work, including asphaltic concrete pavement for roadways with untreated aggregate base material, where applicable or as shown on the drawings and specified herein. Untreated aggregate base course material under paving shall be placed at the locations and to the lines and depths shown on the drawings or established by the Engineer. Base course shall be compacted to a minimum of 95 percent of the laboratory standard maximum density. The furnishing, placement and compaction of untreated aggregate base course for city and county roadways shall be in conformance with applicable provisions of Section 26 of the State Standard Specifications for Class 1 material (1 ½" maximum size).

For paved roads, the Contractor shall prepare subgrade or base course, and pave with asphalt concrete in accordance with details shown on the drawings and in conformance with applicable provisions of Section 39 of the State Standard Specifications. A bituminous prime coat will not be required. Surfacing shall be asphalt concrete, Type B aggregate. No seal coat is required after placement of the asphaltic pavement. Paving asphalt shall be an approved, steam refined paving asphalt and unless otherwise directed, shall have a penetration range of 85-100. Paving machines shall be equipped with an adjustable level mounted on the screen. No compacted asphalt concrete layer placed at any one time shall exceed 2 ½ inches in thickness. As directed, smooth, feathered connections to existing asphalt surfaces shall be provided. The Contractor shall repair any settlement damage to work areas, or adjoining areas, for a period of one year after acceptance of the crossings.

b.

c. **Payment**

No separate payment will be made for labor, equipment and materials for paving and surfacing. All costs therefore shall be included in the bid prices stated in the Proposal Bidding Schedule for related items of work.

****END OF SECTION****

SECTION F

CONCRETE

F-1 General

The Contractor shall provide all labor, materials and equipment and perform all operations required to furnish and install, complete, all cast-in-place concrete, grout, and mortar work as shown on the Drawings and specified herein. Included under this section of the Specifications is the following work:

a. Furnishing all required forms, concrete, concrete slurry, grout, and mortar materials including cement, aggregates, reinforcing steel, curing compound and all specified and approved admixtures.

b. Performing all mixing, forming, placing and finishing operations required to furnish concrete and concrete slurry of the strength and mix design as specified herein. Included is placement of reinforcement steel.

c. Performing all required chemical and physical tests as specified herein.

d. Performing all operations required for repairing, curing, protecting and maintaining concrete work until final acceptance.

e. All other miscellaneous work, whether or not specifically mentioned herein, that is required to complete the work specified under this section of the Specifications.

Not included herein is mortar and grout work for pipe joints and for shop and field applied mortar coatings and linings for pipe; where applicable, said work is specified elsewhere in these Specifications.

The structures shall be built to the lines, grades, and dimensions shown on the Drawings. The dimensions of each structure as shown on the Drawings will be subject to such modifications as may be found necessary by the Engineer to adapt the structure to the conditions disclosed by the excavation or to meet other conditions. Where the thickness of any portion of a concrete structure is variable, it shall vary uniformly between the dimensions shown.

Concrete work shall be properly formed and prepared to allow utilities and metalwork to pass through or to be embedded in concrete work in conformance with details shown on the Drawings.

The Contractor shall place and attach to each structure, all timber, metal, other materials, and other accessories necessary for its completion, as shown on the Drawings.

The cost of furnishing all materials and performing all work for installing timber, metal, other materials, and other accessories for which specific prices are not

provided in the schedule shall be included in the applicable prices bid in the schedule for the work to which such items are appurtenant.

Unless otherwise shown or directed, all anchor bolts and dowels shall be cast in concrete or drilled and epoxied. Unless otherwise shown, specified or directed, approved cast iron sleeves or flanged castings shall be furnished and installed to sheath openings for pipes and ducts passing through concrete work.

For any matters not addressed in these Specifications, the "Concrete Manual" (U.S. Bureau of Reclamation, formerly the Water and Power Resources Services) shall be referred to for guidance.

F-2 Contractor Submittals

The Contractor shall furnish the following submittals in accordance with the General Conditions.

a. Mix Design

Prior to beginning work the Contractor shall submit preliminary concrete mix designs which shall show the proportions and gradations of materials proposed for each class and type of concrete. Unless the Contractor proposes to use proven concrete mix designs (that have been pre-approved by the Engineer), the submitted mix designs shall include strength break tests at 7 days and 28 days (minimum) and shrinkage block testing for the Engineer to adequately evaluate strength characteristics of the mix design. The mix designs shall be checked by an independent testing laboratory acceptable to the Engineer. Costs related to the checking shall be the Contractor's responsibility. When a water reducing admixture is used the Contractor shall furnish mix designs both with and without the admixture.

b. Delivery Tickets

When ready-mix concrete is used the Contractor shall furnish certified delivery tickets at the time of delivery of each load of concrete. Each ticket shall state the design 28 day compressive strength of the mix, the certified equipment used for measuring, the total quantities by weight of cement, sand, each class of aggregate, admixtures, the amounts of water in the aggregate, the amount of water added at the batching plant, and the amount of water allowed to be added at the site for the specified mix design. The tickets shall also state the mix number, total yield in cubic yards, and the time of day to the nearest minute at which the batch was dispatched, when it left the plant, when it arrived at the site, when unloading began, and when unloading was finished.

c. Shop Drawings

1. The Contractor shall submit shop drawings of reinforcing steel including bending diagrams and placement lists prior to fabrication.

2. The Contractor's reinforcement detail Drawings shall be prepared following the recommendations of ACI 315, Manual of Engineering and Placing Drawings for Reinforced Concrete Structures, unless otherwise shown on the reinforcement design drawings and the requirements of this specification. The shop bending diagrams shall show the actual lengths of bars to the nearest inch. Bar placement diagrams shall be provided and shall clearly indicate the dimensions of each bar splice.

   The Contractor's reinforcement detail drawings shall be clean, legible, and accurate and checked by the Contractor before submittal. If any reinforcement detail drawing or group of drawings requiring review is not of a quality acceptable to the Engineer, the entire set or group of drawings will be returned to the Contractor, to be corrected and resubmitted. Acceptable reinforcement detail drawings will be reviewed by the Engineer for adequacy of general design and controlling dimensions. Errors, omissions, or corrections will be marked on the prints or otherwise relayed to the Contractor. The Contractor shall make all necessary corrections. Such review shall not relieve the Contractor of his responsibility for the correctness of details or for conformance with the requirements of these Specifications.

3. The Contractor shall submit concrete placement drawings showing the location and type of joints and concrete placement sequence for each structure. The Contractor's drawings shall show necessary details for checking the bars during placement.

4. Where mechanical couplers are required or permitted to be used to splice reinforcing steel the Contractor shall submit manufacturer's literature containing instructions and recommendations for the installation of each type of coupler used, certified test reports verifying the load capacity of each size and type of coupler used, and shop drawings showing the location of each coupler and details of how they are to be installed in the formwork.

5. If reinforcing steel is to be welded at any location (including but not limited to **Canal Safety Ladders**) the Contractor shall submit mill test reports containing the information required for the determination of the carbon equivalent per AWS D1.4 of the Structural Welding Code – Reinforcing Steel. In addition, the Contractor shall submit a welding procedure for each type of weld and size of bar which is to be welded, certification of procedure qualifications, and welder qualifications for each welding procedure for each welder performing the work.

d. **Manufacturer's Information**

The Contractor shall submit manufacturer's information demonstrating compliance with these specifications for the following items:

1. Form ties and related accessories.

2. Mill tests for cement.

3. Admixture certification indicating that all ASTM standards have been met including chloride ion content.

4. Manufacturer's product description, instructions, recommended dosage, chloride content, precautions, and MSDS for all admixtures.

5. Aggregate gradation test results and certification.

6. Certification that aggregate meets all requirements of these specifications

7. Materials and methods for curing including manufacturer's product description, instructions, application recommendations, cautions, and MSDS.

8. Certification that pozzolan meets all requirements of these specifications. **(Pozzolan is not permitted on this project).**

9. Manufacturer's product description and instructions and certified test results for all types of grout to be used.

10. Manufacturer's certification that non-shrink grout does not include aluminum, zinc, or magnesium powders as a method of expansion.

F-3 Quality Assurance

a. Testing of Materials

1. Tests for compressive strength of concrete and tests on component materials will be performed as required herein.

2. Testing for aggregate shall include reactivity, sand equivalence, reactivity, organic impurities, abrasion resistance, and soundness in accordance with ASTM C33, Concrete Aggregates.

3. The cost of laboratory tests for quality on cement and aggregates shall be performed by the supplier or the Contractor. The tests on the concrete will be performed by the Engineer. The Contractor shall pay the cost of any additional tests and investigations on Work that does not meet the Specifications. The laboratory will meet or exceed the requirements of ASTM C 1077, Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for laboratory Evaluation.

4. The Contractor shall provide Concrete and other materials as required for testing at no cost to the Owner. The Contractor shall assist the Engineer in obtaining samples and with clean-up and disposal of excess material.

b. **Field Compression Tests**

1. Cylinders for concrete compression tests shall be taken during construction from the first placement of each class of concrete and at intervals thereafter as determined by the Engineer. Each set of test cylinders shall consist of a minimum of 6 cylinders.

2. Test cylinders for concrete shall be made in accordance with Section 9.2 of ASTM C 31, Standard Practice for Making and Curing Concrete Test Specimens in the Field. Each cylinder shall be 6-inches in diameter and 12-inches high.

3. Compression tests will be performed in accordance with ASTM C 39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens. One cylinder will be tested at 7 days, one at 14 days and 3 at 28 days. The remaining cylinder(s) will be held to verify test results, if needed.

c. **Evaluation and Acceptance of Concrete**

1. Evaluation and acceptance of the compressive strength of concrete shall be according to the requirements of ACI 318, Building Code Requirements for Reinforced Concrete, Chapter 5, Concrete Quality, and as indicated herein.

2. If any concrete fails to meet these requirements, immediate action shall be taken to increase the compressive strength of subsequent batches of the type of concrete affected.

3. Concrete that fails to meet the ACI requirements and the requirements of these Specifications is subject to removal and replacement as part of the Work.

d. **Construction Tolerances**

The Contractor shall set and maintain forms and perform finishing operations such that the concrete is within the tolerances herein. Surface defects and irregularities are defined as finishes and are to be distinguished from tolerances. Tolerances are the permissible variations from lines, grades, or dimensions indicated. Where tolerances are not indicated, permissible deviations shall be in accordance with ACI 117, Standard Tolerance for Concrete Construction and Materials.

F-4 Materials

a. **Forms and Accessories**

1. Except as approved in writing by the Engineer all lumber used as forms, shoring, or bracing shall be new material. Form materials shall be metal, wood, plywood, or other material that will not adversely affect the concrete and will facilitate placement of the concrete to the shape, form, line, and grade required.

2. Exterior corners of concrete members shall have 3/4-inch chamfers or be tooled to a 1/2-inch radius unless otherwise indicated. Re-entrant corners shall not have fillets unless otherwise indicated.

3. Forms and falsework which support roof or floor slabs shall be designed for the total dead load plus a minimum live load of 50 psf.

4. Form ties shall be provided with a plastic cone or other suitable means for forming a conical hole to insure that the form tie may be broken off inside the face of the concrete. The maximum diameter of removable cones for tie rods or other removable form tie fasteners having a circular cross-section shall be 1 1/2-inches. Fasteners shall be designed to leave holes of a regular shape for reaming. Form ties shall be Wrench Head Snap Ties by MeadowBurke, Snap Ties by Dayton/Richmond, or approved equal.

5. Removable taper ties may be used where approved by the Engineer. Taper ties shall be Taper Ties by MeadowBurke, Taper Ties by Dayton/Richmond, or approved equal.

b. **Concrete**

1. Cement – The Contactor shall furnish cementitious materials in accordance with Type V Portland cement or Type II Low Alkali Portland cement meeting physical requirements for Type V.

   Portland cement shall meet the requirements of ASTM designation: C 150, Portland Cement for Type V or Type II Low Alkali meeting physical requirements for Type V. The cement shall be free from lumps and contamination by water and other foreign matter when used in concrete.

   If cement is shipped from a commercial bin, a manufacturer's certification that the material was tested during production or transfer in accordance with the reference specification, together with a report of the test results shall be furnished at the time of shipment. Certifications and mill-test reports shall be submitted for each lot of cement from which shipments are drawn and shall be delivered to the location designated by the Engineer. The Contractor shall assure that cement shipments accepted and used are from only those bins for which proper certification and mill-test reports have been received. Manufacturer's certification and mill-test reports shall in no way relieve the Contractor of the responsibility for furnishing materials meeting specifications requirements. The Contractor shall be responsible for the accuracy and completeness of certifications and mill-test reports furnished.

   The Contractor shall not change the cementitious materials option selected or the source of cement and pozzolan under this option, without the written permission of the Engineer.

2. Pozzolan (Fly Ash) – **The use of Pozzolan (fly ash) is not permitted.**

3. Water – Water shall be potable, clean, and free from objectionable quantities of silt, organic matter, salts, and other impurities. The Engineer will determine whether or not such quantities of impurities are objectionable. The water shall contain less than 500 ppm of chlorides.

4. Sand and Coarse Aggregate – Sand and coarse aggregate shall consist of clean, hard, dense, durable, uncoated rock fragments that are free from injurious amounts of dirt, organic matter, and other deleterious substances. Sand and coarse aggregate shall meet all requirements of ASTM designation C 33. The term "sand" is used to designate aggregate in which the maximum size particle will pass through a 3/16-inch (No. 4) test sieve. Coarse aggregate shall conform to ASTM designation C 33 gradings for either size No. 467 (1 ½ inch to No. 4 United States standard sieve), size No. 57 (1 inch to No. 4), or size No. 67 (3/4 inch to No. 4). The percentage of sand by weight to total aggregates shall not exceed forty percent (40%).

   The coarse aggregate to be used in concrete shall be the largest of the specified sizes that is practicable, consistent with required strength, spacing of reinforcement and embedded items, and placement thickness. Maximum size of aggregate for canal lining shall not be greater than one inch; provided that, for canal lining 2 ½ inches thick or less the maximum size of aggregate shall be ¾ inch. The size of coarse aggregate to be used for other placements will be determined by the Contractor in accordance with these specifications, subject to review by the Engineer.

5. Admixtures – The Contractor shall furnish air-entraining and chemical admixtures for use in concrete. Admixtures shall be of uniform consistency, quality, and strength of solution. Admixtures shall be batched separately in liquid form in dispensers capable of measuring at one time the full quantity of each admixture required for each batch. Final approval of an admixture shall not be given until it has performed satisfactorily at the job site.

   a) Air-Entraining Admixture – An air-entraining admixture shall be used in all concrete. The air-entraining admixture shall conform to ANSI/ASTM C260, provided that the air-entraining admixture used with type F or G chemical admixture shall be a neutralized vinsol resin formulation.

      The amount of air-entraining admixture used shall be the amount necessary to result in a total air content in the concrete at placement of 3 to 5 percent. Concrete floors to receive a dry-shake floor hardener shall have an air content of not more than 3 percent. Air content shall be tested at the point of placement.

   b) Chemical Admixtures – Admixtures shall contain no free chloride ions, shall be non-toxic after 30 Days, and shall be compatible with and made by the same manufacturer as the air entraining admixture. Chemical admixtures that will introduce more than 0.1% chloride,

by weight of cementitious materials, shall not be used in concrete in which aluminum, galvanized metalwork, or prestressing steel is to be embedded. Admixtures shall conform to the requirements of ASTM C 494, Chemical admixtures for Concrete.

Accelerator – Accelerating admixtures shall not be used in the concrete.

1) Water-Reducing and/or Set-Controlling Admixtures – The Contractor shall use a water-reducing and/or a set-controlling admixture, referred to herein as WRA, in all concrete. Only one water-reducing admixture may be used. The admixture shall conform to ASTM C494 for type A, D, F, or G chemical admixture.

   If use of the WRA chosen by the Contractor is accompanied by an abnormal setting of the fresh concrete or if the WRA does not perform in accordance with these specifications, the Contractor shall furnish and use other brands of WRA until an acceptable admixture is found. Normally, the amount of WRA used shall be that amount necessary to effect the requirements of ASTM C494. However, the Engineer reserves the right to adjust the quantities or eliminate its use.

2) Superplasticizer or high range water reducing admixture conforming to ASTM C494 type F or G may be used as needed to ease concrete placement. Subject to review and approval by the engineer.

6. Curing Compound – Curing compounds shall be white pigmented and resin based liquid membrane-forming curing compounds conforming to the requirements of ASTM C 309, Liquid Membrane-Forming Compounds for Curing Concrete. Curing compounds shall meet local VOC requirements.

7. Reinforcing Steel – Reinforcing steel shall be deformed bars conforming to the requirements of ASTM A 615, Grade 60 or ASTM A706, Grade 60.

   Welded wire fabric shall be electrically welded-wire fabric and shall conform to the requirements of ASTM A 185 for smooth steel wire or ASTM A 497 for deformed steel wire, except that for wire with a specified yield strength exceeding 60,000 pounds per square inch, the yield strength shall be the stress corresponding to a strain of 0.35 percent. Welded wire fabric with longitudinal wire of W4 size wire and smaller shall be furnished in flat sheets or in rolls with a core diameter of not less than 10-inches. Welded wire fabric with longitudinal wires larger than W4 size shall be furnished in flat sheets only.

Accessories shall include necessary chairs, slab bolsters, concrete blocks, tie wires, supports, spacers, and other devices to position reinforcement during concrete placement. Bar supports shall meet the requirements of the CRSI Manual of Standard Practice. Concrete dobies used to support and position reinforcing steel shall have the same or higher compressive strength as the required strength of the concrete in which they are located. Where concrete blocks are used on concrete surfaces which will be exposed to view, the color and texture of the concrete blocks shall match that of the finished concrete surface. Wire ties shall be embedded in the concrete doby bar supports.

8. Mechanical Couplers – Mechanical couplers shall be provided where indicated and where approved by the Engineer. Couplers shall develop a tensile strength that exceeds 125 percent of the yield strength of the reinforcing bars spliced.

9. Welded Splices – Welded splices shall be provided where indicated and approved by the Engineer. Welded splices of reinforcing steel shall develop a tensile strength of 125 percent of the yield strength of the bars welded. Materials required to perform the welded splices to the requirements of AWS D1.4 shall be provided.

10. Joint Materials – Materials for joints in concrete where indicated shall conform to the following requirements:

    a) Sponge Rubber Filler – Sponge rubber for joints shall conform to Federal Specification HH F 341F, Type II, Class A.

    b) Preformed elastomeric joint sealant shall conform to ASTM D2628. Sikaflex 1A by Sika Products Company.

    c) Preformed control joint shall be a one-piece, flexible, PVC joint former, such as Zipcap 2-piece Control Joint Former by Sika Vinylex, or approved equal. Preformed control joint material is to be provided in full-length unspliced pieces. Preformed control joints must be approved by the Engineer.

11. Water Stops – For structures and reinforced slabs, waterstops shall be 3/16-inch thick (minimum) polyvinyl chloride resin plastic and shall be lock-rib or flat-strip type in conformance with U.S. Corps of Engineers Specifications CRD C572. Waterstops shall be of the type and size shown on the Drawings and as manufactured by Sika (#646 & #771), or approved equal. For non-reinforced canal lining, waterstops shall be polyvinyl chloride resin plastic and shall be base seal, tear web or flat strip type in conformance with U.S. Corps of Engineers Specifications CRD C572 and of the type and size shown on the Drawings and as manufactured by Sika (#581 for existing concrete to new concrete connections, #772, or #771), or

approved equal. All expansion joints shall be provided with an approved tear web type waterstop.

12. Swell Stop – Swells stops shall be Sika Swellstop, Sika Swellstop II, or approved equal.

13. Grout

    a) Non-settling grouting mortar shall be a non-shrink, non-metallic, cementitious grout, SikaGrout 212 by Sika Corporation, Masterflow 928 Grout by Master Builders, Five Star Grout by Five Star Products, Elephant Armor DOT, or approved equal.

    b) Epoxy grout for grouting reinforcing bars shall be specifically designed for such application, for the moisture condition, application temperature, and orientation of the hole to be filled.

F-5 Concrete Composition

Concrete shall be composed of cementitious materials, sand, water, and admixtures as specified, all well-mixed and brought to proper consistency. With prior approval of the Engineer, the exact proportions in which concrete materials shall be mixed may be varied by the Contractor to secure maximum economy and workability, subject to the overall requirements of concrete impermeability, density and durability, and the specific limitations placed herein on materials, content, strength and slump. However, the suitability of the mix shall be determined by the Engineer, and any adjustments in mix ordered by the Engineer to insure concrete of proper quality shall be made at no extra cost to the District. The Contractor, through approved testing laboratory, shall design the mix for each strength of concrete required.

The mix design shall be based on representative samples of aggregates, cement, water and admixtures to be used on the project. The mix design submittal shall include in addition to proportions of the ingredients, the results of testing of trial mix including water-cement ratio, air entrainment, slump and strength. A separate proposed mix design for each strength of concrete shall be submitted to the Engineer for review at least fifteen (15) days prior to placement of concrete in the work. If the Contractor elects to change aggregate source during the process of work, new mix designs meeting these requirements shall be submitted to the Engineer at least fifteen (15) days before such material is to be placed in the work.

The net water-cement ratio or water-cement plus pozzolan ratio of the concrete, exclusive of water absorbed by the aggregates, shall not exceed (0.48) by weight for structural concrete and shall not exceed (0.55) by weight for the canal lining concrete. Structural concrete shall contain a minimum of 564 (6 sack) pounds of cement per cubic yard concrete. The lining concrete shall contain a minimum of 517 (5 ½ sack) pounds of cement per cubic yard of concrete.

The use of pozzolan (fly ash) is not permitted.

Except as hereinafter specified, the slump of the concrete when placed shall not exceed 3 inches plus or minus 1 inch for structural concrete and 5 inches plus or minus 1 inch for non-structural concrete (non-reinforced canal lining) in conformance with ASTM C143.. If the specified slump is exceeded at placement, the concrete is unacceptable. Uniformity in concrete consistency from batch to batch will be required. To maintain concrete at the proper consistency, the amount of water and aggregates batched for concrete shall be adjusted to compensate for variations in the moisture content or grading of the aggregates as they enter the mixer. Addition of water in excess of the design water content to compensate for stiffening of the concrete after mixing, known as retempering, will not be permitted.

The compressive strength of the concrete shall be sufficient to ensure that each concrete mix meets the following requirements in accordance with ASTM C 39.

> The test cylinders shall have a compressive strength at twenty-eight (28) days in excess of **5,000 pounds per square inch for structural concrete**, **4,000 pounds per square inch for non-structural, steel reinforced concrete** and the test cylinders shall have a compressive strength at twenty-eight (28) days of **3,200 pounds per square inch for canal lining concrete**.

Air-entraining admixture shall be used in such amount as will affect the entrainment of from 3 to 5 percent of air, by volume, of the concrete at the placement.

F-6 Mixing of Concrete

Concrete may be mixed at the site of the work or by transit mix methods in conformance with ASTM C 94. The mixing time shall be sufficient to thoroughly mix the concrete but excessive overmixing requiring the addition of water to preserve the required consistency will not be permitted. Concrete shall not be mixed or placed while the atmospheric temperature is above 100°F, unless adequate means are employed to cool the aggregate and water and satisfactory provisions have been made for protecting the work. When concrete is to be placed during periods when the atmospheric temperature is above 100°F, the Contractor shall redesign the concrete mix specifically for hot weather conditions, and shall demonstrate the adequacy of the design by testing.

Mixers shall be capable of mixing and discharging concrete of the specified slump. Concrete shall be discharged within 1 ½ hours after the introduction of the mix water and cementitious materials into the mixer.

F-7 Forms

Forms shall be of such size and shape to yield formed concrete work conforming to the shape, line, grade and dimensions as shown on the Drawings. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete and shall be maintained rigidly in position. Forms shall be sufficiently tight to prevent loss of mortar from the concrete. Chamfer strips shall be placed in the corners and at the top of the wall line of the forms so as to produce beveled edges on permanently exposed concrete surfaces. Interior angles on such surfaces and edges of formed joints will not require

beveling, except where shown on the Drawings. The form sheathing or lining shall be so placed that the joint marks on the concrete surfaces will be in general alignment, both horizontally and vertically. Embedded wire ties for holding forms will not be permitted. Bolts and rods for form ties shall be so arranged that when the forms are removed, no metal shall be within one inch of any surface. Forms shall be removed as soon as practical after the concrete is placed, but not until the concrete has attained the necessary strength to support all live and dead loads occurring during the construction period. The specified repair and curing shall be commenced immediately thereafter. Forms shall be removed in such a manner as to prevent injury to the concrete. Wood forms shall be of sound lumber, free from loose knots or other defects, and of such quality that when treated or coated, there shall be no chemical deterioration or discoloration of the formed concrete surfaces. Plywood of adequate stiffness shall be used on all surfaces exposed to air or water. Lumber reused in forms shall be cleaned prior to reuse. Before concrete is placed, the forms shall be coated with an approved nonstaining commercial form oil.

F-8 Handling and Placing of Concrete

a. General

No concrete shall be placed until all form work, installation of parts to be embedded, and preparation of surfaces involved in placing have been approved by the Engineer. Placing of concrete shall conform to the applicable requirements of Chapter 8 of ACI 301 and the requirements of this specification.

Reinforcement, anchor bolts, sleeves, inserts, and similar items shall be set and secured in the forms at the locations indicated on the shop drawings and shall be acceptable to the Engineer before any concrete is placed. Accuracy of placement is the sole responsibility of the Contractor.

All surfaces of foundations upon or against which concrete is to be placed shall be free from standing water, mud, and debris. The surfaces of absorptive foundations against which concrete is to be placed shall be moistened thoroughly so that moisture will not be drawn from the freshly placed concrete.

Construction joints shall be cleaned of all laitance, loose or defective surface concrete and foreign materials by sandblasting and shall be thoroughly moist before concrete is placed against them.

Concrete shall not be deposited around any metal reinforcement until the Engineer has approved the reinforcement placed in the forms.

The concrete in each integral part of the structure shall be placed continuously. The Contractor will not be allowed to commence work on any monolithic part of a structure unless the inspected and approved materials on hand are sufficient to complete the part without interruption in placing of the concrete.

If for any reason the placing of concrete is interrupted long enough for the concrete to take a set, the working face shall be given a shape by the use of forms or other

means, that will insure proper union with subsequent work. Such construction joints shall only be made where acceptable to the Engineer.

The concrete shall be placed as nearly as possible in its final position by means that avoid segregation of the materials and displacement of reinforcement. In no case shall the free fall of concrete exceed 4-feet in walls and 8-feet in columns below the ends of ducts, chutes, or buggies. No re-tempering of concrete will be permitted.

b. **Joints in Concrete**

Concrete surfaces upon or against which concrete is to be placed, where placement of the concrete has been stopped or interrupted so that as determined by the Engineer, the new concrete cannot be incorporated integrally with that previously placed, are defined as construction joints, the surfaces of horizontal joints shall be given a compacted, roughened surface. Except where the drawings call for the joint surfaces are to be coated, the joint surfaces shall be cleaned of laitance, loose or defective concrete and foreign material, and be roughened to a minimum ¼-inch amplitude. The cleaning and roughening shall be accomplished by hydro-blasting. Pools of water shall be removed from the surface of the construction joints before the new concrete is placed.

c. **Required Temperatures for Concrete**

The temperature of concrete as mixed and placed shall not be less than 55°F, nor greater than 90°F. If, during day or night, the ambient temperature falls below, or is predicted to fall below 40°F, concrete shall be protected from freezing during placement and curing by means of heating of materials and other approved methods, as directed by the Engineer. The concrete mix for cold weather placement shall be maintained at a minimum temperature of 55°F during placement and this minimum temperature shall be maintained for the first seventy-two (72) hours of curing, minimum. At all times, the maximum temperature of concrete as placed shall be less than 90°F. When the temperature of concrete as placed may be 90°F or higher, as may be reasonably foretold from current temperatures of materials and the likelihood of rises in weather temperatures, the Contractor shall employ effective means, such as precooling aggregates and mixing water, use of ice as a part of the mixing water, shading aggregates, or placing at night, as necessary, to maintain the temperature of concrete as placed below 90°F.

d. **Vibration**

All concrete placed in forms shall be placed in layers not over twenty-four (24) inches deep, and each layer shall be vibrated into place to its maximum practicable density, free from pockets of coarse aggregate and in such a manner that surfaces shall be smooth and free from voids. Approved internal vibrators shall be used for all sections which are sufficiently large and shall be supplemented by platform or screed type vibrators in the event that satisfactory top surfaces cannot be obtained solely with the internal type; or internal vibrators shall be supplemented with vibrators operated against the outside of forms to improve vertical surfaces, as

required. Form vibrators shall be used when sections are too small for the internal type. Vibrators shall be adequately powered and capable of transmitting to the concrete not less than 7,000 impulses per minute when operating under load. The vibration shall be sufficiently intense to visibly affect the concrete over a radius of at least 18 inches. A sufficient number of vibrators shall be used so that the required rate of placement vibration is achieved uniformly throughout the entire volume of each layer of concrete and maximum consolidation of concrete is secured. With form or internal vibrators, vibration shall be such that concrete becomes uniformly plastic and there shall be at least twenty (20) seconds of vibration per square foot of surface of each layer of concrete, computed on the basis of the visibly affected radius and taking overlapping into consideration; however, over-vibration will not be allowed. At all times, the Contractor shall have available at least one (1) spare, workable vibrator of each type used. Either over-vibrated or under-vibrated concrete is subject to test and rejection.

e. **Removal of Forms**

Careful procedures for the removal of forms shall be strictly followed. This Work shall be done with care to avoid damage to the concrete. No heavy loading on green concrete shall be permitted. Members which must support their own weight shall not have their forms removed until they have attained at least 75 percent of the 28-day strength of the concrete. Forms for vertical walls and columns shall remain in place at least 48 hours after the concrete has been placed. Forms for parts of the Work not specifically mentioned herein shall remain in place for periods of time as recommended in ACI 347.

F-9 Tolerances for Concrete Construction

Deviations from established lines, grades and dimensions will be permitted to the extent set forth in the following list of tolerances:

Elevation of pipe inverts in structures	1 inch
Elevation of canal invert	1/2 inch (from design grade)
Elevation of top of structure	1/2 inch
Elevation of bottom of structure	1 inch
Variation of structures from specified grades, alignment or plumb in vertical members	1/2 inch in 10 feet and 1/2 inch total if over 10 feet
Departure from specified thickness of canal lining	-1/8 inch, + 1 inch
Departure from specified thickness of operating deck slabs	-1/8 inch, + 1/4 inch
Departure from cross sectional dimensions of columns, walls, beams, slabs	-1/4 inch, + 1/2 inch
Departure from cross sectional dimensions of footings	-0 inch
Width between stop log or weir board slots	-0 inch, + 1/2 inch

F-10 Reinforcing Steel

a. General

Reinforcing bars shall be cut, bent, and placed in the concrete where shown on the drawings or where directed. The Contractor shall furnish all reinforcing bars required for completion of the work. Unless otherwise indicated, dowels shall match the size and spacing of the spliced bars.

Reinforcing bars shall not be straightened or re-bent in a manner that will injure the material. Bars shall be bent or straight as indicated. The Contractor shall not use bends different from the bends indicated. Bars shall be bent cold unless otherwise permitted by the Engineer. No bars partially embedded in concrete shall be field bent except as indicated or specifically allowed by the Engineer.

b. Placing Reinforcing Bars

The placement of reinforcing shall conform to the requirements of ACI 318/318R 87, unless otherwise shown on the design drawings.

Reinforcing bars will be required to be placed in lengths up to 40 feet.

Splices shall be located where shown on the drawings, provided that the location of splices may be altered subject to the Engineer's written approval.

Subject to the Engineer's written approval, the Contractor may, for the Contractor's convenience, splice bars at additional locations other than those shown on the drawings. In order to meet design and space limitations on splicing, some bent bars may exceed usual shipping clearances. Cutting and bending of such bars from stock lengths may be required at the site.

Unless otherwise prescribed, placement dimensions shall be to the centerlines of the bars. Reinforcement will be inspected for compliance with the requirements as to size, shape, length, splicing, position, and amount after it has been placed.

Before reinforcement is embedded in concrete, the surfaces of the bars and the surfaces of any supports shall be cleaned of heavy flaky rust, loose mill scale, dirt, grease, or other foreign substances that, in the Engineer's opinion, are objectionable. Heavy flaky rust that can be removed by firm rubbing with burlap or equivalent treatment is considered objectionable. After being placed, reinforcement shall be maintained in a clean condition until the concrete is placed.

Reinforcement shall be accurately placed to meet the following tolerances:

1. The amount of concrete cover protecting reinforcement shall not deviate from that specified by more than 1/2 inch if the specified cover is more than 2 1/2 inches, nor by more than 1/4 inch if the cover specified is 2 1/2 inches or less.

2. The spacing of reinforcing bars shall not deviate from the required spacing by more than 1 inch. The minimum spacing requirements of ACI 318 shall be adhered to.

Reinforcement shall be secured in position so that it will not be displaced while the concrete is placed, and special care shall be exercised to prevent any disturbance of the reinforcement in concrete that has already been placed. Bars shall not be field-bent to the extent of permanent set, nor straightened, except as approved by the Engineer or shown in the drawings. Bars bent without approval shall be replaced. Welding or tack welding of reinforcing bars will not be permitted except at locations shown on the drawings or where approved by the Engineer. Chairs, hangers, spacers, and other supports for reinforcement shall be of concrete, metal, or other approved material. Where portions of such supports will be exposed on concrete surfaces that will be exposed to view, the exposed portion of the supports shall be galvanized or of other corrosion-resistant material, except that concrete supports will not be permitted. Unless otherwise shown on the drawings, reinforcement in structures shall be so placed that there will be a clear distance of at least 1 inch between the reinforcement and any anchor bolts, form ties, or other embedded metalwork.

Welded wire fabric reinforcement placed over horizontal forms shall be supported on slab bolsters having gray, plastic-coated standard type legs. Slab bolsters shall not be spaced at more than 30-inch centers and shall extend continuously across the entire width of the reinforcing mat.

Welded wire fabric placed over the ground shall be supported on wired concrete dobies spaced at not more than 3-feet on center in any direction. The construction practice of placing welded wire fabric on the ground and hooking it into place in freshly placed concrete shall not be permitted.

Laps of welded wire fabric shall be in accordance with ACI 318. Adjoining sheets shall be securely tied together with No. 14 tie wire, one tie for each 2 running feet. Wires shall be staggered and tied in such a manner that they cannot slip.

c. **Reinforcing Dowel Adhesive**

Dowel anchor adhesive shall be HIT-RE 500 V3 by Hilti; Sikadur 31, Hi-Mod Gel by Sika; SET-3G by Simpson; or equal.

F-11 Concrete Finishes

a. **General**

Surfaces shall be free from fins, bulges, ridges, offsets, honeycombing, or roughness of any kind, and shall present a finished, smooth, continuous hard surface. Allowable deviations from plumb or level and from the alignment, profiles, and dimensions indicated are defined as tolerances and are indicated above. These tolerances are to be distinguished from irregularities in finish as described below. Aluminum finishing tools shall not be used.

b. **Formed Surfaces**

Formed surfaces against which backfill will be placed require no treatment after form removal except filling of holes left by removal of fasteners and repair of defective concrete.

Formed surfaces of walls which will be exposed to view will be given a smooth finish.

c. **Unformed Surfaces**

Surfaces that are covered by backfill shall be formed by sufficient leveling and screeding to produce even, uniform surfaces. Unformed surfaces of structures not covered by backfill or concrete, shall receive a “float” finish. Floating shall be the minimum necessary to produce a surface free from screed marks and uniform in texture. Joints and edges shall be tooled where shown on the Drawings or as directed. For linings, hand finishing shall only be used to smooth out surface irregularities.

F-12 Curing and Protection

The Contractor shall protect all concrete against injury until final acceptance. Unless otherwise directed, all concrete shall be cured by membrane curing, using a white-pigmented liquid membrane curing compound. One coat of curing compound shall be spray-applied to concrete surfaces to provide a continuous, uniform white membrane over all areas. Coverage shall not exceed one-hundred fifty (150) square feet per gallon and on rough surfaces the coverage area per gallon shall be decreased as necessary or directed to obtain the required continuous membrane. When used on an unformed surface, application shall begin immediately after finishing operations are complete. When used on a formed concrete surface, the surface shall first be continuously moistened with a light spray of water until the surface will not readily absorb any more water. As soon as surface moisture film has disappeared and there is an approach to surface dryness, the curing compound shall be applied. In all cases, the curing compound shall be applied as soon after finishing operations as is possible without marring the surface. The light fog spray of moisture shall be continued to be applied to all surfaces if application of curing compound is delayed. Concrete shall be protected with temporary coverings during any appreciable delay between placing and finishing. Equipment for applying curing compound and the method of application shall be in accordance with the provisions of Chapter VI of the Eighth Edition of the Bureau of Reclamation Concrete Manual.

F-13 Repair of Concrete

Concrete that is damaged from any cause and concrete that is honeycombed, fractured, or otherwise defective shall be removed and replaced with dry-pack mortar, or concrete as directed and in accordance with Bureau of Reclamation "Standard Specification for Repair of Concrete". Repairs on concrete shall be made within twenty-four (24) hours after form removal. Each repair surface after being finished, shall be moistened and coated with curing compound.

F-14 Joints and Waterstops

Unless otherwise specified, all details as to location, spacing and construction of joints shall be as shown on the Drawings. No construction joints shall be made unless shown on the Drawings or directed by the Engineer.

Construction joints either shall be keyed joints or butt-type joints as shown on the Drawings or directed. Keyed construction joints shall be in conformance with details shown on the Drawings. Butt-type joints shall be made at right angles to the concrete surface affected. Waterstops and/or swellstop shall be installed in joints where shown on the Drawings.

a. Field Inspection of Water Stops

1. All construction joints with water stops shall be inspected by the District and Engineer per the following requirements. All defective joints shall be replaced with material which shall pass said inspection. Any rejected water stop shall not be used in construction. The following defects shall be grounds for rejection:

a) Offsets at joints greater than 1/16-inch or 15 percent of material thickness, at any point, whichever is less.

b) Exterior crack at joint deeper than 1/16-inch or 15 percent of material thickness, at any point, whichever is less.

c) Any combination of offset or exterior crack which will result in a net reduction in the cross section of the Water Stop in excess of 1/16-inch or 15 percent of material thickness at any point, whichever is less.

d) Misalignment of joint which results in misalignment of the water stop in excess of ½-inch in 10 feet.

e) Porosity in the welded joint as evidenced by visual inspection.

f) Bubbles or inadequate bonding which can be detected with a penknife test. (If, while prodding the entire joint with the point of a pen knife, the knife breaks through the outer portion of the weld into a bubble, the joint shall be considered defective).

g) Contractor shall notify the Engineer at least 24-hours before each concrete pour to allow for inspection of water stop.

F-15 Grout for Equipment and Metalwork

a. General

Non-settling grouting mortar shall be a non-shrink, non-metallic, cementitious grout, SikaGrout 212 by Sika Corporation, Masterflow 928 Grout by Master Builders, Five Star Grout by Five Star Products, Elephant Armor DOT, or equal. Grout placement shall be performed in accordance with the Manufacturer's instructions and recommendations.

b. Preparation of Surfaces and Placing Grouting Mortar

Before placing grouting mortars, the surface of base concrete to which the mortar will be bonded shall be roughened and cleaned of all laitance loose or defective concrete, curing compound and other coatings, and other foreign material by effective means, followed by thorough washing with water. If any delay occurs between the washing of the concrete and placing of the mortar, the surfaces of the concrete shall be lubricated by washing with water immediately before placing of the mortar. Forms shall be used where required to confine the non-settling grouting mortar. The mortar shall be placed completely filling spaces adjacent to equipment and metalwork as shown on the Drawings.

c. **Curing**

The exposed surfaces of mortar shall be cured for seventy-two (72) hours by keeping them covered with moist burlap, damp sand, or by other effective means.

Loads shall not be applied to the mortar sooner than seventy-two (72) hours after placement and shall be applied only after the mortar has attained a compressive strength of at least 3,000 pounds per square inch. Care shall be taken when applying loads on the hardened mortar and the Contractor shall be responsible for any damage thereto resulting from impact loads when positioning equipment or metalwork.

F-16 Construction of Concrete Lining

a. **Trimming**

Prior to placing the concrete for canal lining and to provide a firm foundation for the lining, the Contractor shall trim, finish, and moisten all foundation surfaces upon which the concrete lining will be placed to the lines and grades shown on the drawings or as directed. Surfaces to be trimmed shall include the earth surfaces of the excavated canal and the surfaces of compacted fill, compacted embankment, and compacted backfill. The subgrade for the concrete lining shall be finished accurately to the lines and grades established by the Engineer. Unauthorized excess excavation shall be refilled by the Contractor at his expense in horizontal layers with suitable approved material, moisture-conditioned as required, and compacted to a density of 95 percent in accordance with applicable requirements of Section E, except that for sloping subgrades, fill or refill material may be placed and compacted in layers with a corresponding slope. Similarly, any natural foundation material disturbed or loosened during canal excavation operations or material lost as a result of weathering shall be recompacted in place, or if directed, the disturbed and loosened material shall be removed and replaced with approved compacted material, all at the expense of the Contractor. As determined by the Engineer, where unsuitable existing subgrade material is encountered, the subgrade material shall be excavated and replaced with approved refill material.

b. **Placement of Concrete Lining**

Concrete lining shall be placed to the lines and grades shown on the drawings or as directed. All concrete work shall conform to applicable requirements under Section F. Unless otherwise directed, the Contractor shall place all lining by means that will vibrate, screed, and rough-finish the lining to the required thickness, lines, and grades. **Shotcrete or Gunite method of placement and associated materials will not be accepted or approved.** Lining shall be placed monolithically, except that when placing operations are stopped for any other cause, the end of the fresh concrete lining shall be bulkheaded to a vertical surface. When placing operations are resumed, a grooved joint shall be constructed as specified under Paragraph F-16, Subsection (c). The hardened surface against which fresh concrete is to be placed shall be cleaned, roughened, moistened, and slushed with a coat of neat

cement grout before new concrete and joint material are installed to complete the joint. As shown on the drawings, the Contractor shall place uncompacted earth fill on the berms along the top of the canal lining; fill in the berms shall be obtained from canal excavations.

c. **Grooved Joints and Sawcuts**

Transverse grooves and sawcuts shall be formed or cut in the newly placed concrete as extensions of existing transverse grooves or sawcuts. All grooves and sawcuts shall be a minimum of 1.5 inches deep and maximum of 2 inches deep. All grooves and sawcuts shall be made along straight lines and shall be maintained to the required slope and dimensions during any subsequent finishing operations until the concrete has hardened. Grooves and saw cuts shall be made in such a manner that spalling or tearing of adjacent concrete is avoided. Concrete adjacent to grooves and saw cuts shall have a surface finish equivalent in smoothness to that required for canal linings as specified elsewhere under Section F. All affected concrete surfaces and grooves shall be clean and free from water, unspecified foreign material, laitance, and loose or defective surface concrete during all phases of joint construction.

F-17 Concrete Slurry

a. **General –** Concrete slurry shall be composed of cement, aggregates (sand), water and any specified admixtures of the qualities and proportions specified herein, all well mixed and brought to the proper consistency and all mixed in proportions as directed or approved by the District. A concrete mix design shall be submitted to the District for review and approval prior to delivery to the site.

Mix – The concrete slurry mix shall contain not less than 1 1/2 sacks of cement per cubic yard – unless otherwise indicated on the Drawings.

b. **Placement –** Concrete Slurry shall be placed within trench as a monolithic pour and consolidated using vibratory equipment such that the concrete slurry is consolidated into a continuous wall with no voids between the re-constructed levee sections and around the pipe as shown on the plans. Surfaces that are covered by backfill shall be formed by sufficient leveling and screeding to produce even, uniform surfaces.

F-18 Geo-textile Fabric <u>(NOT USED)</u>

a. **General –** Geo-textile fabric shall be **Mirafi FW400 Geotextile Fabric per Section 72 of State of California, Department of Transportation Standard Specifications** (Cal Trans) or approved equivalent.

b. **Placement –** Geo-textile fabric shall be placed per Section 72 of State of California, Department of Transportation Standard Specifications (Cal Trans).

F-19 Rip-Rap (NOT USED)

a. **Materials** – Rip Rap shall be clean concrete or rock no larger than 16 inches in the largest dimension, without steel reinforcement, wood, rubbish or other deleterious materials. Rip Rap shall be placed in an orderly fashion to the dimensions specified so as to produce a uniform finished appearance without large voids or sharp protrusions.

Rip-rap shall be sound, dense and durable with a bulk specific gravity of not less than 2.5. Rip-rap shall be angular to sub-rounded in shape with the greatest dimension not greater than three times the least dimension. The rip-rap shall conform to the grading limits given below unless otherwise specified.

Percent Passing	Size, Inches
100	16
50	10
10	6

b. **Subgrade Preparation** - The subgrade surfaces on which the rip-rap, bedding or filter course, where indicated on the Plans, is to be placed shall be cleared and graded prior to placement of bedding or rock. When fill to subgrade lines is required, it shall consist of approved materials and shall conform to the requirements contained in these specifications.

c. **Placement** - The rip-rap shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of the underlying materials which includes geotextile (where indicated on the Plans). The rock or concrete shall be delivered and placed in a manner that will ensure that the rip-rap in place shall be reasonably homogeneous with the larger materials uniformly distributed and firmly in contact one to another with the smaller rocks/concrete, filling the voids between the larger rocks/concrete.

Rip-rap shall be placed in a manner to prevent damage to structures. Hand placing will be required to the extent necessary to prevent damage to the permanent works and to achieve the finished surface placement. Rip-rap shall be securely bedded firmly in contact one to another. Spaces between the larger rip-rap shall be filled with smaller rocks, concrete and spalls. Smaller rip-rap shall not be grouped as a substitute for larger rock/concrete materials. Refer to Section 72 of State of California, Department of Transportation Standard Specifications (Cal Trans) & "GreenBook" Standard Specifications - Section 300.

F-20 Safety Cable with Floats (NOT USED)

a. General - The Contractor shall furnish and install safety cables with floats at the locations shown on the drawings.

b. Materials

1. Wire Rope – Nylon-covered cable with a 14,000-pound minimum tensile strength equal to nylon-covered cable marketed by McMaster-Carr Supply Co.

2. Wire rope clamps – Federal Specification FFC-450D, type I, class 2, hot dipped, zinc coated (galvanized).

3. Rope thimbles – Federal Specification FF-T-276B, type III, hot dipped, zinc coated (galvanized).

4. Anchor Posts – Anchor posts shall be steel pipe, shall be ASTM A501 or ASTM A53, Type E or S. All other shapes, plates, and bars shall be ASTM A36, unless noted otherwise. Anchor Posts shall be hot dip galvanized after fabrication per ASTM A123, unless otherwise specified, and shall be painted in accordance with Section H (Painting and Coating).

5. Bolts – Bolts for connections shall be ASTM A325N, unless indicated otherwise indicated. Bolts used to connect dissimilar metals shall be ASTM A193 and A194, Type 316 stainless steel. All carbon steel bolts and nuts and other threaded fasteners shall be hot-dip galvanized per ASTM A153.

6. Floats – The floats shall be 6-inch-diameter orange cylinders, 18 inches long, with integral ends and line-through holes. The line-through holes shall have a counter-bore molded at least 1-1/2 inches in to the float to provide line wear surface. All intersecting planes shall have a minimum of 3/8-inch radius. The inner diameter of the line through holes and the counter-bore of the polyurethane foam shall not be less than 7/8 inch nor more than 1-1/4 inches. The float shell shall be molded of polyethylene, with a minimum specific gravity of 0.95, and shall have an ultraviolet inhibitor incorporated in to the polyethylene. The color pigment shall be incorporated into the polyethylene during manufacture.

   The minimum wall thickness of the float shell at any point shall be 0.1 inch. The float shell shall be filled with a 2-pound density polyurethane foam. The polyurethane shall have a minimum of 95 percent closed cells and shall not absorb more than 10 percent water, by weight, when immersed for 24 hours under a 6-inch head of water.

F-21 Safety Ladders

Safety Ladders shall be made from stainless steel reinforcing bars (rebar), type 316 or 304, per ASTM A955 and cut, bent, and installed in the lengths, angles, and locations shown in the plans. All stainless steel ladder rungs shall be set via drilling and epoxy anchoring after concrete lining has been constructed, using Hilti HIT-RE 500 V3 or approved equal. In no circumstances will stainless steel rebar be tied or welded to dissimilar metals.

F-22 Measurement and Payment

Measurement and payment for Concrete, Concrete Slurry, Geotextile Fabric (where indicated), Rip-Rap and Safety Cable with Floats shall include the cost of all work and materials specified in this section including transportation and delivery. Such payment shall constitute full compensation for all labor, equipment, tools and all other items necessary and incidental to the completion of the work. Payment shall be as stated in the Proposal Bidding Schedule.

****END OF SECTION****

SECTION G

STRUCTURAL STEEL AND MISCELLANEOUS METALS

G-1 General

The Contractor shall provide all labor, materials, and equipment and shall perform all operations required to furnish and install, complete, all structural steel and miscellaneous metals. Painting and protective coatings for ferrous metalwork shall be as specified in Section L.

G-2 Quality Control

a. General

All items required under Section G of the Specifications shall be of the sizes, shapes and materials as indicated on the drawings or specified herein. All materials shall be new, free from defects impairing strength, durability and appearance, shall be of the best commercial quality for the purposes specified and made with structural properties to withstand all stresses and strains to which they normally will be subjected. Items furnished, unless otherwise specified, shall be standard approved products of recognized manufacturers and fabricated in accordance with the best shop methods. All incidental items and accessories not shown on the drawings or specified herein, but which are required to fully carry out the specified intent of work, shall be furnished without additional cost.

b. Shop Drawings and Mill Reports

Shop drawings of all fabricated units shall be submitted to the Engineer for review in accordance with applicable provisions of Section D. Shop drawings shall conform to AISC recommendations and specifications and shall show all holes, etc. required for other work. Drawings shall include complete details showing all members and their connections, anchor bolt layouts, schedules for fabrication procedures, and diagrams showing sequence of erection.

Layout drawings for grating shall be submitted showing the direction of span, type and depth of grating, size and shape of grating panels, seat angle details, and details of hold down fasteners. Load and deflection tables shall be submitted for each style and depth of grating used.

Erection layout drawings of metal decking where occurs showing the location of deck sheets, end laps, side laps, types and locations of welds, and details of accessories shall be submitted. An ICBO report for each type of metal deck used shall be submitted. In addition the Contractor shall submit certification furnished by the deck manufacturer of the yield strength of the steel used for the metal deck. The Contractor shall also submit gage and section properties and diaphragm shear values for the deck supplied using the welding pattern shown on the drawings.

An ICBO report listing the ultimate and allowable load capacity in tension and shear for each size and type of concrete anchor shall be submitted.

No substitution for the indicated anchors shall be considered unless the request for substitution is accompanied by an ICBO report verifying strength and material equivalency, including temperature at which load capacity is reduced to 90 percent of that determined at 75 degrees F.

Testing laboratory certifications for shop and field welders shall be submitted to the Engineer prior to the start of work.

The Engineer reserves the right to reject any material at any time before final acceptance of Contract work, if, in the opinion of the Engineer, the materials and workmanship do not conform to any or all requirements of the Specifications.

G-3 Structural Steel

a. General

The Contractor shall furnish and install all structural steel as shown on the drawings and specified herein.

b. Materials

Unless otherwise specified or shown on the drawings, materials shall be in conformance with the following requirements. All members shall be furnished full length, without splices, unless otherwise indicated or approved by the Engineer.

1. Wide flange shapes shall be stainless steel type 304 per ASTM 1069. All other shapes, plates, and bars shall be stainless steel type 304 per ASTM 1069, unless noted otherwise. Where carbon steel is allowed, wide flange shapes shall be ASTM A992 or ASTM A572, Grade 50. All other shapes, plates, and bars shall be ASTM A36, unless noted otherwise.

2. Structural steel pipe shall be stainless steel type 304 per ASTM 1069. Where carbon steel is allowed, structural steel pipe shall be ASTM A501 or ASTM A53, Type E or S, Grade B.

3. Structural tubing shall be stainless steel type 304 per ASTM 1069. Where carbon steel is allowed, structural tubing shall be ASTM A500, Grade B.

4. All steel embedded in structures shall be stainless steel.

5. All structural steel shall be stainless steel type 304 per ASTM 1069. Where carbon steel is allowed, structural steel shall be hot-dip galvanized after fabrication per ASTM A123, unless otherwise specified.

6. Bolts - Bolts for connections shall be stainless steel type 304 per ASTM 1069.

7. Bolts used to connect dissimilar metals shall be ASTM A193 and A194, type 316 stainless steel. Where carbon steel bolts are allowed, bolts shall be ASTM A193 and A194, Type 316 stainless steel. All carbon steel bolts and nuts and other threaded fasteners shall be hot-dip galvanized per ASTM A153.

8. Anchor bolts and headed studs shall be ASTM 193 type 316 stainless steel, unless otherwise indicated. Nuts and washers shall be of the same material as the bolts and shall be capable of developing the full strength of the bolts.

9. All-thread shall be Type 316 Stainless Steel or Type 304 Stainless Steel.

10. Nuts shall be of the same material as the bolts and shall be capable of developing the full strength of the bolts.

11. Bolts and nuts shall be installed with washers fabricated from material matching the base material of the bolts, except hardened washers for high strength bolts shall conform to the requirements of the AISC Specification.

12. The length of each bolt shall be such that after the joint is made up, the bolt extends through the entire nut, but no more than 1/2-inch beyond the nut.

c. Fabrication and Installation

Structural steel shall be fabricated in accordance with the drawings, AISC Specifications, and as shown on the approved shop drawings. Materials shall be properly marked and match-marked for field assembly. Where finishing is required, assembly shall be completed, including bolting and welding, before the start of finishing operations.

1. Unless otherwise specified or shown on the drawings, all embedded metalwork shall be set accurately in position when concrete is placed and shall be supported rigidly to prevent displacement or undue vibration during or after the placement of concrete. Unless otherwise specified, where structural steel is to be installed in recesses in formed concrete, said recesses shall be made, structural steel installed, and recesses filled with drypack mortar in conformance with applicable provisions of Section F. All anchor bolt assemblies shall be in accordance with details shown on the drawings.

2. All surfaces of structural steel, except stainless steel or galvanized surfaces, shall be painted or coated after installation in accordance with applicable provisions specified elsewhere under Section L. Structural steel with damaged galvanized surfaces either shall be repaired or replaced at the option of the Engineer, and at no additional cost to the District. Repair of galvanized surfaces shall be effected with Galvanox repair compound, as manufactured by Subox, Inc., Z.R.C. Cold Galvanizing Compound, as manufactured by ZRC Products Company, or approved equal. All damaged and uncoated areas shall be repaired per ASTM A780.

3. Connections – Shop and field connections shall be bolted or welded as shown or specified. All connections shall develop the full strength of the members joined and shall conform to AISC standard connections, unless noted otherwise on the Drawings.

4. Welding shall comply with the requirements of AWS D1.1, latest revision. Shielded metal arc welding method shall be used for welding structural steel. Upon completion of welding, weld splatter, flux, slag, and burrs left by attachments shall be removed. Welds shall be repaired to produce a workman like appearance, with uniform weld contours and dimensions. Unless otherwise shown, all butt and bevel welds shall be complete penetration.

5. Welding of stainless steel members shall comply with the requirements of AWS D1.6, latest revision. Stainless steel shall be welded with a MIG welding apparatus, and welded by personnel with adequate experience in welding stainless steel. Where applicable, the length and spacing of welds shall be confirmed by the Engineer prior to welding.

6. Holes for other work shall be provided as necessary or as indicated for securing other work to the structural steel framing, and for the passage of other work through steel framing members. No torch cut holes will be permitted.

d. Product Delivery, Storage, and Handling

Structural members shall be loaded in such a manner that they may be transported and unloaded without being excessively stressed, deformed, or otherwise damaged. Structural steel members and packaged materials shall be protected from corrosion and other deterioration. Material shall be stored in a dry area and shall not be placed in contact with the ground. Contractor shall repair or replace damaged materials as directed.

e. Erection

The Contractor shall comply with the AISC Specifications and Code of Standard Practice and with specified requirements. Structural steel shall be set accurately to the lines and elevations indicated. Members shall be aligned and adjusted to form a complete frame or structure before being permanently fastened. Surfaces which will be in permanent contact shall be cleaned before assembly. Adjustments necessary to allow for discrepancies in elevations and alignments shall be performed.

High strength bolts shall be installed in accordance with the AISC Specification for Structural Joints Using ASTM A325 Bolts. The connections shall be friction type, unless otherwise indicated.

Incorrectly sized or misaligned holes in members shall not be enlarged by burning or by the use of drift pins. Correction of misfits is part of the Work. Gas cutting torches shall not be used in the field for correcting fabrication errors except when approved by the Engineer.

Anchor bolts and other connectors required for securing structural steel or equipment to in-place work, and templates and other devices for presetting bolts and other anchors to accurate locations shall be furnished by the Contractor.

The Contractor shall be responsible for designing, supplying, and installing any temporary bracing required for the safe erection of all structural steel.

f. Setting Bearing and Base Plates

Before placing non-shrink grout under bearing and base plates, the plates and the concrete or masonry bearing surface shall be cleaned of all bond reducing materials. The concrete or masonry bearing surface shall also be roughened to improve bonding.

Base plates and bearing plates for structural members and equipment shall be set on wedges, leveling nuts, or other adjustable devices. Baseplates shall be grouted prior to loading the structure to assure uniform bearing. Anchor bolts shall be tightened after the supported members have been positioned and plumbed and the grout has attained its indicated strength.

G-4 Miscellaneous Metals

a. General

The Contractor shall furnish and install all miscellaneous metals in conformance with details shown on the drawings and as specified herein.

b. Materials

Unless otherwise specified or shown on the drawings, materials shall be in conformance with the following requirements:

1. **Stainless Steel – Unless otherwise indicated, stainless steel metalwork and bolts shall be Type 316 or Type 304 stainless steel.**

2. Aluminum – Unless otherwise indicated, aluminum metalwork shall be Alloy 6061-T6. Aluminum in contact with concrete, masonry, wood, dissimilar metals, or porous materials shall have contact surfaces coated in accordance with Section L.

3. Cast Iron – Cast-iron castings and sleeves shall be in conformance with AWWA C100, Class D.

4. Metal Grating - Metal grating shall be of the design, types, and sizes indicated. Bearing bars in each panel shall be banded at the ends with banding bars of the same size as the bearing bars, welded to each bearing bar. All openings in grating that require cutting of more than three bearing bars shall be finished in the same manner as the ends of the grating panels. All pieces of grating shall be fastened in two locations to each support Grating shall be smooth (non-serrated) unless otherwise indicated on the drawings.

   Where grating forms the landing at the top of a stairway, the edge of the grating which forms the top riser shall have an integral non-slip nosing with a width equal to that of the stairway treads.

   Except where otherwise indicated bar grating shall be galvanized steel with cross bars welded into position.

5. Checkered Plate – Where no material is indicated on the drawings checkered plate shall be A36 steel. Checkered plate shall have a pattern of raised lugs on one face and shall be smooth on the opposite face. Lugs shall be a minimum of one-inch in length and raised a minimum of 0.050-inches above the surface. The lugs shall be located in a pattern in which the lugs are oriented at 90 degrees from the adjacent lugs in two orthogonal directions and the rows of lugs shall be oriented at 45 degrees from the edges of the plates.

6. Grating Stair Treads - Grating stair treads shall be designed to support a live load of 100 psf or a concentrated load at mid-span of 1000 pounds, whichever creates the higher stress. The maximum deflection due to the uniform live load shall not exceed ¼-inch or the span divided by 180,

whichever is less. All grating stair treads shall have an integrated non-slip nosing. Grating stair treads shall be hot dip galvanized per ASTM A123.

7. Stair Safety Nosing - Stair safety nosing shall be provided on all concrete stairs and at other locations as indicated. The nosing shall be 3-inch wide, extruded aluminum with cast-in abrasive strips and integral extruded anchors. The color of the nosing shall be selected by the Engineer from the manufacturer's standard colors. The nosing shall be Amstep Products Company, "Amstep 231A"; American Safety Tread Company, "Type 2211" or approved equal.

8. Ladders – Ladders shall be stainless steel, unless otherwise indicated. Every ladder which does not have an exterior handhold shall be equipped with a pop-up extension. The pop-up extension device shall be of the same material and finish as the ladder with a telescoping tubular section that locks automatically when fully extended. Upward and downward movement shall be controlled by stainless steel spring balancing mechanisms. Units shall be completely assembled with fasteners for securing to the ladder rungs in accordance with manufacturer's instructions.

9. Floor Hatches - Where access hatches are mounted on a floor slab (including top slabs which are not covered with a roofing membrane) or on a concrete curb, the hatch shall be a flush type as indicated herein. Hatches mounted on a roof surface which has a membrane or other roofing material covering it shall be the integral raised curb type.

   Hatches shall be fabricated from Aluminum 6061 T6, unless otherwise indicated. Hatch hardware shall be Type 316 stainless steel. Hatches shall be gutter-type; Bilco Type "J" or "JD" Babcock-Davis type "FT" or "AM" or equal.

   The design live load shall be 300 psf, unless indicated otherwise.

   Hatch opening sizes, number and swing direction of door leaves, and locations, shall be as indicated. Sizes are for the clear opening. Where the number of leaves is not given, openings larger than 42 inches in either direction shall have double-leaf doors. Unless indicated otherwise, hinges shall be located on the longer dimension side. Unless indicated otherwise, ladder hatches shall be a minimum of 30 inches wide by 38 inches long, with the ladder centered on the shorter dimension, and the door hinge opposite the ladder.

   Door leaves shall be a minimum of 1/4-inch thick checkered pattern plate. Channel frames shall be a minimum of 1/4-inch material with an anchor flange around the perimeter. Hatches shall be provided with an automatic

hold-open arm with release handle. Hatches shall be designed for easy opening from both inside and outside.

Hatches shall be designed to be water-tight and shall be equipped with a joint gutter and moat-type edge drain. A minimum 1-1/2-inch diameter drain connection shall be provided, located by the manufacturer.

Hatches shall include a recessed hasp for a padlock that is covered by a hinged lid flush with the surface.

10. Metal Decking (where occurs) – All metal deck shall be manufactured from steel conforming to ASTM A611, Grades C, D, or E; or A446, Grades A, B, C, D, E, or F, or equal, having a minimum yield strength of 33,000 psi. The maximum design working stress of the deck shall not exceed 0.6 times the yield strength.

The structural properties of the deck shall be shown on the drawings. The moment of inertia and section modulus of the deck shall be computed in accordance with the Steel Deck Institute specifications and in accordance with the American Iron and Steel Institute Specification for the Design of Cold-Formed Steel Structural Members.

All steel deck shall be galvanized and shall conform to ASTM A 653.

Decking stored at the job site before erection shall not be in contact with the ground and shall be protected from the weather.

The metal deck shall have a sheet length that covers a minimum of 3 spans.

The metal deck shall be formed at the longitudinal edges in such a manner that they will overlap and/or interlock. Where the ends of sheets overlap they shall be die-formed such that the sheet in the next row telescopes and snugly overlaps the sheet laid previously.

All plates required to connect decking to the supports or to maintain continuity shall be a minimum of 14-gauge and shall be galvanized.

Metal deck sheets shall be positioned on supporting steel framework and adjusted to final position with ends bearing a minimum of 2-inches on supporting members. Units shall be placed end to end, with all ribs aligned over the entire length of the run before being permanently fastened.

Special care shall be exercised not to damage or overload the deck during installation. The deck shall not be used for storage or as working platforms until permanently secured in position. Construction loads shall

not exceed the deck carrying capacity, as recommended by the manufacturer.

All openings in the deck shall be cut and fitted neatly and shall be reinforced with structural steel members to distribute the load.

Where concrete fill is required on the Drawings, deck shall be installed with closure plates and other accessories as needed to prevent loss of water, cement, and fines during placing and consolidation of the concrete.

Care shall be exercised in the selection of electrodes and an amperage to provide positive welds and to prevent high amperage blow holes. Welds shall be made from the top side of the deck immediately after alignment.

The metal deck shall be welded to all supporting members with 1/2-inch effective diameter puddle welds spaced at 12-inches on center at members parallel to the ribs and at every rib valley at members perpendicular to the ribs, unless otherwise shown on the Drawings. Welding washers shall be used when welding steel deck of less than 0.028-inch thickness. Welding washers shall not be used when welding steel deck of 0.028-inches or greater.

Side laps shall be welded with 1 1/2 inch long top seam welds, spaced at 12-inches on center unless indicated otherwise.

All welds shall be free of sharp points or edges. All welds shall be cleaned immediately by chipping or wire brushing and shall be coated with a zinc dust type primer paint.

Welding shall conform to the applicable requirements of AISC "Light Gauge Steel Design." Welders shall be AWS certified.

11. Drilled Anchors – Drilled anchors and reinforcing bars shall be installed in strict accordance with the manufacturer’s instructions. Holes shall be roughened with a brush on a power drill, cleaned and dried. Drilled anchors shall not be installed until concrete has reached the required 28-day compressive strength. Adhesive anchors shall not be loaded until the adhesive has reached its indicated strength in accordance with the manufacturer’s instructions. Material for drilled anchors shall be as shown on the drawings.

12. Adhesive Anchors - Unless otherwise indicated all drilled concrete or masonry anchors if indicated or permitted by the Engineer shall be epoxy adhesive anchors. Epoxy adhesive anchors shall not be permitted in areas where the concrete temperature is in excess of 100 degrees F or higher than the limiting temperature recommended by the manufacturer. Epoxy

anchors shall not be used where the anchors are subject to vibration or fire. Embedment depth shall be as shown on the drawings or as recommended by the manufacturer for the loads to be supported. Adhesive anchors shall be Hilti HIT-RE 500-SD adhesive anchors (ICC-ESR No. 2322) as manufactured by Hilti, Inc. or approved equal.

13. Expansion Anchors – Expansion anchors if indicated or permitted shall be stainless steel expansion anchors. Diameter and embedment shall be as indicated on the drawings.

14. Handrail – All handrail shall be fabricated from structural steel pipe unless otherwise indicated. All exposed welds in handrail shall be ground smooth and flush. Unless fabricated with stainless steel, all handrails shall be welded and hot dip galvanized after fabrication, unless stainless steel is used.

G-5 Payment

No separate payment will be made for structural steel and miscellaneous metal work. All costs therefore shall be included in the lump sum price bid in the Schedule of Pay Items for the item of work requiring structural steel and miscellaneous metal work.

****END OF SECTION****

SECTION L – PAINTING AND COATING

L-1 General

The Contractor shall provide all labor, materials and equipment and perform all operations required to paint or protectively coat and line ferrous metalwork, pipe and other surfaces which have not been specified in other sections of these Specifications.

L-2 Quality Control

a. **General –** Unless otherwise specified, the Contractor shall clean and paint or protectively coat the surfaces of all ferrous metalwork installed above-ground in conformance with the schedule below. Surfaces of items to be completely embedded in concrete, and galvanized and stainless steel surfaces and nonferrous surfaces, including aluminum and bronze surfaces, shall not be painted. Regardless of the method of cleaning specified in this Section, surfaces of all metalwork shall be cleaned of oil, grease, dust, dirt, rust, loose mill scale and other foreign substances by approved means prior to painting or coating; where specified, power tool cleaning or sandblasting shall be performed. Damaged areas of shop painted surfaces shall be cleaned and repainted to match existing at the Contractor's expense. No paint or coating shall be shop or field applied in inclement weather or when the ambient temperature is below 45 F. Materials which have been painted shall be handled with care and protected as necessary to preserve the painted surfaces in good condition. Items or surfaces not to be painted but which are adjacent to surfaces to be painted shall be protected against contamination and damage during cleaning and painting operations.

b. **Submittals –** In accordance with the applicable requirements of the General and Special Conditions, the Contractor shall submit to the Engineer for approval a list of the manufacturer and type of all paints to be used for the work. Should samples be required for testing the suitability of any paint, the Contractor shall supply any such samples including such manufacturer's certifications as are required.

L-3 Materials

a. **General –** The paint shall conform to the quality standards specified herein for the various types of paint and shall be manufactured by Pittsburgh Paint Co., Tnemec Company, Inc. or equal. Paint colors shall be selected by the Engineer from standard color charts supplied by the paint manufacturer. The color of the first coat of paint shall be white or other approved color providing discernible contrast with finish coat.

b. **High Build Epoxy –** PPG Amercoat 395FD or Series V69, Hi Build, Epoxoline II

c. **Fusion Epoxy** – 3M Scotchkote 134 or approved equal.

d. **Polyurethane –** PPG Pitthane 95-812 or Series 1075, Endura-Shield II

e. **Epoxy Primer –** PPG 97-145 Pitt-Guard or Series V69, Hi Build Epoxoline II

f. **Polyamide Epoxy Primer –** PPG 97-145 Pitt-Guard or Series V69, Hi Build Epoxoline II

g. **Coal Tar –** Res Coal Cat or Series 46H-413, Hi-Build Tnemec Tar

L-4 Surface Preparation

Surface preparation shall be in accordance with the methods herein and as indicated in the Schedule for Painting and Protective Coatings. Power tool cleaning, commercial blast cleaning, and near-white blast cleaning shall be in accordance with Specifications SSPC-SP4, SSPC-SP6, and SSPC-SP10, respectively, as published by the Steel Structures Painting Council.

L-5 Schedule for Painting and Protective Coatings

Item	Paint or Coating System for Exposed Surfaces
1. Ladders and ladder rungs, safety cable, all nuts, bolts, washers and fasteners including anchor bolts.	All surfaces shall be stainless steel. Safety cable may be stainless steel or hot-dip galvanized.
2. All metalwork, operating platforms, including structural steel, grating, checkered plate, handrails, minor steel pipe, all other field fabricated structural work and miscellaneous metal work including pipe supports, flange supports, pipe tie down straps and marker posts, unless galvanizing or other protective coating is specified or shown on the Drawings.	Solvent cleaning of dirt and scum followed by SSPC-SP6, commercial sandblasting to remove all loose rust, mill scale and other foreign substances followed by one shop coat of epoxy primer paint to 3.0-5.0 mil thickness, one field coat of epoxy primer to 2.0-3.0 mil thickness, and one finish coat of polyurethane to a minimum thickness of 2.0 to 5.0 mils (minimum dry film thickness of total paint system–12.0 mils).

Item	Paint or Coating System for Exposed Surfaces
3. All aboveground cast iron and steel valves, fittings and castings, not including brass.	Solvent cleaning of dirt and scum followed by SSPC-SP6, commercial sandblasting to remove all loose rust, mill scale and other foreign substances followed by one shop coat of epoxy primer paint to 3.0-5.0 mil thickness, one field coat of epoxy primer to 2.0-3.0 mil thickness, and one finish coat of polyurethane to a minimum thickness of 2.0 to 5.0 mils (minimum dry film thickness of total paint system–12.0 mils).
4. Above and below ground steel piping. (Unless stainless steel.)	Shop fusion bonded epoxy lined and coated in accordance with AWWA C213 or liquid epoxy lined and coated conforming to AWWA C210, minimum dry film thickness of 20 mils both inside and outside. All application and curing shall conform to manufacturer's specifications. All above ground piping exterior shall then be primed with one field coat of epoxy primer to 2.0-3.0 mil thickness and painted with two spray coats of polyurethane to 5.0 mil thickness (minimum dry film thickness of total paint system – 27.0 mils). All below ground piping exterior shall be wrapped with 50% overlap using 10 mil Polyken 900 (polyethylene) pipe tape or approved equivalent (20 mil overall thickness of tape), in lieu of epoxy primer and polyurethane (7 mil) coating indicated above.
5. Above Ground PVC	Cleaned and prepped as recommended by primer manufacturer, primed with one field coat of epoxy primer to 2.0-3.0 mil thickness and painted with 2 spray coats of polyurethane paint to a total thickness of 5 mils.

L-6 Application

All paint shall be applied in a workman-like manner, in accordance with the most recently written Product Data Sheet from the Paint Manufacturer, by conventional or airless spray. The applications shall leave no sags, brush marks, pinholes, overspray or other defects. Drying time between coats shall adhere to the coating manufacturer's recommendation with conditions of temperature, humidity, and ventilation taken into account. Cleaning and painting shall be scheduled so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces. Area shall be masked and protected to prevent overspray while applying coating. Wherever required, imperfections and holes in surfaces to be coated shall be cleaned and filled in an approved manner.

Paint shall not be applied to wet or damp surfaces.

L-7 Payment

No separate payment will be made for work or materials involved in cleaning and painting or providing protective coatings for metalwork as specified herein. The cost of all such work and materials shall be included in the applicable lump sum price stated in the Proposal Bidding Schedule for the item of work requiring painting or coating.

END OF SECTION

Appendix A – Prevailing Wage Determination Issued by the Department of Labor

"General Decision Number: CA20260020 07/30/2026

State: California

Construction Types: Building, Heavy and Highway

Counties: California Counties of
Inyo, Kern and Mono

Building Construction Projects
Dredging Projects-Includes Dredging Projects (does not include hopper dredge work)
Heavy Construction Projects (excludes water well drilling)
Highway Construction Projects

Modification Number	Publication Date
2	01/30/2026
3	05/18/2026
4	07/14/2026
5	07/30/2026

ASBE0005-001 07/01/2024

	Rates	Fringes
INSULATOR/ASBESTOS WORKER: INCLUDES THE APPLICATION OF ALL INSULATING MATERIALS, PROTECTIVE COVERINGS, COATINGS & FINISHES TO ALL TYPES OF MECHANICAL SYSTEMS INYO AND KERN	$ 56.32	26.52

ASBE0005-001 09/01/2024

	Rates	Fringes
FIRE STOP TECHNICIAN: APPLICATION OF FIRESTOPPING MATERIALS FOR WALL OPENINGS AND PENETRATIONS IN WALLS, FLOORS, CEILINGS AND CURTAIN WALLS (INYO AND KERN)	$ 39.94	20.65

ASBE0005-005 07/04/2022

	Rates	Fringes
ASBESTOS REMOVAL WORKER/HAZARDOUS MATERIAL HANDLER: INCLUDES PREPARATION, WETTING, STRIPPING, REMOVAL, SCRAPPING, VACUUMING, BAGGING AND DISPOSING OF ALL INSULATION MATERIALS FROM MECHANICAL SYSTEMS, WHETHER THEY CONTAIN ASBESTOS OR NOT (INYO AND KERN)	$ 23.52	13.37

ASBE0016-003 01/01/2024

	Rates	Fringes
ASBESTOS WORKERS/INSULATOR: INCLUDES THE APPLICATION OF ALL INSULATING MATERIALS, PROTECTIVE COVERINGS, COATINGS, AND FINISHES TO ALL TYPES OF MECHANICAL SYSTEMS (MONO)	$ 64.56	25.07

BOIL0092-005 01/01/2024

	Rates	Fringes
BOILERMAKER (INYO AND KERN)	$ 51.98	42.11

BOIL0549-003 01/01/2021

	Rates	Fringes
BOILERMAKER (MONO COUNTY)	$ 45.60	38.99

BRCA0004-005 05/01/2024

	Rates	Fringes
BRICKLAYER; MARBLE SETTER *THE WAGE SCALE FOR PREVAILING WAGE PROJECTS PERFORMED IN BLYTHE, CHINA LAKE, DEATH VALLEY, FORT IRWIN, TWENTY-NINE PALMS, NEEDLES AND 1-15 CORRIDOR (BARSTOW TO THE NEVADA STATE LINE) WILL BE THREE DOLLARS ($3.00) ABOVE THE STANDARD SAN BERNARDINO/RIVERSIDE COUNTY HOURLY WAGE RATE	$ 45.53	20.29

BRCA0018-010 09/01/2024

	Rates	Fringes
TERRAZZO FINISHER	$ 42.11	14.67
TERRAZZO WORKER/SETTER	$ 49.62	15.26

BRCA0018-011 06/01/2023

	Rates	Fringes
TILE LAYER	$ 48.29	19.18

BRCA0018-012 06/01/2024

	Rates	Fringes
MARBLE FINISHER (KERN)	$ 43.38	15.36
TILE FINISHER (KERN)	$ 37.96	13.77

CARP0213-002 07/01/2025

	Rates	Fringes
DIVER: (1) WET AMOUNTS IN ""RATES'' COLUMN ARE PER DAY	$ 901.92	26.18
DIVER: (2) STANDBY AMOUNTS IN ""RATES'' COLUMN ARE PER DAY	$ 450.96	26.18
DIVER: (3) TENDER AMOUNTS IN ""RATES'' COLUMN ARE PER DAY	$ 442.96	26.18
DIVER: (4) ASSISTANT TENDER AMOUNTS IN ""RATES'' COLUMN ARE PER DAY	$ 418.96	26.18

CARP0213-004 07/01/2025

	Rates	Fringes
DRYWALL (DRYWALL INSTALLER/LATHER)	$ 52.24	26.18
DRYWALL (STOCKER/SCRAPPER)	$ 21.45	11.27

CARP0661-001 07/01/2021

	Rates	Fringes
CARPENTER: (01) CARPENTER, CABINET INSTALLER, INSULATION INSTALLER, FLOOR WORKER AND ACOUSTICAL INSTALLER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS		

A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 51.03 16.28

CARPENTER: (02) MILLWRIGHT FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 52.10 16.48

CARPENTER: (03) PILEDRIVERMEN; DERRICK BARGE; BRIDGE OR DOCK CARPENTER; HEAVY FRAMER; ROCKSLINGER; ROCK BARGEMAN; SCOWMAN FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 51.73 16.28

CARPENTER: (04) SHINGLER (COMMERCIAL) FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 51.17 16.28

CARPENTER: (05) TABLE POWER SAW OPERATOR.....$ 52.13 16.28

CARPENTER: (06) PNEUMATIC NAILER OR POWER STAPLER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 51.29 16.28

CARPENTER: (07) ROOF LOADER OF SHINGLES (COMMERCIAL FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 38.92 16.28

CARPENTER: (08) SAW FILER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL.....$ 51.03 16.28

CARPENTER: (09) SCAFFOLD BUILDER FOOTNOTE: WORK OF FORMING IN THE CONSTRUCTION OF OPEN CUT SEWERS OR STORM DRAINS, ON OPERATIONS IN WHICH HORIZONTAL LAGGING IS USED IN CONJUNCTION WITH STEEL H-BEAMS

DRIVEN OR PLACED IN PRE-DRILLED HOLES, FOR THAT PORTION OF A LAGGED TRENCH AGAINST WHICH CONCRETE IS POURED, NAMELY, AS A SUBSTITUTE FOR BACK FORMS (WHICH WORK IS PERFORMED BY PILEDRIVERS): $0.13 PER HOUR ADDITIONAL. ..... $ 42.80 16.28

CARP0721-001 07/01/2025

	Rates	Fringes
MODULAR FURNITURE INSTALLER	$ 25.00	13.06

ELEC0428-001 12/30/2024

	Rates	Fringes
CABLE SPLICER (REMAINDER OF KERN COUNTY)	$ 62.32	22.06
CABLE SPLICER (CHINA LAKE NAVAL WEAPONS CENTER, EDWARDS AFB)	$ 71.07	22.32
ELECTRICIAN (CHINA LAKE NAVAL WEAPONS CENTER, EDWARDS AFB)	$ 65.40	22.15
ELECTRICIAN (REMAINTER OF KERN COUNTY)	$ 53.65	21.80

ELEC0428-003 06/30/2025

	Rates	Fringes
COMMUNICATIONS SYSTEM: INSTALLER (CHINA LAKE NAVAL WEAPONS CENTER) COMMUNICATIONS AND SYSTEMS WORK SCOPE OF WORK: INSTALLATION, TESTING, SERVICE AND MAINTENANCE OF SYSTEMS UTILIZING THE TRANSMISSION AND/OR TRANSFERENCE OF VOICE, SOUND, VISION AND DIGITAL FOR COMMERCIAL, EDUCATIONAL, SECURITY AND ENTERTAINMENT PURPOSES FOR THE FOLLOWING: TV MONITORING AND SURVEILLANCE, BACKGROUND-FOREGROUND MUSIC, INTERCOM AND TELEPHONE INTERCONNECT, INVENTORY CONTROL SYSTEMS, MICROWAVE TRANSMISSION, MULTI-MEDIA, MULTIPLEX, NURSE CALL SYSTEMS, RADIO PAGE, SCHOOL INTERCOM AND SOUND, BURGLAR ALARMS, FIRE ALARM (SEE LAST PARAGRAPH BELOW) AND LOW VOLTAGE MASTER CLOCK SYSTEMS IN COMMERCIAL BUILDINGS. COMMUNICATION SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS; INCLUSION OR EXCLUSION OF TERMINATIONS AND TESTINGS OF CONDUCTORS DETERMINED BY THEIR FUNCTION; EXCLUDING ALL OTHER DATA SYSTEMS OR MULTIPLE SYSTEMS WHICH INCLUDE CONTROL FUNCTION OR POWER SUPPLY; EXCLUDING INSTALLATION OF RACEWAY SYSTEMS, CONDUIT SYSTEMS, LINE VOLTAGE WORK, AND ENERGY MANAGEMENT SYSTEMS. FIRE ALARM WORK SHALL BE PERFORMED AT THE CURRENT INSIDE WIREMAN TOTAL COST PACKAGE	$ 55.90	21.32
COMMUNICATIONS SYSTEM: INSTALLER (EDWARDS AFB) COMMUNICATIONS AND SYSTEMS WORK SCOPE OF WORK: INSTALLATION, TESTING, SERVICE AND MAINTENANCE OF SYSTEMS UTILIZING THE TRANSMISSION AND/OR TRANSFERENCE OF VOICE, SOUND, VISION AND DIGITAL FOR COMMERCIAL, EDUCATIONAL, SECURITY AND ENTERTAINMENT PURPOSES FOR THE FOLLOWING: TV MONITORING AND SURVEILLANCE, BACKGROUND-FOREGROUND MUSIC, INTERCOM AND TELEPHONE INTERCONNECT, INVENTORY CONTROL SYSTEMS, MICROWAVE TRANSMISSION, MULTI-MEDIA, MULTIPLEX, NURSE CALL SYSTEMS, RADIO PAGE, SCHOOL INTERCOM AND SOUND, BURGLAR ALARMS, FIRE ALARM (SEE LAST PARAGRAPH BELOW) AND LOW VOLTAGE MASTER CLOCK SYSTEMS IN COMMERCIAL BUILDINGS. COMMUNICATION SYSTEMS THAT TRANSMIT OR		

RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS; INCLUSION OR EXCLUSION OF TERMINATIONS AND TESTINGS OF CONDUCTORS DETERMINED BY THEIR FUNCTION; EXCLUDING ALL OTHER DATA SYSTEMS OR MULTIPLE SYSTEMS WHICH INCLUDE CONTROL FUNCTION OR POWER SUPPLY; EXCLUDING INSTALLATION OF RACEWAY SYSTEMS, CONDUIT SYSTEMS, LINE VOLTAGE WORK, AND ENERGY MANAGEMENT SYSTEMS. FIRE ALARM WORK SHALL BE PERFORMED AT THE CURRENT
INSIDE WIREMAN TOTAL COST PACKAGE.....$ 52.39 21.21
COMMUNICATIONS SYSTEM: INSTALLER (KERN COUNTY)
COMMUNICATIONS AND SYSTEMS WORK SCOPE OF WORK: INSTALLATION, TESTING, SERVICE AND MAINTENANCE OF SYSTEMS UTILIZING THE TRANSMISSION AND/OR TRANSFERENCE OF VOICE, SOUND, VISION AND DIGITAL FOR COMMERCIAL, EDUCATIONAL, SECURITY AND ENTERTAINMENT PURPOSES FOR THE FOLLOWING: TV MONITORING AND SURVEILLANCE, BACKGROUND-FOREGROUND MUSIC, INTERCOM AND TELEPHONE INTERCONNECT, INVENTORY CONTROL SYSTEMS, MICROWAVE TRANSMISSION, MULTI-MEDIA, MULTIPLEX, NURSE CALL SYSTEMS, RADIO PAGE, SCHOOL INTERCOM AND SOUND, BURGLAR ALARMS, FIRE ALARM (SEE LAST PARAGRAPH BELOW) AND LOW VOLTAGE MASTER CLOCK SYSTEMS IN COMMERCIAL BUILDINGS. COMMUNICATION SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS; INCLUSION OR EXCLUSION OF TERMINATIONS AND TESTINGS OF CONDUCTORS DETERMINED BY THEIR FUNCTION; EXCLUDING ALL OTHER DATA SYSTEMS OR MULTIPLE SYSTEMS WHICH INCLUDE CONTROL FUNCTION OR POWER SUPPLY; EXCLUDING INSTALLATION OF RACEWAY SYSTEMS, CONDUIT SYSTEMS, LINE VOLTAGE WORK, AND ENERGY MANAGEMENT SYSTEMS. FIRE ALARM WORK SHALL BE PERFORMED AT THE CURRENT
INSIDE WIREMAN TOTAL COST PACKAGE.....$ 46.26 21.03

ELEC0477-001 06/01/2024

Rates Fringes

ELECTRICIAN (INYO AND MONO) CABLE SPLICER: $1.50 ABOVE ELECTRICIAN. TUNNEL WORK: 10% ABOVE ELECTRICIAN. ZONE PAY: ZONE A - 80 ROAD MILES FROM POST OFFICE, 455 ORANGE SHOW LANE, SAN BERNARDINO, WILL BE A FREE ZONE FOR ALL CONTRACTORS
ZONE B - ANY WORK PERFORMED OUTSIDE ZONE A'S 80 ROAD MILES, SHALL ADD $12.00 PER HOUR TO THE CURRENT WAGE SCALE.....$ 53.15 29.07

ELEC1245-001 01/01/2025

Rates Fringes

LINE CONSTRUCTION: (1) LINEMAN; CABLE SPLICER
HOLIDAYS: NEW YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY AND DAY AFTER THANKSGIVING, CHRISTMAS DAY.....$ 70.16 24.71
LINE CONSTRUCTION: (2) EQUIPMENT SPECIALIST (OPERATES CRAWLER TRACTORS, COMMERCIAL MOTOR VEHICLES, BACKHOES, TRENCHERS, CRANES (50 TONS AND BELOW), OVERHEAD & UNDERGROUND DISTRIBUTION LINE EQUIPMENT) HOLIDAYS: NEW YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, THANKSGIVING DAY AND DAY AFTER THANKSGIVING, CHRISTMAS DAY.....$ 53.30 22.26
LINE CONSTRUCTION: (3) GROUNDMAN HOLIDAYS: NEW

YEAR'S DAY, M.L. KING DAY, MEMORIAL DAY,
INDEPENDENCE DAY, LABOR DAY, VETERANS DAY,
THANKSGIVING DAY AND DAY AFTER THANKSGIVING,
CHRISTMAS DAY.....$ 40.76 21.76

ELEV0018-001 01/01/2025

	Rates	Fringes
ELEVATOR MECHANIC FOOTNOTE: A. PAID VACATION: EMPLOYER CONTRIBUTES 8% OF REGULAR HOURLY RATE AS VACATION PAY CREDIT FOR EMPLOYEES WITH MORE THAN 5 YEARS OF SERVICE, AND 6% FOR 6 MONTHS TO 5 YEARS OF SERVICE. B. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY, FRIDAY AFTER THANKSGIVING, AND CHRISTMAS DAY.....	$ 69.43	38.44

ENGI0012-004 08/01/2025

	Rates	Fringes
OPERATOR, POWER EQUIPMENT: (1) LEVERMAN (DREDGING)..	$ 67.90	40.95
OPERATOR, POWER EQUIPMENT: (2) DREDGE DOZER (DREDGING).....	$ 61.93	40.95
OPERATOR, POWER EQUIPMENT: (3) DECKMATE (DREDGING)..	$ 61.82	40.95
OPERATOR, POWER EQUIPMENT: (4) WINCH OPERATOR (STERN WINCH ON DREDGE) (DREDGING).....	$ 61.27	40.95
OPERATOR, POWER EQUIPMENT: (5) FIREMAN-OILER, DECKHAND, BARGEMAN, LEVEEHAND (DREDGING).....	$ 60.73	40.95
OPERATOR, POWER EQUIPMENT: (6) BARGE MATE (DREDGING).....	$ 61.34	40.95

ENGI0012-024 07/01/2025

	Rates	Fringes
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 1- BARGEMAN; BRAKEMAN; COMPRESSOR OPERATOR; DITCH WITCH, WITH SEAT OR SIMILAR TYPE EQUIPMENT; ELEVATOR OPERATOR-INSIDE; ENGINEER OILER; FORKLIFT OPERATOR (INCLUDES LOED, LULL OR SIMILAR TYPES UNDER 5 TONS; GENERATOR OPERATOR; GENERATOR, PUMP OR COMPRESSOR PLANT OPERATOR; PUMP OPERATOR; SIGNALMAN; SWITCHMAN PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....	$ 63.40	33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 2- ASPHALT-RUBBER PLANT OPERATOR (NURSE TANK OPERATOR);COIL TUBING RIG OPERATOR, CONCRETE MIXER OPERATOR-SKIP TYPE; CONVEYOR OPERATOR; FIREMAN; FORKLIFT OPERATOR (INCLUDES LOED, LULL OR SIMILAR TYPES OVER 5 TONS; HYDROSTATIC PUMP OPERATOR; OILER CRUSHER (ASPHALT OR CONCRETE PLANT); PETROMAT LAYDOWN MACHINE; PJU SIDE DUM JACK; SCREENING AND CONVEYOR MACHINE OPERATOR (OR SIMILAR TYPES); SKIPLOADER (WHEEL TYPE UP TO 3/4 YD. WITHOUT ATTACHMENT); TAR POT FIREMAN; TEMPORARY HEATING PLANT OPERATOR; TRENCHING MACHINE OILER PREMIUM		

PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 64.18 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 3- ASPHALT-RUBBER BLEND OPERATOR; BOBCAT OR SIMILAR TYPE (SKID STEER); EQUIPMENT GREASER (RACK); FORD FERGUSON (WITH DRAGTYPE ATTACHMENTS); HELICOPTER RADIOMAN (GROUND); STATIONARY PIPE WRAPPING AND CLEANING MACHINE OPERATOR PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 64.67 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 4- ASPHALT PLANT FIREMAN; BACKHOE OPERATOR (MINI-MAX OR SIMILAR TYPE); BORING MACHINE OPERATOR; BOXMAN OR MIXERMAN (ASPHALT OR CONCRETE); CHIP SPREADING MACHINE OPERATOR; CONCRETE CLEANING DECONTAMINATION MACHINE OPERATOR; CONCRETE PUMP OPERATOR (SMALL PORTABLE);DIRECT PUSH OPERATOR (GEOPROBE OR SIMILAR TYPES) DRILLING MACHINE OPERATOR, SMALL AUGER TYPES (TEXOMA SUPER ECONOMATIC OR SIMILAR TYPES - HUGHES 100 OR 200 OR SIMILAR TYPES - DRILLING DEPTH OF 30' MAXIMUM); EQUIPMENT GREASER (GREASE TRUCK); GUARD RAIL POST DRIVER OPERATOR; HIGHLINE CABLEWAY SIGNALMAN; HYDRA-HAMMER-AERO STOMPER; MICRO TUNNELING (ABOVE GROUND TUNNEL); POWER CONCRETE CURING MACHINE OPERATOR; POWER CONCRETE SAW OPERATOR; POWER-DRIVEN JUMBO FORM SETTER OPERATOR; POWER SWEEPER OPERATOR; ROCK WHEEL SAW/TRENCHER; ROLLER OPERATOR (COMPACTING); SCREED OPERATOR (ASPHALT OR CONCRETE); TRENCHING MACHINE OPERATOR (UP TO 6 FT.); VACUUM OR MUCH TRUCK PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 65.96 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 6- ARTICULATING MATERIAL HAULER; ASPHALT PLANT ENGINEER; BATCH PLANT OPERATOR; BIT SHARPENER; CONCRETE JOINT MACHINE OPERATOR (CANAL AND SIMILAR TYPE); CONCRETE PLANER OPERATOR; DANDY DIGGER; DECK

ENGINE OPERATOR; DERRICKMAN (OILFIELD TYPE);
DRILLING MACHINE OPERATOR, BUCKET OR AUGER TYPES
(CALWELD 100 BUCKET OR SIMILAR TYPES - WATSON 1000
AUGER OR SIMILAR TYPES - TEXOMA 330, 500 OR 600
AUGER OR SIMILAR TYPES - DRILLING DEPTH OF 45'
MAXIMUM); DRILLING MACHINE OPERATOR; HYDROGRAPHIC
SEEDER MACHINE OPERATOR (STRAW, PULP OR SEED),
JACKSON TRACK MAINTAINER, OR SIMILAR TYPE;
KALAMAZOO SWITCH TAMPER, OR SIMILAR TYPE; MACHINE
TOOL OPERATOR; MAGINNIS INTERNAL FULL SLAB
VIBRATOR, MECHANICAL BERM, CURB OR GUTTER(CONCRETE
OR ASPHALT); MECHANICAL FINISHER OPERATOR
(CONCRETE, CLARY-JOHNSON-BIDWELL OR SIMILAR); MICRO
TUNNEL SYSTEM (BELOW GROUND); PAVEMENT BREAKER
OPERATOR (TRUCK MOUNTED); ROAD OIL MIXING MACHINE
OPERATOR; ROLLER OPERATOR (ASPHALT OR FINISH),
RUBBER-TIRED EARTH MOVING EQUIPMENT (SINGLE ENGINE,
UP TO AND INCLUDING 25 YDS. STRUCK); SELF-PROPELLED
TAR PIPELINING MACHINE OPERATOR; SKIPLOADER
OPERATOR (CRAWLER AND WHEEL TYPE, OVER 3/4 YD. AND
UP TO AND INCLUDING 1-1/2 YDS.); SLIP FORM PUMP
OPERATOR (POWER DRIVEN HYDRAULIC LIFTING DEVICE FOR
CONCRETE FORMS); TRACTOR OPERATOR-BULLDOZER,
TAMPER-SCRAPER (SINGLE ENGINE, UP TO 100 H.P.
FLYWHEEL AND SIMILAR TYPES, UP TO AND INCLUDING D-5
AND SIMILAR TYPES); TUGGER HOIST OPERATOR (1 DRUM);
ULTRA HIGH PRESSURE WATERJET CUTTING TOOL SYSTEM
OPERATOR; VACUUM BLASTING MACHINE OPERATOR PREMIUM
PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER
EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY
BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB,
POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO
ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE
YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP
PENDLETON   WORKERS REQUIRED TO SUIT UP AND WORK
IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR
ADDITIONAL. COMBINATION MIXER AND COMPRESSOR
OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A
CONCRETE MOBILE MIXER OPERATOR.....$ 66.18 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP
8- ASPHALT OR CONCRETE SPREADING OPERATOR (TAMPING
OR FINISHING); ASPHALT PAVING MACHINE OPERATOR
(BARBER GREENE OR SIMILAR TYPE); ASPHALT-RUBBER
DISTRIBUTION OPERATOR; BACKHOE OPERATOR (UP TO AND
INCLUDING 3/4 YD.), SMALL FORD, CASE OR SIMILAR
TYPES; CABLE BUNDLING MACHINE OPERATOR (EXCLUDING
HANDHELD); CABLE TRENCHING MACHINE OPERATOR (SPIDER
PLOW OR SIMILAR TYPES) CAST-IN-PLACE PIPE LAYING
MACHINE OPERATOR; COMBINATION MIXER AND COMPRESSOR
OPERATOR (GUNITE WORK); COMPACTOR OPERATOR
(SELF-PROPELLED); CONCRETE MIXER OPERATOR (PAVING);
CRUSHING PLANT OPERATOR; DRILL DOCTOR; DRILLING
MACHINE OPERATOR, BUCKET OR AUGER TYPES (CALWELD
150 BUCKET OR SIMILAR TYPES - WATSON 1500, 2000
2500 AUGER OR SIMILAR TYPES - TEXOMA 700, 800 AUGER
OR SIMILAR TYPES - DRILLING DEPTH OF 60' MAXIMUM);
ELEVATING GRADER OPERATOR; GRADE CHECKER; GRADALL
OPERATOR; GROUTING MACHINE OPERATOR; HEAVY-DUTY
REPAIRMAN; HEAVY EQUIPMENT ROBOTICS OPERATOR;
KALAMAZOO BALLISTE REGULATOR OR SIMILAR TYPE;
KOLMAN BELT LOADER AND SIMILAR TYPE; LE TOURNEAU
BLOB COMPACTOR OR SIMILAR TYPE; LOADER OPERATOR
(ATHEY, EUCLID, SIERRA AND SIMILAR TYPES); MOBARK
CHIPPER OR SIMILAR; OZZIE PADDER OR SIMILAR TYPES;
P.C. SLOT SAW; PNEUMATIC CONCRETE PLACING MACHINE

OPERATOR (HACKLEY-PRESSWELL OR SIMILAR TYPE); PUMPCRETE GUN OPERATOR; RCM CEMENTING UNIT OPERATOR, RAIL/SWITCH GRINDER OPERATOR (HARSCO OR SIMILAR TYPES) ROCK DRILL OR SIMILAR TYPES; ROTARY DRILL OPERATOR (EXCLUDING CAISSON TYPE); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25 YDS. UP TO AND INCLUDING 50 CU. YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (MULTIPLE ENGINE UP TO AND INCLUDING 25 YDS. STRUCK); RUBBER-TIRED SCRAPER OPERATOR (SELF-LOADING PADDLE WHEEL TYPE-JOHN DEERE, 1040 AND SIMILAR SINGLE UNIT); SELF- PROPELLED CURB AND GUTTER MACHINE OPERATOR; SHUTTLE BUGGY; SKIPLOADER OPERATOR (CRAWLER AND WHEEL TYPE OVER 1-1/2 YDS. UP TO AND INCLUDING 6-1/2 YDS.); SOIL REMEDIATION PLANT OPERATOR; SURFACE HEATERS AND PLANER OPERATOR; TRACTOR COMPRESSOR DRILL COMBINATION OPERATOR; TRACTOR OPERATOR (ANY TYPE LARGER THAN D-5 - 100 FLYWHEEL H.P. AND OVER, OR SIMILAR-BULLDOZER, TAMPER, SCRAPER AND PUSH TRACTOR SINGLE ENGINE); TRACTOR OPERATOR (BOOM ATTACHMENTS), TRAVELING PIPE WRAPPING, CLEANING AND BENDNG MACHINE OPERATOR; TRENCHING MACHINE OPERATOR (OVER 6 FT. DEPTH CAPACITY, MANUFACTURER'S RATING); TRENCHING MACHINE WITH ROAD MINER ATTACHMENT (OVER 6 FT DEPTH CAPACITY): ULTRA HIGH PRESSURE WATERJET CUTTING TOOL SYSTEM MECHANIC; WATER PULL (COMPACTION) OPERATOR PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.29 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 10- DRILLING MACHINE OPERATOR, BUCKET OR AUGER TYPES (CALWELD 200 B BUCKET OR SIMILAR TYPES-WATSON 3000 OR 5000 AUGER OR SIMILAR TYPES-TEXOMA 900 AUGER OR SIMILAR TYPES-DRILLING DEPTH OF 105' MAXIMUM); DUAL DRUM MIXER, DYNAMIC COMPACTOR LDC350 (OR SIMILAR TYPES); MONORAIL LOCOMOTIVE OPERATOR (DIESEL, GAS OR ELECTRIC); MOTOR PATROL-BLADE OPERATOR (SINGLE ENGINE); MULTIPLE ENGINE TRACTOR OPERATOR (EUCLID AND SIMILAR TYPE-EXCEPT QUAD 9 CAT.); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (SINGLE ENGINE, OVER 50 YDS. STRUCK); PNEUMATIC PIPE RAMMING TOOL AND SIMILAR TYPES; PRESTRESSED WRAPPING MACHINE OPERATOR; RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR (SINGLE ENGINE, OVER 50 YDS. STRUCK); RUBBER TIRED EARTH MOVING EQUIPMENT OPERATOR (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR OVER 25 YDS. AND UP TO 50 YDS. STRUCK), TOWER CRANE REPAIRMAN; TRACTOR LOADER OPERATOR (CRAWLER AND WHEEL TYPE OVER 6-1/2 YDS.); WOODS MIXER OPERATOR (AND SIMILAR PUGMILL EQUIPMENT) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,

VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.41 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 12- AUTO GRADER OPERATOR; AUTOMATIC SLIP FORM OPERATOR; DRILLING MACHINE OPERATOR, BUCKET OR AUGER TYPES (CALWELD, AUGER 200 CA OR SIMILAR TYPES - WATSON, AUGER 6000 OR SIMILAR TYPES - HUGHES SUPER DUTY, AUGER 200 OR SIMILAR TYPES - DRILLING DEPTH OF 175' MAXIMUM); HOE RAM OR SIMILAR WITH COMPRESSOR; MASS EXCAVATOR OPERATOR LESS THA 750 CU. YARDS; MECHANICAL FINISHING MACHINE OPERATOR; MOBILE FORM TRAVELER OPERATOR; MOTOR PATROL OPERATOR (MULTI-ENGINE); PIPE MOBILE MACHINE OPERATOR; RUBBER-TIRED EARTH- MOVING EQUIPMENT OPERATOR (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR TYPE, OVER 50 CU. YDS. STRUCK); RUBBER-TIRED SELF- LOADING SCRAPER OPERATOR (PADDLE-WHEEL-AUGER TYPE SELF-LOADING - TWO (2) OR MORE UNITS) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.58 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 13- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.68 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 14- CANAL LINER OPERATOR; CANAL TRIMMER OPERATOR; REMOTE- CONTROL EARTH-MOVING EQUIPMENT OPERATOR (OPERATING A SECOND PIECE OF EQUIPMENT: $1.00 PER HOUR ADDITIONAL); WHEEL EXCAVATOR OPERATOR (OVER 750 CU. YDS.) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE

CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.71 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 15- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25 YDS. AND UP TO AND INCLUDING 50 YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE ENGINE-UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.79 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 16- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (SINGLE ENGINE, OVER 50 YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR, OVER 25 YDS. AND UP TO 50 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.91 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 17- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH PUSH-PULL SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR, OVER 50 CU. YDS. STRUCK); TANDEM TRACTOR OPERATOR (OPERATING CRAWLER TYPE TRACTORS IN TANDEM - QUAD 9 AND SIMILAR TYPE) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.08 33.20
OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 18- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - SINGLE ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR

WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.18 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 19- ROTEX CONCRETE BELT OPERATOR (OR SIMILAR TYPES); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25 YDS.AND UP TO AND INCLUDING 50 CU. YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - MULTIPLE ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.29 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 2-0 RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - SINGLE ENGINE, OVER 50 YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS, AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR, OVER 25 YDS. AND UP TO 50 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.41 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 21- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING IN TANDEM (SCRAPERS, BELLY DUMPS AND SIMILAR TYPES IN ANY COMBINATION, EXCLUDING COMPACTION UNITS - MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR TYPE, OVER 50 CU. YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE,

VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.58 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 22- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL SYSTEM (SINGLE ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.68 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 23- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL SYSTEM (SINGLE ENGINE, CATERPILLAR, EUCLID, ATHEY WAGON AND SIMILAR TYPES WITH ANY AND ALL ATTACHMENTS OVER 25 YDS. AND UP TO AND INCLUDING 50 YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING WITH THE TANDEM PUSH-PULL SYSTEM (MULTIPLE ENGINE, UP TO AND INCLUDING 25 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.79 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 24- RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL SYSTEM (SINGLE ENGINE, OVER 50 YDS. STRUCK); RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR, OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR, OVER 25 YDS. AND UP TO 50 YDS. STRUCK) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.91 33.20

OPERATOR: POWER EQUIPMENT, ALL OTHER WORK: GROUP 25- CONCRETE PUMP OPERATOR-TRUCK MOUNTED; RUBBER-TIRED EARTH-MOVING EQUIPMENT OPERATOR,

OPERATING EQUIPMENT WITH THE TANDEM PUSH-PULL SYSTEM (MULTIPLE ENGINE, EUCLID, CATERPILLAR AND SIMILAR TYPE, OVER 50 CU. YDS. STRUCK); SPYDER EXCAVATOR OPERATOR, WITH ALL ATTACHMENTS PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR. $ 68.08 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 1- Engineer oiler; Fork lift operator (includes loed, lull or similar types) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.
..... $ 64.75 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 2- Truck crane oiler PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR..... $ 65.53 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 3- A-frame or winch truck operator; Ross carrier operator (jobsite) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR..... $ 65.82 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 4- Bridge-type unloader and turntable operator; Helicopter hoist operator PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP

LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 65.96 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 5 HYDRAULIC BOOM TRUCK; STINGER CRANE (AUSTIN-WESTERN OR SIMILAR TYPE); TUGGER HOIST OPERATOR (1 DRUM) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.18 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 6 Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.29 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 7 PEDESTAL CRANE OPERATOR; SHOVEL, BACKHOE, DRAGLINE, CLAMSHELL OPERATOR (OVER 5 CU. YDS. MRC); TOWER CRANE REPAIR; TUGGER HOIST OPERATOR (3 DRUM) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.41 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 8 Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe,

dragline, clamshell operator (over 7 cu. yds., M.R.C.) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.58 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 9 Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 66.75 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 10- Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON   WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 67.75 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 11- Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc) ; Tower crane operator and tower gantry PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP

LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 68.75 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 12- Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc) PREMIUM PAY: $10.00 PER HOUR SHALL BE PAID ON ALL POWER EQUIPMENT OPERATOR WORK ON THE FOLLOWNG MILITARY BASES: CHINA LAKE NAVAL RESERVE, VANDENBERG AFB, POINT ARGUELLO, SEELY NAVAL BASE, FORT IRWIN, NEBO ANNEX MARINE BASE, MARINE CORP LOGISTICS BASE YERMO, EDWARDS AFB, 29 PALMS MARINE BASE AND CAMP PENDLETON WORKERS REQUIRED TO SUIT UP AND WORK IN A HAZARDOUS MATERIAL ENVIRONMENT: $2.00 PER HOUR ADDITIONAL. COMBINATION MIXER AND COMPRESSOR OPERATOR ON GUNITE WORK SHALL BE CLASSIFIED AS A CONCRETE MOBILE MIXER OPERATOR.....$ 69.75 33.20

OPERATOR: POWER EQUIPMENT, CRANES, PILEDRIVING & HOISTING: GROUP 13 Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons).....$ 70.75 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 1- Skiploader (wheel type up to 3/4 yd. without attachment) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 65.25 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 2- Power-driven jumbo form setter operator PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.03 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 3- Dinkey locomotive or motorperson (up to and including 10 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29

Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.32 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 4- Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.46 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 5- Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons) PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.68 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 6- Heavy Duty Repairman PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.79 33.20

OPERATOR: POWER EQUIPMENT, TUNNEL WORK: GROUP 7- Tunnel mole boring machine operator PREMIUM PAY: $10.00 per hour shall be paid on all Power Equipment Operator work on the followng Military Bases: China Lake Naval Reserve, Vandenberg AFB,

Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton Workers required to suit up and work in a hazardous material environment: $2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.....$ 66.91 33.20

IRON0155-002 01/01/2025

	Rates	Fringes
IRONWORKER (INYO AND MONO COUNTIES).....	$ 43.75	34.45

IRON0155-003 01/01/2025

	Rates	Fringes
IRONWORKER (KERN COUNTY).....	$ 50.70	35.15

LABO0220-002 07/01/2025

	Rates	Fringes
LABORER GROUP 1 CLEANING AND HANDLING OF PANEL FORMS; CONCRETE SCREEDING FOR ROUGH STRIKE-OFF; CONCRETE, WATER CURING; DEMOLITION LABORER, THE CLEANING OF BRICK IF PERFORMED BY A WORKER PERFORMING ANY OTHER PHASE OF DEMOLITION WORK, AND THE CLEANING OF LUMBER; FIRE WATCHER, LIMBER, BRUSH LOADER, PILER AND DEBRIS HANDLER; FLAG PERSON; GAS, OIL AND/OR WATER PIPELINE LABORER; LABORER, ASPHALT-RUBBER MATERIAL LOADER; LABORER, GENERAL OR CONSTRUCTION; LABORER, GENERAL CLEAN-UP; LABORER, LANDSCAPING; LABORER, JETTING; LABORER, TEMPORARY WATER AND AIR LINES; MATERIAL HOSE OPERATOR (WALLS, SLABS, FLOORS AND DECKS); PLUGGING, FILLING OF SHEE BOLT HOLES; DRY PACKING OF CONCRETE; RAILROAD MAINTENANCE, REPAIR TRACK PERSON AND ROAD BEDS; STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS; RIGGING AND SIGNALING; SCALER; SLIP FORM RAISER; TAR AND MORTAR; TOOL CRIB OR TOOL HOUSE LABORER; TRAFFIC CONTROL BY ANY METHOD; WINDOW CLEANER; WIRE MESH PULLING - ALL CONCRETE POURING OPERATIONS (KERN COUNTY).....	$ 46.48	25.95
LABORER GROUP 2 ASPHALT SHOVELER; CEMENT DUMPER (ON 1 YD. OR LARGER MIXER AND HANDLING BULK CEMENT); CESSPOOL DIGGER AND INSTALLER; CHUCKTENDER; CHUTE HANDLER, POURING CONCRETE, THE HANDLING OF THE CHUTE FROM READYMIX TRUCKS, SUCH AS WALLS, SLABS, DECKS, FLOORS, FOUNDATION, FOOTINGS, CURBS, GUTTERS AND SIDEWALKS; CONCRETE CURER, IMPERVIOUS MEMBRANE AND FORM OILER; CUTTING TORCH OPERATOR (DEMOLITION); FINE GRADER, HIGHWAYS AND STREET PAVING, AIRPORT, RUNWAYS AND SIMILAR TYPE HEAVY CONSTRUCTION; GAS, OIL AND/OR WATER PIPELINE WRAPPER - POT TENDER AND FORM PERSON; GUINEA CHASER; HEADERBOARD PERSON - ASPHALT; LABORER, PACKING ROD STEEL AND PANS; MEMBRANE VAPOR BARRIER INSTALLER; POWER BROOM SWEEPER (SMALL); RIPRAP STONEPAVER, PLACING STONE OR WET SACKED CONCRETE; ROTO SCRAPER AND TILLER; SANDBLASTER (POT TENDER); SEPTIC TANK DIGGER AND INSTALLER(LEAD); TANK SCALER AND CLEANER; TREE CLIMBER, FALLER, CHAIN SAW OPERATOR, PITTSBURGH CHIPPER AND SIMILAR TYPE BRUSH SHREDDER; UNDERGROUND LABORER, INCLUDING CAISSON BELLOWER (KERN COUNTY).....	$ 47.03	25.95

LABORER GROUP 3 BUGGYMOBILE PERSON; CONCRETE CUTTING TORCH; CONCRETE PILE CUTTER; DRILLER, JACKHAMMER, 2-1/2 FT. DRILL STEEL OR LONGER; DRI-PAK-IT MACHINE; GAS, OIL AND/OR WATER PIPELINE WRAPPER, 6-IN. PIPE AND OVER, BY ANY METHOD, INSIDE AND OUT; HIGH SCALER (INCLUDING DRILLING OF SAME); HYDRO SEEDER AND SIMILAR TYPE; IMPACT WRENCH MULTI-PLATE; KETTLE PERSON, POT PERSON AND WORKERS APPLYING ASPHALT, LAY-KOLD, CREOSOTE, LIME CAUSTIC AND SIMILAR TYPE MATERIALS (""APPLYING"" MEANS APPLYING, DIPPING, BRUSHING OR HANDLING OF SUCH MATERIALS FOR PIPE WRAPPING AND WATERPROOFING); OPERATOR OF PNEUMATIC, GAS, ELECTRIC TOOLS, VIBRATING MACHINE, PAVEMENT BREAKER, AIR BLASTING, COME-ALONGS, AND SIMILAR MECHANICAL TOOLS NOT SEPARATELY CLASSIFIED HEREIN; PIPELAYER'S BACKUP PERSON, COATING, GROUTING, MAKING OF JOINTS, SEALING, CAULKING, DIAPERING AND INCLUDING RUBBER GASKET JOINTS, POINTING AND ANY AND ALL OTHER SERVICES; ROCK SLINGER; ROTARY SCARIFIER OR MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER; STEEL HEADERBOARD AND GUIDELINE SETTER; TAMPER, BARKO, WACKER AND SIMILAR TYPE; TRENCHING MACHINE, HAND-PROPELLED (KERN COUNTY).....$ 47.58 25.95

LABORER GROUP 4 ASPHALT RAKER, LUTE PERSON, IRONER, ASPHALT DUMP PERSON, AND ASPHALT SPREADER BOXES (ALL TYPES); CONCRETE CORE CUTTER (WALLS, FLOORS OR CEILINGS), GRINDER OR SANDER; CONCRETE SAW PERSON, CUTTING WALLS OR FLAT WORK, SCORING OLD OR NEW CONCRETE; CRIBBER, SHORER, LAGGING, SHEETING AND TRENCH BRACING, HAND-GUIDED LAGGING HAMMER; HEAD ROCK SLINGER; LABORER, ASPHALT- RUBBER DISTRIBUTOR BOOT PERSON; LASER BEAM IN CONNECTION WITH LABORERS' WORK; OVERSIZE CONCRETE VIBRATOR OPERATOR, 70 LBS. AND OVER; PIPELAYER PERFORMING ALL SERVICES IN THE LAYING AND INSTALLATION OF PIPE FROM THE POINT OF RECEIVING PIPE IN THE DITCH UNTIL COMPLETION OF OPERATION, INCLUDING ANY AND ALL FORMS OF TUBULAR MATERIAL, WHETHER PIPE, METALLIC OR NON-METALLIC, CONDUIT AND ANY OTHER STATIONARY TYPE OF TUBULAR DEVICE USED FOR THE CONVEYING OF ANY SUBSTANCE OR ELEMENT, WHETHER WATER, SEWAGE, SOLID GAS, AIR, OR OTHER PRODUCT WHATSOEVER AND WITHOUT REGARD TO THE NATURE OF MATERIAL FROM WHICH THE TUBULAR MATERIAL IS FABRICATED; NO-JOINT PIPE AND STRIPPING OF SAME; PREFABRICATED MANHOLE INSTALLER; SANDBLASTER (NOZZLE PERSON), WATER BLASTING, PORTA SHOT-BLAST (KERN COUNTY).....$ 49.13 25.95

LABORER GROUP 5 BLASTER POWDER, ALL WORK OF LOADING HOLES, PLACING AND BLASTING OF ALL POWDER AND EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF METHOD USED FOR SUCH LOADING AND PLACING; DRILLER: ALL POWER DRILLS, EXCLUDING JACKHAMMER, WHETHER CORE, DIAMOND, WAGON, TRACK, MULTIPLE UNIT, AND ANY AND ALL OTHER TYPES OF MECHANICAL DRILLS WITHOUT REGARD TO THE FORM OF MOTIVE POWER; TOXIC WASTE REMOVAL (KERN COUNTY).....$ 49.48 25.95

LABORER, TUNNEL: GROUP 1: BATCH PLANT LABORER; CHANGEHOUSE PERSON; DUMP PERSON; DUMP PERSON (OUTSIDE); SWAMPER (BRAKE PERSON AND SWITCH PERSON ON TUNNEL WORK); TUNNEL MATERIALS HANDLING PERSON; NIPPER; POT TENDER, USING MASTIC OR OTHER MATERIALS (FOR EXAMPLE, BUT NOT BY WAY OF LIMITATION, SHOTCRETE, ETC.) (KERN COUNTY).....$ 53.60 25.74

LABORER, TUNNEL: GROUP 2: CHUCKTENDER, CABLETENDER;

LOADING AND UNLOADING AGITATOR CARS; VIBRATOR PERSON, JACK HAMMER, PNEUMATIC TOOLS (EXCEPT DRILLER); BULL GANG MUCKER, TRACK PERSON; CONCRETE CREW, INCLUDING RODDER AND SPREADER (KERN COUNTY)..$ 53.92 25.74
LABORER, TUNNEL: GROUP 3: BLASTER, DRILLER, POWDER PERSON; CHEMICAL GROUT JET PERSON; CHERRY PICKER PERSON; GROUT GUN PERSON; GROUT MIXER PERSON; GROUT PUMP PERSON; JACKLEG MINER; JUMBO PERSON; KEMPER AND OTHER PNEUMATIC CONCRETE PLACER OPERATOR; MINER, TUNNEL (HAND OR MACHINE); NOZZLE PERSON; OPERATING OF TROWELING AND/OR GROUTING MACHINES; POWDER PERSON (PRIMER HOUSE); PRIMER PERSON; SANDBLASTER; SHOTCRETE PERSON; STEEL FORM RAISER AND SETTER; TIMBER PERSON, RETIMBER PERSON, WOOD OR STEEL; TUNNEL CONCRETE FINISHER   (KERN COUNTY)....$ 54.38 25.74
LABORER, TUNNEL: GROUP 4 GROUP 4: DIAMOND DRILLER; SANDBLASTER; SHAFT AND RAISE WORK (KERN COUNTY)....$ 55.07 25.74

LABO0220-005 11/01/2025

	Rates	Fringes
BRICK TENDER (KERN COUNTY).....	$ 42.60	22.13

LABO0300-005 07/01/2025

	Rates	Fringes
ASBESTOS REMOVAL LABORER SCOPE OF WORK: INCLUDES SITE MOBILIZATION, INITIAL SITE CLEANUP, SITE PREPARATION, REMOVAL OF ASBESTOS-CONTAINING MATERIAL AND TOXIC WASTE, ENCAPSULATION, ENCLOSURE AND DISPOSAL OF ASBESTOS- CONTAINING MATERIALS AND TOXIC WASTE BY HAND OR WITH EQUIPMENT OR MACHINERY; SCAFFOLDING, FABRICATION OF TEMPORARY WOODEN BARRIERS AND ASSEMBLY OF DECONTAMINATION STATIONS...	$ 46.48	25.93

LABO0345-001 07/01/2025

	Rates	Fringes
LABORER, GUNITE: GROUP 1 RODMEN, NOZZLEMEN FOOTNOTE: GUNITE PREMIUM PAY: WORKERS WORKING FROM A BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES. WORKERS DOING GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES, PAID ON A PORTAL-TO-PORTAL BASIS. ANY WORK PERFORMED ON, IN OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN 75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35 CENTS PER HOUR ABOVE THE APPLICABLE CLASSIFICATION WAGE RATE.....	$ 55.88	23.77
LABORER, GUNITE: GROUP 2 GUNMEN FOOTNOTE: GUNITE PREMIUM PAY: WORKERS WORKING FROM A BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES. WORKERS DOING GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING APPLICABLE CLASSIFICATION RATES, PAID ON A PORTAL-TO-PORTAL BASIS. ANY WORK PERFORMED ON, IN OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR		

SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS
IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK
MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN
75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE
THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35
CENTS PER HOUR ABOVE THE APPLICABLE CLASSIFICATION
WAGE RATE.....$ 54.93 23.77
LABORER, GUNITE: GROUP 3 REBOUNDMEN FOOTNOTE:
GUNITE PREMIUM PAY: WORKERS WORKING FROM A
BOSN'N'S CHAIR OR SUSPENDED FROM A ROPE OR CABLE
SHALL RECEIVE 40 CENTS PER HOUR ABOVE THE FOREGOING
APPLICABLE CLASSIFICATION RATES.   WORKERS DOING
GUNITE AND/OR SHOTCRETE WORK IN A TUNNEL SHALL
RECEIVE 35 CENTS PER HOUR ABOVE THE FOREGOING
APPLICABLE CLASSIFICATION RATES, PAID ON A
PORTAL-TO-PORTAL BASIS.   ANY WORK PERFORMED ON, IN
OR ABOVE ANY SMOKE STACK, SILO, STORAGE ELEVATOR OR
SIMILAR TYPE OF STRUCTURE, WHEN SUCH STRUCTURE IS
IN EXCESS OF 75'-0"" ABOVE BASE LEVEL AND WHICH WORK
MUST BE PERFORMED IN WHOLE OR IN PART MORE THAN
75'-0"" ABOVE BASE LEVEL, THAT WORK PERFORMED ABOVE
THE 75'-0"" LEVEL SHALL BE COMPENSATED FOR AT 35
CENTS PER HOUR ABOVE THE APPLICABLE CLASSIFICATION
WAGE RATE.....$ 51.39 23.77

 LABO0783-001 07/01/2025

	Rates	Fringes
LABORER GROUP 1 CLEANING AND HANDLING OF PANEL FORMS; CONCRETE SCREEDING FOR ROUGH STRIKE-OFF; CONCRETE, WATER CURING; DEMOLITION LABORER, THE CLEANING OF BRICK IF PERFORMED BY A WORKER PERFORMING ANY OTHER PHASE OF DEMOLITION WORK, AND THE CLEANING OF LUMBER; FIRE WATCHER, LIMBER, BRUSH LOADER, PILER AND DEBRIS HANDLER; FLAG PERSON; GAS, OIL AND/OR WATER PIPELINE LABORER; LABORER, ASPHALT-RUBBER MATERIAL LOADER; LABORER, GENERAL OR CONSTRUCTION; LABORER, GENERAL CLEAN-UP; LABORER, LANDSCAPING; LABORER, JETTING; LABORER, TEMPORARY WATER AND AIR LINES; MATERIAL HOSE OPERATOR (WALLS, SLABS, FLOORS AND DECKS); PLUGGING, FILLING OF SHEE BOLT HOLES; DRY PACKING OF CONCRETE; RAILROAD MAINTENANCE, REPAIR TRACK PERSON AND ROAD BEDS; STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS; RIGGING AND SIGNALING; SCALER; SLIP FORM RAISER; TAR AND MORTAR; TOOL CRIB OR TOOL HOUSE LABORER; TRAFFIC CONTROL BY ANY METHOD; WINDOW CLEANER; WIRE MESH PULLING - ALL CONCRETE POURING OPERATIONS (INYO AND MONO COUNTIES)	$ 46.48	25.95
LABORER GROUP 2 ASPHALT SHOVELER; CEMENT DUMPER (ON 1 YD. OR LARGER MIXER AND HANDLING BULK CEMENT); CESSPOOL DIGGER AND INSTALLER; CHUCKTENDER; CHUTE HANDLER, POURING CONCRETE, THE HANDLING OF THE CHUTE FROM READYMIX TRUCKS, SUCH AS WALLS, SLABS, DECKS, FLOORS, FOUNDATION, FOOTINGS, CURBS, GUTTERS AND SIDEWALKS; CONCRETE CURER, IMPERVIOUS MEMBRANE AND FORM OILER; CUTTING TORCH OPERATOR (DEMOLITION); FINE GRADER, HIGHWAYS AND STREET PAVING, AIRPORT, RUNWAYS AND SIMILAR TYPE HEAVY CONSTRUCTION; GAS, OIL AND/OR WATER PIPELINE WRAPPER - POT TENDER AND FORM PERSON; GUINEA CHASER; HEADERBOARD PERSON - ASPHALT; LABORER, PACKING ROD STEEL AND PANS; MEMBRANE VAPOR BARRIER INSTALLER; POWER BROOM SWEEPER (SMALL); RIPRAP STONEPAVER, PLACING STONE OR WET SACKED CONCRETE;		

ROTO SCRAPER AND TILLER; SANDBLASTER (POT TENDER); SEPTIC TANK DIGGER AND INSTALLER(LEAD); TANK SCALER AND CLEANER; TREE CLIMBER, FALLER, CHAIN SAW OPERATOR, PITTSBURGH CHIPPER AND SIMILAR TYPE BRUSH SHREDDER; UNDERGROUND LABORER, INCLUDING CAISSON BELLOWER (INYO AND MONO COUNTIES).....$ 47.03 25.95

LABORER GROUP 3 BUGGYMOBILE PERSON; CONCRETE CUTTING TORCH; CONCRETE PILE CUTTER; DRILLER, JACKHAMMER, 2-1/2 FT. DRILL STEEL OR LONGER; DRI-PAK-IT MACHINE; GAS, OIL AND/OR WATER PIPELINE WRAPPER, 6-IN. PIPE AND OVER, BY ANY METHOD, INSIDE AND OUT; HIGH SCALER (INCLUDING DRILLING OF SAME); HYDRO SEEDER AND SIMILAR TYPE; IMPACT WRENCH MULTI-PLATE; KETTLE PERSON, POT PERSON AND WORKERS APPLYING ASPHALT, LAY-KOLD, CREOSOTE, LIME CAUSTIC AND SIMILAR TYPE MATERIALS (""APPLYING"" MEANS APPLYING, DIPPING, BRUSHING OR HANDLING OF SUCH MATERIALS FOR PIPE WRAPPING AND WATERPROOFING); OPERATOR OF PNEUMATIC, GAS, ELECTRIC TOOLS, VIBRATING MACHINE, PAVEMENT BREAKER, AIR BLASTING, COME-ALONGS, AND SIMILAR MECHANICAL TOOLS NOT SEPARATELY CLASSIFIED HEREIN; PIPELAYER'S BACKUP PERSON, COATING, GROUTING, MAKING OF JOINTS, SEALING, CAULKING, DIAPERING AND INCLUDING RUBBER GASKET JOINTS, POINTING AND ANY AND ALL OTHER SERVICES; ROCK SLINGER; ROTARY SCARIFIER OR MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER; STEEL HEADERBOARD AND GUIDELINE SETTER; TAMPER, BARKO, WACKER AND SIMILAR TYPE; TRENCHING MACHINE, HAND-PROPELLED (INYO AND MONO COUNTIES).....$ 47.58 25.95

LABORER GROUP 4 ASPHALT RAKER, LUTE PERSON, IRONER, ASPHALT DUMP PERSON, AND ASPHALT SPREADER BOXES (ALL TYPES); CONCRETE CORE CUTTER (WALLS, FLOORS OR CEILINGS), GRINDER OR SANDER; CONCRETE SAW PERSON, CUTTING WALLS OR FLAT WORK, SCORING OLD OR NEW CONCRETE; CRIBBER, SHORER, LAGGING, SHEETING AND TRENCH BRACING, HAND-GUIDED LAGGING HAMMER; HEAD ROCK SLINGER; LABORER, ASPHALT- RUBBER DISTRIBUTOR BOOT PERSON; LASER BEAM IN CONNECTION WITH LABORERS' WORK; OVERSIZE CONCRETE VIBRATOR OPERATOR, 70 LBS. AND OVER; PIPELAYER PERFORMING ALL SERVICES IN THE LAYING AND INSTALLATION OF PIPE FROM THE POINT OF RECEIVING PIPE IN THE DITCH UNTIL COMPLETION OF OPERATION, INCLUDING ANY AND ALL FORMS OF TUBULAR MATERIAL, WHETHER PIPE, METALLIC OR NON-METALLIC, CONDUIT AND ANY OTHER STATIONARY TYPE OF TUBULAR DEVICE USED FOR THE CONVEYING OF ANY SUBSTANCE OR ELEMENT, WHETHER WATER, SEWAGE, SOLID GAS, AIR, OR OTHER PRODUCT WHATSOEVER AND WITHOUT REGARD TO THE NATURE OF MATERIAL FROM WHICH THE TUBULAR MATERIAL IS FABRICATED; NO-JOINT PIPE AND STRIPPING OF SAME; PREFABRICATED MANHOLE INSTALLER; SANDBLASTER (NOZZLE PERSON), WATER BLASTING, PORTA SHOT-BLAST (INYO AND MONO COUNTIES).....$ 49.13 25.95

LABORER GROUP 5 BLASTER POWDER, ALL WORK OF LOADING HOLES, PLACING AND BLASTING OF ALL POWDER AND EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF METHOD USED FOR SUCH LOADING AND PLACING; DRILLER: ALL POWER DRILLS, EXCLUDING JACKHAMMER, WHETHER CORE, DIAMOND, WAGON, TRACK, MULTIPLE UNIT, AND ANY AND ALL OTHER TYPES OF MECHANICAL DRILLS WITHOUT REGARD TO THE FORM OF MOTIVE POWER; TOXIC WASTE REMOVAL (INYO AND MONO COUNTIES).....$ 49.48 25.95

LABORER, TUNNEL: GROUP 1: BATCH PLANT LABORER;

CHANGEHOUSE PERSON; DUMP PERSON; DUMP PERSON (OUTSIDE); SWAMPER (BRAKE PERSON AND SWITCH PERSON ON TUNNEL WORK); TUNNEL MATERIALS HANDLING PERSON; NIPPER; POT TENDER, USING MASTIC OR OTHER MATERIALS (FOR EXAMPLE, BUT NOT BY WAY OF LIMITATION, SHOTCRETE, ETC.) (INYO AND MONO COUNTIES) .....$ 53.60 25.74

LABORER, TUNNEL: GROUP 2: CHUCKTENDER, CABLETENDER; LOADING AND UNLOADING AGITATOR CARS; VIBRATOR PERSON, JACK HAMMER, PNEUMATIC TOOLS (EXCEPT DRILLER); BULL GANG MUCKER, TRACK PERSON; CONCRETE CREW, INCLUDING RODDER AND SPREADER (INYO AND MONO COUNTIES).....$ 53.92 25.74

LABORER, TUNNEL: GROUP 3 GROUP 3: BLASTER, DRILLER, POWDER PERSON; CHEMICAL GROUT JET PERSON; CHERRY PICKER PERSON; GROUT GUN PERSON; GROUT MIXER PERSON; GROUT PUMP PERSON; JACKLEG MINER; JUMBO PERSON; KEMPER AND OTHER PNEUMATIC CONCRETE PLACER OPERATOR; MINER, TUNNEL (HAND OR MACHINE); NOZZLE PERSON; OPERATING OF TROWELING AND/OR GROUTING MACHINES; POWDER PERSON (PRIMER HOUSE); PRIMER PERSON; SANDBLASTER; SHOTCRETE PERSON; STEEL FORM RAISER AND SETTER; TIMBER PERSON, RETIMBER PERSON, WOOD OR STEEL; TUNNEL CONCRETE FINISHER (INYO AND MONO COUNTIES).....$ 54.38 25.74

LABORER, TUNNEL: GROUP 4: DIAMOND DRILLER; SANDBLASTER; SHAFT AND RAISE WORK (INYO AND MONO COUNTIES).....$ 55.07 25.74

LABO0783-004 11/01/2025

	Rates	Fringes
BRICK TENDER (INYO AND MONO COUNTIES).....	$ 42.60	22.13

LABO1184-001 07/01/2025

	Rates	Fringes
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (1) DRILLING CREW LABORER.....	$ 47.94	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (2) VEHICLE OPERATOR/HAULER.....	$ 48.11	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (3) HORIZONTAL DIRECTIONAL DRILL OPERATOR.....	$ 49.96	20.86
LABORERS: HORIZONTAL DIRECTIONAL DRILLING: (4) ELECTRONIC TRACKING LOCATOR.....	$ 51.96	20.86
LABORERS:, STRIPING/SLURRY SEAL: GROUP 1 PROTECTIVE COATING, PAVEMENT SEALING, INCLUDING REPAIR AND FILLING OF CRACKS BY ANY METHOD ON ANY SURFACE IN PARKING LOTS, GAME COURTS AND PLAYGROUNDS; CARSTOPS; OPERATION OF ALL RELATED MACHINERY AND EQUIPMENT; EQUIPMENT REPAIR TECHNICIAN.....	$ 49.30	23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 2 TRAFFIC SURFACE ABRASIVE BLASTER; POT TENDER - REMOVAL OF ALL TRAFFIC LINES AND MARKINGS BY ANY METHOD (SANDBLASTING, WATERBLASTING, GRINDING, ETC.) AND PREPARATION OF SURFACE FOR COATINGS. TRAFFIC CONTROL PERSON: CONTROLLING AND DIRECTING TRAFFIC THROUGH BOTH CONVENTIONAL AND MOVING LANE CLOSURES; OPERATION OF ALL RELATED MACHINERY AND EQUIPMENT....	$ 50.60	23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 3 TRAFFIC DELINEATING DEVICE APPLICATOR: LAYOUT AND APPLICATION OF PAVEMENT MARKERS, DELINEATING SIGNS, RUMBLE AND TRAFFIC BARS, ADHESIVES, GUIDE MARKERS, OTHER TRAFFIC DELINEATING DEVICES INCLUDING TRAFFIC CONTROL. THIS CATEGORY INCLUDES ALL TRAFFIC RELATED SURFACE PREPARATION (SANDBLASTING, WATERBLASTING,		

GRINDING) AS PART OF THE APPLICATION PROCESS.
TRAFFIC PROTECTIVE DELINEATING SYSTEM INSTALLER:
REMOVES, RELOCATES, INSTALLS, PERMANENTLY AFFIXED
ROADSIDE AND PARKING DELINEATION BARRICADES,
FENCING, CABLE ANCHOR, GUARD RAIL, REFERENCE SIGNS,
MONUMENT MARKERS; OPERATION OF ALL RELATED
MACHINERY AND EQUIPMENT; POWER BROOM SWEEPER.....$ 52.61 23.97
LABORERS:, STRIPING/SLURRY SEAL: GROUP 4 STRIPER:
LAYOUT AND APPLICATION OF TRAFFIC STRIPES AND
MARKINGS; HOT THERMO PLASTIC; TAPE TRAFFIC STRIPES
AND MARKINGS, INCLUDING TRAFFIC CONTROL; OPERATION
OF ALL RELATED MACHINERY AND EQUIPMENT.....$ 54.35 23.97

PAIN0036-009 09/01/2024

	Rates	Fringes
DRYWALL FINISHER/TAPER	$ 45.20	26.82

PAIN0036-021 07/01/2023

	Rates	Fringes
PAINTERS: INCLUDING LEAD ABATEMENT: (1) JOURNEYMAN PAINTER	$ 34.08	18.50
PAINTERS: INCLUDING LEAD ABATEMENT: (4) ALL OTHER WORK	$ 34.08	18.50
PAINTERS: INCLUDING LEAD ABATEMENT: (5) INDUSTRIAL	$ 41.42	19.04

PAIN0169-002 01/01/2023

	Rates	Fringes
GLAZIER	$ 44.33	28.88

PAIN1247-001 01/01/2025

	Rates	Fringes
SOFT FLOOR LAYER	$ 45.15	19.43

PLAS0200-007 08/03/2022

	Rates	Fringes
PLASTERER U.S. MARINE CORPS-PICKLE MEADOW & MOUNTAIN WARFARE TRAINING CENTER: $3.00 ADDITIONAL PER HOUR	$ 47.37	19.64

PLAS0500-002 07/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 47.70	27.07

PLUM0345-001 09/01/2025

	Rates	Fringes
PLUMBER (LANDSCAPE/IRRIGATION FITTER)	$ 44.75	26.20
PLUMBER (SEWER & STORM DRAIN WORK)	$ 48.84	23.58

PLUM0460-002 09/01/2025

	Rates	Fringes
PLUMBER: PLUMBER, PIPEFITTER, STEAMFITTER, REFRIGERATION: ALL OTHER WORK FOOTNOTE: WORK FROM A SWINGING SCAFFOLD, SWINGING BASKET, SPIDER OR FROM A BOSUN CHAIR: 10% ABOVE THE REGULAR RATE OF PAY FOR THAT DAY	$ 61.73	26.81
PLUMBER: PLUMBER, PIPEFITTER, STEAMFITTER, REFRIGERATION: CHINA LAKE, MARINE WARFARE TRAINING		

CENTER FOOTNOTE: WORK FROM A SWINGING SCAFFOLD, SWINGING BASKET, SPIDER OR FROM A BOSUN CHAIR: 10% ABOVE THE REGULAR RATE OF PAY FOR THAT DAY.....$ 72.23 26.81
PLUMBER: PLUMBER, PIPEFITTER, STEAMFITTER, REFRIGERATION: EDWARDS AIR FORCE BASE FOOTNOTE: WORK FROM A SWINGING SCAFFOLD, SWINGING BASKET, SPIDER OR FROM A BOSUN CHAIR: 10% ABOVE THE REGULAR RATE OF PAY FOR THAT DAY.....$ 68.73 26.81

ROOF0027-001 09/01/2024

	Rates	Fringes
ROOFER FOOTNOTE: WORK WITH PITCH, PITCH BASE OF PITCH IMPREGNATED PRODUCTS OR ANY MATERIAL CONTAINING COAL TAR PITCH, ON ANY BUILDING OLD OR NEW, WHERE BOTH ASPHALT AND PITCHERS ARE USED IN THE APPLICATION OF A BUILT-UP ROOF OR TEAR OFF: $2.00 PER HOUR ADDITIONAL.....	$ 45.76	16.86

SFCA0669-007 01/01/2026

	Rates	Fringes
SPRINKLER FITTER.....	$ 50.79	29.80

SHEE0105-003 01/01/2025

	Rates	Fringes
SHEET METAL WORKER: (1) COMMERCIAL - NEW CONSTRUCTION AND REMODEL WORK (LOS ANGELES (SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES)AND CATALINA ISLAND, INYO, KERN (NORTHEAST PART, EAST OF HWY 395), MONO ORANGE, RIVERSIDE, AND SAN BERNARDINO COUNTIES).....	$ 59.31	30.43

SHEE0105-004 07/01/2023

	Rates	Fringes
SHEET METAL WORKER (KERN (EXCLUDING PORTION EAST OF HWY 395) & LOS ANGELES (NORTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES INCLUDING CITIES OF LANCASTER AND PALMDALE) COUNTIES).....	$ 45.98	29.24

TEAM0011-002 07/01/2025

	Rates	Fringes
TRUCK DRIVER GROUP 1 TRUCK DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....	$ 41.59	35.69
TRUCK DRIVER GROUP 2 DRIVER OF VEHICLE OR COMBINATION OF VEHICLES - 2 AXLES; TRAFFIC CONTROL PILOT CAR EXCLUDING MOVING HEAVY EQUIPMENT PERMIT LOAD; TRUCK MOUNTED BROOM WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]...	$ 41.74	35.69
TRUCK DRIVER GROUP 3 DRIVER OF VEHICLE OR COMBINATION OF VEHICLES - 3 AXLES; BOOT PERSON;		

CEMENT MASON DISTRIBUTION TRUCK; FUEL TRUCK DRIVER; WATER TRUCK - 2 AXLE; DUMP TRUCK, LESS THAN 16 YDS. WATER LEVEL; EROSION CONTROL DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 41.87 35.69

TRUCK DRIVER GROUP 4 DRIVER OF TRANSIT MIX TRUCK, UNDER 3 YDS.; DUMPCRETE TRUCK, LESS THAN 6-1/2 YDS. WATER LEVEL WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 42.06 35.69

TRUCK DRIVER GROUP 5 WATER TRUCK, 3 OR MORE AXLES; TRUCK GREASER AND TIRE PERSON ($0.50 ADDITIONAL FOR TIRE PERSON); PIPELINE AND UTILITY WORKING TRUCK DRIVER, INCLUDING WINCH TRUCK AND PLASTIC FUSION, LIMITED TO PIPELINE AND UTILITY WORK; SLURRY TRUCK DRIVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 42.09 35.69

TRUCK DRIVER GROUP 6 TRANSIT MIX TRUCK, 3 YDS. OR MORE; DUMPCRETE TRUCK, 6-1/2 YDS. WATER LEVEL AND OVER; VEHICLE OR COMBINATION OF VEHICLES - 4 OR MORE AXLES; OIL SPREADER TRUCK; DUMP TRUCK, 16 YDS. TO 25 YDS. WATER LEVEL WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB]...$ 42.12 35.69

TRUCK DRIVER GROUP 7.....$ 42.37 35.69

TRUCK DRIVER GROUP 8 DUMP TRUCK, 25 YDS. TO 49 YDS. WATER LEVEL; TRUCK REPAIR PERSON; WATER PULL - SINGLE ENGINE; WELDER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 42.62 35.69

TRUCK DRIVER GROUP 9 TRUCK REPAIR PERSON/WELDER; LOW BED DRIVER, 9 AXLES OR OVER WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 42.82 35.69

TRUCK DRIVER GROUP 10 DUMP TRUCK - 50 YDS. OR MORE WATER LEVEL; WATER PULL - SINGLE ENGINE WITH ATTACHMENT WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE

BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 43.12 35.69

TRUCK DRIVER GROUP 11 WATER PULL - TWIN ENGINE; WATER PULL - TWIN ENGINE WITH ATTACHMENTS; WINCH TRUCK DRIVER - $1.25 ADDITIONAL WHEN OPERATING WINCH OR SIMILAR SPECIAL ATTACHMENTS WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 43.62 35.69

TRUCK DRIVER GROUP 12 BOOM TRUCK 17K AND ABOVE WORK ON ALL MILITARY BASES: PREMIUM PAY: $3.00 PER HOUR ADDITIONAL. [29 PALMS MARINE BASE, CAMP ROBERTS, CHINA LAKE, EDWARDS AFB, EL CENTRO NAVAL FACILITY, FORT IRWIN, MARINE CORPS LOGISTICS BASE AT NEBO & YERMO, MOUNTAIN WARFARE TRAINING CENTER, BRIDGEPORT, POINT ARGUELLO, POINT CONCEPTION, VANDENBERG AFB].....$ 44.05 35.69

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than SU, UAVG, SA, or SC denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The SU identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

SU wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The SA identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the SA identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

Appendix B – Grant Agreement

NOTICE OF AWARD

1. DATE ISSUED *MM/DD/YYYY* 03/01/2022	**1a. SUPERSEDES AWARD NOTICE dated** except that any additions or restrictions previously imposed remain in effect unless specifically rescinded
2. CFDA NO. 15.507 - WaterSMART (Sustain and Manage America's Resources for Tomorrow)	
3. ASSISTANCE TYPE Project Grant	
4. GRANT NO. R22AP00032-00 **Originating MCA #**	**5. TYPE OF AWARD** Other
4a. FAIN R22AP00032	**5a. ACTION TYPE** New
6. PROJECT PERIOD *MM/DD/YYYY* **From** 03/01/2022	*MM/DD/YYYY* **Through** 12/31/2023
7. BUDGET PERIOD *MM/DD/YYYY* **From** 03/01/2022	*MM/DD/YYYY* **Through** 12/31/2023

AUTHORIZATION (Legislation/Regulations)

Section 9504(a), Omnibus Public Lands Management Act of 2009, (Public Law 111-11), as amended.

8. TITLE OF PROJECT (OR PROGRAM)
Calloway Canal Lining

9a. GRANTEE NAME AND ADDRESS
North Kern Water Storage District
33380 Cawelo Ave
Bakersfield, CA 93308-9575

9b. GRANTEE PROJECT DIRECTOR
Ram Venkatesan
33380 Cawelo Extended
Bakersfield, CA 93308-9575
Phone: 661-393-2696

10a. GRANTEE AUTHORIZING OFFICIAL
Ram Venkatesan
33380 Cawelo Extended
Bakersfield, CA 93308-9575
Phone: 661-393-2696

10b. FEDERAL PROJECT OFFICER
Joshua German

ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)

I Financial Assistance from the Federal Awarding Agency Only		
II Total project costs including grant funds and all other financial participation		II
a. Salaries and Wages	$	0.00
b. Fringe Benefits	$	0.00
c. Total Personnel Costs	$	0.00
d. Equipment	$	0.00
e. Supplies	$	0.00
f. Travel	$	0.00
g. Construction	$	4,471,272.00
h. Other	$	0.00
i. Contractual	$	0.00
j. TOTAL DIRECT COSTS →	$	4,471,272.00
k. INDIRECT COSTS	$	0.00
l. **TOTAL APPROVED BUDGET**	$	4,471,272.00
m. Federal Share	$	2,000,000.00
n. Non-Federal Share	$	2,471,272.00

12. AWARD COMPUTATION

a. Amount of Federal Financial Assistance (from item 11m)	$	2,000,000.00
b. Less Unobligated Balance From Prior Budget Periods	$	0.00
c. Less Cumulative Prior Award(s) This Budget Period	$	0.00
d. **AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION**	$	2,000,000.00
13. Total Federal Funds Awarded to Date for Project Period	$	2,000,000.00

14. RECOMMENDED FUTURE SUPPORT
(Subject to the availability of funds and satisfactory progress of the project):

YEAR	TOTAL DIRECT COSTS	YEAR	TOTAL DIRECT COSTS
a. 2	$	d. 5	$
b. 3	$	e. 6	$
c. 4	$	f. 7	$

15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:
a. DEDUCTION
b. ADDITIONAL COSTS
c. MATCHING
d. OTHER RESEARCH (Add / Deduct Option)
e. OTHER *(See REMARKS)*

e

16. THIS AWARD IS BASED ON AN APPLICATION SUBMITTED TO, AND AS APPROVED BY, THE FEDERAL AWARDING AGENCY ON THE ABOVE TITLED PROJECT AND IS SUBJECT TO THE TERMS AND CONDITIONS INCORPORATED EITHER DIRECTLY OR BY REFERENCE IN THE FOLLOWING:
a. The grant program legislation
b. The grant program regulations.
c. This award notice including terms and conditions, if any, noted below under REMARKS.
d. Federal administrative requirements, cost principles and audit requirements applicable to this grant.

In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.

REMARKS (Other Terms and Conditions Attached - ● Yes ○ No)
See next page

GRANTS MANAGEMENT OFFICIAL:
Beverly Nelson, Chief Grants Officer
Denver Federal Center,
6th & Kipling (84-27130)
Denver, CO 80225
Phone: 303-445-2762

17. VENDOR CODE 0071358645		**18a. UEI**		**18b. DUNS** 081783946	**19. CONG. DIST.** 21
LINE#	**FINANCIAL ACCT**	**AMT OF FIN ASST**	**START DATE**	**END DATE**	**TAS ACCT**	**PO LINE DESCRIPTION**
1	0051011883-00010	$2,000,000.00	03/01/2022	12/31/2023	0680	FA WEEG FY21 North Kern Storage

REMARKS:

Program Income is not authorized.

Recipients are NOT required to sign the Notice of Award or any other award document. Recipients indicate their acceptance of an award, including award terms and conditions, by starting work, drawing down funds, or accepting the award via electronic means. Recipient acceptance of an award carries with it the responsibility to be aware of and comply with all terms and conditions applicable to the award. Recipients are responsible for ensuring that their subrecipients and contractors are aware of and comply with applicable award statutes, regulations, and terms and conditions. Recipient failure to comply with award terms and conditions can result in Reclamation taking one or more of the remedies and actions described in 2 CFR 200.339343.

Federal Financial Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	12/31/2023	Final	04/29/2024

Performance Progress Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	12/31/2023	Final	04/29/2024

AWARD ATTACHMENTS

NORTH KERN WATER STORAGE DISTRICT R22AP00032-00

1. R22AP00032 Final Agreement

UNITED STATES DEPARTMENT OF THE INTERIOR

ASSISTANCE AGREEMENT

R22AP00032

Between

Bureau of Reclamation

And

North Kern Water Storage District

For

Calloway Canal Lining

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Financial Assistance Agreement
Between
Bureau of Reclamation
And
North Kern Water Storage District
For
Calloway Canal Lining

I. OVERVIEW AND SCHEDULE

1. AUTHORITY

This Financial Assistance Agreement (Agreement) is entered into between the United States of America, acting through the Department of the Interior, Bureau of Reclamation (Reclamation) and North Kern Water Storage District (Recipient), pursuant to Section 9504(a) of the SECURE WATER ACT, Subtitle F of Title IX of the OMNIBUS PUBLIC LAND MANAGEMENT ACT OF 2009, Public Law 111-11 (42 United States Code 10364) (the "Act"). The following section, provided in full text, authorizes Reclamation to award this financial assistance agreement:

> ***SEC. 9504. WATER MANAGEMENT IMPROVEMENT.***
>
> *(a) AUTHORIZATION OF GRANTS AND COOPERATIVE AGREEMENTS.—*
>
> *(1) AUTHORITY OF SECRETARY.—The Secretary may provide any grant to, or enter into an agreement with, any eligible applicant to assist the eligible applicant in planning, designing, or constructing any improvement—*
>
> *(A) to conserve water;*
>
> *(B) to increase water use efficiency;*
>
> *(C) to facilitate water markets;*
>
> *(D) to enhance water management, including increasing the use of renewable energy in the management and delivery of water;*
>
> *(E) to accelerate the adoption and use of advanced water treatment technologies to increase water supply;*
>
> *(F) to prevent the decline of species that the United States Fish and Wildlife Service and National Marine Fisheries Service have proposed for listing under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) (or candidate species that are being considered by those agencies for such listing but are not yet the subject of a proposed rule);*
>
> *(G) to accelerate the recovery of threatened species, endangered species, and designated critical habitats that are adversely affected*

by Federal reclamation projects or are subject to a recovery plan or conservation plan under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) under which the Commissioner of Reclamation has implementation responsibilities; or

(H) to carry out any other activity—

(i) to address any climate-related impact to the water supply of the United States that increases ecological resiliency to the impacts of climate change; or

(ii) to prevent any water-related crisis or conflict at any watershed that has a nexus to a Federal reclamation project located in a service area.

2. PUBLIC PURPOSE OF SUPPORT OR STIMULATION

The *Calloway Canal Lining* project (Project) achieves the public purpose of the Act by conserving water and improving water management.

3. BACKGROUND AND OBJECTIVES

Through WaterSMART (Sustain and Manage America's Resources for Tomorrow), Reclamation leverages Federal and non-Federal funding to work cooperatively with states, tribes, and local entities as they plan for and implement actions to increase water supply reliability through investments and attention to local water conflicts. Working together with our stakeholders, WaterSMART provides support for the Department of the Interior's priorities, including creating a legacy of conservation stewardship, sustainably developing our energy and natural resources, modernizing our infrastructure through public-private partnerships, and restoring trust with local communities by improving relationships and communication with states, tribes, local governments, communities, landowners and water users.

Through Water and Energy Efficiency Grants, Reclamation provides assistance to states, tribes, irrigation districts, water districts, and other entities with water or power delivery authority to undertake projects that result in quantifiable and sustained water savings and support broader water reliability benefits.

The North Kern Water Storage District, located in Bakersfield, California, will line 6,744 feet of a currently unlined portion of the Calloway Canal with 4-inch thick unreinforced concrete. The project is expected to result in annual water savings of 2,366 acre-feet, which is currently seeping into the groundwater basin that has poor water quality. The groundwater basin in the San Joaquin Valley portion of Kern County is critically stressed, especially when pumping increases during dry years, and the region is perpetually experiencing drought conditions. Lining the canal will allow for more efficient delivery of surface water supplies and reduce dependency on the Kern River by giving the District greater flexibility to time its diversions. The project will help to reduce current groundwater use in an area where the water quality of recovered groundwater is not suitable for irrigation without costly treatment.

4. PERIOD OF PERFORMANCE AND FUNDS AVAILABILITY

This Agreement becomes effective on the date shown in block 1 of the United States of America, Department of the Interior, Notice of Award (NOA). The Agreement shall remain in effect through the date shown in block 6 of the NOA. The project period for this Agreement may only be changed through written amendment of the Agreement by a Reclamation Grants Officer (GO).

No legal liability on the part of the Government for any payment may arise until funds are made available, in writing, to the Recipient by a Reclamation GO. The total estimated project cost for this Agreement is **$4,471,272.00** and the total estimated amount of Federal funding is **$2,000,000.00**. The initial amount of Federal funds available is limited to **$2,000,000.00** as indicated by the section titled "Amount of Financial Assistance This Action" within block 12 of the NOA.

5. SCOPE OF WORK AND MILESTONES

Under this Agreement, the Recipient shall concrete line 6,744 linear feet of a currently unlined portion of the Calloway Canal, within the North Kern Water Storage District in Bakersfield, California.

The canal lining project starts at 35° 26.514'N and 119° 7.829'W, and ends at 35° 27.382'N and 119° 7.998'W.

After review of the methodology used to estimate water conservation savings, consideration of supporting documentation provided by Recipient, and any adjustments made during the evaluation of the Project, it was determined that these improvements are expected to result in annual water savings of 2,366 acre-feet.

The milestones* for completing the Project are:

Milestone / Task / Activity	Planned Start Date	Planned Completion Date
Completion of required environmental compliance	October 2021	October 2022
Contract documents prepared, bid	June 2023	August 2023
Canal Lining Construction staging/start-up	August 2023	
Construction complete	December 2023	

*Please note that milestone activities and planned dates may change.

6. RESPONSIBILITY OF THE PARTIES

6.1 Recipient Responsibilities

6.1.1 The Recipient shall carry out the Scope of Work (SOW) in accordance with the terms and conditions stated herein. The Recipient shall adhere to Federal, state, and local laws, regulations, and codes, as applicable, and shall obtain all required approvals and permits. If the SOW contains construction activities, the Recipient is responsible for construction inspection, oversight, and acceptance. If applicable, the Recipient shall also coordinate and obtain approvals from site owners and operators.

6.1.2 Interim Performance Reports. The Recipient shall prepare and submit to Reclamation interim Project performance reports (Interim Performance Reports) as required by Section I.10 of this Agreement. Each Interim Performance Report will include (but is not limited to) the information identified in paragraph I.10.3 and will discuss the following:

- A comparison of actual accomplishments to the milestones established by the financial assistance agreement for the reporting period
- The reasons why established milestones were not met, if applicable
- The status of milestones from the previous reporting period that were not met, if applicable
- Whether the Project is on schedule and within the original cost estimate
- Any additional pertinent information or issues related to the status of the Project

6.1.3 Final Project Report. The Recipient shall prepare and submit to Reclamation a final Project performance report (Final Project Report) as required by Section I.10 of this Agreement. The Final Project Report will include (but is not limited to) the information identified in paragraph I.10.3 and will discuss the following:

- Whether the Project objectives and goals were met
- The amount of water conserved, if applicable, including information and/or calculations supporting that amount
- The amount of energy the renewable energy system is generating annually, if applicable
- How the Project demonstrated collaboration, if applicable

Photographs documenting the project are also appreciated. Recipient understands that Reclamation may print photos with appropriate credit to Recipient. Recipient also understands that the Final Project Report is a public document and may be made available on Reclamation's website, www.usbr.gov/watersmart/.

6.2 Reclamation Responsibilities

6.2.1 Reclamation will monitor and provide Federal oversight of activities performed under this Agreement. Monitoring and oversight includes review and approval of financial status and

performance reports, payment requests, and any other deliverables identified as part of the SOW. Additional monitoring activities may include site visits, conference calls, and other on-site and off-site monitoring activities. At the Recipient's request, Reclamation may also provide technical assistance to the Recipient in support of the SOW and objectives of this Agreement.

7 BUDGET

7.1 Budget Estimate. The following is the estimated budget for this Agreement. As Federal financial assistance agreements are cost-reimbursable, the budget provided is for estimation purposes only. Final costs incurred under the budget categories listed may be either higher or lower than the estimated costs. All costs incurred by the Recipient under this Agreement must be in accordance with any pre-award clarifications conducted between the Recipient and Reclamation, as well as with the terms and conditions of this Agreement. Final determination of the allowability, allocability, or reasonableness of costs incurred under this Agreement is the responsibility of the GO. Recipients are encouraged to direct any questions regarding allowability, allocability or reasonableness of costs to the GO for review prior to incurrence of the costs in question.

BUDGET ITEM DESCRIPTION	TOTAL COST
CONSTRUCTION	
Canal Lining Construction	$4,471,272.00
TOTAL DIRECT COSTS	**$4,471,272.00**
INDIRECT COSTS	
	$0.00
TOTAL ESTIMATED PROJECT COSTS	**$4,471,272.00**

7.2 Cost Sharing Requirement

At least 50% non-Federal cost-share is required for costs incurred under this Agreement. Based on the budget estimate reflected in Section 7.1 above, the estimated Federal share of allowable costs is 45% and the Recipient's estimated non-Federal cost share is 55%. The Federal share of allowable costs shall not be expended in advance of the Recipient's non-Federal share. It is expected that expenditure of Federal and non-Federal funds based upon the estimated cost share percentages shall occur concurrently.

If a bona fide need arises which requires the expenditure of Federal funds in advance of the Recipient share, then the Recipient must request written approval from the Reclamation GO prior to the expenditure. Recipient may not expend their agreed upon share of costs in advance of the expenditure of Federal funds without prior written approval.

7.3 Pre-Award Incurrence of Costs

The Recipient is not authorized to incur costs prior to the award of this Agreement. Costs incurred prior to the award of this agreement are not allowable.

7.4 Allowable Costs

Costs incurred for the performance of this Agreement must be allowable, allocable to the project, and reasonable. The following regulations, codified within the Code of Federal Regulations (CFR), governs the allowability of costs for Federal financial assistance:

2 CFR 200 Subpart E, "Cost Principles"

Expenditures for the performance of this Agreement must conform to the requirements within this CFR. The Recipient must maintain sufficient documentation to support these expenditures. Questions on the allowability of costs should be directed to the GO responsible for this Agreement.

The Recipient shall not incur costs or obligate funds for any purpose pertaining to operation of the program or activities beyond the expiration date stated in the Agreement. The only costs which are authorized for a period of up to **120 calendar days** following the project performance period are those strictly associated with closeout activities for preparation of the final reports.

7.5 Revision of Budget and Program Plans

In accordance with 2 CFR 200.308(h) the recipient must request prior written approval for any of the following changes:

(a) A change in the approved scope of work or associated tasks, even if there is no associated budget revisions.

(b) Revisions which require additional Federal funds to complete the project.

(c) Revisions which involve specific costs for which prior written approval requirements may be imposed consistent with OMB cost principles listed in 2 CFR 200 Subpart E "Cost Principles"

7.6 Amendments

Any changes to this Agreement shall be made by means of a written amendment. Reclamation may make changes to the Agreement by means of a unilateral amendment to address changes in address, no-cost time extensions, changes to Key Personnel, the addition of previously agreed upon funding, or administrative corrections which do not impact the terms and conditions of this Agreement. Additionally, a unilateral amendment may be utilized by Reclamation if it should become necessary to suspend or terminate the Agreement in accordance with 2 CFR 200.340.

All other changes shall be made by means of a bilateral amendment to the Agreement. No oral statement made by any person, or written statement by any person other than the GO, shall be

allowed in any manner or degree to amend, modify or otherwise effect the terms of the Agreement.

All requests for amendment of the Agreement shall be made in writing, provide a full description of the reason for the request, and be sent to the attention of the GO. Any request for project period extension shall be made at least 45 days prior to the end of the project period of the Agreement or the project period date of any extension that may have been previously granted. Any determination to extend the project period or to provide follow-on funding for continuation of a project is solely at the discretion of Reclamation.

8. KEY PERSONNEL

8.1 Recipient's Key Personnel.

The Recipient's Project Manager for this Agreement shall be:

Ram Venkatesan
Deputy General Manager
33380 Cawelo Extended
Bakersfield, CA 93308-9575
661-393-2696
ram@northkernwsd.com

9. LIMITATION OF AUTHORITIES

9.1 Grants Officer (GO).

The Reclamation GO is the only official with legal delegated authority to represent Reclamation. The Reclamation GO's responsibilities include, but are not limited to, the following:

(a) Formally obligate Reclamation to expend funds or change the funding level of the Agreement;

(b) Approve through formal amendment changes in the scope of work and/or budget;

(c) Approve through formal amendment any increase or decrease in the project period of the Agreement;

(d) Approve through formal amendment changes in any of the expressed terms, conditions, or specifications of the Agreement;

(e) Be responsible for the overall administration, management, and other non-programmatic aspects of the Agreement including, but not limited to, interpretation of financial assistance statutes, regulations, circulars, policies, and terms of the Agreement; and

(f) Where applicable, ensures that Reclamation complies with the administrative requirements required by statutes, regulations, circulars, policies, and terms of the Agreement.

9.2 Grants Management Specialist.

The Reclamation Grants Management Specialist (GMS) is the primary administrative point of contact for this Agreement and should be contacted regarding issues related to the day-to-day management of the Agreement. Requests for approval regarding the terms and conditions of the Agreement, including but not limited to amendments and prior approval, may only be granted, in writing, by a Reclamation GO. Please note that for some Agreements, the Reclamation GO and the Reclamation GMS may be the same individual.

10. REPORTING REQUIREMENTS AND DISTRIBUTION

10.1 Noncompliance. Failure to comply with the reporting requirements contained in this Agreement may be considered a material noncompliance with the terms and conditions of the award. Noncompliance may result in withholding of payments pending receipt of required reports, denying both the use of funds and matching credit for all or part of the cost of the activity or action not in compliance, whole or partial suspension or termination of the Agreement, recovery of funds paid under the Agreement, withholding of future awards, or other legal remedies in accordance with 2 CFR 200.340.

10.2 Financial Reports. Federal Financial Reports shall be submitted by means of the SF-425 and shall be submitted according to the Report Frequency and Distribution schedule below. All financial reports shall be signed by an Authorized Certifying Official for the Recipient's organization.

10.3 Monitoring and Reporting Program Performance

(a) Monitoring by the non-Federal entity. The non-Federal entity is responsible for oversight of the operations of the Federal award supported activities. The non-Federal entity must monitor its activities under Federal awards to assure compliance with applicable Federal requirements and performance expectations are being achieved. Monitoring by the non-Federal entity must cover each program, function or activity. See also 2 CFR 200.332 Requirements for pass-through entities.

(b) Non-construction performance reports. The Federal awarding agency must use standard, OMB-approved data elements for collection of performance information (including performance progress reports, Research Performance Progress Report, or such future collections as may be approved by OMB and listed on the OMB Web site).

(1) The non-Federal entity must submit performance reports at the interval required by the Federal awarding agency or pass-through entity to best inform improvements in program outcomes and productivity. Intervals must be no less frequent than annually nor more frequent than quarterly except in unusual circumstances, for example where more frequent reporting is necessary for the effective monitoring of the Federal award or could significantly affect program outcomes. Annual reports must be due **90 calendar days** after the reporting period; quarterly or semiannual reports must be due **30 calendar days** after the reporting period. Alternatively, the Federal awarding

agency or pass-through entity may require annual reports before the anniversary dates of multiple year Federal awards. The final performance report will be due **120 calendar days** after the project period end date. If a justified request is submitted by a non-Federal entity, the Federal agency may extend the due date for any performance report.

(2) The non-Federal entity must submit performance reports using OMB-approved governmentwide standard information collections when providing performance information. As appropriate in accordance with above mentioned information collections, these reports will contain, for each Federal award, brief information on the following unless other collections are approved by OMB:

(i) A comparison of actual accomplishments to the objectives of the Federal award established for the period. Where the accomplishments of the Federal award can be quantified, a computation of the cost (for example, related to units of accomplishment) may be required if that information will be useful. Where performance trend data and analysis would be informative to the Federal awarding agency program, the Federal awarding agency should include this as a performance reporting requirement.

(ii) The reasons why established goals were not met, if appropriate.

(iii) Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

(c) Construction performance reports. For the most part, onsite technical inspections and certified percentage of completion data are relied on heavily by Federal awarding agencies and pass-through entities to monitor progress under Federal awards and subawards for construction. The Federal awarding agency may require additional performance reports only when considered necessary.

(d) Significant developments. Events may occur between the scheduled performance reporting dates that have significant impact upon the supported activity. In such cases, the non-Federal entity must inform the Federal awarding agency or pass-through entity as soon as the following types of conditions become known:

(1) Problems, delays, or adverse conditions which will materially impair the ability to meet the objective of the Federal award. This disclosure must include a statement of the action taken, or contemplated, and any assistance needed to resolve the situation.

(2) Favorable developments which enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

Reclamation requires Performance reporting for all financial assistance awards, both Construction and non-Construction. Performance reports for Construction agreements shall meet the same minimum requirements outlined in paragraph (b)(2) above.

10.4 Report Frequency and Distribution. The following table sets forth the reporting requirements for this Agreement. Please note the first report due date listed for each type of report.

Required Reports	Interim Reports	Final Report
Performance Report		
Format	No specific format required. See content requirements within Section 10.3and any program specific reporting requirements identified in Section 6.1 of this Agreement	Summary of activities completed during the entire period of performance is required. See content requirements within Section 10.3 and any program specific reporting requirements identified in Section 6.1 of this Agreement.
Reporting Frequency	**Semi-Annual**	Final Report due within **120 calendar days** after the end of the period of performance
Reporting Period	October 1 through March 31 and April 1 through September 30.	Entire period of performance
Due Date	Within **30 calendar days** after the end of the Reporting Period	Final Report due within **120 calendar days** after the end of the period of performance **or** completion of the project
First Report Due Date	The first performance report is due for reporting period ending ***09/30/2022***	N/A
Submit to:	**GrantSolutions or sha-dro-faoperations@usbr.gov**	**GrantSolutions or sha-dro-faoperations@usbr.gov**
Federal Financial Report		
Format	SF-425 (all sections must be completed)	SF-425(all sections must be completed)
Reporting Frequency	**Semi-Annual**	Final Report due within **120 calendar days** after the end of the period of performance or completion of the project
Reporting Period	October 1 through March 31 and April 1 through September 30.	Entire period of performance
Due Date	Within **30 calendar days** after the end of the Reporting Period.	Final Report due within **120 calendar days** after the end of the period of performance or completion of the project.

Required Reports	Interim Reports	Final Report
First Report Due Date	The first Federal financial report is due for reporting period ending ***09/30/2022***	N/A
Submit to:	**GrantSolutions or sha-dro-faoperations@usbr.gov**	**GrantSolutions or sha-dro-faoperations@usbr.gov**

11. REGULATORY COMPLIANCE

The Recipient agrees to comply or assist Reclamation with all regulatory compliance requirements and all applicable state, Federal, and local environmental and cultural and paleontological resource protection laws and regulations as applicable to this project. These may include, but are not limited to, the National Environmental Policy Act (NEPA), including the Council on Environmental Quality and Department of the Interior regulations implementing NEPA, the Clean Water Act, the Endangered Species Act, consultation with potentially affected Tribes, and consultation with the State Historic Preservation Office. Once regulatory compliance is complete, a Reclamation GO will issue a Notice to Proceed along with the compliance documentation notifying the Recipient that compliance is complete and on-the-ground work can commence on the project. If the Recipient begins project activities that require environmental or other regulatory compliance approval prior to receipt of written notice from the Reclamation GO that all such clearances have been obtained, then Reclamation reserves the right to initiate remedies for non-compliance as defined by 2 CFR 200.340 up to and including unilateral termination of this agreement.

12. AGRICULTURAL OPERATIONS [Public Law 111-11, Section 9504(a)(3)(B)]

The Recipient shall not use any associated water savings to increase the total irrigated acreage of the Recipient or otherwise increase the consumptive use of water in the operation of the Recipient, as determined pursuant to the law of the State in which the operation of Recipient is located.

13. TITLE TO IMPROVEMENTS [Public Law 111-11, Section 9504(a)(3)(D)]

If the activities funded under this Agreement result in an infrastructure improvement to a federally owned facility, the Federal Government shall continue to hold title to the facility and improvements to the facility.

14. OPERATION AND MAINTENANCE COSTS [Public Law 111-11, Section 9504(a)(3)(E)(iv.)]

The non-Federal share of the cost of operating and maintaining any infrastructure improvement funded through this Agreement shall be 100 percent.

15. LIABILITY [Public Law 111-11, Section 9504(a)(3)(F)]

(a) **IN GENERAL**.—Except as provided under chapter 171 of title 28, United States Code (commonly known as the ‘‘Federal Tort Claims Act’’), the United States shall not be liable for monetary damages of any kind for any injury arising out of an act, omission, or occurrence that arises in relation to any facility created or improved under this Agreement, the title of which is not held by the United States.

(b) **TORT CLAIMS ACT**.—Nothing in this section increases the liability of the United States beyond that provided in chapter 171 of title 28, United States Code (commonly known as the ‘‘Federal Tort Claims Act’’).

II. RECLAMATION STANDARD TERMS AND CONDITIONS

1. REGULATIONS

The regulations at 2 CFR Subtitle A, Chapter II, Part 200 "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards", are hereby incorporated by reference as though set forth in full text. Failure of a Recipient to comply with any applicable regulation or circular may be the basis for withholding payments for proper charges made by the Recipient and/or for termination of support.

2. PAYMENT

2.1 Federal Payment (2 CFR 200.305).

(a) For states, payments are governed by Treasury-State Cash Management Improvement Act (CMIA) agreements and default procedures codified at 31 CFR part 205 and Treasury Financial Manual (TFM) 4A-2000, "Overall Disbursing Rules for All Federal Agencies".

(b) For non-Federal entities other than states, payments methods must minimize the time elapsing between the transfer of funds from the United States Treasury or the pass-through entity and the disbursement by the non-Federal entity whether the payment is made by electronic funds transfer, or issuance or redemption of checks, warrants, or payment by other means. See also §200.302(b)(6). Except as noted elsewhere in this part, Federal agencies must require recipients to use only OMB-approved, governmentwide information collection requests to request payment.

(1) The non-Federal entity must be paid in advance, provided it maintains or demonstrates the willingness to maintain both written procedures that minimize the time elapsing between the transfer of funds and disbursement by the non-Federal entity, and financial management systems that meet the standards for fund control and accountability as established in this part. Advance payments to a non-Federal entity must be limited to the minimum amounts needed and be timed to be in accordance with the actual, immediate cash requirements of the non-Federal entity in carrying out the purpose of the approved program or project. The timing and amount of advance payments must be as close as is administratively feasible to the actual disbursements by the non-Federal entity for direct program or project costs and the proportionate share of any allowable indirect costs. The non-Federal entity must make timely payment to contractors in accordance with the contract provisions.

(2) Whenever possible, advance payments must be consolidated to cover anticipated cash needs for all Federal awards made by the Federal awarding agency to the recipient.

(i) Advance payment mechanisms include, but are not limited to, Treasury check and electronic funds transfer and must comply with applicable guidance in 31 CFR part 208.

(ii) Non-Federal entities must be authorized to submit requests for advance payments and reimbursements at least monthly when electronic fund transfers are not used, and as often as they like when electronic transfers are used, in accordance with the provisions of the Electronic Fund Transfer Act (15 U.S.C. 1693-1693r).

(3) Reimbursement is the preferred method when the requirements in this paragraph (b) cannot be met, when the Federal awarding agency sets a specific condition per §200.208, or when the non-Federal entity requests payment by reimbursement. This method may be used on any Federal award for construction, or if the major portion of the construction project is accomplished through private market financing or Federal loans, and the Federal award constitutes a minor portion of the project. When the reimbursement method is used, the Federal awarding agency or pass-through entity must make payment within 30 calendar days after receipt of the billing, unless the Federal awarding agency or pass-through entity reasonably believes the request to be improper.

(4) If the non-Federal entity cannot meet the criteria for advance payments and the Federal awarding agency or pass-through entity has determined that reimbursement is not feasible because the non-Federal entity lacks sufficient working capital, the Federal awarding agency or pass-through entity may provide cash on a working capital advance basis. Under this procedure, the Federal awarding agency or pass-through entity must advance cash payments to the non-Federal entity to cover its estimated disbursement needs for an initial period generally geared to the non-Federal entity's disbursing cycle. Thereafter, the Federal awarding agency or pass-through entity must reimburse the non-Federal entity for its actual cash disbursements. Use of the working capital advance method of payment requires that the pass-through entity provide timely advance payments to any subrecipients in order to meet the subrecipient's actual cash disbursements. The working capital advance method of payment must not be used by the pass-through entity if the reason for using this method is the unwillingness or inability of the pass-through entity to provide timely advance payments to the subrecipient to meet the subrecipient's actual cash disbursements.

(5) To the extent available, the non-Federal entity must disburse funds available from program income (including repayments to a revolving fund), rebates, refunds, contract settlements, audit recoveries, and interest earned on such funds before requesting additional cash payments.

(6) Unless otherwise required by Federal statutes, payments for allowable costs by non-Federal entities must not be withheld at any time during the period of performance unless the conditions of §200.208, subpart D of this part, including §200.339, or one or more of the following applies:

(i) The non-Federal entity has failed to comply with the project objectives, Federal statutes, regulations, or the terms and conditions of the Federal award.

(ii) The non-Federal entity is delinquent in a debt to the United States as defined in OMB Circular A-129, “Policies for Federal Credit Programs and Non-Tax

Receivables." Under such conditions, the Federal awarding agency or pass-through entity may, upon reasonable notice, inform the non-Federal entity that payments must not be made for financial obligations incurred after a specified date until the conditions are corrected or the indebtedness to the Federal Government is liquidated.

(iii) A payment withheld for failure to comply with Federal award conditions, but without suspension of the Federal award, must be released to the non-Federal entity upon subsequent compliance. When a Federal award is suspended, payment adjustments will be made in accordance with §200.343.

(iv) A payment must not be made to a non-Federal entity for amounts that are withheld by the non-Federal entity from payment to contractors to assure satisfactory completion of work. A payment must be made when the non-Federal entity actually disburses the withheld funds to the contractors or to escrow accounts established to assure satisfactory completion of work.

(7) Standards governing the use of banks and other institutions as depositories of advance payments under Federal awards are as follows.

(i) The Federal awarding agency and pass-through entity must not require separate depository accounts for funds provided to a non-Federal entity or establish any eligibility requirements for depositories for funds provided to the non-Federal entity. However, the non-Federal entity must be able to account for funds received, obligated, and expended.

(ii) Advance payments of Federal funds must be deposited and maintained in insured accounts whenever possible.

(8) The non-Federal entity must maintain advance payments of Federal awards in interest-bearing accounts, unless the following apply:

(i) The non-Federal entity receives less than $250,000 in Federal awards per year.

(ii) The best reasonably available interest-bearing account would not be expected to earn interest in excess of $500 per year on Federal cash balances.

(iii) The depository would require an average or minimum balance so high that it would not be feasible within the expected Federal and non-Federal cash resources.

(iv) A foreign government or banking system prohibits or precludes interest-bearing accounts.

(9) Interest earned amounts up to $500 per year may be retained by the non-Federal entity for administrative expense. Any additional interest earned on Federal advance payments deposited in interest-bearing accounts must be remitted annually to the Department of Health and Human Services Payment Management System (PMS)

through an electronic medium using either Automated Clearing House (ACH) network or a Fedwire Funds Service payment.

(i) For returning interest on Federal awards paid through PMS, the refund should:

(A) Provide an explanation stating that the refund is for interest;
(B) List the PMS Payee Account Number(s) (PANs);
(C) List the Federal award number(s) for which the interest was earned; and
(D) Make returns payable to: Department of Health and Human Services.

(ii) For returning interest on Federal awards not paid through PMS, the refund should:

(A) Provide an explanation stating that the refund is for interest;
(B) Include the name of the awarding agency;
(C) List the Federal award number(s) for which the interest was earned; and
(D) Make returns payable to: Department of Health and Human Services.

(10) Funds, principal, and excess cash returns must be directed to the original Federal agency payment system. The non-Federal entity should review instructions from the original Federal agency payment system. Returns should include the following information:

(i) Payee Account Number (PAN), if the payment originated from PMS, or Agency information to indicate whom to credit the funding if the payment originated from ASAP, NSF, or another Federal agency payment system.

(ii) PMS document number and subaccount(s), if the payment originated from PMS, or relevant account numbers if the payment originated from another Federal agency payment system.

(iii) The reason for the return (e.g., excess cash, funds not spent, interest, part interest part other, etc.)

(11) When returning funds or interest to PMS you must include the following as applicable:

(i) For ACH Returns:
Routing Number: 051036706
Account number: 303000
Bank Name and Location: Credit Gateway—ACH Receiver St. Paul, MN

(ii) For Fedwire Returns[1]:
Routing Number: 021030004
Account number: 75010501
Bank Name and Location: Federal Reserve Bank Treas NYC/Funds Transfer Division New York, NY

[1]Please note that the organization initiating payment is likely to incur a charge from their Financial Institution for this type of payment.

(iii) For International ACH Returns:
Beneficiary Account: Federal Reserve Bank of New York/ITS (FRBNY/ITS)
Bank: Citibank N.A. (New York)
Swift Code: CITIUS33
Account Number: 36838868
Bank Address: 388 Greenwich Street, New York, NY 10013 USA
Payment Details (Line 70): Agency Locator Code (ALC): 75010501
Name (abbreviated when possible) and ALC Agency POC

(iv) For recipients that do not have electronic remittance capability, please make check[2] payable to: "The Department of Health and Human Services."
Mail Check to Treasury approved lockbox:
HHS Program Support Center, P.O. Box 530231, Atlanta, GA 30353-0231

[2]Please allow 4-6 weeks for processing of a payment by check to be applied to the appropriate PMS account.

(v) Questions can be directed to PMS at 877-614-5533 or PMSSupport@psc.hhs.gov.

2.2 Payment Method.

Recipients must utilize the Department of Treasury Automated Standard Application for Payments (ASAP) payment system to request advance or reimbursement payments. ASAP is a Recipient-initiated payment and information system designed to provide a single point of contact for the request and delivery of Federal funds. ASAP is the only allowable method for request and receipt of payment. Recipient procedures must minimize the time elapsing between the drawdown of Federal funds and the disbursement for agreement purposes.

In accordance with 2 CFR 25.200(b)(2) the Recipient shall "Maintain an active SAM registration with current information, including information on a recipient's immediate and highest level owner and subsidiaries, as well as on all predecessors that have been awarded a Federal contract or grant within the last three years, if applicable, at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. If the Recipient allows their SAM registration to lapse, the Recipient's accounts within ASAP will be automatically suspended by Reclamation until such time as the Recipient renews their SAM registration.

3. PROCUREMENT STANDARDS (2 CFR 200.317 through 200.327)

§200.317 Procurements by States

When procuring property and services under a Federal award, a State must follow the same policies and procedures it uses for procurements from its non-Federal funds. The State will comply with §§200.321, 200.322, and 200.323 and ensure that every purchase order or other contract includes any clauses required by §200.327. All other non-Federal entities, including subrecipients of a State, must follow the procurement standards in §§200.318 through 200.327.

§200.318 General procurement standards

(a) The non-Federal entity must have and use documented procurement procedures, consistent with State, local, and tribal laws and regulations and the standards of this section, for the acquisition of property or services required under a Federal award or subaward. The non-Federal entity's documented procurement procedures must conform to the procurement standards identified in §§200.317 through 200.327.

(b) Non-Federal entities must maintain oversight to ensure that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders.

(c)

(1) The non-Federal entity must maintain written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts. No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of the non-Federal entity may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts. However, non-Federal entities may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the non-Federal entity.

(2) If the non-Federal entity has a parent, affiliate, or subsidiary organization that is not a state, local government, or Indian tribe, the non-Federal entity must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization.

(d) The non-Federal entity's procedures must avoid acquisition of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase. Where appropriate, an analysis will be made of lease versus purchase alternatives, and any other appropriate analysis to determine the most economical approach.

(e) To foster greater economy and efficiency, and in accordance with efforts to promote cost-effective use of shared services across the Federal Government, the non-Federal entity is encouraged to enter into state and local intergovernmental agreements or inter-entity

agreements where appropriate for procurement or use of common or shared goods and services.

(f) The non-Federal entity is encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs.

(g) The non-Federal entity is encouraged to use value engineering clauses in contracts for construction projects of sufficient size to offer reasonable opportunities for cost reductions. Value engineering is a systematic and creative analysis of each contract item or task to ensure that its essential function is provided at the overall lower cost.

(h) The non-Federal entity must award contracts only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources. See also §200.214.

(i) The non-Federal entity must maintain records sufficient to detail the history of procurement. These records will include, but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price.

(j) (1) The non-Federal entity may use a time and materials type contract only after a determination that no other contract is suitable and if the contract includes a ceiling price that the contractor exceeds at its own risk. Time and materials type contract means a contract whose cost to a non-Federal entity is the sum of:

(i) The actual cost of materials; and

(ii) Direct labor hours charged at fixed hourly rates that reflect wages, general and administrative expenses, and profit.

(2) Since this formula generates an open-ended contract price, a time-and-materials contract provides no positive profit incentive to the contractor for cost control or labor efficiency. Therefore, each contract must set a ceiling price that the contractor exceeds at its own risk. Further, the non-Federal entity awarding such a contract must assert a high degree of oversight in order to obtain reasonable assurance that the contractor is using efficient methods and effective cost controls.

(k) The non-Federal entity alone must be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These standards do not relieve the non-Federal entity of any contractual responsibilities under its contracts. The Federal awarding agency will not substitute its judgment for that of the non-Federal entity unless the matter is primarily a Federal concern. Violations of law will be referred to the local, state, or Federal authority having proper jurisdiction.

§200.319 Competition

(a) All procurement transactions for the acquisition of property or services required under a Federal award must be conducted in a manner providing full and open competition consistent with the standards of this section and §200.320.

(b) In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals must be excluded from competing for such procurements. Some of the situations considered to be restrictive of competition include but are not limited to:

(1) Placing unreasonable requirements on firms in order for them to qualify to do business;

(2) Requiring unnecessary experience and excessive bonding;

(3) Noncompetitive pricing practices between firms or between affiliated companies;

(4) Noncompetitive contracts to consultants that are on retainer contracts;

(5) Organizational conflicts of interest;

(6) Specifying only a "brand name" product instead of allowing "an equal" product to be offered and describing the performance or other relevant requirements of the procurement; and

(7) Any arbitrary action in the procurement process.

(c) The non-Federal entity must conduct procurements in a manner that prohibits the use of statutorily or administratively imposed state, local, or tribal geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts state licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

(d) The non-Federal entity must have written procedures for procurement transactions. These procedures must ensure that all solicitations:

(1) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description must not, in competitive procurements, contain features which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured and, when necessary, must set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of

the technical requirements, a "brand name or equivalent" description may be used as a means to define the performance or other salient requirements of procurement. The specific features of the named brand which must be met by offers must be clearly stated; and

(2) Identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals.

(e) The non-Federal entity must ensure that all prequalified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, the non-Federal entity must not preclude potential bidders from qualifying during the solicitation period.

(f) Noncompetitive procurements can only be awarded in accordance with §200.320(c).

§200.320 Methods of procurement to be followed

The non-Federal entity must have and use documented procurement procedures, consistent with the standards of this section and §§200.317, 200.318, and 200.319 for any of the following methods of procurement used for the acquisition of property or services required under a Federal award or sub-award.

(a) Informal procurement methods. When the value of the procurement for property or services under a Federal award does not exceed the simplified acquisition threshold (SAT), as defined in §200.1, or a lower threshold established by a non-Federal entity, formal procurement methods are not required. The non-Federal entity may use informal procurement methods to expedite the completion of its transactions and minimize the associated administrative burden and cost. The informal methods used for procurement of property or services at or below the SAT include:

(1) Micro-purchases—(i) Distribution. The acquisition of supplies or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (See the definition of micro-purchase in §200.1). To the maximum extent practicable, the non-Federal entity should distribute micro-purchases equitably among qualified suppliers.

(ii) Micro-purchase awards. Micro-purchases may be awarded without soliciting competitive price or rate quotations if the non-Federal entity considers the price to be reasonable based on research, experience, purchase history or other information and documents it files accordingly. Purchase cards can be used for micro-purchases if procedures are documented and approved by the non-Federal entity.

(iii) Micro-purchase thresholds. The non-Federal entity is responsible for determining and documenting an appropriate micro-purchase threshold based on internal controls, an evaluation of risk, and its documented procurement procedures. The micro-purchase threshold used by the non-Federal entity must be authorized or not prohibited under State, local, or tribal laws or regulations. Non-Federal entities may

establish a threshold higher than the Federal threshold established in the Federal Acquisition Regulations (FAR) in accordance with paragraphs (a)(1)(iv) and (v) of this section.

(iv) Non-Federal entity increase to the micro-purchase threshold up to $50,000. Non-Federal entities may establish a threshold higher than the micro-purchase threshold identified in the FAR in accordance with the requirements of this section. The non-Federal entity may self-certify a threshold up to $50,000 on an annual basis and must maintain documentation to be made available to the Federal awarding agency and auditors in accordance with §200.334. The self-certification must include a justification, clear identification of the threshold, and supporting documentation of any of the following:

(A) A qualification as a low-risk auditee, in accordance with the criteria in §200.520 for the most recent audit;
(B) An annual internal institutional risk assessment to identify, mitigate, and manage financial risks; or,
(C) For public institutions, a higher threshold consistent with State law.

(v) Non-Federal entity increase to the micro-purchase threshold over $50,000. Micro-purchase thresholds higher than $50,000 must be approved by the cognizant agency for indirect costs. The non-federal entity must submit a request with the requirements included in paragraph (a)(1)(iv) of this section. The increased threshold is valid until there is a change in status in which the justification was approved.

(2) Small purchases—(i) Small purchase procedures. The acquisition of property or services, the aggregate dollar amount of which is higher than the micro-purchase threshold but does not exceed the simplified acquisition threshold. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources as determined appropriate by the non-Federal entity.

(ii) Simplified acquisition thresholds. The non-Federal entity is responsible for determining an appropriate simplified acquisition threshold based on internal controls, an evaluation of risk and its documented procurement procedures which must not exceed the threshold established in the FAR. When applicable, a lower simplified acquisition threshold used by the non-Federal entity must be authorized or not prohibited under State, local, or tribal laws or regulations.

(b) Formal procurement methods. When the value of the procurement for property or services under a Federal financial assistance award exceeds the SAT, or a lower threshold established by a non-Federal entity, formal procurement methods are required. Formal procurement methods require following documented procedures. Formal procurement methods also require public advertising unless a non-competitive procurement can be used in accordance with §200.319 or paragraph (c) of this section. The following formal methods of procurement are used for procurement of property or services above the

simplified acquisition threshold or a value below the simplified acquisition threshold the non-Federal entity determines to be appropriate:

(1) Sealed bids. A procurement method in which bids are publicly solicited and a firm fixed-price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bids method is the preferred method for procuring construction, if the conditions.

(i) In order for sealed bidding to be feasible, the following conditions should be present:

(A) A complete, adequate, and realistic specification or purchase description is available;

(B) Two or more responsible bidders are willing and able to compete effectively for the business; and

(C) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(ii) If sealed bids are used, the following requirements apply:

(A) Bids must be solicited from an adequate number of qualified sources, providing them sufficient response time prior to the date set for opening the bids, for local, and tribal governments, the invitation for bids must be publicly advertised;

(B) The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;

(C) All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;

(D) A firm fixed price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(E) Any or all bids may be rejected if there is a sound documented reason.

(2) Proposals. A procurement method in which either a fixed price or cost-reimbursement type contract is awarded. Proposals are generally used when conditions are not appropriate for the use of sealed bids. They are awarded in accordance with the following requirements:

(i) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Proposals must be solicited from an adequate number of qualified offerors. Any response to publicized requests for proposals must be considered to the maximum extent practical;

(ii) The non-Federal entity must have a written method for conducting technical evaluations of the proposals received and making selections;

(iii) Contracts must be awarded to the responsible offeror whose proposal is most advantageous to the non-Federal entity, with price and other factors considered; and

(iv) The non-Federal entity may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby offeror's qualifications are evaluated and the most qualified offeror is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms that are a potential source to perform the proposed effort.

(c) Noncompetitive procurement. There are specific circumstances in which noncompetitive procurement can be used. Noncompetitive procurement can only be awarded if one or more of the following circumstances apply:

(1) The acquisition of property or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (see paragraph (a)(1) of this section);

(2) The item is available only from a single source;

(3) The public exigency or emergency for the requirement will not permit a delay resulting from publicizing a competitive solicitation;

(4) The Federal awarding agency or pass-through entity expressly authorizes a noncompetitive procurement in response to a written request from the non-Federal entity; or

(5) After solicitation of a number of sources, competition is determined inadequate.

§200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms

(a) The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

(b) Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

§200.322 Domestic preferences for procurements

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

(1) “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-

based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

§200.323 Procurement of recovered materials

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

§200.324 Contract cost and price

(a) The non-Federal entity must perform a cost or price analysis in connection with every procurement action in excess of the Simplified Acquisition Threshold including contract amendments. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, the non-Federal entity must make independent estimates before receiving bids or proposals.

(b) The non-Federal entity must negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration must be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor'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.

(c) Costs or prices based on estimated costs for contracts under the Federal award are allowable only to the extent that costs incurred or cost estimates included in negotiated prices would be allowable for the non-Federal entity under subpart E of this part. The non-Federal entity may reference its own cost principles that comply with the Federal cost principles.

(d) The cost plus a percentage of cost and percentage of construction cost methods of contracting must not be used.

§200.325 Federal awarding agency or pass-through entity review

(a) The non-Federal entity must make available, upon request of the Federal awarding agency or pass-through entity, technical specifications on proposed procurements where the Federal awarding agency or pass-through entity believes such review is needed to ensure that the item or service specified is the one being proposed for acquisition. This review generally will take place prior to the time the specification is incorporated into a

solicitation document. However, if the non-Federal entity desires to have the review accomplished after a solicitation has been developed, the Federal awarding agency or pass-through entity may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase.

(b) The non-Federal entity must make available upon request, for the Federal awarding agency or pass-through entity pre-procurement review, procurement documents, such as requests for proposals or invitations for bids, or independent cost estimates, when:

(1) The non-Federal entity's procurement procedures or operation fails to comply with the procurement standards in this part;

(2) The procurement is expected to exceed the Simplified Acquisition Threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation;

(3) The procurement, which is expected to exceed the Simplified Acquisition Threshold, specifies a “brand name” product;

(4) The proposed contract is more than the Simplified Acquisition Threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or

(5) A proposed contract amendment changes the scope of a contract or increases the contract amount by more than the Simplified Acquisition Threshold.

(c) The non-Federal entity is exempt from the pre-procurement review in paragraph (b) of this section if the Federal awarding agency or pass-through entity determines that its procurement systems comply with the standards of this part.

(1) The non-Federal entity may request that its procurement system be reviewed by the Federal awarding agency or pass-through entity to determine whether its system meets these standards in order for its system to be certified. Generally, these reviews must occur where there is continuous high-dollar funding, and third-party contracts are awarded on a regular basis;

(2) The non-Federal entity may self-certify its procurement system. Such self-certification must not limit the Federal awarding agency's right to survey the system. Under a self-certification procedure, the Federal awarding agency may rely on written assurances from the non-Federal entity that it is complying with these standards. The non-Federal entity must cite specific policies, procedures, regulations, or standards as being in compliance with these requirements and have its system available for review.

§200.326 Bonding requirements

For construction or facility improvement contracts or subcontracts exceeding the Simplified Acquisition Threshold, the Federal awarding agency or pass-through entity may accept the bonding policy and requirements of the non-Federal entity provided that the Federal awarding agency or pass-through entity has made a determination that the Federal interest is adequately

protected. If such a determination has not been made, the minimum requirements must be as follows:

(a) A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.

(b) A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's requirements under such contract.

(c) A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

§200.327 Contract provisions

The non-Federal entity's contracts must contain the applicable provisions described in Appendix II to this part.

4. EQUIPMENT (2 CFR 200.313)

See also §200.439.

(a) Title. Subject to the obligations and conditions set forth in this section, title to equipment acquired under a Federal award will vest upon acquisition in the non-Federal entity. Unless a statute specifically authorizes the Federal agency to vest title in the non-Federal entity without further obligation to the Federal Government, and the Federal agency elects to do so, the title must be a conditional title. Title must vest in the non-Federal entity subject to the following conditions:

(1) Use the equipment for the authorized purposes of the project during the period of performance, or until the property is no longer needed for the purposes of the project.

(2) Not encumber the property without approval of the Federal awarding agency or pass-through entity.

(3) Use and dispose of the property in accordance with paragraphs (b), (c) and (e) of this section.

(b) General. A state must use, manage and dispose of equipment acquired under a Federal award by the state in accordance with state laws and procedures. Other non-Federal entities must follow paragraphs (c) through (e) of this section.

(c) Use.

(1) Equipment must be used by the non-Federal entity in the program or project for which it was acquired as long as needed, whether or not the project or program continues to be supported by the Federal award, and the non-Federal entity must not encumber the property without prior approval of the Federal awarding agency. When no longer needed for the original program or project, the equipment may be used in other activities supported by the Federal awarding agency, in the following order of priority:

(i) Activities under a Federal award from the Federal awarding agency which funded the original program or project, then

(ii) Activities under Federal awards from other Federal awarding agencies. This includes consolidated equipment for information technology systems.

(2) During the time that equipment is used on the project or program for which it was acquired, the non-Federal entity must also make equipment available for use on other projects or programs currently or previously supported by the Federal Government, provided that such use will not interfere with the work on the projects or program for which it was originally acquired. First preference for other use must be given to other programs or projects supported by Federal awarding agency that financed the equipment and second preference must be given to programs or projects under Federal awards from other Federal awarding agencies. Use for non-federally funded programs or projects is also permissible. User fees should be considered if appropriate.

(3) Notwithstanding the encouragement in §200.307 Program income to earn program income, the non-Federal entity must not use equipment acquired with the Federal award to provide services for a fee that is less than private companies charge for equivalent services unless specifically authorized by Federal statute for as long as the Federal Government retains an interest in the equipment.

(4) When acquiring replacement equipment, the non-Federal entity may use the equipment to be replaced as a trade-in or sell the property and use the proceeds to offset the cost of the replacement property.

(d) Management requirements. Procedures for managing equipment (including replacement equipment), whether acquired in whole or in part under a Federal award, until disposition takes place will, as a minimum, meet the following requirements:

(1) Property records must be maintained that include a description of the property, a serial number or other identification number, the source of funding for the property (including the FAIN), who holds title, the acquisition date, and cost of the property, percentage of Federal participation in the project costs for the Federal award under which the property was acquired, the location, use and condition of the property, and any ultimate disposition data including the date of disposal and sale price of the property.

(2) A physical inventory of the property must be taken and the results reconciled with the property records at least once every two years.

(3) A control system must be developed to ensure adequate safeguards to prevent loss, damage, or theft of the property. Any loss, damage, or theft must be investigated.

(4) Adequate maintenance procedures must be developed to keep the property in good condition.

(5) If the non-Federal entity is authorized or required to sell the property, proper sales procedures must be established to ensure the highest possible return.

(e) Disposition. When original or replacement equipment acquired under a Federal award is no longer needed for the original project or program or for other activities currently or previously supported by a Federal awarding agency, except as otherwise provided in Federal statutes, regulations, or Federal awarding agency disposition instructions, the non-Federal entity must request disposition instructions from the Federal awarding agency if required by the terms and conditions of the Federal award. Disposition of the equipment will be made as follows, in accordance with Federal awarding agency disposition instructions:

(1) Items of equipment with a current per unit fair market value of $5,000 or less may be retained, sold or otherwise disposed of with no further obligation to the Federal awarding agency.

(2) Except as provided in §200.312(b), or if the Federal awarding agency fails to provide requested disposition instructions within 120 days, items of equipment with a current per-unit fair-market value in excess of $5,000 may be retained by the non-Federal entity or sold. The Federal awarding agency is entitled to an amount calculated by multiplying the current market value or proceeds from sale by the Federal awarding agency's percentage of participation in the cost of the original purchase. If the equipment is sold, the Federal awarding agency may permit the non-Federal entity to deduct and retain from the Federal share $500 or ten percent of the proceeds, whichever is less, for its selling and handling expenses.

(3) The non-Federal entity may transfer title to the property to the Federal Government or to an eligible third party provided that, in such cases, the non-Federal entity must be entitled to compensation for its attributable percentage of the current fair market value of the property.

(4) In cases where a non-Federal entity fails to take appropriate disposition actions, the Federal awarding agency may direct the non-Federal entity to take disposition actions.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75884, Dec. 19, 2014]

5. SUPPLIES (2 CFR 200.314)

See also §200.453.

(a) Title to supplies will vest in the non-Federal entity upon acquisition. If there is a residual inventory of unused supplies exceeding $5,000 in total aggregate value upon termination or completion of the project or program and the supplies are not needed for any other

Federal award, the non-Federal entity must retain the supplies for use on other activities or sell them, but must, in either case, compensate the Federal Government for its share. The amount of compensation must be computed in the same manner as for equipment. See §200.313(e)(2) for the calculation methodology.

(b) As long as the Federal Government retains an interest in the supplies, the non-Federal entity must not use supplies acquired under a Federal award to provide services to other organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by Federal statute.

6. INSPECTION

Reclamation has the right to inspect and evaluate the work performed or being performed under this Agreement, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If Reclamation performs inspection or evaluation on the premises of the Recipient or a sub-Recipient, the Recipient shall furnish and shall require sub-recipients to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties

7. AUDIT REQUIREMENTS (2 CFR 200.501)

(a) Audit required. A non-Federal entity that expends $750,000 or more during the non-Federal entity's fiscal year in Federal awards must have a single or program-specific audit conducted for that year in accordance with the provisions of this part.

(b) Single audit. A non-Federal entity that expends $750,000 or more during the non-Federal entity's fiscal year in Federal awards must have a single audit conducted in accordance with §200.514 except when it elects to have a program-specific audit conducted in accordance with paragraph (c) of this section.

(c) Program-specific audit election. When an auditee expends Federal awards under only one Federal program (excluding R&D) and the Federal program's statutes, regulations, or the terms and conditions of the Federal award do not require a financial statement audit of the auditee, the auditee may elect to have a program-specific audit conducted in accordance with §200.507. A program-specific audit may not be elected for R&D unless all of the Federal awards expended were received from the same Federal agency, or the same Federal agency and the same pass-through entity, and that Federal agency, or pass-through entity in the case of a subrecipient, approves in advance a program-specific audit.

(d) Exemption when Federal awards expended are less than $750,000. A non-Federal entity that expends less than $750,000 during the non-Federal entity's fiscal year in Federal awards is exempt from Federal audit requirements for that year, except as noted in §200.503, but records must be available for review or audit by appropriate officials of the Federal agency, pass-through entity, and Government Accountability Office (GAO).

(e) Federally Funded Research and Development Centers (FFRDC). Management of an auditee that owns or operates a FFRDC may elect to treat the FFRDC as a separate entity for purposes of this part.

(f) Subrecipients and Contractors. An auditee may simultaneously be a recipient, a subrecipient, and a contractor. Federal awards expended as a recipient or a subrecipient are subject to audit under this part. The payments received for goods or services provided as a contractor are not Federal awards. Section §200.330 sets forth the considerations in determining whether payments constitute a Federal award or a payment for goods or services provided as a contractor.

(g) Compliance responsibility for contractors. In most cases, the auditee's compliance responsibility for contractors is only to ensure that the procurement, receipt, and payment for goods and services comply with Federal statutes, regulations, and the terms and conditions of Federal awards. Federal award compliance requirements normally do not pass through to contractors. However, the auditee is responsible for ensuring compliance for procurement transactions which are structured such that the contractor is responsible for program compliance or the contractor's records must be reviewed to determine program compliance. Also, when these procurement transactions relate to a major program, the scope of the audit must include determining whether these transactions are in compliance with Federal statutes, regulations, and the terms and conditions of Federal awards.

(h) For-profit subrecipient. Since this part does not apply to for-profit subrecipients, the pass-through entity is responsible for establishing requirements, as necessary, to ensure compliance by for-profit subrecipients. The agreement with the for-profit subrecipient must describe applicable compliance requirements and the for-profit subrecipient's compliance responsibility. Methods to ensure compliance for Federal awards made to for-profit subrecipients may include pre-award audits, monitoring during the agreement, and post-award audits. See also §200.332.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75887, Dec. 19, 2014; 85 FR 49571, Aug 13, 2020]

8. REMEDIES FOR NONCOMPLIANCE (2 CFR 200.339)

§200.339 Remedies for noncompliance

If a non-Federal entity fails to comply with Federal statutes, regulations or the terms and conditions of a Federal award, the Federal awarding agency or pass-through entity may impose additional conditions, as described in §200.208. If the Federal awarding agency or pass-through entity determines that noncompliance cannot be remedied by imposing additional conditions, the

Federal awarding agency or pass-through entity may take one or more of the following actions, as appropriate in the circumstances.

(a) Temporarily withhold cash payments pending correction of the deficiency by the non-Federal entity or more severe enforcement action by the Federal awarding agency or pass-through entity.

(b) Disallow (that is, deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance.

(c) Wholly or partly suspend or terminate the Federal award.

(d) Initiate suspension or debarment proceedings as authorized under 2 CFR part 180 and Federal awarding agency regulations (or in the case of a pass-through entity, recommend such a proceeding be initiated by a Federal awarding agency).

(e) Withhold further Federal awards for the project or program.

(f) Take other remedies that may be legally available.

9. TERMINATION (2 CFR 200.340)

§200.340 Termination.

(a) The Federal award may be terminated in whole or in part as follows:

(1) By the Federal awarding agency or pass-through entity, if a non-Federal entity fails to comply with the terms and conditions of a Federal award;

(2) By the Federal awarding agency or pass-through entity, to the greatest extent authorized by law, if an award no longer effectuates the program goals or agency priorities;

(3) By the Federal awarding agency or pass-through entity with the consent of the non-Federal entity, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated;

(4) By the non-Federal entity upon sending to the Federal awarding agency or pass-through entity written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if the Federal awarding agency or pass-through entity determines in the case of partial termination that the reduced or modified portion of the Federal award or subaward will not accomplish the purposes for which the Federal award was made, the Federal awarding agency or pass-through entity may terminate the Federal award in its entirety; or

(5) By the Federal awarding agency or pass-through entity pursuant to termination provisions included in the Federal award.

(b) A Federal awarding agency should clearly and unambiguously specify termination provisions applicable to each Federal award, in applicable regulations or in the award, consistent with this section.

(c) When a Federal awarding agency terminates a Federal award prior to the end of the period of performance due to the non-Federal entity's material failure to comply with the Federal award terms and conditions, the Federal awarding agency must report the termination to the OMB-designated integrity and performance system accessible through SAM (currently FAPIIS).

(1) The information required under paragraph (c) of this section is not to be reported to designated integrity and performance system until the non-Federal entity either—

(i) Has exhausted its opportunities to object or challenge the decision, see §200.342; or

(ii) Has not, within 30 calendar days after being notified of the termination, informed the Federal awarding agency that it intends to appeal the Federal awarding agency's decision to terminate.

(2) If a Federal awarding agency, after entering information into the designated integrity and performance system about a termination, subsequently:

(i) Learns that any of that information is erroneous, the Federal awarding agency must correct the information in the system within three business days;

(ii) Obtains an update to that information that could be helpful to other Federal awarding agencies, the Federal awarding agency is strongly encouraged to amend the information in the system to incorporate the update in a timely way.

(3) Federal awarding agencies, must not post any information that will be made publicly available in the non-public segment of designated integrity and performance system that is covered by a disclosure exemption under the Freedom of Information Act. If the non-Federal entity asserts within seven calendar days to the Federal awarding agency who posted the information, that some of the information made publicly available is covered by a disclosure exemption under the Freedom of Information Act, the Federal awarding agency who posted the information must remove the posting within seven calendar days of receiving the assertion. Prior to reposting the releasable information, the Federal agency must resolve the issue in accordance with the agency's Freedom of Information Act procedures.

(d) When a Federal award is terminated or partially terminated, both the Federal awarding agency or pass-through entity and the non-Federal entity remain responsible for compliance with the requirements in §§200.344 and 200.345..

10. DEBARMENT AND SUSPENSION (2 CFR 1400)

The Department of the Interior regulations at 2 CFR 1400—Governmentwide Debarment and Suspension (Nonprocurement), which adopt the common rule for the governmentwide system of debarment and suspension for nonprocurement activities, are hereby incorporated by reference and made a part of this Agreement. By entering into this grant or cooperative Agreement with

the Bureau of Reclamation, the Recipient agrees to comply with 2 CFR 1400, Subpart C, and agrees to include a similar term or condition in all lower-tier covered transactions. These regulations are available at http://www.ecfr.gov/.

11. DRUG-FREE WORKPLACE (2 CFR 182 and 1401)

The Department of the Interior regulations at 2 CFR 1401—Governmentwide Requirements for Drug-Free Workplace (Financial Assistance), which adopt the portion of the Drug-Free Workplace Act of 1988 (41 U.S.C. 701 et seq, as amended) applicable to grants and cooperative agreements, are hereby incorporated by reference and made a part of this agreement. By entering into this grant or cooperative agreement with the Bureau of Reclamation, the Recipient agrees to comply with 2 CFR 182.

12. ASSURANCES AND CERTIFICATIONS INCORPORATED BY REFERENCE

The provisions of the Assurances, SF-424B or SF-424D as applicable, executed by the Recipient in connection with this Agreement shall apply with full force and effect to this Agreement. All anti-discrimination and equal opportunity statutes, regulations, and Executive Orders that apply to the expenditure of funds under Federal contracts, grants, and cooperative Agreements, loans, and other forms of Federal assistance. The Recipient shall comply with Title VI or the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and any program-specific statutes with anti-discrimination requirements. The Recipient shall comply with civil rights laws including, but not limited to, the Fair Housing Act, the Fair Credit Reporting Act, the Americans with Disabilities Act, Title VII of the Civil Rights Act of 1964, the Equal Educational Opportunities Act, the Age Discrimination in Employment Act, and the Uniform Relocation Act.

Such Assurances also include, but are not limited to, the promise to comply with all applicable Federal statutes and orders relating to nondiscrimination in employment, assistance, and housing; the Hatch Act; Federal wage and hour laws and regulations and work place safety standards; Federal environmental laws and regulations and the Endangered Species Act; and Federal protection of rivers and waterways and historic and archeological preservation.

13. COVENANT AGAINST CONTINGENT FEES

The Recipient warrants that no person or agency has been employed or retained to solicit or secure this Agreement upon an Agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide offices established and maintained by the Recipient for the purpose of securing Agreements or business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability or, in its discretion, to deduct from the Agreement amount, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

14. TRAFFICKING VICTIMS PROTECTION ACT OF 2000 (2 CFR 175.15)

Trafficking in persons.

(a) *Provisions applicable to a recipient that is a private entity.*

(1) You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not

(i) Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

(ii) Procure a commercial sex act during the period of time that the award is in effect; or

(iii) Use forced labor in the performance of the award or subawards under the award.

(2) We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity —

(i) Is determined to have violated a prohibition in paragraph a.1 of this award term; or

(ii) Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either:

(A) Associated with performance under this award; or

(B) Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at *2 CFR part 1400*.

(b) *Provision applicable to a recipient other than a private entity*. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity—

(1) Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or

(2) Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either:

(i) Associated with performance under this award; or

(ii) Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at *2 CFR part 1400*.

(c) *Provisions applicable to any recipient*.

(1) You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

(2) Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

(i) Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

(ii) Is in addition to all other remedies for noncompliance that are available to us under this award.

(3) You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

(d) *Definitions*. For purposes of this award term:

(1) "Employee" means either:

(i) An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or

(ii) Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

(2) "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

(3) "Private entity":

(i) Means any entity other than a state, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

(ii) Includes:

(A) A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

(B) A for-profit organization.

(4) "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

15. NEW RESTRICTIONS ON LOBBYING (43 CFR 18)

The Recipient agrees to comply with 43 CFR 18, New Restrictions on Lobbying, including the following certification:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Recipient, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

(c) The Recipient shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

16. UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 (URA) (42 USC 4601 *et seq.)*

(a) The Uniform Relocation Assistance Act (URA), 42 U.S.C. 4601 *et seq.*, as amended, requires certain assurances for Reclamation funded land acquisition projects conducted by a Recipient that cause the displacement of persons, businesses, or farm operations. Because Reclamation funds only support acquisition of property or interests in property from willing sellers, it is not anticipated that Reclamation funds will result in any "displaced persons," as defined under the URA.

(b) However, if Reclamation funds are used for the acquisition of real property that results in displacement, the URA requires Recipients to ensure that reasonable relocation payments and other remedies will be provided to any displaced person. Further, when acquiring real property, Recipients must be guided, to the greatest extent practicable, by the land acquisition policies in 42 U.S.C. 4651.

(c) Exemptions to the URA and 49 CFR Part 24

(1) The URA provides for an exemption to the appraisal, review and certification rules for those land acquisitions classified as "voluntary transactions." Such "voluntary transactions" are classified as those that do not involve an exercise of eminent domain authority on behalf of a Recipient, and must meet the conditions specified at 49 CFR 24.101(b)(1)(i)-(iv).

(2) For any land acquisition undertaken by a Recipient that receives Reclamation funds, but does not have authority to acquire the real property by eminent domain, to be exempt from the requirements of 49 CFR Part 24 the Recipient must:

(i) provide written notification to the owner that it will not acquire the property in the event negotiations fail to result in an amicable agreement, and;

(ii) inform the owner in writing of what it believes to be the market value of the property.

(d) Review of Land Acquisition Appraisals. Reclamation reserves the right to review any land appraisal whether or not such review is required under the URA or 49 CFR 24.104. Such reviews may be conducted by the Department of the Interior's Appraisal Services Directorate or a Reclamation authorized designee. When Reclamation determines that a review of the original appraisal is necessary, Reclamation will notify the Recipient and provide an estimated completion date of the initial appraisal review.

17. SYSTEM FOR AWARD MANAGEMENT AND UNIVERSAL IDENTIFIER REQUIREMENTS (2 CFR 25, APPENDIX A)

A. Requirement for System for Award Management

Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the SAM until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.

B. Requirement for unique entity identifier

If you are authorized to make subawards under this award, you:

1. Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from you unless the entity has provided its unique entity identifier to you.

2. May not make a subaward to an entity unless the entity has provided its unique entity identifier to you.

C. Definitions

For purposes of this award term:

1. System for Award Management (SAM) means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at http://www.sam.gov).

2. Unique entity identifier means the identifier required for SAM registration to uniquely identify business entities.

3. Entity, as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:

   a. A Governmental organization, which is a State, local government, or Indian Tribe;

   b. A foreign public entity;

   c. A domestic or foreign nonprofit organization;

   d. A domestic or foreign for-profit organization; and

e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

4. Subaward:

a. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see 2 CFR 200.330).

c. A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

5. Subrecipient means an entity that:

a. Receives a subaward from you under this award; and
b. Is accountable to you for the use of the Federal funds provided by the subaward.

18. PROHIBITION ON TEXT MESSAGING AND USING ELECTRONIC EQUIPMENT SUPPLIED BY THE GOVERNMENT WHILE DRIVING

Executive Order 13513, *Federal Leadership On Reducing Text Messaging While Driving*, was signed by President Barack Obama on October 1, 2009 (ref: http://edocket.access.gpo.gov/2009/pdf/E9-24203.pdf). This Executive Order introduces a Federal Government-wide prohibition on the use of text messaging while driving on official business or while using Government-supplied equipment. Additional guidance enforcing the ban will be issued at a later date. In the meantime, please adopt and enforce policies that immediately ban text messaging while driving company-owned or rented vehicles, government-owned or leased vehicles, or while driving privately owned vehicles when on official government business or when performing any work for or on behalf of the government.

19. REPORTING SUBAWARDS AND EXECUTIVE COMPENSATION (2 CFR 170 APPENDIX A)

I. Reporting Subawards and Executive Compensation.

a. Reporting of first-tier subawards.

1. Applicability. Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates $25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. Where and when to report.

   i. You must report each obligating action described in paragraph a.1. of this award term to http://www.fsrs.gov.

   ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3. What to report. You must report the information about each obligating action that the submission instructions posted at http://www.fsrs.gov specify.

b. Reporting Total Compensation of Recipient Executives.

1. Applicability and what to report. You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

   i. the total Federal funding authorized to date under this award is $25,000 or more;

   ii. in the preceding fiscal year, you received—

      (A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

      (B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

   iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

2. Where and when to report. You must report executive total compensation described in paragraph b.1. of this award term:

   i. As part of your registration profile at http://www.ccr.gov.

ii. By the end of the month following the month in which this award is made, and annually thereafter.

c. Reporting of Total Compensation of Subrecipient Executives.

1. Applicability and what to report. Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

i. in the subrecipient's preceding fiscal year, the subrecipient received—

(A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

2. Where and when to report. You must report subrecipient executive total compensation described in paragraph c.1. of this award term:

i. To the recipient.

ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

d. Exemptions

If, in the previous tax year, you had gross income, from all sources, under $300,000, you are exempt from the requirements to report:

i. Subawards, and

ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. Definitions. For purposes of this award term:

1. Entity means all of the following, as defined in 2 CFR part 25:

i. A Governmental organization, which is a State, local government, or Indian tribe;

ii. A foreign public entity;

iii. A domestic or foreign nonprofit organization;

iv. A domestic or foreign for-profit organization;

v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2. Executive means officers, managing partners, or any other employees in management positions.

3. Subaward:

i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. __.210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").

iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. *Subrecipient* means an entity that:

   i. Receives a subaward from you (the recipient) under this award; and

   ii. Is accountable to you for the use of the Federal funds provided by the subaward.

5. *Total compensation* means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

   i. *Salary and bonus.*

   ii. *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

   iii. *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

   iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

   v. *Above-market earnings on deferred compensation which is not tax-qualified.*

   vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

20. RECIPIENT EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (SEP 2013)

(a) This award and employees working on this financial assistance agreement will be subject to the whistleblower rights and remedies in the pilot program on Award Recipient employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239).

(b) The Award Recipient shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C 4712.

(c) The Award Recipient shall insert the substance of this clause, including this paragraph (c), in all subawards or subcontracts over the simplified acquisition threshold. 48 CFR 52.203-17 (as referenced in 48 CFR 3.908-9).

21. REPORTING OF MATTERS RELATED TO RECIPIENT INTEGRITY AND PERFORMANCE (APPENDIX XII TO 2 CFR PART 200)

1. General Reporting Requirement

If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds $10,000,000 for any period of time during the period of performance of this Federal award, then you as the recipient during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

2. Proceedings About Which You Must Report

Submit the information required about each proceeding that:

a. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government;

b. Reached its final disposition during the most recent five-year period; and

c. Is one of the following:

(1) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition;

(2) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of $5,000 or more;

(3) An administrative proceeding, as defined in paragraph 5. of this award term and condition, that resulted in a finding of fault and liability and your payment of either a monetary fine or penalty of $5,000 or more or reimbursement, restitution, or damages in excess of $100,000; or

(4) Any other criminal, civil, or administrative proceeding if:

(i) It could have led to an outcome described in paragraph 2.c.(1), (2), or (3) of this award term and condition;

(ii) It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and

(iii) The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

3. Reporting Procedures

Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in paragraph 2 of this award term and condition. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

4. Reporting Frequency

During any period of time when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than $10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

5. Definitions

For purposes of this award term and condition:

a. Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.

b. Conviction, for purposes of this award term and condition, means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of nolo contendere.

c. Total value of currently active grants, cooperative agreements, and procurement contracts includes—

(1) Only the Federal share of the funding under any Federal award with a recipient cost share or match; and

(2) The value of all expected funding increments under a Federal award and options, even if not yet exercised.

[80 FR 43310, July 22, 2015, as amended at 85 FR 49582, Aug. 13, 2020]

22. CONFLICTS OF INTEREST

(a) Applicability.

(1) This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.

(2) In the procurement of supplies, equipment, construction, and services by recipients and by subrecipients, the conflict of interest provisions in 2 CFR 200.318 apply.

(b) Requirements.

(1) Non-Federal entities must avoid prohibited conflicts of interest, including any significant financial interests that could cause a reasonable person to question the recipient's ability to provide impartial, technically sound, and objective performance under or with respect to a Federal financial assistance agreement.

(2) In addition to any other prohibitions that may apply with respect to conflicts of interest, no key official of an actual or proposed recipient or subrecipient, who is substantially involved in the proposal or project, may have been a former Federal employee who, within the last one (1) year, participated personally and substantially in the evaluation, award, or administration of an award with respect to that recipient or subrecipient or in development of the requirement leading to the funding announcement.

(3) No actual or prospective recipient or subrecipient may solicit, obtain, or use non-public information regarding the evaluation, award, or administration of an award to that recipient or subrecipient or the development of a Federal financial assistance opportunity that may be of competitive interest to that recipient or subrecipient.

(c) Notification.

(1) Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass-through entity in accordance with 2 CFR 200.112, Conflict of Interest.

(2) Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The recipient is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by subrecipients.

(d) Restrictions on Lobbying. Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 USC 1352.

(e) Review Procedures. The Financial Assistance Officer will examine each conflict of interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement, and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it.

(f) Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the Government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR 200.339, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

23. DATA AVAILABILITY

(a) Applicability. The Department of the Interior is committed to basing its decisions on the best available science and providing the American people with enough information to thoughtfully and substantively evaluate the data, methodology, and analysis used by the Department to inform its decisions.

(b) Use of Data. The regulations at 2 CFR 200.315 apply to data produced under a Federal award, including the provision that the Federal Government has the right to obtain, reproduce, publish, or otherwise use the data produced under a Federal award as well as authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

(c) Availability of Data. The recipient shall make the data produced under this award and any subaward(s) available to the Government for public release, consistent with applicable law, to allow meaningful third-party evaluation and reproduction of the following:

(i) The scientific data relied upon;
(ii) The analysis relied upon; and
(iii) The methodology, including models, used to gather and analyze data.

24. PROHIBITION ON PROVIDING FUNDS TO THE ENEMY

(a) The recipient must—

(1) Exercise due diligence to ensure that none of the funds, including supplies and services, received under this grant or cooperative agreement are provided directly or indirectly (including through subawards or contracts) to a person or entity who is actively opposing the United States or coalition forces involved in a contingency operation in which members of the Armed Forces are actively engaged in hostilities, which must be completed through 2 CFR 180.300 prior to issuing a subaward or contract and;

(2) Terminate or void in whole or in part any subaward or contract with a person or entity listed in SAM as a prohibited or restricted source pursuant to subtitle E of

Title VIII of the NDAA for FY 2015, unless the Federal awarding agency provides written approval to continue the subaward or contract.

(b) The recipient may include the substance of this clause, including paragraph (a) of this clause, in subawards under this grant or cooperative agreement that have an estimated value over $50,000 and will be performed outside the United States, including its outlying areas.

(c) The Federal awarding agency has the authority to terminate or void this grant or cooperative agreement, in whole or in part, if the Federal awarding agency becomes aware that the recipient failed to exercise due diligence as required by paragraph (a) of this clause or if the Federal awarding agency becomes aware that any funds received under this grant or cooperative agreement have been provided directly or indirectly to a person or entity who is actively opposing coalition forces involved in a contingency operation in which members of the Armed Forces are actively engaged in hostilities.

25. ADDITIONAL ACCESS TO RECIPIENT RECORDS

(a) In addition to any other existing examination-of-records authority, the Federal Government is authorized to examine any records of the recipient and its subawards or contracts to the extent necessary to ensure that funds, including supplies and services, available under this grant or cooperative agreement are not provided, directly or indirectly, to a person or entity that is actively opposing United States or coalition forces involved in a contingency operation in which members of the Armed Forces are actively engaged in hostilities, except for awards awarded by the Department of Defense on or before Dec 19, 2017 that will be performed in the United States Central Command (USCENTCOM) theater of operations.

(b) The substance of this clause, including this paragraph (b), is required to be included in subawards or contracts under this grant or cooperative agreement that have an estimated value over $50,000 and will be performed outside the United States, including its outlying areas.

26. PROHIBITION ON CERTAIN TELECOMMUNICATION AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Federal award recipients are prohibited from using government funds to enter contracts (or extend or renew contracts) with entities that use covered telecommunications equipment or services as described in section 889 of the 2019 National Defense Authorization Act. This prohibition applies even if the contract is not intended to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services.

III. DEPARTMENT OF THE INTERIOR STANDARD AWARD TERMS AND CONDITIONS

The Department of the Interior (DOI) Standard Award Terms and Conditions found at https://www.doi.gov/sites/doi.gov/files/uploads/doi-standard-award-terms-and-conditions-effective-december-2-2019-revised-june-19-2020.pdf are hereby incorporated by reference as though set forth in full text. These terms and conditions are in addition to the assurances and certifications made as part of the award and terms, conditions or restrictions reflected on this Agreement. Recipient acceptance of this Agreement carries with it the responsibility to be aware of and comply with all DOI terms and conditions applicable to this Agreement. The Recipient is responsible for ensuring their subrecipients and contractors are aware of and comply with applicable statutes, regulations, and agency requirements.

Recipient and subrecipient failure to comply with the general terms and conditions outlined below and those directly reflected in this Agreement can result in the DOI taking one or more of remedies described in 2 Code of Federal Regulations parts 200.339 and 200.340. The DOI will notify the Recipient whenever terms and conditions are updated to accommodate instances in the passage of a regulation or statute that requires compliance. Also, DOI will inform the Recipient of revised terms and conditions in the action of an Agreement amendment adding additional Federal funds. Reclamation will make such changes by issuing a Notice of Award amendment that describes the change and provides the effective date. Revised terms and conditions do not apply to the Recipient's expenditures of funds or activities the Recipient carries out before the effective date of the revised DOI terms and conditions.

NOTICE OF AWARD

1. DATE ISSUED *MM/DD/YYYY*
09/19/2023

1a. SUPERSEDES AWARD NOTICE dated 03/01/2022
except that any additions or restrictions previously imposed remain in effect unless specifically rescinded

2. CFDA NO.
15.507 - WaterSMART (Sustain and Manage America's Resources for Tomorrow)

3. ASSISTANCE TYPE Project Grant

4. GRANT NO. R22AP00032-01
Originating MCA #

5. TYPE OF AWARD
Other

4a. FAIN R22AP00032

5a. ACTION TYPE Post Award Amendment

6. PROJECT PERIOD *MM/DD/YYYY*
From 03/01/2022 **Through** *MM/DD/YYYY* 12/31/2025

7. BUDGET PERIOD *MM/DD/YYYY*
From 03/01/2022 **Through** *MM/DD/YYYY* 12/31/2025

AUTHORIZATION (Legislation/Regulations)

Section 9504(a), Omnibus Public Lands Management Act of 2009, (Public Law 111-11), as amended.

8. TITLE OF PROJECT (OR PROGRAM)
Calloway Canal Lining

9a. GRANTEE NAME AND ADDRESS
NORTH KERN WATER STORAGE DISTRICT
33380 Cawelo Ave
Bakersfield, CA, 93308-9575

9b. GRANTEE PROJECT DIRECTOR
Ram Venkatesan
33380 Cawelo Extended
Bakersfield, CA, 93308-9575
Phone: 661-393-2696

10a. GRANTEE AUTHORIZING OFFICIAL
Ram Venkatesan
33380 Cawelo Extended
Bakersfield, CA, 93308-9575
Phone: 661-393-2696

10b. FEDERAL PROJECT OFFICER
Joshua German

ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)

I Financial Assistance from the Federal Awarding Agency Only		
II Total project costs including grant funds and all other financial participation		II
a. Salaries and Wages	$	0.00
b. Fringe Benefits	$	0.00
c. Total Personnel Costs	$	0.00
d. Equipment	$	0.00
e. Supplies	$	0.00
f. Travel	$	0.00
g. Construction	$	4,471,272.00
h. Other	$	0.00
i. Contractual	$	0.00
j. TOTAL DIRECT COSTS	$	4,471,272.00
k. INDIRECT COSTS	$	0.00
l. **TOTAL APPROVED BUDGET**	$	4,471,272.00
m. Federal Share	$	2,000,000.00
n. Non-Federal Share	$	2,471,272.00

12. AWARD COMPUTATION

a. Amount of Federal Financial Assistance (from item 11m)	$	2,000,000.00
b. Less Unobligated Balance From Prior Budget Periods	$	0.00
c. Less Cumulative Prior Award(s) This Budget Period	$	2,000,000.00
d. **AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION**	$	0.00
13. Total Federal Funds Awarded to Date for Project Period	$	2,000,000.00

14. RECOMMENDED FUTURE SUPPORT
(Subject to the availability of funds and satisfactory progress of the project):

YEAR	TOTAL DIRECT COSTS	YEAR	TOTAL DIRECT COSTS
a. 2	$	d. 5	$
b. 3	$	e. 6	$
c. 4	$	f. 7	$

15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:
a. DEDUCTION
b. ADDITIONAL COSTS
c. MATCHING
d. OTHER RESEARCH (Add / Deduct Option)
e. OTHER *(See REMARKS)*

e

16. THIS AWARD IS BASED ON AN APPLICATION SUBMITTED TO, AND AS APPROVED BY, THE FEDERAL AWARDING AGENCY ON THE ABOVE TITLED PROJECT AND IS SUBJECT TO THE TERMS AND CONDITIONS INCORPORATED EITHER DIRECTLY OR BY REFERENCE IN THE FOLLOWING:
a. The grant program legislation
b. The grant program regulations.
c. This award notice including terms and conditions, if any, noted below under REMARKS.
d. Federal administrative requirements, cost principles and audit requirements applicable to this grant.

In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.

REMARKS (Other Terms and Conditions Attached - ● Yes ○ No)
See next page

GRANTS MANAGEMENT OFFICIAL:
KIMBERLY DETAMBLE, Grants Management Specialist
1849 C ST NW
WASHINGTON, DC, 20240
Phone: 3034452624

17. VENDOR CODE 0071358645 **18a. UEI** QAR2DDM3PM65 **18b. DUNS** 081783946 **19. CONG. DIST.** 21

LINE#	FINANCIAL ACCT	AMT OF FIN ASST	START DATE	END DATE	TAS ACCT	PO LINE DESCRIPTION
1	0051011883-00010	$0.00	03/01/2022	12/31/2025	0680	FA WEEG FY21 North Kern Storage

REMARKS:

No Program Income Authorized.

Recipients are NOT required to sign the Notice of Award or any other award document or amendment. Recipients indicate their acceptance of an award or amendment to an existing award, including award terms and conditions, by starting work, drawing down funds, or accepting the award or amendment via electronic means. Recipient acceptance of an award/amendment carries with it the responsibility to be aware of and comply with all terms and conditions applicable to the award. Recipients are responsible for ensuring that their subrecipients and contractors are aware of and comply with applicable award statutes, regulations, and terms and conditions. Recipient failure to comply with award terms and conditions can result in Reclamation taking one or more of the remedies and actions described in 2 CFR 200.339343.

Federal Financial Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	03/31/2024	Semi-Annual	04/30/2024
04/01/2024	09/30/2024	Semi-Annual	10/30/2024
10/01/2024	03/31/2025	Semi-Annual	04/30/2025
04/01/2025	09/30/2025	Semi-Annual	10/30/2025
10/01/2025	12/31/2025	Final	04/30/2026

Performance Progress Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	03/31/2024	Semi-Annual	04/30/2024
04/01/2024	09/30/2024	Semi-Annual	10/30/2024
10/01/2024	03/31/2025	Semi-Annual	04/30/2025
04/01/2025	09/30/2025	Semi-Annual	10/30/2025
10/01/2025	12/31/2025	Final	04/30/2026

AWARD ATTACHMENTS

NORTH KERN WATER STORAGE DISTRICT R22AP00032-01

1. R22AP00032-01 NCE

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
AMENDMENT 001
TO ASSISTANCE AGREEMENT R22AP00032

A. PURPOSE OF THIS AMENDMENT:

In July 2023, the Recipient requested an extension of the period of performance of the Agreement because this project has been delayed due to NEPA and design taking longer than expected, in addition to delays in construction of the previous section of canal lining. The purpose of this amendment is to extend the Period of Performance of the Agreement.

All other terms and conditions remain unchanged.

B. ADJUSTMENT OF AGREEMENT PERIOD OF PERFORMANCE:

As a result of this amendment, the period of performance completion date is changed from March 01, 2022 through December 31, 2023 to March 01, 2022 through December 31, 2025

Accordingly, the remaining milestones for the completion of the Scope of Work are adjusted as follows:

Milestone / Task / Activity	Planned Start Date	Planned Completion Date
Completion of required environmental compliance	October 2021	June 2024
Contract documents prepared, bid	June 2024	December 2024
Canal Lining Construction staging/start-up	January 2025	N/A
Construction Complete	N/A	December 2025

NOTICE OF AWARD

1. DATE ISSUED *MM/DD/YYYY*
07/02/2026

1a. SUPERSEDES AWARD NOTICE dated 09/19/2023
except that any additions or restrictions previously imposed remain in effect unless specifically rescinded

2. ASSISTANCE LISTING NUMBER
15.507 - WaterSMART (Sustain and Manage America's Resources for Tomorrow)

3. ASSISTANCE TYPE Project Grant

4. GRANT NO. R22AP00032-02
Originating MCA #

5. TYPE OF AWARD
Other

4a. FAIN R22AP00032

5a. ACTION TYPE Post Award Amendment

6. PROJECT PERIOD *MM/DD/YYYY*
From 03/01/2022 **Through** *MM/DD/YYYY* 12/31/2026

7. BUDGET PERIOD *MM/DD/YYYY*
From 03/01/2022 **Through** *MM/DD/YYYY* 12/31/2026

AUTHORIZATION (Legislation/Regulations)

Section 9504(a), Omnibus Public Lands Management Act of 2009, (Public Law 111-11), as amended.

8. TITLE OF PROJECT (OR PROGRAM)
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9a. GRANTEE NAME AND ADDRESS
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Phone: 661-393-2696

10b. FEDERAL PROJECT OFFICER
Joshua German

ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)

I Financial Assistance from the Federal Awarding Agency Only		
II Total project costs including grant funds and all other financial participation		II
a. Salaries and Wages	$	0.00
b. Fringe Benefits	$	0.00
c. Total Personnel Costs	$	0.00
d. Equipment	$	0.00
e. Supplies	$	0.00
f. Travel	$	0.00
g. Construction	$	4,471,272.00
h. Other	$	0.00
i. Contractual	$	0.00
j. TOTAL DIRECT COSTS	$	4,471,272.00
k. INDIRECT COSTS	$	0.00
l. **TOTAL APPROVED BUDGET**	$	4,471,272.00
m. Federal Share	$	2,000,000.00
n. Non-Federal Share	$	2,471,272.00

12. AWARD COMPUTATION

a. Amount of Federal Financial Assistance (from item 11m)	$	2,000,000.00
b. Less Unobligated Balance From Prior Budget Periods	$	0.00
c. Less Cumulative Prior Award(s) This Budget Period	$	2,000,000.00
d. **AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION**	$	0.00
13. Total Federal Funds Awarded to Date for Project Period	$	2,000,000.00

14. RECOMMENDED FUTURE SUPPORT
(Subject to the availability of funds and satisfactory progress of the project):

YEAR	TOTAL DIRECT COSTS	YEAR	TOTAL DIRECT COSTS
a. 2	$	d. 5	$
b. 3	$	e. 6	$
c. 4	$	f. 7	$

15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:
a. DEDUCTION
b. ADDITIONAL COSTS
c. MATCHING
d. OTHER RESEARCH (Add / Deduct Option)
e. OTHER *(See REMARKS)*

e

16. THIS AWARD IS BASED ON AN APPLICATION SUBMITTED TO, AND AS APPROVED BY, THE FEDERAL AWARDING AGENCY ON THE ABOVE TITLED PROJECT AND IS SUBJECT TO THE TERMS AND CONDITIONS INCORPORATED EITHER DIRECTLY OR BY REFERENCE IN THE FOLLOWING:
a. The grant program legislation
b. The grant program regulations.
c. This award notice including terms and conditions, if any, noted below under REMARKS.
d. Federal administrative requirements, cost principles and audit requirements applicable to this grant.

In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.

REMARKS (Other Terms and Conditions Attached - (●) Yes ( ) No)
See next page

GRANTS MANAGEMENT OFFICIAL:
KIMBERLY DETAMBLE, Grants Management Specialist
1849 C ST NW
WASHINGTON, DC, 20240
Phone: 3034452624

17. VENDOR CODE 0071358645 **18a. UEI** QAR2DDM3PM65 **18b. DUNS** 081783946 **19. CONG. DIST.** 21

LINE#	FINANCIAL ACCT	AMT OF FIN ASST	START DATE	END DATE	TAS ACCT	PO LINE DESCRIPTION
1	0051011883-00010	$0.00	03/01/2022	12/31/2026	0680	FA WEEG FY21 North Kern Storage

REMARKS:

Program Income is not authorized.

Recipients are NOT required to sign the Notice of Award or any other award document or amendment. Recipients indicate their acceptance of an award or amendment to an existing award, including award terms and conditions, by starting work, drawing down funds, or accepting the award or amendment via electronic means. Recipient acceptance of an award/amendment carries with it the responsibility to be aware of and comply with all terms and conditions applicable to the award. Recipients are responsible for ensuring that their subrecipients and contractors are aware of and comply with applicable award statutes, regulations, and terms and conditions. Recipient failure to comply with award terms and conditions can result in Reclamation taking one or more of the remedies and actions described in 2 CFR 200.339343.

Federal Financial Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	03/31/2024	Semi-Annual	04/30/2024
04/01/2024	09/30/2024	Semi-Annual	10/30/2024
10/01/2024	03/31/2025	Semi-Annual	04/30/2025
04/01/2025	09/30/2025	Semi-Annual	10/30/2025
10/01/2025	03/31/2026	Semi-Annual	04/30/2026
04/01/2026	09/30/2026	Semi-Annual	10/30/2026
03/01/2022	12/31/2026	Project Final	04/30/2027

Performance Progress Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
04/01/2022	09/30/2022	Semi-Annual	10/30/2022
10/01/2022	03/31/2023	Semi-Annual	04/30/2023
04/01/2023	09/30/2023	Semi-Annual	10/30/2023
10/01/2023	03/31/2024	Semi-Annual	04/30/2024
04/01/2024	09/30/2024	Semi-Annual	10/30/2024
10/01/2024	03/31/2025	Semi-Annual	04/30/2025
04/01/2025	09/30/2025	Semi-Annual	10/30/2025
10/01/2025	03/31/2026	Semi-Annual	04/30/2026
04/01/2026	09/30/2026	Semi-Annual	10/30/2026
03/01/2022	12/31/2026	Project Final	04/30/2027

AWARD ATTACHMENTS

NORTH KERN WATER STORAGE DISTRICT R22AP00032-02

1. Amendment 02

BUREAU OF RECLAMATION

Amendment to Federal Financial Assistance Terms and Conditions of Award

1. Purpose of this Amendment

The purpose of this Amendment is to extend the period of performance.

All other terms and conditions remain unchanged.

2. Adjustment of Project Plan or Milestones

This Project is intended to be implemented sequential to other projects of similar scope. The schedule of the preceding projects was delayed when utility pipelines were discovered in conflict with the alignment of the preceding projects; coordination with the pipeline owner was extensive and time consuming. Construction of the preceding projects is now complete, and design of this Project is underway.

As a result of this amendment, the following Milestone activity has been updated.

Milestone / Task / Activity	Planned Start Date	Planned Completion Date
Completion of required environmental compliance		COMPLETE
Contract documents prepared, bid	Sept 2025	Sept 2026
Canal Lining Construction staging/start-up	Oct 2026	Oct 2026
Construction Complete	N/A	December 2026

3. Period of Performance

As a result of this amendment, the period of performance is changed from 3/1/2022 through 12/31/2025 to 3/1/2022 through 12/31/2026.

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Appendix C – Soils Report

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED CALLOWAY CANAL LINER IMPROVEMENTS
7TH STANDARD ROAD TO 8-1 BACK-UP WEIR
SHAFTER, CALIFORNIA

KA PROJECT NO. 022-25006
MARCH 10, 2025

Prepared for:

MR. ANGEL VENTURA
NORTH KERN WATER STORAGE DISTRICT
P.O. BOX 81435
BAKERSFIELD, CALIFORNIA 93380

Prepared by:

KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
2205 COY AVENUE
BAKERSFIELD, CALIFORNIA 93307
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Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

March 10, 2025

KA Project No. 022-25006

Mr. Angel Ventura
North Kern Water Storage District
P.O. Box 81435
Bakersfield, California 93380

RE: Geotechnical Engineering Investigation
Proposed Calloway Canal Liner Improvements
7th Standard Road to 8-1 Back-up Weir
Shafter, California

Dear Mr. Ventura:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (661) 837-9200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Ryan K. Privett, P.E.
Senior Engineer
RCE No. 59372

REGISTERED PROFESSIONAL ENGINEER
RYAN K. PRIVETT
NO. 59372
CIVIL
STATE OF CALIFORNIA

RKP:ht

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March 10, 2025 KA Project No. 022-25006

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED CALLOWAY CANAL LINER IMPROVEMENTS
7TH STANDARD ROAD TO 8-1 BACK-UP WEIR
SHAFTER, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed Calloway Canal liner improvements to be located between 7th Standard Road and the 8-1 Back-up Weir to the north in Shafter, Kern County, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, concrete slabs, and slope construction.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs, and the boring log legend are presented in Appendix A. Appendix A contains a description of the laboratory testing phase of this study, along with the laboratory test results. Appendix B contains a guide to earthwork specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements, and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated January 8, 2025 (KA Proposal No. P008-25) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 12 borings to depths ranging from approximately 10 to 15 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. It is our understanding the proposed construction will include approximately 3,400 feet of new lining for the Calloway Canal, from 7th Standard Road north to the 8-1 Back-up Weir. The majority of the canal within the study area will be lined with unreinforced concrete; only the embankment areas at or near locations of pipeline connections may possibly include reinforcement. The tops of canal banks and outside slopes are not anticipated to be paved or otherwise receive any surface treatment.

In the event these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION AND SITE DESCRIPTION

The project site is irregular in shape and encompasses approximately 12 acres. The southern end of the site is located at 7th Standard Road, in Shafter, California. The site extends northwesterly, then to the north, for a distance of approximately 3,400 feet. The northern end of the project site is located at the 8-1 Back-up Weir, approximately ½ mile north of 7th Standard Road. New residential developments and a solar farm are located east of the site. The remainder of the site is surrounded by agricultural developments or vacant land.

Presently, the site predominately consists of an existing unlined canal and associated embankments. The canal is not bordered by chain-link fencing or any other fencing along the boundaries. The canal bottom and interior embankments are void of vegetation up to the high-water line, and occasionally vegetated with native short grasses and weeds up to the top of the slopes. The relatively flat tops of the embankments, which also serve as vehicular access drives, are mostly void of vegetation. Areas beyond the embankment tops are sparsely to moderately vegetated. With the exception of the existing canal embankments, the existing ground surface at the site is otherwise relatively flat and level with no major changes in grade.

GEOLOGIC SETTING

Geologically, the property is situated on the eastern flank, near the south end of the Great Valley Geomorphic Province. This province is a large northwesterly trending geosyncline or structural trough between the Coast Range Mountains and the Sierra Nevada. Erosions from both of these mountain systems have resulted in the deposition of immense thickness of sediments in the Valley floor. Heavily-

laden streams from the Sierra Nevada have built very prominent alluvial fans along the margins of the San Joaquin Valley. This has resulted in a rather flat topography in the vicinity of the project site. The site is composed of alluvial deposits which are mostly cohesionless sands and silts.

The south end of the San Joaquin Valley is surrounded on all sides, excluding the north, by active fault systems (San Andreas, White Wolf-Breckenridge-Kern Canyon, and Garlock Faults). Numerous smaller faults exist within the valley floor.

There is on-going seismic activity in the Kern County area, with the most noticeable earthquake being the July 21, 1952 Kern County Earthquake. The initial shock was 7.7 magnitudes shake with the epicenter near Wheeler Ridge, about 22 miles from Shafter. Vertical displacements of as much as 3 feet occurred at the fault line. Estimated average value of the maximum bedrock accelerations from the 1952 event are about 0.25 gravity at the project site.

No evidence was observed that indicates surface faulting has occurred across the property during the Holocene time. Faults not yet identified, however, may exist. The site is not within an earthquake fault zone (special studies zone).

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 12 borings to depths of approximately 10 to 15 feet below existing site grade, using a truck-mounted drill rig. The approximate boring locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Soil samples were retained for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, and consolidation potential of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and results of the laboratory tests are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the surface soils consisted of approximately 6 to 12 inches of very loose silty sand. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated.

Below the loose surface soils, approximately 4 feet of loose to very dense silty sand was encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible when saturated. Penetration resistance ranged from 10 to 78 blows per foot. Dry densities ranged from 97 to 124 pcf. A representative soil sample had an angle of internal friction of 34 degrees.

Below approximately 5 feet, predominately loose to dense silty sand, silty sand with clay, or sand were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. These soils contained varying amounts of clay. Penetration resistance ranged from 8 to 46 blows per foot. Dry densities ranged from 94 to 114 pcf. A representative soil sample consolidated approximately 2 percent under a 2 ksf load when saturated. A representative soil sample had an angle of internal friction of 38 degrees. These soils have slightly stronger strength characteristics than the upper soils and extended to the termination depth of our borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. Free groundwater was not encountered.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use and climatic conditions, as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. The compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

It is recommended that following stripping operations and excavation to rough grade, the upper 2 feet of native soils within proposed structural areas be excavated, worked until uniform and free from large clods, moisture-conditioned to not less than optimum moisture content, and recompacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698. Over-excavation should extend to a minimum of 5 feet beyond structural elements, and 3 feet beyond embankment limits. Prior to

backfilling, it is recommended that the subgrade be proof-rolled under observation by Krazan & Associates, Inc. to verify stability and confirm that no additional removal will be required. The excavation should be backfilled with Engineered Fill, compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698.

Any buried structures or utilities encountered during construction should be properly removed and/or relocated. Areas disturbed by demolition activities should be excavated to firm native ground. The resulting excavations should be backfilled with Engineered Fill, moisture-conditioned to not less than optimum moisture content, and compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698.

Relatively clean sands were encountered at various locations throughout the site. The possibility exists that site grading operations could expose these soils. The Contractor should note that these soils lack the cohesion necessary to stand vertically, even in shallow excavations such as footing trenches. If these conditions are encountered, it will be necessary to over-excavate the affected area(s) to a minimum of 3 feet below the proposed bearing surface. These areas may be backfilled using a mix of the silty sand and sand soils that contains at least 20 percent fines and meeting the requirements for Engineered Fill. This material may be obtained from elsewhere at the site, imported to the site from an approved off-site source, or manufactured through blending of the excavated clean sand with other suitable material containing a higher percentage of fines to result in material meeting the requirements for Engineered Fill.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

Groundwater Influence on Structures/Construction

Based on our findings and historical records, it is not anticipated that groundwater will rise within the zone of structural influence or affect the construction of the berms planned for the site. However, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Site Preparation - General

General site clearing should include removal of vegetation; existing underground structures, such as irrigation lines; structures including foundations; basement walls and floors; root systems associated with any previous trees or vines; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume

are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for reuse as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

Any buried structures, including pipelines, utility lines, or loosely backfilled excavations, encountered during construction should be properly removed and/or relocated. Areas disturbed by demolition activities should be excavated to firm native ground. The resulting excavations should be backfilled with Engineered Fill. Excavations, depressions, or soft and pliant areas extending below planned, finished subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. The resulting excavations should be backfilled with Engineered Fill.

It is recommended that following stripping operations and excavation to rough grade, the upper 2 feet of native soils within proposed structural areas be excavated, worked until uniform and free from large clods, moisture-conditioned to not less than optimum moisture content, and recompacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698. Over-excavation should extend to a minimum of 5 feet beyond structural elements, and 3 feet beyond embankment limits. Prior to backfilling, it is recommended that the subgrade be proof-rolled under observation by Krazan & Associates, Inc. to verify stability and confirm that no additional removal will be required. The excavation should be backfilled with Engineered Fill, compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service, as acceptance of earthwork construction is dependent upon compaction and stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Site Preparation - Levee/Berm Construction

It is recommended that the site be cleared of vegetation; existing irrigation lines; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 inches, or until all organics in excess of 3 percent by volume are removed. Deeper

stripping may be required in localized areas. Excavations or depressions extending below subgrade levels should be cleaned to firm, undisturbed soil and backfilled with Engineered Fill, placed and recompacted in accordance with the recommendations stated herein.

Following stripping operations, excavation to rough grade, and over-excavation of the upper 2 feet of native soils, it is recommended that the exposed subgrade in proposed levee or berm construction areas be proof-rolled under observation by Krazan and Associates, Inc. to verify stability and confirm that no additional removal will be required. The excavation should be backfilled with Engineered Fill compacted to a minimum of 95 percent of maximum density based on ASTM Test Method D698. Limits of recompaction of native soils within the levee/berm area should extend a minimum of 3 feet beyond the base with at least a 1:1, horizontal to vertical or flatter excavation projection from the bottom of the excavation to existing site grade. Limits of recompaction should extend 5 feet beyond structural elements, and 3 feet beyond embankment limits. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found previously. Additional testing shall be performed to verify the soil parameters used for design are consistent with those in the field.

The earth fill embankments should be prepared as recommended herein. The exterior side slopes should not be steeper than 2:1 (horizontal to vertical). The interior side slopes should not be steeper than 2:1 (horizontal to vertical). No material should be placed in any section of the embankment until the foundation for that section has been suitably prepared. Native soils may be used for constructing the embankment. No brush, roots, sod, or other perishable or unsuitable material shall be placed in the embankment. It should be understood that levee slopes steeper than 3:1 typically require a greater degree of annual maintenance. An annual maintenance program should be established for the proposed slopes.

Slopes can be reconstructed by placement of Engineered Fill utilizing a keying and benching procedure as described below. Reconstructed slopes should be constructed at an inclination not exceeding 4:1 (horizontal to vertical). Krazan and Associates, Inc. should be retained to review all slope reconstruction plans and specifications prior to initiating the construction work.

Where fills greater than 10 feet that are to be constructed on original ground that slopes at inclinations steeper than 6:1 (horizontal to vertical), benches should be cut into the existing slope as the filling operations proceed. Each bench should consist of a level terrace a minimum of 10 feet wide, with the rise to the next bench held to 4 feet or less. Where fills of comparable height will be constructed on ground that slopes at an inclination steeper than 4:1 (horizontal to vertical), a keyway should be provided in addition to the benches. Each keyway should consist of a level trench at least 10 feet wide and at least 2 feet deep, with side slopes not exceeding 1:1 (horizontal to vertical), cut into the existing slope.

Distribution and gradation of the materials throughout the earthfill shall be such that the fill will be free from lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from the surrounding material. Combined excavation and placing operations shall be such that the materials, when compacted in the earthfill, will be blended sufficiently to secure the best practicable degree of compaction and stability. Successive loads of materials shall be dumped on the earthfill in continuous,

approximately horizontal layers not more than 6 inches in thickness after being rolled. When each layer of material has been conditioned to have the required moisture, it shall be compacted to at least 95 percent of the maximum density as determined by ASTM Test Method D698.

The side slopes may be protected from erosion by implementing a vegetative measure. Establishing and maintaining good plant cover can stabilize side slopes and protect against erosion.

Seismic Settlement

One of the most common phenomena during seismic shaking accompanying any earthquake is the induced settlement of loose unconsolidated soils. Based on the site subsurface conditions and the moderate seismicity of the region, any loose materials at the site could be vulnerable to this potential hazard. However, this hazard can be mitigated by following the design and construction recommendations of this Geotechnical Engineering Investigation (over-excavation and compaction of the native materials). Based on the penetration resistance measured, the native deposits underlying the site do not appear to be subject to significant seismic settlement. It is not necessary that design of the lining account for this potential settlement during a seismic event. Any damaged caused by an earthquake should be repaired immediately after a seismic event. It is recommended that an operations and maintenance program be prepared to inspect, maintain, and/or repair any erosion and/or failure areas after a major seismic event.

Erosion Control and Drainage Improvements

Site grading near the crowns of the embankment slopes should be accomplished such that excessive sheet run-off is prevented.

The completed embankment slopes should be seeded or otherwise vegetated to protect from future erosion. Well vegetated slopes at the recommended configuration should be reasonably protected from typical erosional effects. However, vegetated slopes may not be protected from unusual flow conditions, such as over-topping of the levee. If erosion control from unusual flow conditions is desired, more substantial erosion protection measures, such as grouted cobble slope facing or manufactured slope protections products should be considered.

The levee/berm embankment soils may be considered more erosion resistant when cement treated or treated with vegetative matter. If grass and forb cover is desired, mowing or spraying with approved chemicals may be necessary to control woody growth. If woody cover is desired, seeding a suitable cover crop first, such as small grain or grass, helps control erosion; then trees and shrubs can be planted or native woody plants allowed to invade the site. Vegetation can be established on embankments using conventional form machinery, hydraulic seeders, and other kinds of equipment. Steepness of slopes determines which kind of machine is most suitable. Seeding failures may be caused by poor weather, droughtness, erosion, and other adverse site conditions. Maintaining a dense plant cover is difficult on slopes steeper than 1½:1 (horizontal to vertical). On steep slopes, it may be necessary to plant by hand or use sod, riprap, or other materials for adequate protection. Irrigation may be needed to establish vegetation in areas of low rainfall.

Within the side of the embankment facing water flow, vegetation, rock riprap or concrete paving may be used to prevent erosion, if desired. Vegetation, riprap or paving should be inspected regularly to be sure that they are not dislodged or damaged. Eroded areas should be promptly repaired and reseeded or protected by riprap or paving. As an alternative to the riprap or paving, erosion control geotextile material, such as Mirafi 700X or similar, may be installed for erosion control. This geotextile protection system is often used to guard against erosion.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

Engineered Fill

The upper native soils within the project site are identified as silty sand, silty sand with clay, and sand. These soils will be suitable for reuse as non-expansive Engineered Fill, provided they are cleansed of excessive organics, debris, and fragments larger than 4 inches in maximum dimension.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately granular material with a plasticity index less than 10 and an expansion less than 15. Imported Fill should be free from rocks and lumps greater than 4 inches in maximum dimension, and should contain between 20 and 50 percent of material passing the #200 sieve. All Imported Fill material should be submitted for approval to the Soils Engineer at least 48 hours prior to delivery to the site.

Fill soils should be placed in lifts approximately 6 inches thick, moisture-conditioned to not less than optimum moisture content, and compacted to achieve at least 95 percent of the maximum density based on ASTM Test Method D698. Additional lifts should not be placed if the previous lift did not meet the required moisture content and dry density or if soil conditions are not stable.

Soil Shrinkage

It is understood that soil is planned to be excavated and placed as Engineered Fill within the site. The majority of the excavation and re-compaction is anticipated to include at least the upper 2 feet of exposed native soil in the canal bottom. The excavated soil is anticipated to be placed in six-inch lifts, moisture conditioned as necessary, and compacted to 95 percent of maximum dry density based on ASTM Test Method D698.

Based on our field and laboratory testing, we estimate the percent of soil shrinkage to range from 10 to 25 percent. The estimated shrinkage assumes a relative compaction of 95 percent based on ASTM Test Method D698. Variation in shrinkage may result from depth of stripping, variation in compaction percentage, and transportation losses.

Drainage and Landscaping

The ground surface should slope away from structure areas toward appropriate drop inlets or other surface drainage devices. In accordance with Section 1804 of the 2022 California Building Code, it is recommended that the ground surface adjacent to foundations be sloped a minimum of 5 percent for a minimum distance of 10 feet away from structures, or to an approved alternative means of drainage conveyance. Swales used for conveyance of drainage and located within 10 feet of foundations should be sloped a minimum of 2 percent. Impervious surfaces, such as pavement and exterior concrete flatwork, within 10 feet of foundations should be sloped a minimum of 2 percent away from the structure. Drainage gradients should be maintained to carry all surface water to collection facilities and off-site. These grades should be maintained for the life of the project.

Slope Excavation and Stability

Slope excavations should be excavated according to the accepted engineering practice following Occupational Safety and Health Administration (OSHA) standards by a Contractor experienced in such work. Excavations in undisturbed soils or rock should be made according to the table below.

Recommended Temporary Excavation Slopes	
Depth of Excavation (ft)	**Slope (Horizontal:Vertical)**
0-5	1:1
5-10	1½:1
10-15	1½ :1

The excavation recommendations provided herein are based on soil characteristics derived from limited test borings within the area of the proposed canal improvements. Variations in soil conditions will likely be encountered during the excavations. Krazan & Associates, Inc. should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation.

Slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulation, (e.g. OSHA) standards for excavations, 29 CFR part 1926, or Assessor's regulations.

Utility Trench Backfill

Utility trenches should be excavated according to accepted engineering practice following OSHA (Occupational Safety and Health Administration) standards by a Contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the Contractor. Traffic and vibration adjacent to trench walls should be minimized; cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced; especially during or following periods of precipitation.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

Utility trench backfill placed beneath or adjacent to structures and exterior slabs should be compacted to at least 95 percent of maximum density based on ASTM Test Method D1557. Utility trench backfill placed in lining areas should also be compacted to at least 95 percent of maximum density based on ASTM Test Method D698. Pipe bedding should be in accordance with pipe manufacturer's recommendations.

The Contractor is responsible for removing all water-sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 35 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 55 pounds per square foot per foot per depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.40 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 350 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. The upper 3 feet should be neglected from passive resistance calculations for headwalls or other structures that do not incorporate protection from soil scour or erosion. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

Seismic Parameters – 2022 California Building Code

The Site Class per Section 1613 of the 2022 California Building Code (2022 CBC) and ASCE 7-16, Chapter 20 is based upon the site soil conditions. It is our opinion that a Site Class D is most consistent with the subject site soil conditions. A site modified peak ground acceleration (PGA_M) of 0.462 may be used for seismic analysis. If the project is being designed based on the 2022 CBC and the exception to Item 1 from Section 11.4.8 given in Supplement 3 of ASCE 7-16 is utilized, the value of S_{M1} (and the resulting values of S_{D1} and T_S) should be increased by 50 percent.

Seismic Item	Value	CBC Reference
Site Class	D	Section 1613.2.2
Site Coefficient F_a	1.153	Table 1613.2.3 (1)
S_s	0.868	Section 1613.2.1
S_{MS}	1.001	Section 1613.2.3
S_{DS}	0.667	Section 1613.2.4
Site Coefficient F_v	1.980	Table 1613.2.3 (2)
S_1	0.320	Section 1613.2.1
S_{M1}	0.634	Section 1613.2.3
S_{D1}	0.422	Section 1613.2.4
T_S	0.633	Section 1613.2

* Based on Equivalent Lateral Force (ELF) Design Procedure being used.

Soil Cement Reactivity

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete (or stucco) and the soil. HUD/FHA and CBC have developed criteria for evaluation of sulfate levels and how they relate to cement reactivity with soil and/or water.

Soil samples were obtained from the site and tested in accordance with State of California Materials Manual Test Designation 417. The sulfate concentrations detected from these soil samples were less than 150 ppm (6 ppm and 76 ppm) and are below the maximum allowable values established by HUD/FHA and CBC. Therefore, no special mitigation measures are necessary to compensate for sulfate reactivity with the cement.

Compacted Material Acceptance

Compaction specifications are not the only criteria for acceptance of the site grading or other such activities. However, the compaction test is the most universally recognized test method for assessing the performance of the Grading Contractor. The numerical test results from the compaction test cannot be used to predict the engineering performance of the compacted material. Therefore, the acceptance of compacted materials will also be dependent on the stability of that material. The Soils Engineer has the option of rejecting any compacted material regardless of the degree of compaction if that material is considered to be unstable or if future instability is suspected. A specific example of rejection of fill material passing the required percent compaction is a fill which has been compacted with an in-situ moisture content significantly less than optimum moisture. This type of dry fill (brittle fill) is susceptible to future settlement if it becomes saturated or flooded.

Testing and Inspection

A representative of Krazan & Associates, Inc. should be present at the site during the earthwork activities to confirm that actual subsurface conditions are consistent with the exploratory fieldwork. This activity is an integral part of our service, as acceptance of earthwork construction is dependent upon compaction testing and stability of the material. This representative can also verify that the intent of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

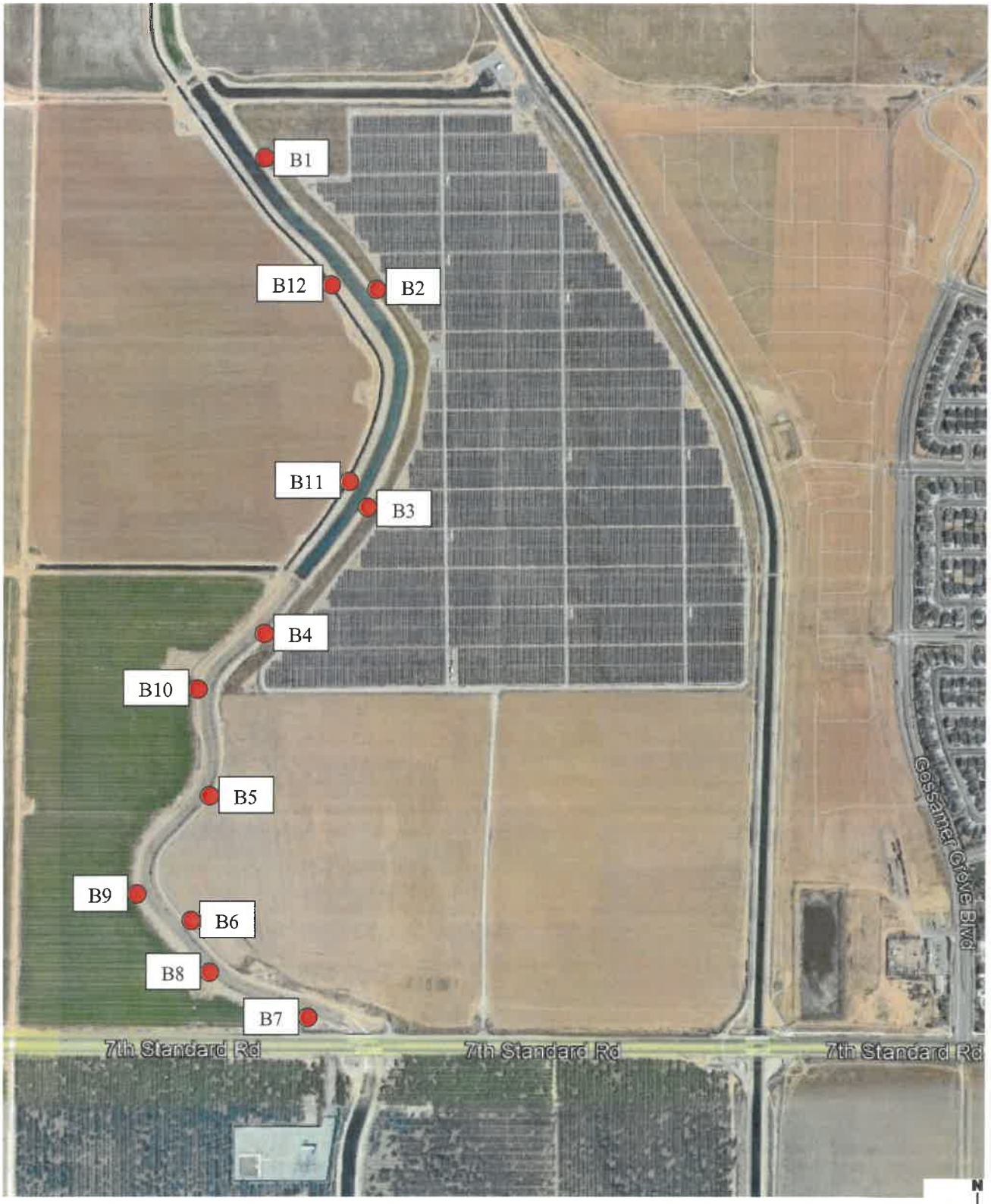
If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (661) 837-9200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Ryan K. Privett, P.E.
Senior Engineer
RCE No. 59372

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

RKP/DRJ:ht



APPROXIMATE BORING LOCATION

SITE MAP	**Scale:** NTS	**Date:** March 2025	Krazan GEOTECHNICAL ENGINEERING
Calloway Canal Liner Improvements 7th Standard Rd to 8-1 Back-up Weir Shafter, California	**Drawn by:** HT	**Approved by:** DJ	
	Project No. 022-25006	**Figure No.** 1	

APPENDIX A

FIELD AND LABORATORY INVESTIGATIONS

Field Investigation

The field investigation consisted of a surface reconnaissance and a subsurface exploratory program. Twelve 6-inch diameter exploratory borings were advanced. The boring locations are shown on the site plan.

The soils encountered were logged in the field during the exploration and with supplementary laboratory test data are described in accordance with the Unified Soil Classification System.

Modified standard penetration tests were performed at selected depths. This test represents the resistance to driving a 2½-inch diameter split barrel sampler. The driving energy was provided by a hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the auger cuttings. All samples were returned to our Clovis laboratory for evaluation.

Laboratory Investigation

The laboratory investigation was programmed to determine the physical and mechanical properties of the foundation soil underlying the site. Test results were used as criteria for determining the engineering suitability of the surface and subsurface materials encountered.

In-situ moisture content, dry density, consolidation, direct shear and sieve analysis tests were completed for the undisturbed samples representative of the subsurface material. These tests, supplemented by visual observation, comprised the basis for our evaluation of the site material.

The logs of the exploratory borings and laboratory determinations are presented in this Appendix.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		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

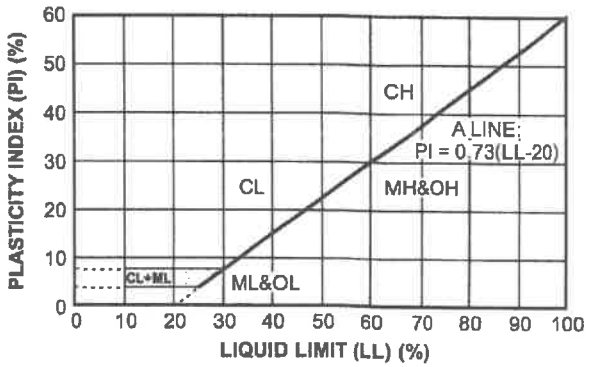
CONSISTENCY CLASSIFICATION

Description	Blows per Foot
Granular Soils	
Very Loose	< 5
Loose	5 – 15
Medium Dense	16 – 40
Dense	41 – 65
Very Dense	> 65
Cohesive Soils	
Very Soft	< 3
Soft	3 – 5
Firm	6 – 10
Stiff	11 – 20
Very Stiff	21 – 40
Hard	> 40

GRAIN SIZE CLASSIFICATION

Grain Type	*Standard Sieve Size*	*Grain Size in Millimeters*
Boulders	Above 12 inches	Above 305
Cobbles	12 to 13 inches	305 to 76.2
Gravel	3 inches to No. 4	76.2 to 4.76
Coarse-grained	3 to ¾ inches	76.2 to 19.1
Fine-grained	¾ inches to No. 4	19.1 to 4.76
Sand	No. 4 to No. 200	4.76 to 0.074
Coarse-grained	No. 4 to No. 10	4.76 to 2.00
Medium-grained	No. 10 to No. 40	2.00 to 0.42
Fine-grained	No. 40 to No. 200	0.42 to 0.074
Silt and Clay	Below No. 200	Below 0.074

PLASTICITY CHART



Log of Boring B1

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-1

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine-grained; brown, moist, drills easily				
2		Loose below 12 inches	98.7	6.8	■	15
4		Dense below 5 feet				
6			94.2	8.7	■	46
8						
10		***SAND (SP)*** Medium dense, fine- to coarse-grained; light brown, damp, drills easily	104.6	1.6	■	29
12						
14						
16		End of Borehole				
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Krazan and Associates

Log of Boring B2

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-2

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine-grained; brown, moist, drills easily				
2		Very dense and drills hard below 12 inches	118.7	8.3		78
4		Loose below 5 feet				
6			106.4	7.2		15
8						
10		End of Borehole				
12						
14						
16						
18						
20						

Penetration Test blows/ft: 20, 40, 60

Water Content (%): 10, 20, 30, 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Krazan and Associates** | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 10 Feet

Sheet: 1 of 1

Log of Boring B3

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-3

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine-grained; brown, moist, drills easily Medium dense below 12 inches				
2			99.9	9.6	■	18
4		Loose below 5 feet				
6			105.5	6.6	■	10
8						
10			96.0	13.3	■	13
12						
14						
14		End of Borehole				
16						
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Krazan and Associates** | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Sheet: 1 of 1

Log of Boring B4

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-4

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine-grained; brown, moist, drills easily				
2		Dense below 12 inches	104.0	13.7		42
4		Loose below 5 feet	107.4	4.3		13
10		End of Borehole				

Penetration Test blows/ft: 20, 40, 60

Water Content (%): 10, 20, 30, 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 10 Feet

Krazan and Associates

Log of Boring B5

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-5

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine-grained; brown, moist, drills easily				
2		Loose below 12 inches	124.7	5.7	■	10
4		With trace CLAY at 5 feet				
6			103.3	15.4	■	10
8						
10		Medium dense with no CLAY at 10 feet	99.9	8.9	■	18
12						
14						
16		End of Borehole				
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Krazan and Associates** | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Sheet: 1 of 1

Log of Boring B6

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-6

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine- to medium-grained; brown, moist, drills easily Medium dense below 12 inches				
2			97.7	6.8		18
4		Loose with trace CLAY at 5 feet				
6			100.7	12.9		14
8						
10		End of Borehole				
12						
14						
16						
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Krazan and Associates** | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 10 Feet

Sheet: 1 of 1

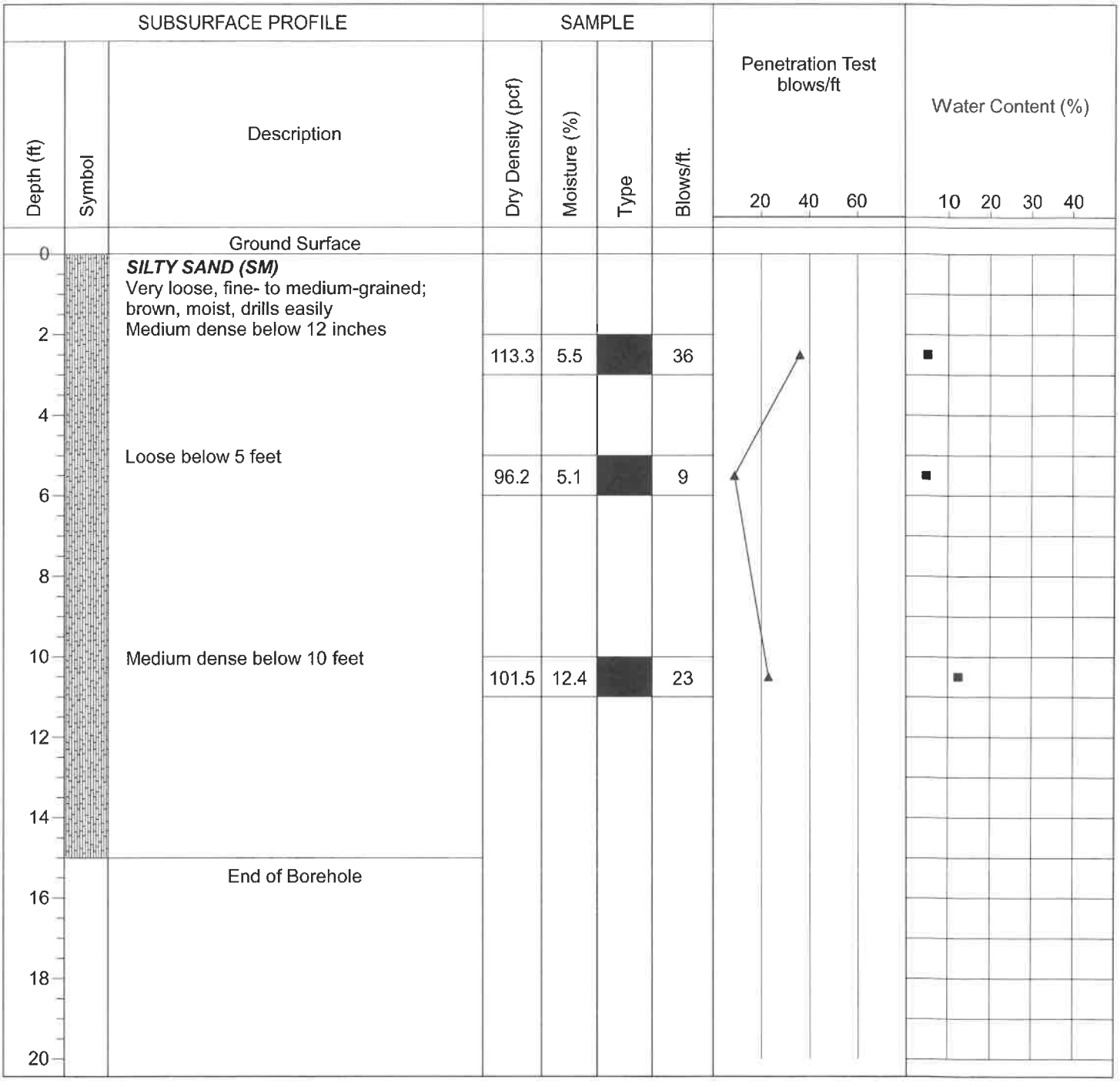
Log of Boring B7

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-7

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None



Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Krazan and Associates

Sheet: 1 of 1

Log of Boring B8

Project: Calloway Canal Liner Improvements

Project No: 022-25006

Client: North Kern Water Storage District

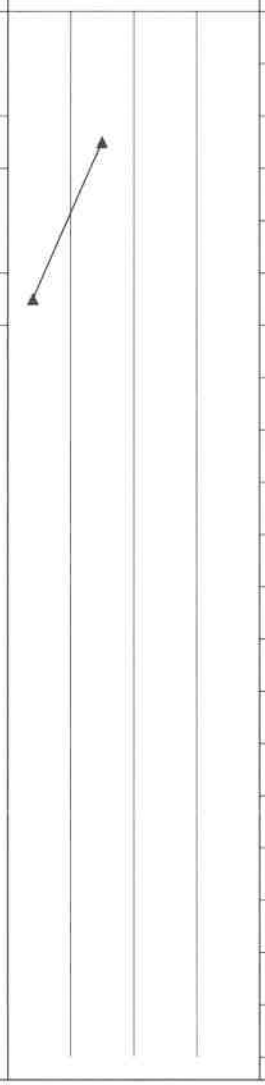
Figure No.: A-8

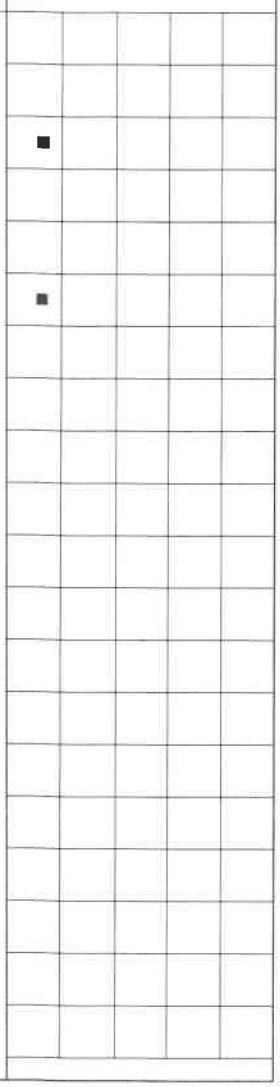
Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California

Logged By: Kaleb Ledford

Depth to Water> **Initial:** None **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine- to medium-grained; brown, moist, drills easily Medium dense below 12 inches				
2			112.3	7.0		30
4		Loose below 5 feet				
6			101.8	6.7		8
8						
10		End of Borehole				
12						
14						
16						
18						
20						





Drill Method: Hollow Stem

Drill Rig: Mobile B-80

Driller: David Lopez

Krazan and Associates

Drill Date: 1-21-25

Hole Size: 6 Inches

Elevation: 10 Feet

Sheet: 1 of 1

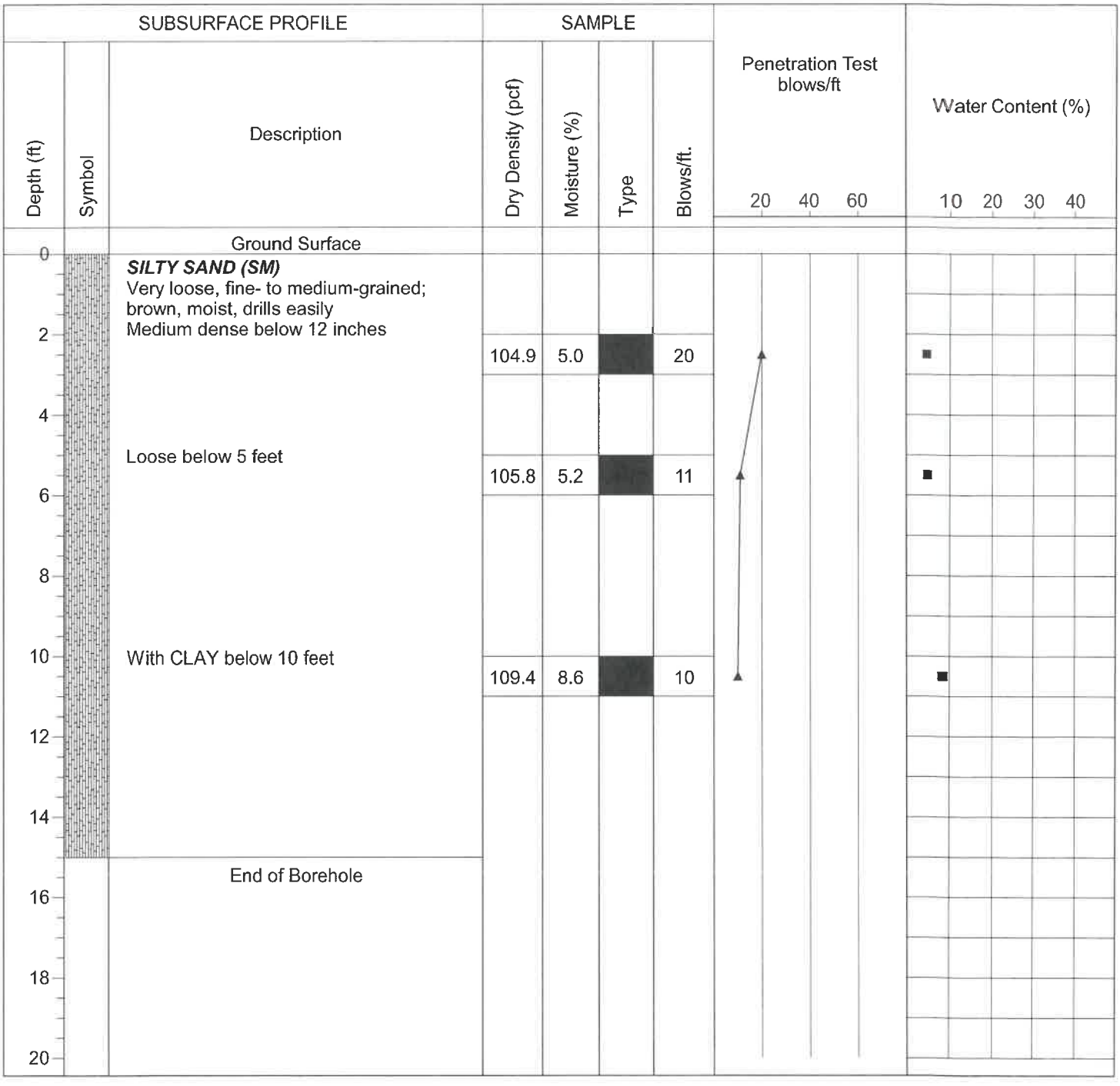
Log of Boring B9

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-9

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None



Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Krazan and Associates

Sheet: 1 of 1

Log of Boring B10

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-10

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		***SILTY SAND (SM)*** Very loose, fine- to medium-grained; brown, moist, drills easily				
2		Loose below 12 inches	105.9	10.0		11
4		With CLAY below 5 feet				
6			114.6	15.1		12
8						
10		End of Borehole				
12						
14						
16						
18						
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Krazan and Associates** | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 10 Feet

Sheet: 1 of 1

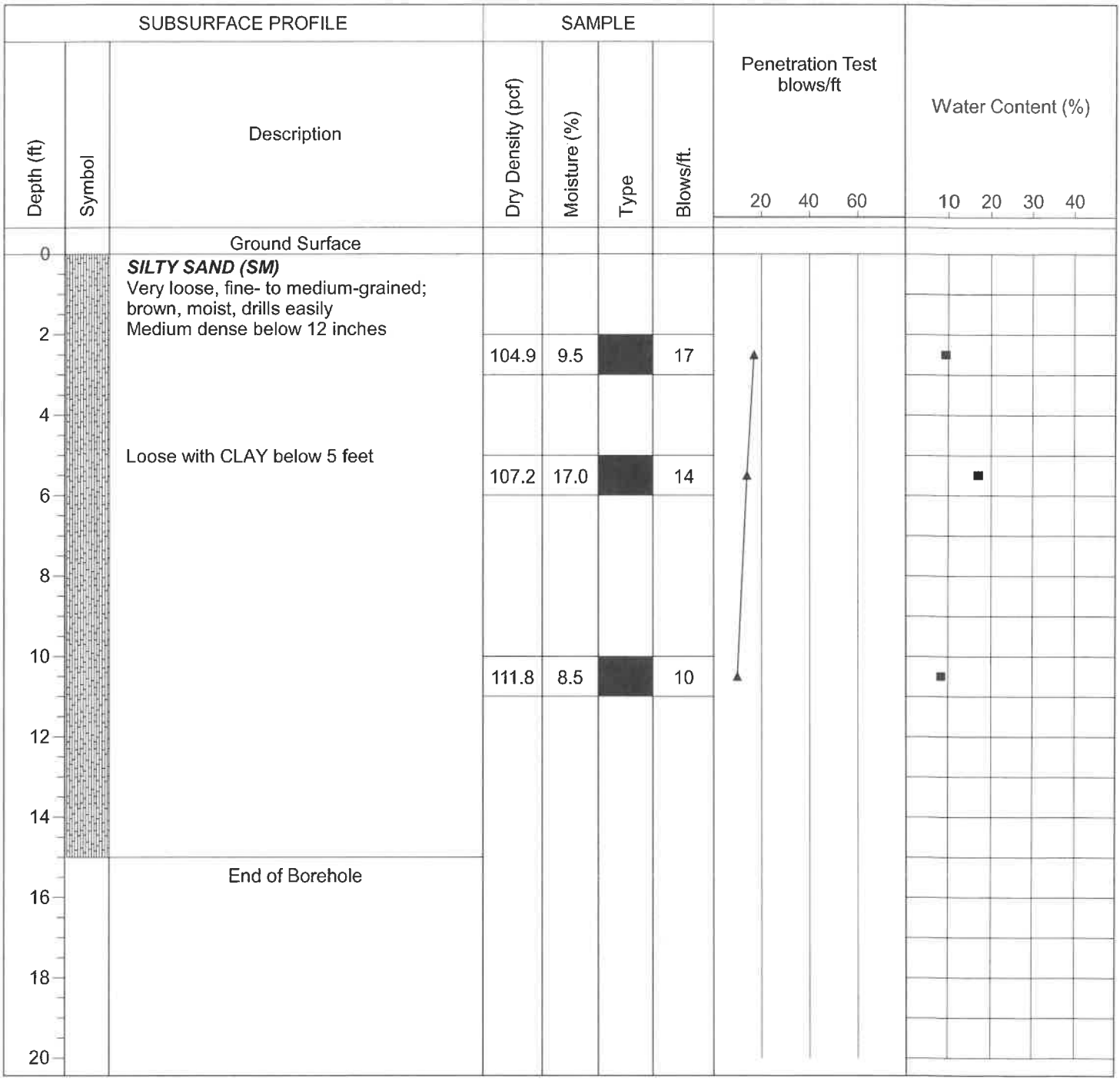
Log of Boring B11

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-11

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None



Drill Method: Hollow Stem | **Drill Date:** 1-21-25

Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 15 Feet

Krazan and Associates

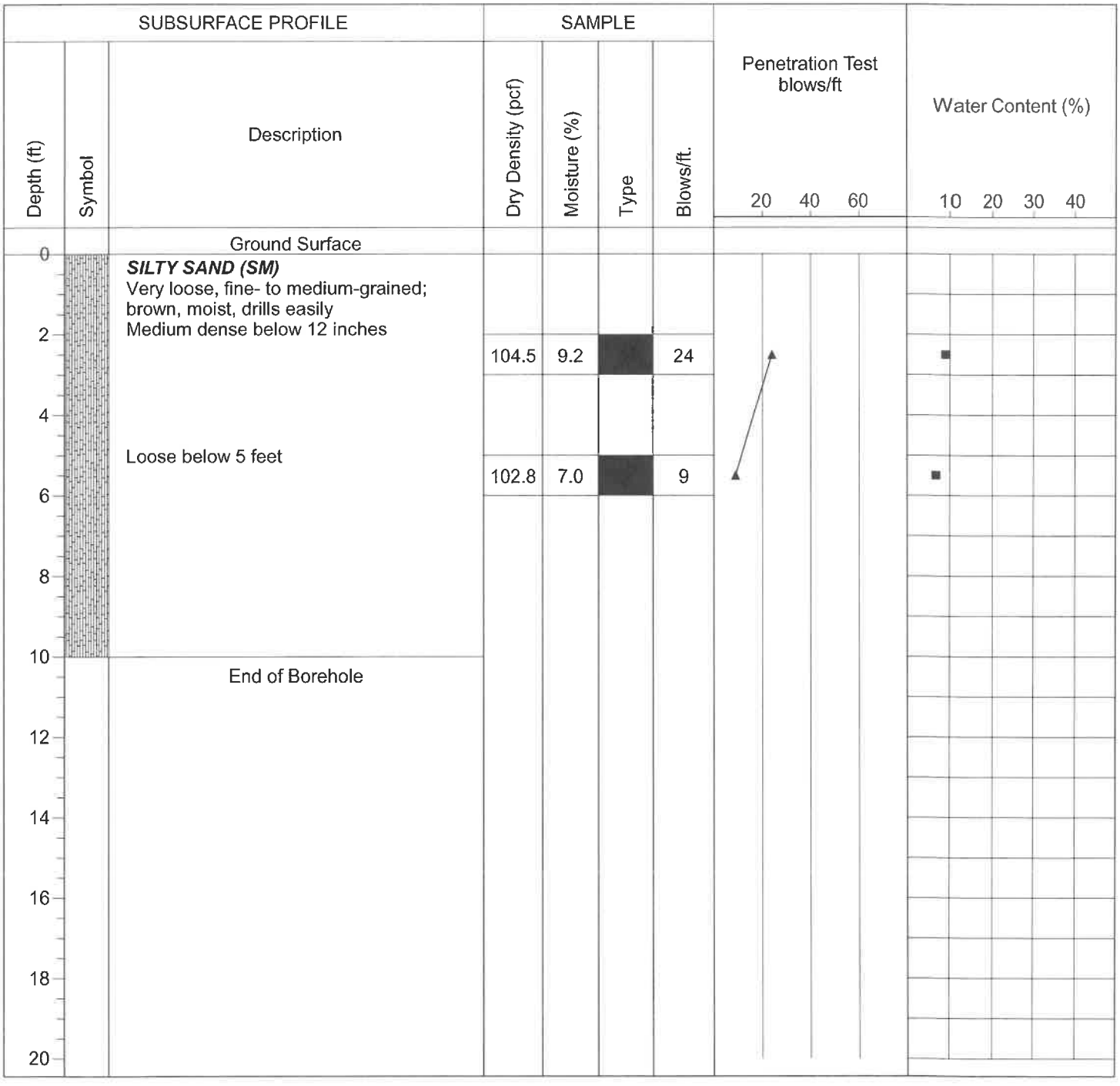
Log of Boring B12

Project: Calloway Canal Liner Improvements | **Project No:** 022-25006

Client: North Kern Water Storage District | **Figure No.:** A-12

Location: 7th Standard Road to 8-1 Back-up Weir, Shafter, California | **Logged By:** Kaleb Ledford

Depth to Water> | **Initial:** None | **At Completion:** None



Drill Method: Hollow Stem | **Drill Date:** 1-21-25

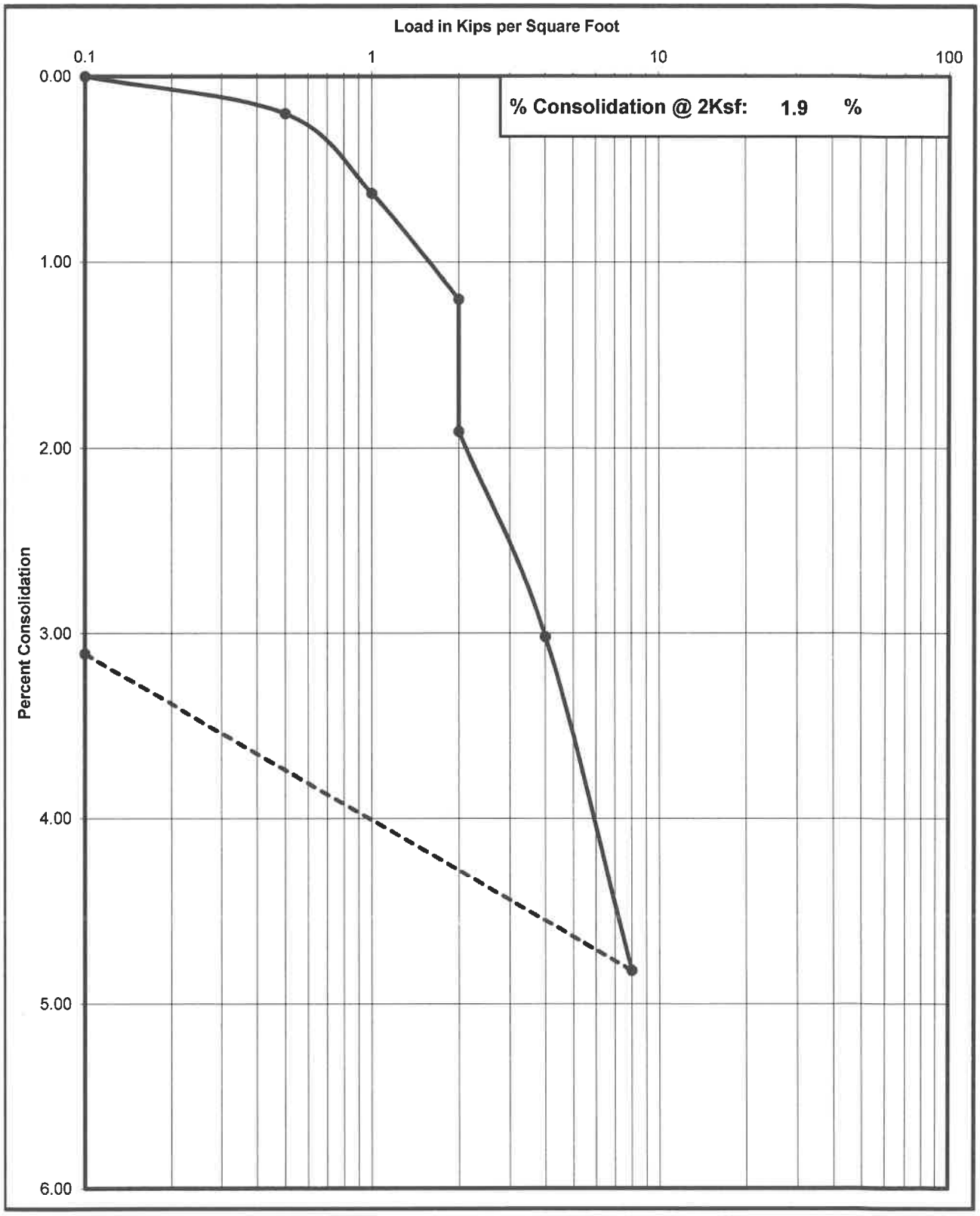
Drill Rig: Mobile B-80 | **Hole Size:** 6 Inches

Driller: David Lopez | **Elevation:** 10 Feet

Krazan and Associates

Consolidation Test

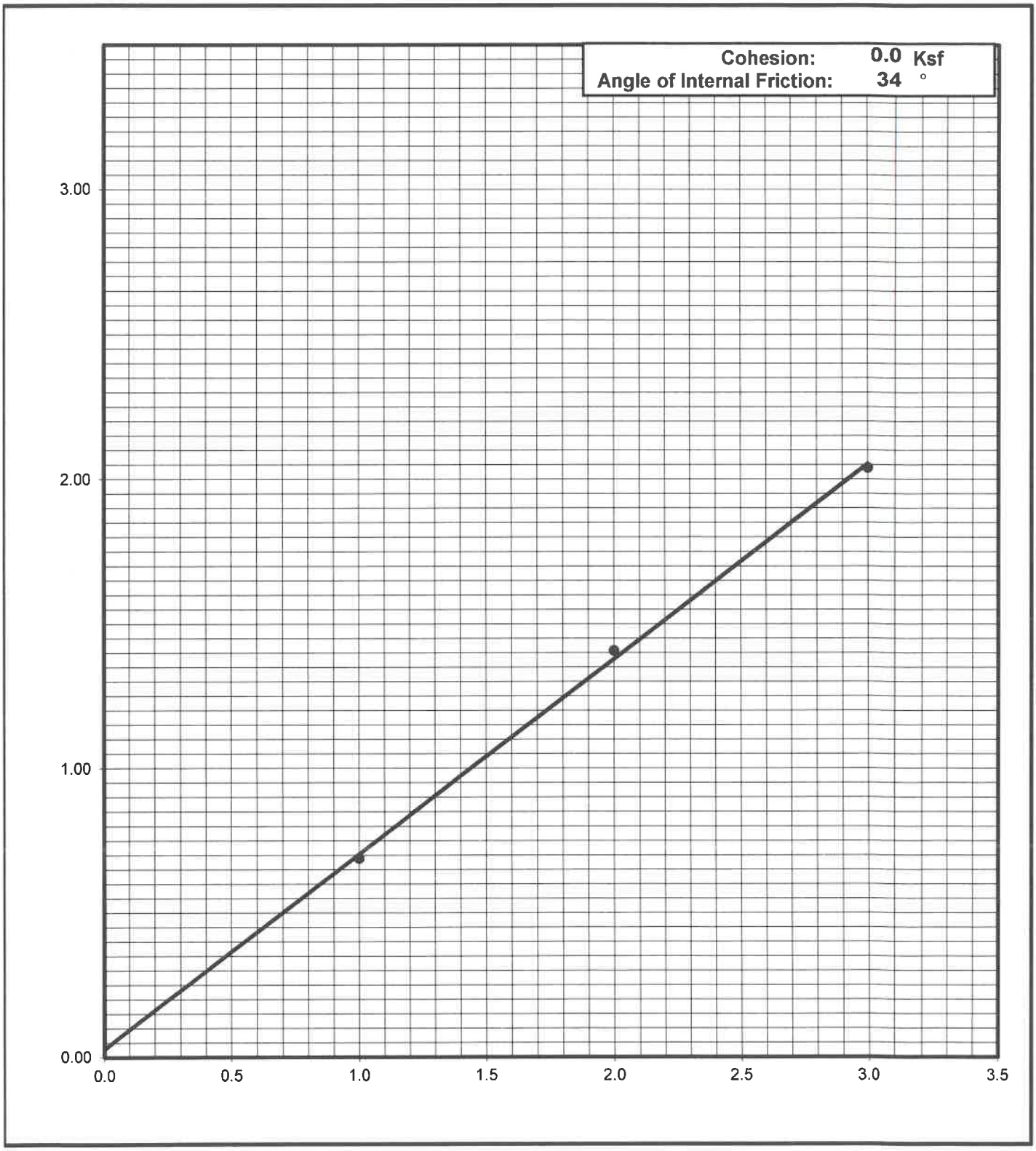
Project No	Boring No. & Depth	Date	Soil Classification
022-25006	B7 @ 5-6'	2/4/2025	SM



Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

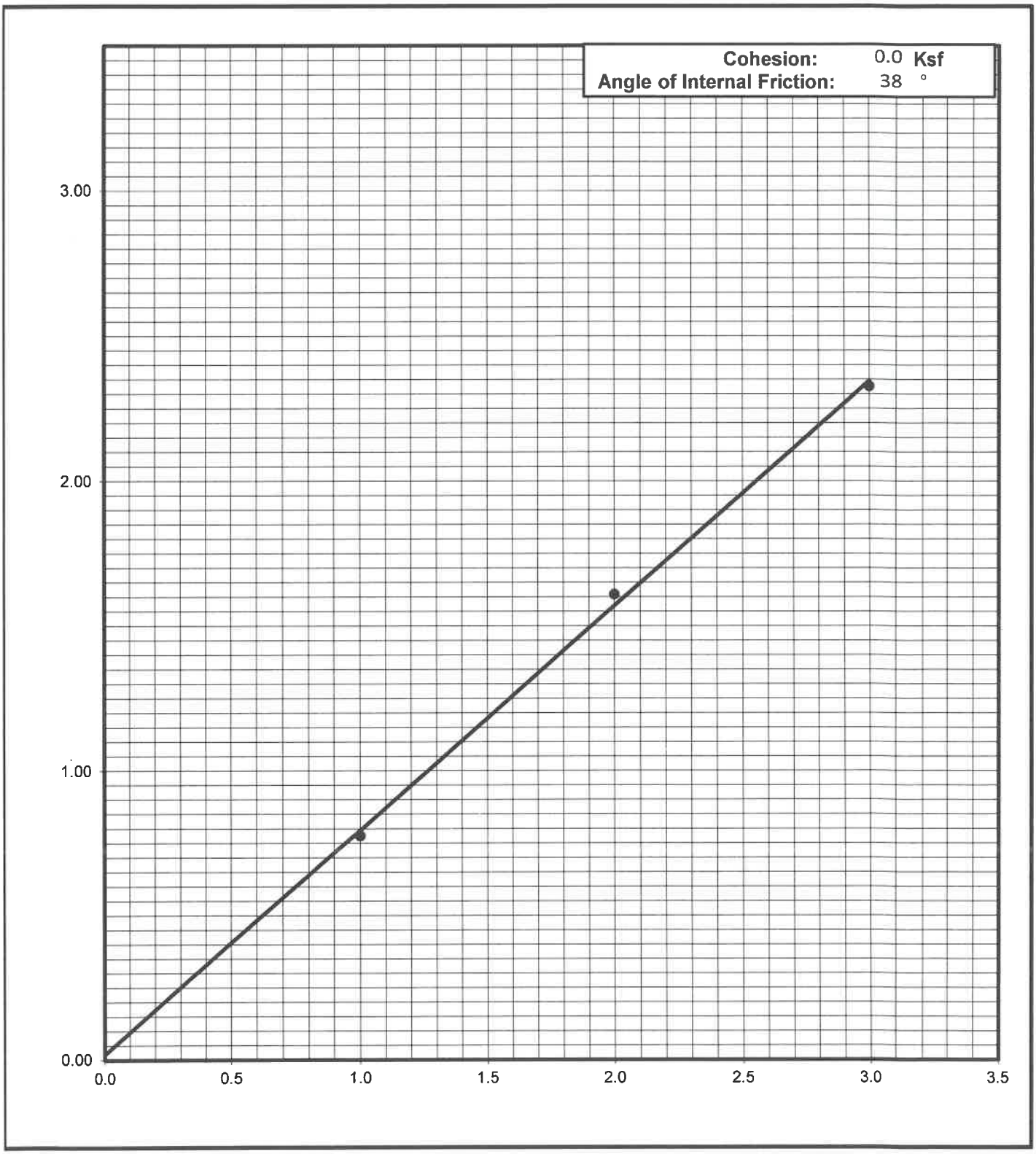
Project Number	Boring No. & Depth	Soil Type	Date
022-25006	B5 @ 2-3'	SM	2/4/2025



Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
022-25006	B12 @ 5-6'	SM	2/4/2025



Krazan Testing Laboratory

Grain Size Analysis

Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Calloway Canal Liner Improvements
Project Number	022-25006
Soil Classification	SM
Sample Number	B1 @ 2-3'

Krazan Testing Laboratory

Grain Size Analysis

Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Calloway Canal Liner Improvements
Project Number	022-25006
Soil Classification	SM
Sample Number	B7 @ 5-6'

Krazan Testing Laboratory

APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including but not limited to the furnishing of all labor, tools, and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans, and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Inc., hereinafter known as the Soils Engineer and/or Testing Agency. Attainment of design grades when achieved shall be certified by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary readjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to a density not less than 90 percent relative compaction based on ASTM Test Method D1557 or CAL-216, as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be as determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the soil report.

The Contractor shall make his own interpretation of the data contained in said report, and the Contractor shall not be relieved of liability under the Contract documents for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or windblown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing and the preparations of foundation materials for receiving fill.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter, and all other matter determined by the Soils Engineer to be deleterious or otherwise unsuitable. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots larger than 1 inch. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavations should not be permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

SUBGRADE PREPARATION: Surfaces to receive Engineered Fill, building or slab loads shall be prepared as outlined above, excavated/scarified to a depth of 12 inches, moisture-conditioned as necessary, and compacted to 90 percent relative compaction.

Loose soil areas, areas of uncertified fill, and/or areas of disturbed soils shall be moisture-conditioned as necessary and recompacted to 90 percent relative compaction. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas which are to receive fill materials shall be approved by the Soils Engineer prior to the placement of any of the fill material.

EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. However, compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer.

Both cut and fill areas shall be surface-compacted to the satisfaction of the Soils Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill are as specified.

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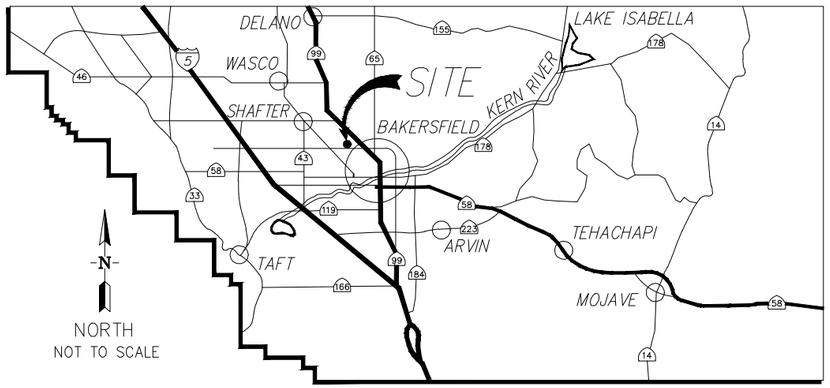
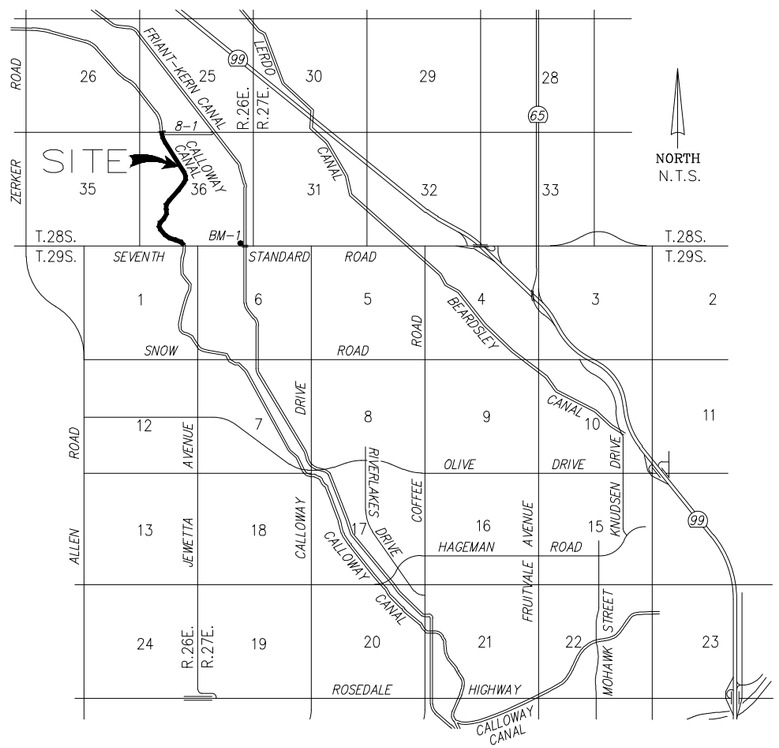
CITY OF SHAFTER - COUNTY OF KERN - STATE OF CALIFORNIA

NORTH KERN WATER STORAGE DISTRICT
CONSTRUCTING THE CALLOWAY CANAL LINING PROJECT BETWEEN SEVENTH STANDARD ROAD & 8-1 CANAL
SPECIFICATIONS NO. NK - 625



LOCATION MAP



VICINITY MAP

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4. NOTES & QUANTITIES
5. LEGEND
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17. CANAL CROSS-SECTIONS
18. CANAL CROSS-SECTIONS
19. CANAL CROSS-SECTIONS
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WATER AGENCY

NORTH KERN WATER STORAGE DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CA. 93308
(661)393-2696

ENGINEER

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661)589-8366
wzeiders@zeidersconsulting.com

BENCH MARK USED

BM-1
TOP OF WEST END OF HEADWALL AT THE NORTH SIDE OF THE WESTBOUND BRIDGE OF SEVENTH STANDARD ROAD CROSSING THE FRIANT-KERN CANAL.

ELEVATION = 400.43' N.K.W.S.D. – CALLOWAY CANAL DATUM

TO OBTAIN MCINTOSH DATUM FOR TRACT 7244
ADD 3.23' TO ALL ELEVATIONS.

BASIS OF BEARINGS

THE BEARING OF S.89°14'03"E. SHOWN FOR THE CENTERLINE OF SEVENTH STANDARD ROAD AS SHOWN ON PARCEL MAP NO. 11314, FILED ON JANUARY 31, 2006 IN BOOK 54 OF PARCEL MAPS, AT PAGES 149-158 IN THE OFFICE OF THE KERN COUNTY SURVEYOR, WAS USED AS THE BASIS OF BEARINGS SHOWN HEREON.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CABLES, WIRES OR STRUCTURES MAY NOT BE SHOWN ON THESE PLANS.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THE REFERENCED PLANS

ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA.

UNDERGROUND SERVICE ALERT SHALL BE CONTACTED AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION. CALL 811

NOTE:
CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF OVERHEAD HIGH VOLTAGE POWER LINES AND BURIED GAS OR OIL PIPELINES.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

William W. Zeiders
WILLIAM W. ZEIDERS R.C.E. 40031 EXP. 12-31-27

8-3-2026
DATE

REV.	DATE	DESCRIPTION
1	.	.
2	.	.
3	.	.
4	.	.

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-IN-OF 7TH STD

DRAWING NO. 1 of 61

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
TITLE SHEET - INDEX MAP

FRIANT KERN CANAL

8-1 CANAL

SECTION 36, T.28S./R.26E.

SEVENTH STANDARD ROAD

SOUTH SITE ACCESS

CALLOWAY CANAL

560+00

565+00

570+00

575+00

582+27

555+00

550+00

545+00

540+00

535+00

530+00

525+00

515+60

514+14

SHEET 7

SHEET 8

SHEET 9

SHEET 10

SHEET 11

SHEET 12

SHEET 13

SHEET 14

NORTH

0 200 400

SCALE IN FEET

LEGEND:

NKWSD BOUNDARY LINE

CALLOWAY CANAL DESIGN CENTERLINE

SECTION LINE / MID SECTION LINE

A/2 SHEET INDEX MAP

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1	.	.
2	.	.

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
LOCATION AND ACCESS MAP

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 2 of 61

GRADING NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH NORTH KERN WATER STORAGE DISTRICT REQUIREMENTS AND STANDARDS, AND SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED AND MADE A PART HEREOF IN THE SOIL SHRINKAGE EVALUATION BY: KRAZAN AND ASSOCIATES, INC. DATED MARCH 10, 2025 AND SIGNED BY RYAN K. PRIVETT, PE C59372.
2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED BY THE CITY OF BAKERSFIELD.
3. THE ENGINEER HAS SHOWN EXISTING UNDERGROUND LINES ON THIS PLAN TO THE BEST OF HIS KNOWLEDGE. THERE MAY BE OTHER LINES IN THE GROUND. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LINES IN THE FIELD PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT U.S.A. (1-800-642-2444) FOR UTILITY LOCATION 48 HOURS PRIOR TO ANY EXCAVATION OR TRENCHING.
4. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
5. ALL EXISTING IMPROVEMENTS THAT ARE REMOVED, DAMAGED OR UNDERCUT SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO EXCAVATION OR PLACING OF ANY FILL MATERIAL.
7. COMPACTION TESTS SHALL BE PROVIDED BY THE DISTRICT.
8. FILL DIRT HAULED FROM OUTSIDE SOURCE THAT WILL BE USED FOR THIS PROJECT WILL BE ACCEPTED BY THE DISTRICT ONLY IF THE DIRT IS IN COMPLIANCE PER CRITERIA'S LISTED BELOW:

   A). FILL DIRT SHOULD BE FREE OF ANY POLYNUCLEAR AROMATIC HYDROCARBONS, POLY CYCLIC AROMATIC HYDROCARBONS, PETROLEUM HYDROCARBONS, TITLE 22 METALS, BENZO(a)PYRENE AND DIBENZO(a,b)ANTHRACENE. IF THE FILL DIRT IS SUSPECTED (DUE TO THE SOURCE OF THE DIRT) TO CONTAIN ANY OF THESE, FIELD SAMPLING AND ANALYSIS TO IDENTIFY HAZARDOUS COMPOUNDS AND THEIR CONCENTRATION IN SOIL AT THE SITE SHOULD BE PERFORMED AND A HUMAN HEALTH SCREENING EVALUATION (HHSE) SHOULD BE PERFORMED TO ASSESS IMPACTS TO CANAL WATER CONSUMERS.

   B.) FILL DIRT SHOULD ALSO BE TESTED FOR GENERAL

   MINERALS, VOLATILE ORGANICS AND CAM 17 METALS.

   C.) SOIL SAMPLES COLLECTED DURING THIS INVESTIGATION SHOULD BE SUBMITTED TO A STATE-ACCREDITED ANALYTICAL LABORATORY FOR ANALYSIS.

   D.) TRH-CARBOM CHAIN SAMPLES SPECIATION, BENZENE, TOLUENE, ETHYLBENZENE, XYLENES SHOULD BE ANALYZED BY EPA METHOD 8021 B, EPA METHOD 8015 B.

   E.) PLOYNUCLEAR AROMATIC HYDROCARBONS, TITLE 22 METALS SHOULD BE ANALYZED BY EPA METHOD 8270, EPA METHOD 6010 B.

9. GRADING TOLERANCES SHALL BE AS FOLLOWS:

   ROUGH GRADING -

   - INSIDE OF CANAL PRISM, -0.0' to +0.5' HORIZONTALLY AND -0.2' to +0.2' VERTICALLY.
   - TOP OF BANKS AND OUTSIDE SLOPES, -0.0' to +1.0' HORIZONTALLY AND -0.0' to +0.3' VERTICALLY.

   FINISH GRADING -

   - INSIDE OF CANAL PRISM, -0.2' to +0.0' HORIZONTALLY AND -0.1' to +0.0' VERTICALLY. GRADE CHANGES THAT CHANGE FINISHED CONCRETE LINING INVERT AND THICKNESS BEYOND FINISH CONCRETE TOLERANCES (SEE SPECIFICATIONS) MUST BE APPROVED BY THE ENGINEER.
   - TOP OF BANKS AND OUTSIDE SLOPES, -0.0' to +1.0' HORIZONTALLY AND -0.0' to +0.3' VERTICALLY.

10. COMPACTION OF SUBGRADE AND FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS OBTAINED BY A.S.T.M. TEST METHOD D698.
11. ALL FILL SHALL CONFORM TO THE REQUIREMENTS FOR "ENGINEERED FILL" AS DESCRIBED IN THE PRELIMINARY SOILS REPORT.
12. FILL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING SIX (6) INCHES IN COMPACTED THICKNESS AND COMPACTED AT OPTIMUM MOISTURE CONTENT BY AN APPROVED METHOD.
13. THE ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO INSURE COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN HIS PURVIEW.
14. UPON COMPLETION OF GRADING, A FINAL SOILS REPORT COVERING THE SITE PREPARATION AND GRADING SHALL BE SUBMITTED BY THE SOILS ENGINEER.
15. ALL CUT SLOPES SHALL NOT BE STEEPER THAN 1 HORIZONTAL TO 1 VERTICAL (UNLESS OTHERWISE INDICATED).
16. ALL FILL SLOPES SHALL NOT BE STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL (UNLESS OTHERWISE INDICATED).
17. ALL FILL AREAS SHALL BE CLEARED OF ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FOR A STRUCTURAL FILL AND THE AREA SCARIFIED TO A DEPTH OF 12" AND RE-COMPACTED.
18. SURFACE DRAINAGE SHALL BE 1% MINIMUM EXCEPT AS WAIVED BY DISTRICT, UNLESS NOTED OTHERWISE ON DRAWINGS.
19. GRADING WORK WILL BE SUPERVISED AS ENGINEERED GRADING IN ACCORDANCE WITH CHAPTER 70 OF UNIFORM BUILDING CODE.
20. THE ENGINEER SHALL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY THE ENGINEER.
21. DUST CONTROL: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT A DUST NUISANCE FROM ORIGINATING FROM THE SITE OF WORK AS A RESULT OF HIS OPERATIONS DURING THE EFFECTIVE PERIOD OF THIS CONTRACT. PREVENTATIVE MEASURES TO BE TAKEN BY THE CONTRACTOR SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

    WATER SHALL BE APPLIED TO ALL UNPAVED AREAS AS REQUIRED TO PREVENT THE SURFACES FROM BECOMING DRY ENOUGH TO PERMIT DUST FORMATION.

    PAVED SURFACES OVER WHICH VEHICULAR TRAFFIC IS PERMITTED TO TRAVEL SHALL BE KEPT FREE OF DIRT.

    CONTRACTOR IS REQUIRED TO COMPLY WITH ALL REQUIREMENTS OF THE APPLICABLE RULES UNDER SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT REGULATION VIII AND THE DISTRICT'S RULES AND REGULATIONS AT ALL TIMES.
22. DURING EXCAVATION, REASONABLE SEARCHING SHALL BE PERFORMED FOR CONCEALED SUBSURFACE OBSTRUCTIONS. ALL ABANDONED SUBSURFACE OBSTRUCTIONS SHALL BE REMOVED. IF THE TERMINUS OF ANY ABANDONED PIPING IS OUTSIDE THE PROJECT LIMITS, THE PIPING SHOULD BE REMOVED WITHIN THE PROJECT AND PROPERLY PLUGGED AND/OR CAPPED AT THE PROJECT BOUNDARY.
23. THE STAKING AND MARKING OF THE PROJECT SHALL BE DONE ONLY ONCE BY THE ENGINEER AND ALL RESTAKING OR REMARKING SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
24. ESTIMATED CUT AND FILL QUANTITIES ARE CALCULATED USING NO COMPACTION/SHRINKAGE FACTOR. THE ENGINEER MAKES NO WARRANTY EITHER DIRECT OR IMPLIED WHAT THE ACTUAL COMPACTION FACTOR WILL BE. SHRINKAGE INFORMATION IS PROVIDED IN THE SOILS REPORT TO AID THE CONTRACTOR IN DETERMINING COMPACTION/SHRINKAGE FACTORS FOR BIDDING PURPOSES. IF A DEFICIENCY OR AN EXCESS OF SOIL OCCURS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER, WHO SHALL DETERMINE IF ADJUSTMENTS CAN BE MADE TO IMPROVE THE BALANCE BETWEEN CUT AND FILL.
25. THE IN-PLACE FILL QUANTITIES SHOWN ON THIS PLAN ARE FINAL PAY QUANTITIES. THE CONTRACTOR SHALL, AFTER EXAMINING THE PLAN, SOILS REPORT, AND THE SITE TERRAIN, PREPARE HIS BID PRICE FOR THE PROJECT BASED ON HIS OWN ANALYSIS OF THE WORK REQUIRED. THERE IS NO SEPARATE PAY QUANTITY FOR CUT MATERIAL.
26. THE SOILS ENGINEER MUST APPROVE ALL MATERIAL, INCLUDING IMPORT, AND ALL SOIL COMPACTION INCLUDING THE STABILITY OF ALL SLOPES, BOTH THOSE THAT ARE CREATED BY AND THOSE REMAINING AFTER GRADING OPERATIONS.
27. THE ENGINEER WILL FURNISH REFERENCE LINES AND GRADE STAKES AT THE BEGINNING OF THE WORK TO ESTABLISH ALIGNMENT AND GRADE. ANY GRADE STAKES OR REFERENCE POINTS WHICH MAY BE LOST OR DESTROYED BY THE CONTRACTOR DURING THE PROGRESS OF HIS WORK SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY REQUIRE FIELD CHECKS AT ANY STAGE OF THE WORK. THE COST OF THESE FIELD CHECKS SHALL BE BORNE BY THE DISTRICT. THE CONTRACTOR'S RESPONSIBILITY FOR THIS SECTION WILL NOT APPLY IN THE CASE OF MALICIOUS DAMAGE BY OTHERS.
28. IF THE CONTRACTOR IS IN DOUBT AS TO THE MEANING OF ANY PART OF THE PLAN AND SPECIFICATIONS OR FINDS DISCREPANCIES IN OR OMISSIONS FROM THE DRAWING OR SPECIFICATIONS, HE SHALL SUBMIT A WRITTEN REQUEST FOR AN INTERPRETATION OR A CORRECTION THEREOF, PRIOR TO FILING HIS BID FOR THE PROJECT.
29. THE CONTRACTOR SHALL PROVIDE ALL SLOPE STAKING.
30. UPON THE DISCOVERY OF ARTIFACTS OR OTHER CULTURAL RESOURCES DURING CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT, ALL ACTIVITY ON THAT AREA OF THE SITE SHALL BE HALTED, AND THE ENGINEER SHALL BE NOTIFIED. A QUALIFIED ARCHAEOLOGIST SHALL BE CALLED TO THE SITE TO IDENTIFY THE RESOURCE.
31. ALL REQUIRED OVER-EXCAVATION SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS CONTAINED AND MADE A PART HEREOF IN THE PRELIMINARY SOILS REPORTS BY: KRAZAN & ASSOCIATES, INC., DATED MARCH 10, 2025 AND SIGNED BY RYAN K. PRIVETT PE., C59372.

GALVANIZING

1. ALL SURFACES TO BE GALVANIZED SHALL BE DONE SO BY THE HOT-DIP METHOD IN ACCORDANCE WITH ASTM A123/A123M AND ASTM A153/A153M. NO STRUCTURAL MODIFICATIONS, DRILLING, WELDING OR ANY OTHER ACTIVITY THAT WOULD DAMAGE THE GALVANIZING SHALL BE ALLOWED IN THE FIELD WITHOUT APPROVAL FROM THE ENGINEER. IN THE EVENT THAT MINOR REPAIRS ARE NEEDED, SAID REPAIRS SHALL BE CARRIED OUT IN ACCORDANCE WITH ASTM A780/A780M WITH THE APPROVAL OF THE ENGINEER.
2. REFER TO SECTION L IN SPECIFICATIONS FOR PAINTING AND PROTECTIVE COATINGS

CHAIN LINK FENCING

1. FOR REPAIRS TO EXISTING FENCING AND GATES, REFER TO CITY OF BAKERSFIELD STANDARD D-12 & D-13 (WITH CUT-OUT FOR CHAIN PER DETAIL C-25).

REINFORCING STEEL NOTES

1. ALL REINFORCING STEEL SHALL BE NEW STOCK, DEFORMED BARS, CONFORMING TO ASTM A-706/A-706M OR A-615/A-615M GRADE 60 UNLESS SHOWN OTHERWISE.
2. ALL BARS SHALL BE FREE OF LOOSE AND FLAKY RUST AND SCALE, GREASE, OR OTHER MATERIALS WHICH MIGHT AFFECT OR IMPAIR BOND.
3. PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH SECTION 1907 OF THE CALIFORNIA BUILDING CODE, LATEST EDITION, AND STATE OF CALIFORNIA D.O.T. STANDARD SPECIFICATIONS.
4. ALL REINFORCING STEEL SHALL BE SECURELY TIED AND BRACED IN PLACE PRIOR TO POURING CONCRETE OR PLACING MASONRY.
5. CONCRETE COVER OVER REINFORCING STEEL BARS SHALL BE AS FOLLOWS:

A)	AGAINST EARTH	3" CLEAR
B)	AGAINST AIR OR WATER	2" CLEAR
C)	SLABS ON GRADE	AT CENTER

6. REINFORCING BARS MARKED CONT. SHALL BE SPLICED WITH A MINIMUM LAP OF 45 BAR DIAMETERS FOR #8 AND SMALLER AND 60 BAR DIAMETERS FOR #9, #10, #11 OR 24", WHICHEVER IS GREATER.
7. WHEN ADJACENT SPLICES IN CONCRETE ARE SEPARATED BY THREE (3) INCHES OR LESS, THE LAP LENGTH SHALL BE INCREASED BY 1.3 TIMES, OR THE SPLICE MAY BE STAGGERED AT LEAST 24 BAR DIAMETERS WITH NO INCREASE IN LAP LENGTH.
8. IF DOWELS ARE REQUIRED, PROVIDE REINFORCING THE SAME SIZE AND SPACING AS THE MOST STRINGENT REINFORCING, AND LAP 45 BAR DIAMETERS FOR #8 AND SMALLER OR 60 BAR DIAMETERS FOR #9, #10, #11, WITH 24" LAP MINIMUM.
9. ALL BENDS ARE TO BE MADE COLD.
10. DO NOT WELD REINFORCING STEEL UNLESS SPECIAL APPROVAL IS OBTAINED FROM STRUCTURAL ENGINEER. WELDABLE REBAR SHALL CONFORM TO ASTM A-706 STANDARDS AND CALIFORNIA BUILDING CODE STANDARD 19-2.
11. ELECTRIC WELDED WIRE MESH SHALL NOT BE USED.
12. USE EPOXY WHEN EMBEDDING REBAR INTO EXISTING CONCRETE PER ASTM C 881, TYPE 3, GRADE 3.
13. CLOSED TIES OR STIRRUPS SHALL BE FORMED IN ONE PIECE BY OVERLAPPING STANDARD STIRRUP (OR TIE) END HOOKS AROUND A LONGITUDINAL BAR, OR FORMED IN ONE OR TWO PIECES AND SPLICED EITHER BY VEE GROOVE WELDED SPLICE, WELDED LAP SPLICING OR MECHANICAL LAP SPLICING PER CAL TRANS STANDARD SPECIFICATIONS 52-1.08
14. FABRICATION, ERECTION, AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO CONCRETE REINFORCING STEEL INSTITUTE OF STANDARD PRACTICE.
15. REINFORCING BARS LARGER THAN #8 ARE NOT PERMITTED UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE.
16. THE MINIMUM RADIUS OF BEND FOR REINFORCING STEEL (MEASURED ON THE INSIDE OF BAR) SHALL BE AS FOLLOWS:

#3.....	1 1/8"	#6.....	2 1/4"
#4.....	1 1/2"	#7.....	2 5/8"
#5.....	1 7/8"	#8.....	3"

17. LOCATION OF ALL CONSTRUCTION JOINTS, OTHER THAN SPECIFIED, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO POURING. CONSTRUCTION JOINTS SHALL BE THOROUGHLY AIR AND WATER CLEANED AND HEAVILY ROUGHENED SO AS TO EXPOSE COARSE AGGREGATES. ALL SURFACES TO RECEIVE CONCRETE SHALL BE MAINTAINED CONTINUOUSLY WET AT LEAST THREE HOURS IN ADVANCE OF POURING.
18. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, INSERTS, AND ANY OTHER HARDWARE TO BE SET IN CONCRETE SHALL BE SECURED IN POSITION PRIOR TO POURING OF CONCRETE.
19. ENGINEER AND INSPECTOR SHALL BE NOTIFIED FOR REINFORCING INSPECTION PRIOR TO POURING ANY CONCRETE.
20. EPOXY-COATED REINFORCING BARS TO CONFORM TO THE ASTM A 775 SPECIFICATIONS.
21. REINFORCING SHALL BE PROPERLY SUPPORTED SO NO BAR SAGS MORE THAN ± 3/32". REINFORCING SHALL BE PROPERLY POSITIONED TO MATCH BOTH VERTICAL AND HORIZONTAL LINES AS SHOWN ON THESE PLANS.
22. REINFORCEMENT SHALL NOT BE CUT OR BENT BY HEATING.

NOTE:
NO MATERIAL OR DEBRIS SHALL BE BURNED WITHIN THE WORK SITE, EXCEPT AS DIRECTED OR APPROVED BY THE ENGINEER OR THE DISTRICT.

NOTE:
THESE NOTES ARE COMPLEMENTARY TO THE WRITTEN SPECS. IN THE EVENT OF ANY DISCREPANCY, THE WRITTEN SPECS WILL GOVERN.

NOTE:
CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN THE VICINITY OF OVERHEAD HIGH VOLTAGE POWER LINES AND BURIED OIL PIPELINES.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1	.	.
2	.	.
3	.	.
4	.	.

DRAWING NO. 3 of 61

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
NOTES

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CONCRETE NOTES

1. ALL CONCRETE, AND CONCRETE WORK, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI BUILDING CODE (ACI 318), AND THE ACI MANUAL OF CONCRETE PRACTICE, AND STATE STRENGTH DESIGN USED FOR ALL CONCRETE GRADES.
2. CONCRETE STRENGTH SHALL BE AS FOLLOWS:

LOCATION	28-DAY STRENGTH (MIN)
A) NON-REINFORCED CANAL LINING	3,200 PSI
B) REINFORCED CANAL LINING	4,000 PSI
C) STRUCTURAL CONCRETE	5,000 PSI

3. WATER TO BE POTABLE, CLEAN, AND PURE, FREE OF SUBSTANCES DELETERIOUS TO CONCRETE AND REINFORCING. THIS REQUIREMENT APPLIES TO WATER USED IN MIX, AS WELL AS TO WATER FOR AGGREGATE WASHING AND FOR CURING.
4. FINE AND COARSE AGGREGATE SHALL CONFORM TO ASTM C-33 FOR STANDARD WEIGHT CONCRETE AND ASTM C-330 FOR LIGHT WEIGHT CONCRETE.
5. ALL AGGREGATE SHALL BE FROM A STATE APPROVED STOCKPILE SOURCE. THE SHRINKAGE SHALL BE AS PER ASTM C-157 WITH THE AVERAGE DRYING SHRINKAGE (28 DAYS OF DRYING) NOT EXCEEDING 0.045%.
6. MAXIMUM SIZE OF AGGREGATE SHOULD BE 1". 1½" AGGREGATE MAY BE USED IN CONTINUOUS FOOTINGS OR ISOLATED PAD.
7. MIX DESIGNS SHALL BE PREPARED BY AN APPROVED TESTING LABORATORY AND SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. MINIMUM CEMENT CONTENT SHALL BE 5 1/2 SACKS PER CUBIC YARD.
8. MAXIMUM WATER-CEMENT RATIO NOT TO EXCEED 0.48 BY WEIGHT FOR STRUCTURAL CONCRETE OR 0.55 BY WEIGHT FOR CANAL LINING CONCRETE.
9. READY-MIXED CONCRETE TO MEET REQUIREMENTS OF ASTM C-94.
10. ADMIXTURES AND CURING COMPOUNDS TO BE AS FOLLOWS: CONTRACTOR SHALL SUBMIT REQUESTS FOR USE OF ADMIXTURES TO ENGINEER FOR HIS REVIEW AND APPROVAL.
    - 10.1. WATER REDUCING ADMIXTURE: POZZOLITH 300R AT THE RATE OF 5 OZ. PER SACK. ZEECON AT THE RATE OF 6.8 OZ. PER SACK, GRACE WRDA-79 AT THE RATE OF 8 OZ. PER SACK, OR GRACE WRDA-64 AT THE RATE OF 5 OZ. PER SACK. WITH THE ACCEPTANCE OF THE ENGINEER, POZZOLITH 300N OR 322N AT THE RATE OF 5 OZ. PER SACK, OR ZEECON H AT THE RATE OF 6 OZ. PER SACK MAY BE USED.
    - 10.2. SUPERPLASTICIZER OR HIGH RANGE WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 TYPE F OR G MAY BE USED AS NEEDED TO EASE CONCRETE PLACEMENT. SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.
    - 10.3. AT SLABS AND OTHER HORIZONTAL CONCRETE SURFACES: WHITE PIGMENTED LIQUID MEMBRANE, ALL RESIN, WATER BASED CURING COMPOUND, CONFORMING TO ASTM C-309, TYPE 2, CLASS B. BURKE AQUA RESIN CURE, W.R. MEADOWS SEALTIGHT 1200, OR ACCEPTABLE EQUIVALENT.
    - 10.4. AT VERTICAL SURFACES, INCLUDING FORMED SURFACES WHERE FORMS ARE REMOVED PRIOR TO THE END OF THE CURING PERIOD: CLEAR LIQUID MEMBRANE, ALL RESIN, WATER BASED CURING COMPOUND, CONFORMING TO ASTM C-309, TYPE 1, CLASS B. W.R. MEADOWS SEALTIGHT 1100, OR ACCEPTABLE EQUIVALENT.
11. ANCHOR BOLTS, DOWELS, INSETS, ETC., SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE.
12. CONCRETE SHALL BE CURED BY MEMBRANE CURING USING A WHITE-PIGMENTED LIQUID MEMBRANE CURING COMPOUND, OR BY AN APPROVED CURING METHOD.
13. TESTING OF CONCRETE WITH F'C (@28 DAYS) GREATER THAN 2500 PSI, AND REINFORCING STEEL, SHALL BE DONE BY A LICENSED TESTING LABORATORY.
14. VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND NOTIFY ENGINEER OF ANY DISCREPANCY.
15. POUR FOOTINGS AGAINST UNDISTURBED NATURAL GRADE TO LINES AND DIMENSIONS SHOWN ON DRAWINGS. THE BOTTOM OF ALL FOOTINGS SHALL BE CLEANED OF ANY LOOSE MATERIAL, AND ALL REINFORCEMENT SHALL BE FIRMLY TIED IN POSITION BEFORE CONCRETE IS POURED.
16. MAXIMUM CONCRETE SLUMP SHALL NOT EXCEED 4 INCHES FOR ALL 4,000 AND 5,000 PSI CONCRETE AND 6 INCHES FOR 3,200 PSI CONCRETE.
17. COLD (CONTROL) JOINTS SHALL INCLUDE BASE SEAL WATER STOP - GREENSTREAK 771, OR APPROVED EQUAL.
18. NON-SHRINK GROUT SHALL BE SIKAGROUT 212 BY SIKA CORPORATION, MASTERFLOW 928 GROUT BY MASTER BUILDERS, FIVE STAR GROUT BY FIVE STAR PRODUCTS, HUB PLUG, ELEPHANT ARMOR DOT, OR APPROVED EQUAL, WITH COMPRESSIVE STRENGTH OF 5000 PSI OR BETTER.
19. VIBRATE ALL CONCRETE (INCLUDING SLABS ON GRADE) AS IT IS PLACED, WITH A MECHANICAL VIBRATOR OPERATED BY EXPERIENCED PERSONNEL. THE VIBRATOR SHALL BE USED TO CONSOLIDATE THE CONCRETE, NOT TRANSPORT IT. REINFORCING AND FORMS SHALL NOT BE VIBRATED.
20. REMOVE FORMS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
    - A. SIDE FORMS OF FOOTINGS: MINIMUM 2 DAYS.
    - B. WALLS: MINIMUM 10 DAYS. WALL FORMS MAY BE REMOVED AFTER 4 DAYS IF CURING IS PERFORMED AS SPECIFIED FOR UNFORMED SURFACES.
    - C. LINING: MINIMUM 1 DAY.
21. UNLESS OTHERWISE NOTED, ANCHOR BOLTS ARE TO BE FULL DIAMETER CUT THREAD BOLTS, MADE FROM GRADE A304 OR A316 STEEL, BY AN AMERICAN MANUFACTURER.
22. FORM WORK DESIGN AND REMOVAL SHALL CONFORM TO CALIFORNIA BUILDING CODE, SECTION 1906 AND STATE OF CALIFORNIA D.O.T. STANDARD SPECIFICATIONS SECTION 51.06.
23. CONCRETE SHALL NOT FALL MORE THAN SIX FEET. USE TREMIE, PUMP, OR OTHER APPROVED METHODS.
24. ONLY ONE GRADE OF CONCRETE SHALL BE ALLOWED ON PROJECT SITE AT ANY TIME.
25. TESTING:
    - 25.1. LABORATORY: THE OWNER SHALL RETAIN AND PAY FOR THE SERVICES OF A TESTING LABORATORY (ACCEPTABLE TO THE ENGINEER) WHERE SAMPLES WILL BE TESTED IN ACCORDANCE WITH THESE STRUCTURAL NOTES AND THE APPLICABLE STANDARDS OF THE ASTM. WORK UNDER THIS DIVISION (TO BE PERFORMED BY THE CONTRACTOR) INCLUDES THE TAKING AND STORAGE OF SAMPLES AND THEIR DELIVERY TO THE LABORATORY. THE TESTING LAB AND ENGINEER MUST BE GIVEN A MINIMUM OF 48 HRS. NOTICE PRIOR TO CONCRETE PLACING OPERATIONS.
    - 25.2. FREQUENCY OF TESTING: SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5000 SQ. FT. OF SURFACE AREA FOR LINING SLABS OR WALLS.
    - 25.3. SAMPLES: MAKE 5 TEST CYLINDERS (MINIMUM) FOR EACH REQUIRED TEST.
    - 25.4. TESTING OF SAMPLES: TEST EACH BATCH OF 5 CYLINDERS AS FOLLOWS: 1 AT 7 DAYS; 3 AT 28 DAYS; AND 1 IN RESERVE, MINIMUM.
    - 25.5. TEST REPORTS: A COPY OF ALL TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER.

STRUCTURAL STEEL AND HARDWARE

1. UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS, MATERIALS SHALL BE IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS. ALL MEMBERS SHALL BE FURNISHED FULL LENGTH, WITHOUT SPLICES, UNLESS OTHERWISE INDICATED OR APPROVED BY THE ENGINEER.
    - a. WIDE FLANGE SHAPES SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069. ALL OTHER SHAPES, PLATES, AND BARS SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069, UNLESS NOTED OTHERWISE.
    - b. STRUCTURAL STEEL PIPE SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069.
    - c. STRUCTURAL TUBING SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069.
    - d. ALL STEEL EMBEDDED IN STRUCTURES SHALL BE STAINLESS STEEL.
    - e. ALL STRUCTURAL STEEL SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069.
    - f. BOLTS - BOLTS FOR CONNECTIONS SHALL BE STAINLESS STEEL TYPE 304 PER ASTM 1069.
    - g. BOLTS USED TO CONNECT DISSIMILAR METALS SHALL BE ASTM A193 AND A194, TYPE 316 STAINLESS STEEL
    - h. ANCHOR BOLTS AND HEADED STUDS SHALL BE ASTM 193 TYPE 316 STAINLESS STEEL, UNLESS OTHERWISE INDICATED. NUTS AND WASHERS SHALL BE OF THE SAME MATERIAL AS THE BOLTS AND SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE BOLTS.

    BOLTS AND NUTS SHALL BE INSTALLED WITH WASHERS FABRICATED FROM MATERIAL MATCHING THE BASE MATERIAL OF THE BOLTS, EXCEPT HARDENED WASHERS FOR HIGH STRENGTH BOLTS SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATION

    THE LENGTH OF EACH BOLT SHALL BE SUCH THAT AFTER THE JOINT IS MADE UP, THE BOLT EXTENDS THROUGH THE ENTIRE NUT, BUT NO MORE THAN 1/2-INCH BEYOND THE NUT.
2. UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS, MATERIALS SHALL BE IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS:
    - a. STAINLESS STEEL - UNLESS OTHERWISE INDICATED, STAINLESS STEEL METALWORK AND BOLTS SHALL BE TYPE 316 STAINLESS STEEL.
    - b. ALUMINUM - UNLESS OTHERWISE INDICATED, ALUMINUM METALWORK SHALL BE ALLOY 6061-T6. ALUMINUM IN CONTACT WITH CONCRETE, MASONRY, WOOD, DISSIMILAR METALS, OR POROUS MATERIALS SHALL HAVE CONTACT SURFACES COATED IN ACCORDANCE WITH PAINT AND COATINGS SECTION.
    - c. CAST IRON - CAST-IRON CASTINGS AND SLEEVES SHALL BE IN CONFORMANCE WITH AWWA C100, CLASS D.
3. GRATING SHALL BE WELDED BAR GRATING 1 1/4" X 3/16" BARS ON 1 3/16" X 4" SPACING, AND SHALL BE STAINLESS STEEL.
4. THE CONTRACTOR SHALL COMPLY WITH AWS D1.1 WHEN WELDING CARBON STEEL. THE CONTRACTOR SHALL COMPLY WITH AWS D1.6 WHEN WELDING STAINLESS STEEL. THE CONTRACTOR SHALL WELD ASTM A36 STRUCTURAL STEEL, ASTM A 500 AND A 501 STRUCTURAL TUBING, AND ASTM A 53 PIPE WITH ELECTRODES CONFORMING TO AWS A5.1, USING E70XX ELECTRODES; AWS A5.17, USING F7X-EXXX ELECTRODES; OR AWS A5.20, USING E7XT-X ELECTRODES.
5. THE CONTRACTOR SHALL NOT USE A CUTTING TORCH TO FIELD-CUT GALVANIZED CARBON STEEL UNLESS EXPRESSLY PERMITTED BY THE ENGINEER. IF SUCH PERMISSION IS GIVEN, APPLICATION OF AN APPROVED COLD GALVANIZING COMPOUND WILL BE REQUIRED.
6. EPOXIED ANCHORS SHALL BE TYPE 304 OR TYPE 316 STAINLESS STEEL ALLTHREAD OR APPROVED EQUIVALENT. EPOXY ADHESIVE SHALL BE HILTI HIT-RE 500-SD OR APPROVED EQUIVALENT.
7. ALL EXPOSED STEEL, STRUCTURAL AND NON-STRUCTURAL, UNLESS IT IS STAINLESS STEEL, MUST BE HOT-DIP GALVANIZED OR COATED PER THE PAINT AND COATINGS SECTION.

PAINT AND COATINGS

1. UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS, MATERIALS SHALL BE FINISHED OR COATED IN ACCORDANCE TO THE SPECIFICATIONS SHOWN IN THIS SECTION. MATERIALS OR APPURTENANCES NOT EXPRESSLY COVERED SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.
2. ABOVE GROUND MATERIALS AND APPURTENANCES SHALL BE FINISHED OR COATED AS FOLLOWS:
    - a. STRUCTURAL STEEL: STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED. WHERE NORTH KERN WATER STORAGE DISTRICT DECIDES OTHERWISE OR GALVANIZING IS NOT POSSIBLE, STRUCTURAL STEEL SHALL BE STAINLESS STEEL OR EPOXY COATED TO A MINIMUM THICKNESS OF 20 MILS. SURFACES SHALL THEN BE PRIMED A MINIMUM OF 3 MILS, AND SPRAY COATED TWICE WITH POLYURETHANE PAINT A MINIMUM OF 5 MILS FOR A TOTAL COMBINED SYSTEM THICKNESS OF 28 MILS MINIMUM.
    - b. NON-STRUCTURAL STEEL: NON-STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED. WHERE NORTH KERN WATER STORAGE DISTRICT DECIDES OTHERWISE OR GALVANIZING IS NOT POSSIBLE, NON-STRUCTURAL STEEL SHALL BE STAINLESS STEEL OR EPOXY COATED TO A MINIMUM THICKNESS OF 20 MILS. SURFACES SHALL THEN BE PRIMED A MINIMUM OF 3 MILS, AND SPRAY COATED TWICE WITH POLYURETHANE PAINT A MINIMUM OF 5 MILS FOR A TOTAL COMBINED SYSTEM THICKNESS OF 28 MILS MINIMUM.
    - c. STAINLESS STEEL: TYPE 316 AND 304 STAINLESS DO NOT REQUIRE COATINGS IN ABOVE GROUND APPLICATION. OTHER TYPES OF STAINLESS MUST BE APPROVED BY ENGINEER BEFORE USE.
    - d. DELETERIOUS MATERIALS: NOT ALLOWED FOR CONSTRUCTION.
3. UNDERGROUND MATERIALS AND APPURTENANCES SHALL BE FINISHED OR COATED AS FOLLOWS:
    - a. STEEL PIPING: SHOP FUSION BONDED EPOXY LINED AND COATED TO A MINIMUM THICKNESS OF 20 MILS MINIMUM, INSIDE AND OUT. PIPE EXTERIORS SHALL THEN BE WRAPPED WITH 50% OVERLAP 10 MIL POLYKEN 900 PIPE TAPE, OR APPROVED EQUIVALENT.
    - b. STRUCTURAL STEEL: STRUCTURAL STEEL, UNLESS STAINLESS STEEL, SHALL NOT BE USED UNDERGROUND OUTSIDE OF CONCRETE STRUCTURES.
    - c. NON-STRUCTURAL STEEL: NON-STRUCTURAL STEEL, UNLESS STAINLESS STEEL SHALL NOT BE USED UNDERGROUND.
    - d. STAINLESS STEEL: PIPE EXTERIORS FOR BURIED PIPE SHALL BE WRAPPED WITH 50% OVERLAP 10-MIL POLYKEN 900 PIPE TAPE, OR APPROVED EQUIVALENT.

RECORDS & AS-BUILTS

1. THE CONTRACTOR IS REQUIRED TO MAINTAIN ONE RECORD SET OF DRAWINGS AT THE PROJECT SITE. ON THIS RECORD SET, THE CONTRACTOR SHALL MARK ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS, AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE INFORMATION REPRESENTED ON THE ORIGINAL PLANS, INCLUDING BURIED OR CONCEALED CONSTRUCTION AND UTILITY FEATURES THAT ARE REVEALED DURING THE COURSE OF CONSTRUCTION. SAID RECORD DRAWINGS SHALL BE SUPPLEMENTED BY ANY DETAILED SKETCHES AS NECESSARY OR DIRECTED TO FULLY INDICATE AND REPRESENT THE WORK AS ACTUALLY CONSTRUCTED. THE RECORD SET SHALL BE KEPT UP-TO-DATE DURING THE COURSE OF THE WORK, INCLUDING ALL REVISIONS AND CHANGE ORDERS. RED INK SHALL BE USED FOR ALTERATIONS AND NOTES. NOTES SHALL IDENTIFY RELEVANT CHANGE ORDERS BY NUMBER AND DATE (IF APPLICABLE).
2. THE RECORD SET OF DRAWINGS SHALL BE ACCESSIBLE TO KERN DELTA WATER DISTRICT, THE ENGINEER, AND THEIR REPRESENTATIVES AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
3. UPON COMPLETION OF ALL WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE WORK BY NORTH KERN WATER STORAGE DISTRICT, AN ELECTRONIC COPY (.PDF) OF THE RECORD AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT. THE RECORD SET SHALL BE CLEARLY MARKED "AS-BUILT" ON EVERY PLAN SHEET. THE DISTRICT SHALL BE ALLOWED TIME TO REVIEW THE AS-BUILT RECORD DRAWINGS PRIOR TO FINAL ACCEPTANCE.

QUANTITIES

EARTHWORK:

CLEAR AND GRUB AREA = 28.81 ACRES

OVEREXCAVATE / SCARIFY & RECOMPACT AREA = 731,910 SF

	CUT	IN PLACE FILL
CANAL (INCLUDING TOP OF BANKS)	34,024 CY	14,720 CY

NO SHRINKAGE FACTOR WAS USED IN FIGURING FILL QUANTITIES.

EARTHWORK QUANTITIES SHOWN ABOVE ARE FOR INFORMATION ONLY. CONTRACTOR SHALL PERFORM THEIR OWN CALCULATIONS TO DETERMINE COSTS.

NON-REINFORCED CONCRETE CANAL LINING:

UNREINFORCED CONCRETE CANAL LINING 705,210 SF

CONCRETE QUANTITIES SHOWN ABOVE ARE FOR INFORMATION ONLY. CONTRACTOR SHALL PERFORM THEIR OWN CALCULATIONS TO DETERMINE COSTS.

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION

DRAWING NO. 4 of 61

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
NOTES & QUANTITIES

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

LEGEND:

ABBREVIATIONS:

FL	FLOWLINE
CL/℄	CENTERLINE
ELEV.	ELEVATION
BC	BEGIN CURVE
MC	MIDDLE OF CURVE
EC	END CURVE
PL/PROP LINE	PROPERTY LINE
ROW	RIGHT OF WAY
EG	EXISTING GRADE
FG	FINISHED GRADE
NKWSD	NORTH KERN WATER STORAGE DISTRICT

SYMBOLS/PATTERNS:

- CONCRETE
- CUT
- FILL
- OVER-EXCAVATE AND RE-COMPACT
- SCARIFY OR OVER-EXCAVATE AND RE-COMPACT
- DESIGN CANAL SECTION
- EXISTING CANAL SECTION
- REVISION
- SECTION REFERENCE
- DETAIL REFERENCE
- GUY
- VIEW/DIMENSION BREAK
- STEEL/METAL
- METAL GRATING
- NORTH ARROW
- SCALE
- WATERSTOP
- SAFETY LADDER

LINE TYPES:

- DESIGN – PLAN
- DESIGN TOP BANK – PROFILE
- DESIGN TOP LINER – PROFILE
- DESIGN INVERT – PROFILE
- EXISTING GROUND – PROFILE
- EXISTING WEST BANK – PROFILE
- EXISTING EAST BANK – PROFILE
- DESIGN – CROSS SECTION
- EXISTING GROUND – CROSS SECTION
- ALIGNMENT CENTER LINE
- BW — BLOCK WALL
- 375 — EXISTING TOPO MAJOR CONTOUR
- 376 — EXISTING TOPO MINOR CONTOUR
- CANAL BOUNDARY
- CLEAR AND GRUB
- OHE — OVERHEAD ELECTRIC
- X — FENCE
- GRID MAJOR
- GRID MINOR
- SAWCUT LOCATION
- SAWCUT WITH WATERSTOP

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
STATE OF CALIFORNIA — CIVIL

REV.	DATE	DESCRIPTION

DRAWING NO. 5 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
LEGEND

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FRIANT-KERN CANAL

PUMP STATION

8-1 CANAL

EXISTING SOLAR FARM

CALLOWAY CANAL

CT-1 CANAL

WELL 4E-36-3

EXISTING SOLAR FARM

STA. 547+32.50 CTR. GATE STRUCTURE

CT-1 CANAL (ABANDONED)

TRACT 7333

TRACT 7244

PHASE 1

511+14

515+00

SEVENTH STANDARD ROAD

TRACT 7333 LOT 3

TRACT 7333 LOT 2

WELL 4E-36-4

WELL 4E-36-2

WELL 99-00-003

TRACT 7462

582+27

575+00

570+00

565+00

560+00

555+00

550+00

545+00

540+00

535+00

530+00

525+00

NORTH

0 250 500

SCALE IN FEET

LEGEND:

- CANAL BOUNDARY
- CALLOWAY CANAL DESIGN CENTERLINE
- SECTION LINE / MID SECTION LINE
- EXISTING CHAIN LINK FENCE

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A/6 CALLOWAY CANAL PLAN VIEW

STA. 580+69.81 END CONSTRUCTION

8-1 CANAL (TO EAST)

(3) 120" RCP PIPELINES (48 LF)

DESIGN TOP OF CANAL LINING = 383.91

EXISTING TOP OF EAST BANK

EXISTING TOP OF WEST BANK

TOP OF BANK = 384.16

STA. 547+45.00 END GATE STRUCTURE

STA. 547+45.00 BEGIN GATE STRUCTURE

TOP OF BANK = 384.66

DESIGN TOP OF CANAL LINING = 384.41

TOP OF EAST BANK

TOP OF WEST BANK

STA. 514+72.82 END TRANSITION

STA. 513+72.82 BEGIN CONSTRUCTION CONCRETE LINING

END EXISTING CONCRETE LINING SEVENTH STANDARD ROAD

EXISTING 120" RCP
380.61 S END PIPE SOFFIT
380.57 N END PIPE SOFFIT

DESIGN LINED CANAL INVERT 374.23

EXISTING 120" RCP
370.61 S END PIPE INVERT
370.57 N END PIPE INVERT

4" CONCRETE LINING (TYP.)

375.66 EX. CONC. LINING

EXISTING EARTHEN CANAL INVERT

DESIGN LINED CANAL INVERT 374.91

370.5± TOP OF SLURRY CONTRACTOR TO VERIFY

368.64 PROP. 24" CASING

368.04 PROP. 30" CASING

EXISTING 24" SEWER LINE IN 42" CASING

393 392 391 390 389 388 387 386 385 384 383 382 381 380 379 378 377 376 375 374 373 372 371 370 369

583+00 580+00 575+00 570+00 565+00 560+00 555+00 550+00 545+00 540+00 535+00 530+00 525+00 520+00 515+00

0 2.5 5

VERT. SCALE IN FEET

B/6 CALLOWAY CANAL PROFILE

0 250 500

HORIZ. SCALE IN FEET

REV.	DATE	DESCRIPTION
	.	.
	.	.
	.	.

DATE: AUGUST 3, 2026

SCALE: AS NOTED

DRAWN BY: S. BOWERS

CHECKED BY: W. ZEIDERS

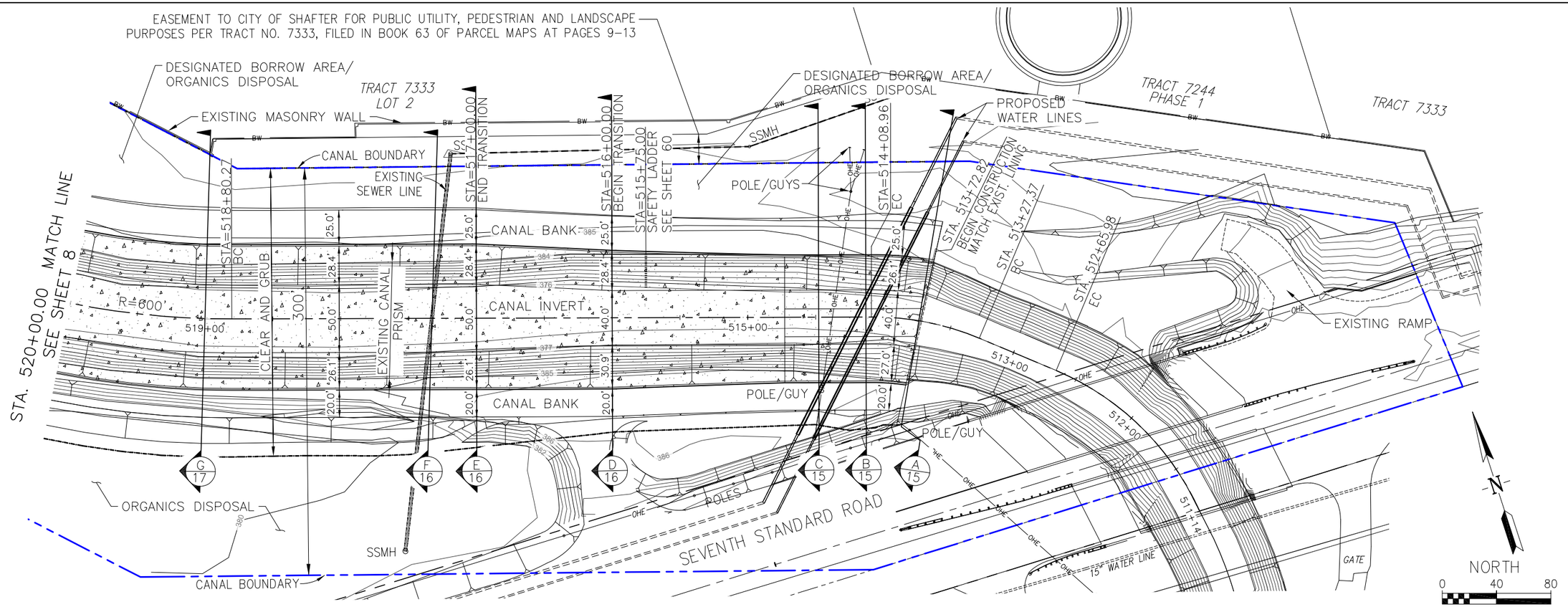
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 6 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE - OVERALL SITE

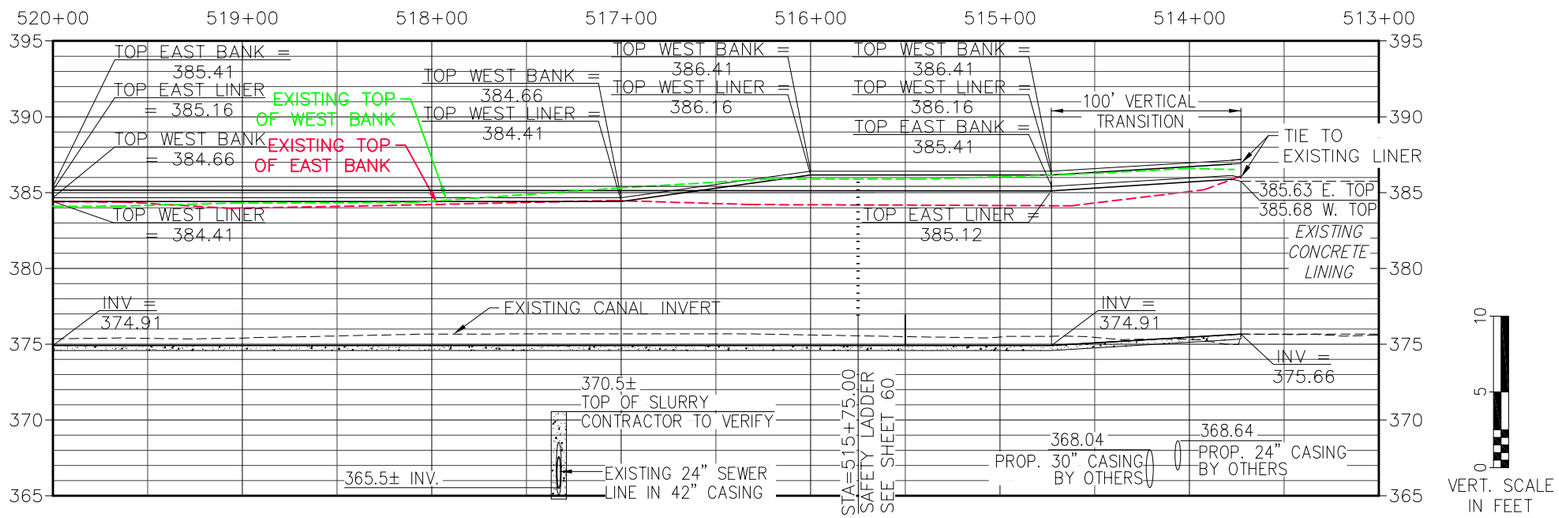


CALLOWAY CANAL

A/7 CALLOWAY CANAL PLAN

NOTES:

SEE SHEETS 15-17 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



B/7 CALLOWAY CANAL PROFILE

LEGEND:

- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- CONCRETE – BY OTHERS
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR CONTOUR
- 376 — EXISTING MINOR CONTOUR
- BW — BLOCK WALL

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DRAWING NO. 7 of 61

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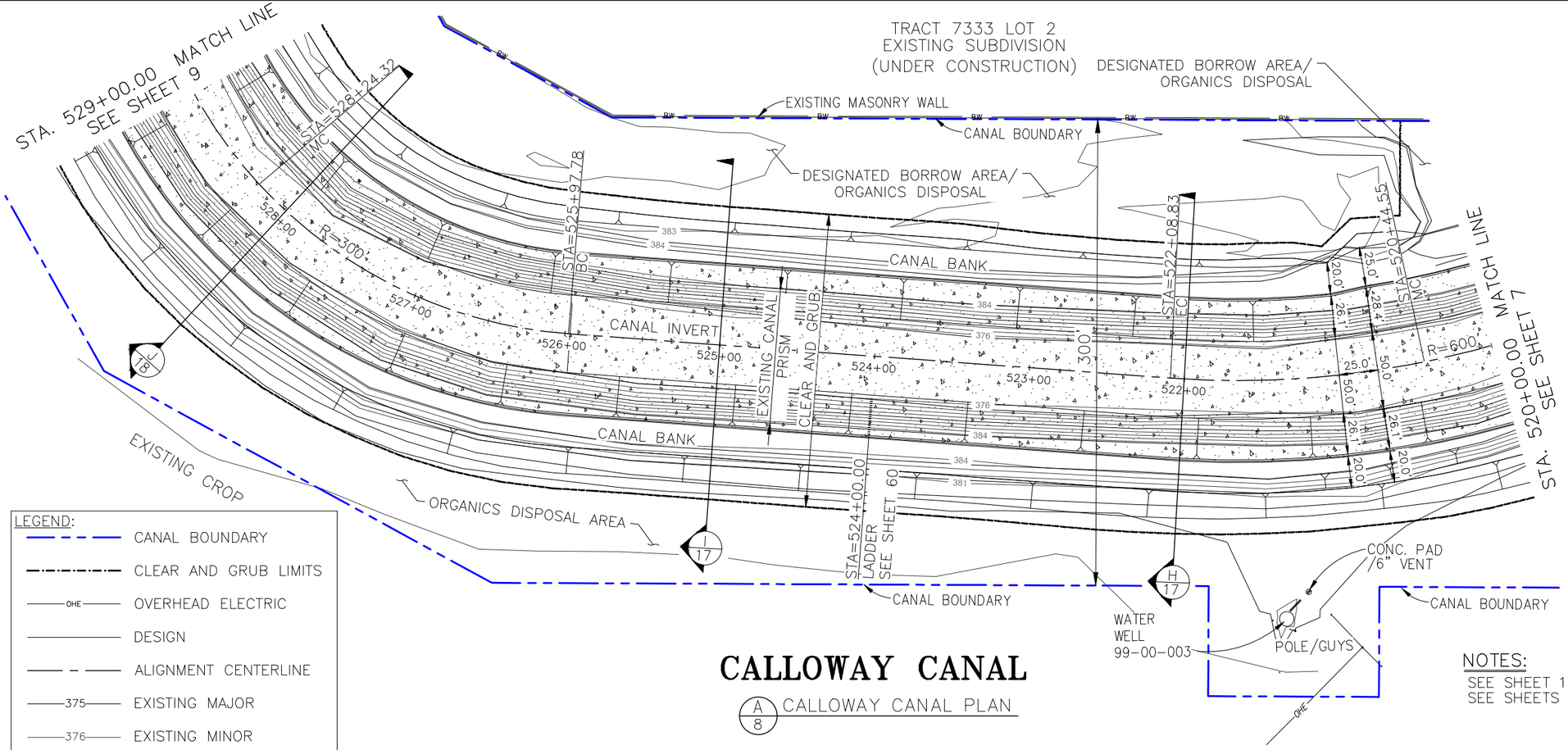
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 513+72.82 TO STA. 520+00.00

REV.	DATE	DESCRIPTION
A		-

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



LEGEND:

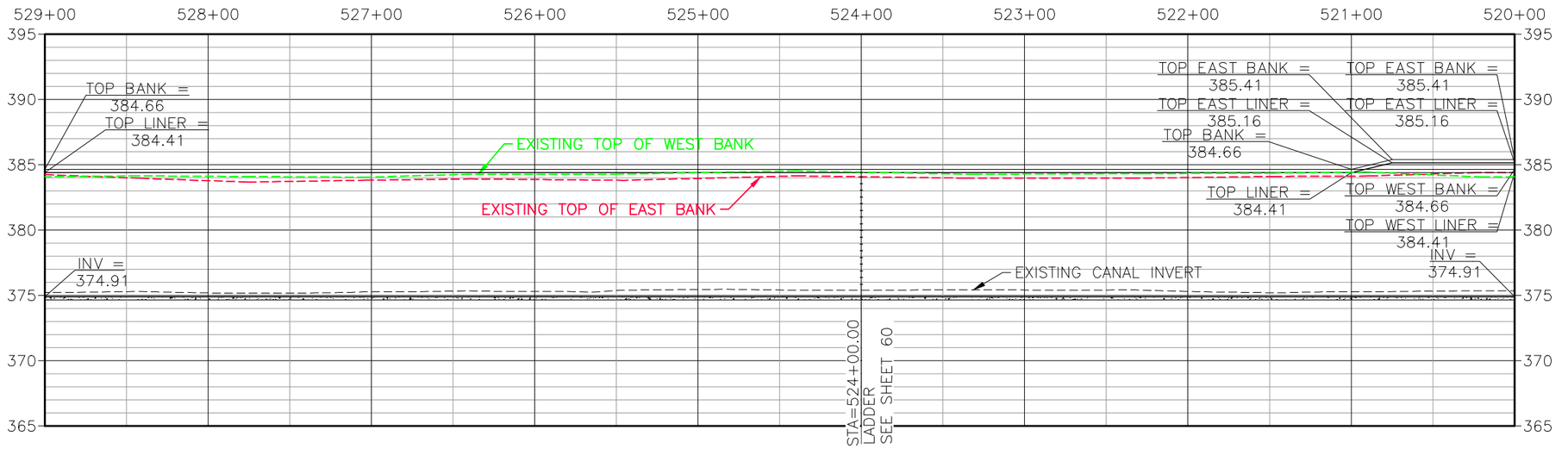
- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR
- 376 — EXISTING MINOR
- BW — BLOCK WALL

CALLOWAY CANAL

A/8 CALLOWAY CANAL PLAN

NOTES:

SEE SHEET 17 AND 18 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



B/8 CALLOWAY CANAL PROFILE

0 40 80
HORIZ. SCALE IN FEET

10 5 0
VERT. SCALE
IN FEET

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WILLIAM W. ZEIDERS
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Expires 12/31/27
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STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 520+00.00 TO STA. 529+00.00

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

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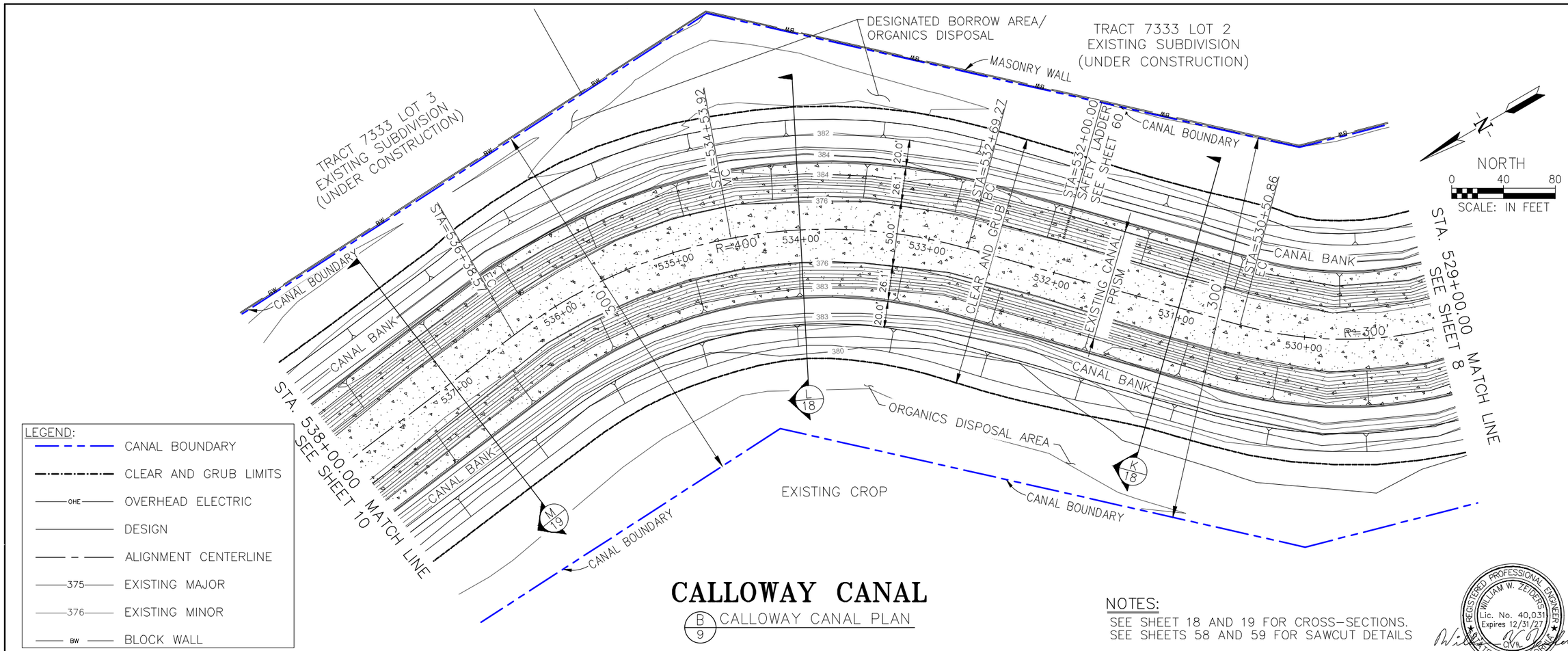
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 8 of 61



LEGEND:

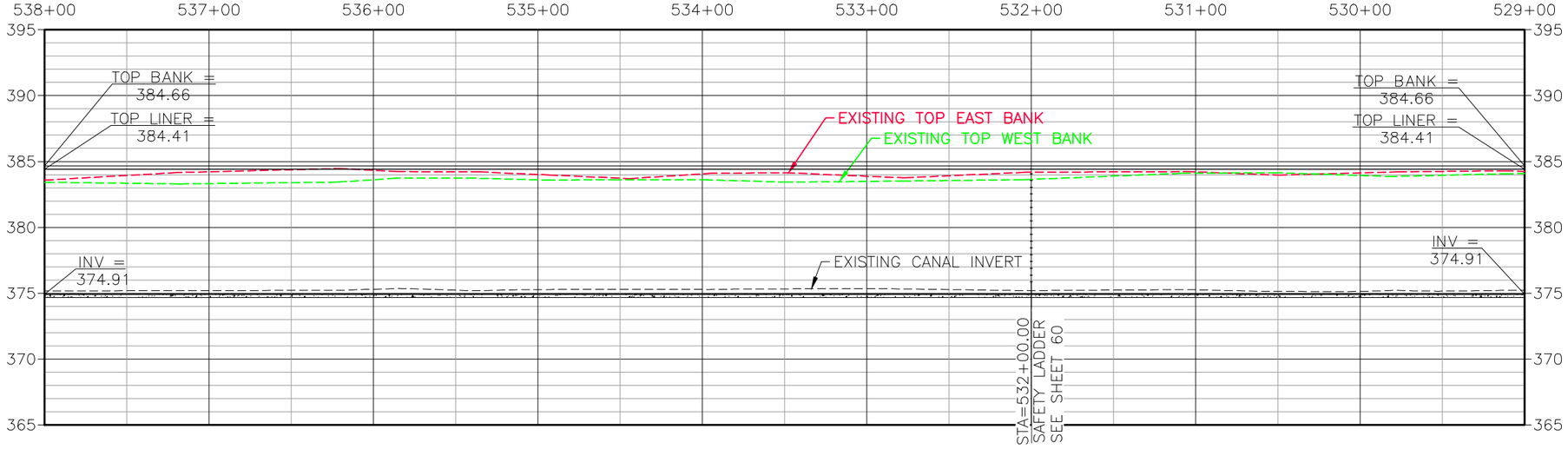
- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR
- 376 — EXISTING MINOR
- BW — BLOCK WALL

CALLOWAY CANAL

B/9 CALLOWAY CANAL PLAN

NOTES:

SEE SHEET 18 AND 19 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



B/9 CALLOWAY CANAL PROFILE

HORIZ. SCALE IN FEET
0 40 80

VERT. SCALE IN FEET
0 5 10

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DRAWING NO. 9 of 61

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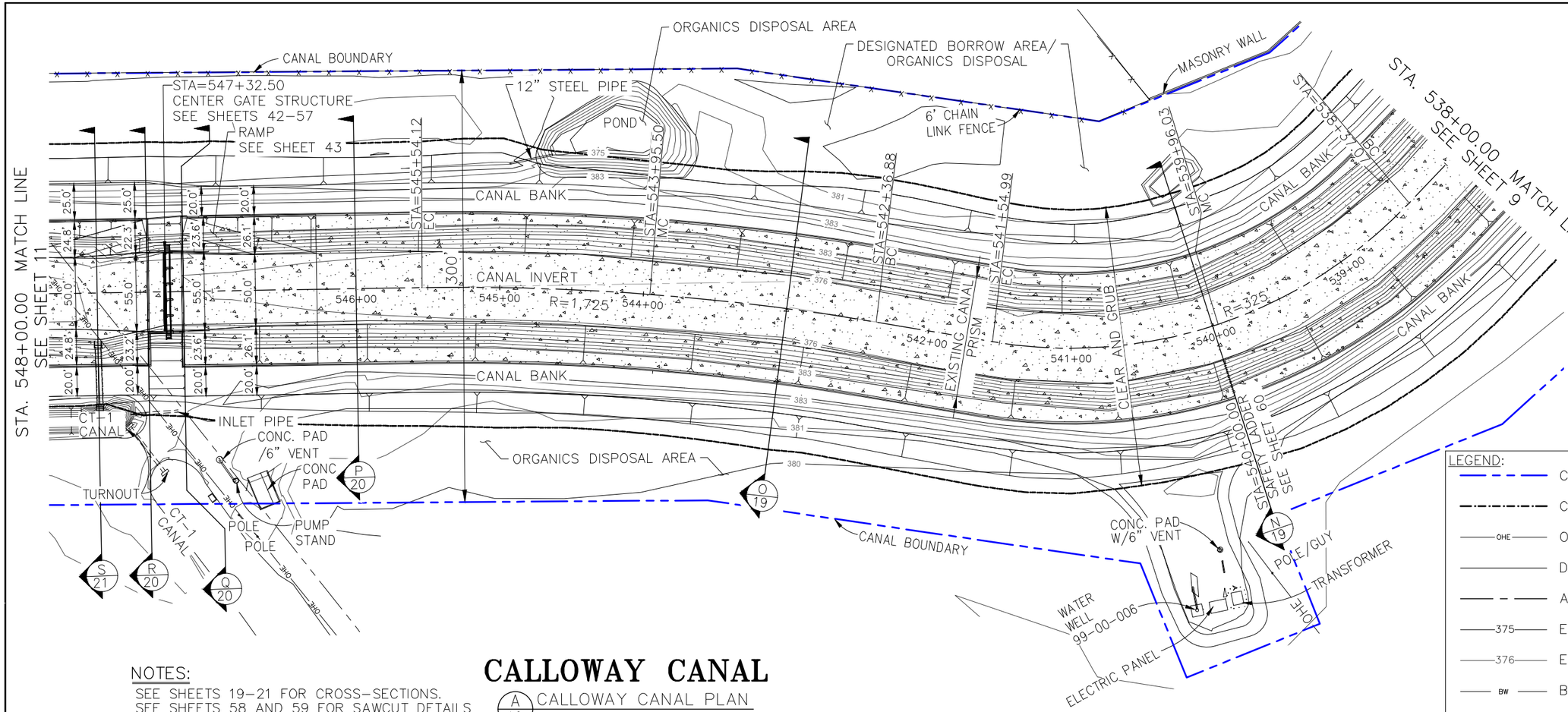
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 529+00.00 TO STA. 538+00.00

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD



LEGEND:

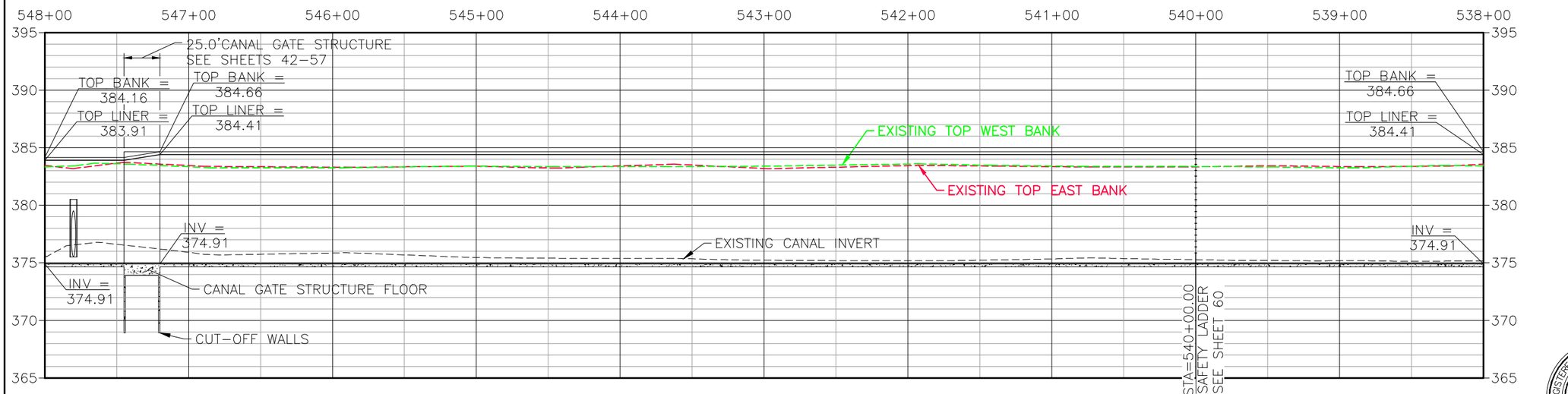
- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR
- 376 — EXISTING MINOR
- BW — BLOCK WALL
- x x — EXISTING FENCE

NOTES:

SEE SHEETS 19–21 FOR CROSS–SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS

CALLOWAY CANAL

A / 10 CALLOWAY CANAL PLAN



B / 10 CALLOWAY CANAL PROFILE

0 40 80
HORIZ. SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 10 of 61

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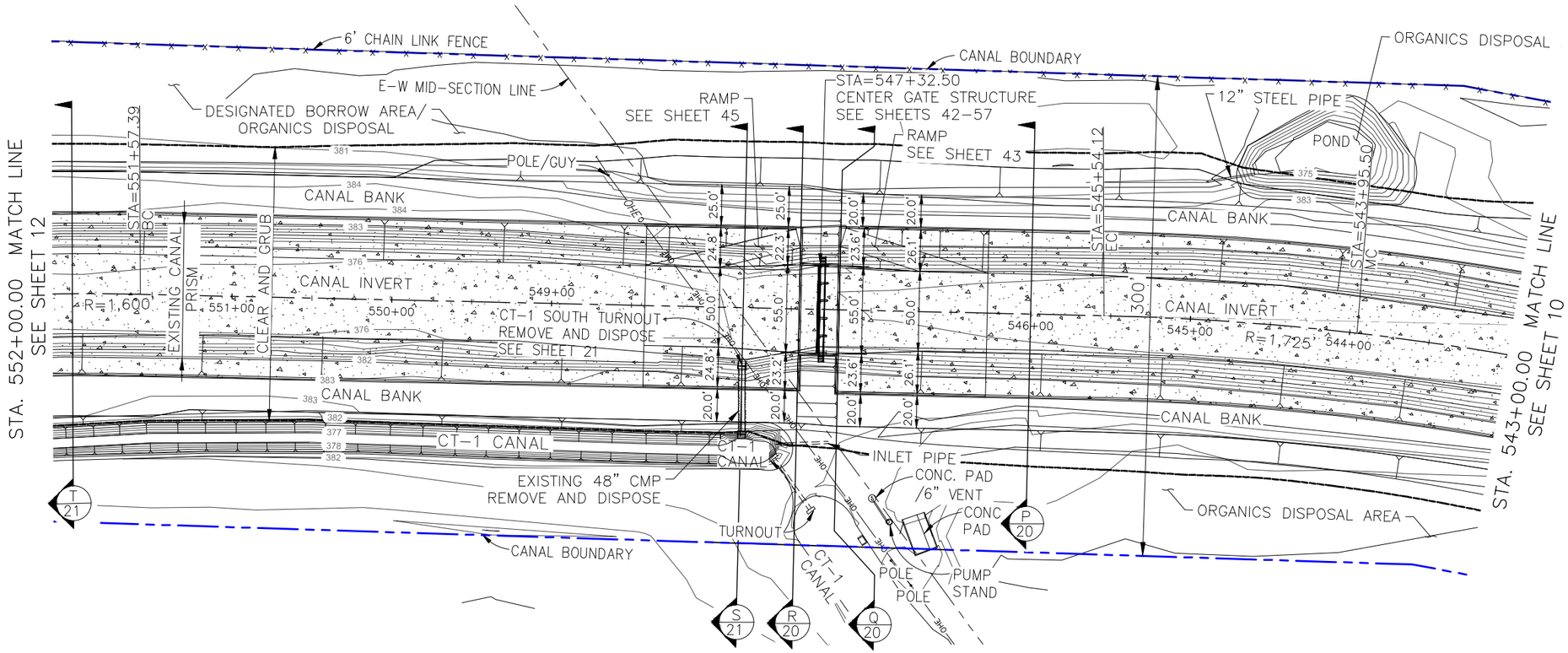
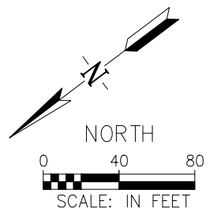
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 538+00.00 TO STA. 548+00.00





LEGEND:

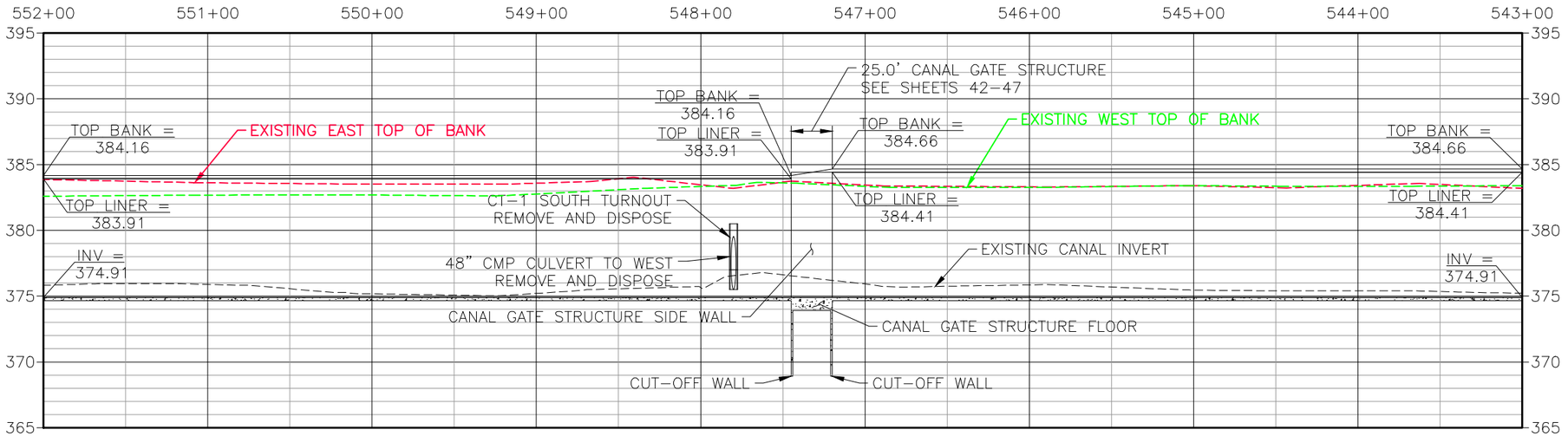
- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR
- 376 — EXISTING MINOR
- BW — BLOCK WALL

CALLOWAY CANAL

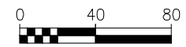
A 11 CALLOWAY CANAL PLAN

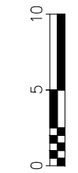
NOTES:

SEE SHEETS 19-21 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



B 11 CALLOWAY CANAL PROFILE





DRAWING NO. 11 of 61

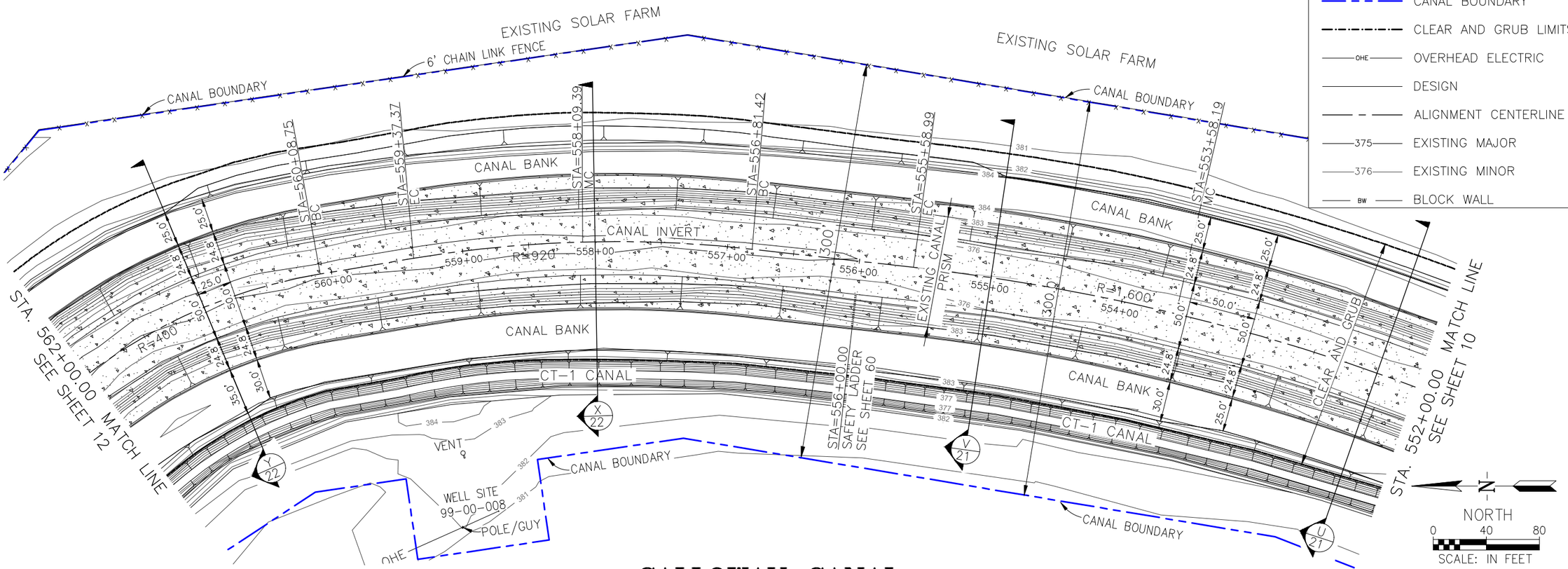
ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 543+00.00 TO STA. 552+00.00

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

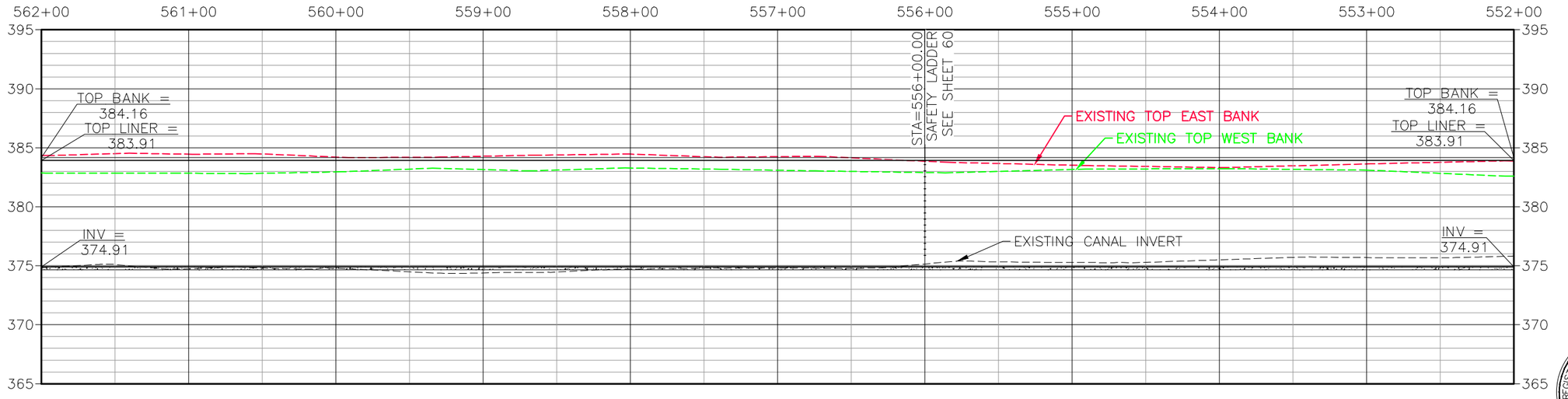


CALLOWAY CANAL

A 12 CALLOWAY CANAL PLAN

NOTES:

SEE SHEET 21 AND 22 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



B 12 CALLOWAY CANAL PROFILE

HORIZ. SCALE IN FEET 0 40 80

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
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REV.	DATE	DESCRIPTION
1		

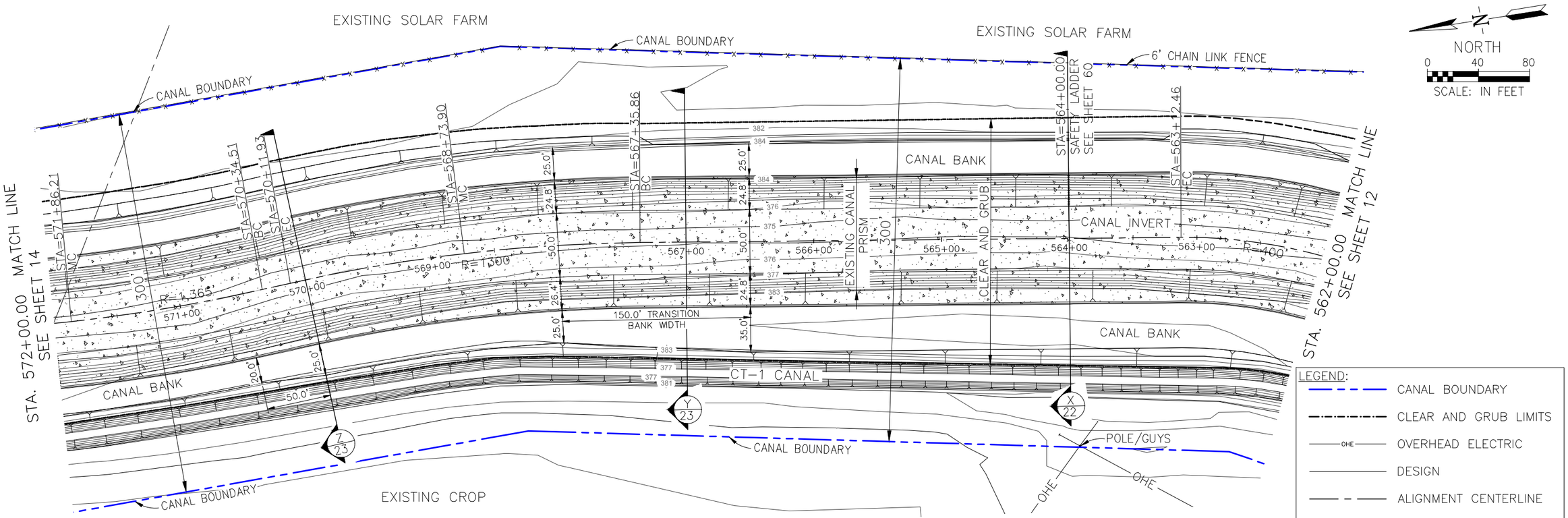
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 552+00.00 TO STA. 562+00.00

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 12 of 61



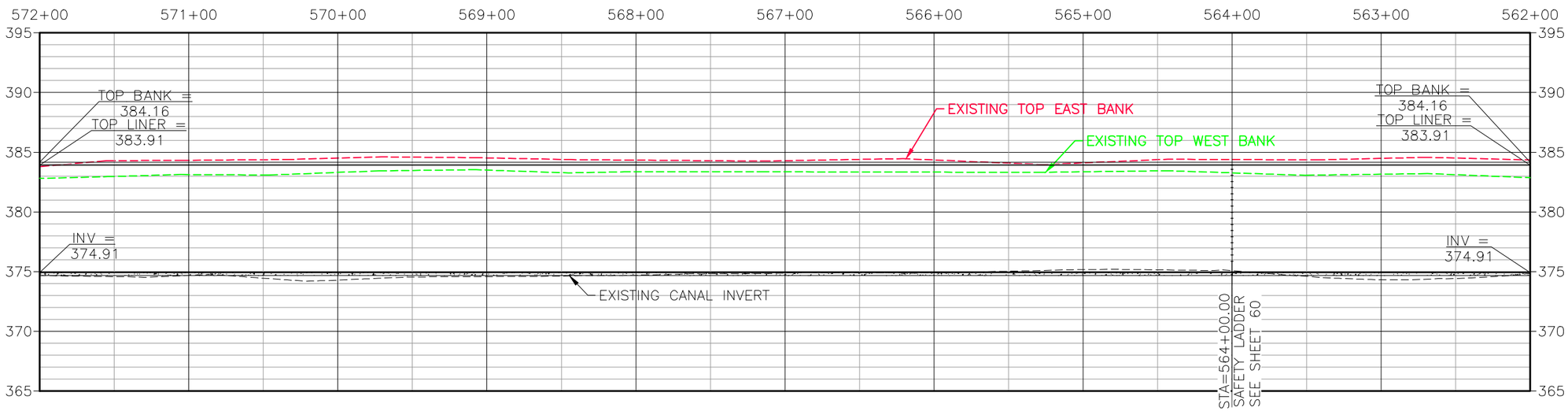
NORTH
0 40 80
SCALE: IN FEET

LEGEND:
- CANAL BOUNDARY
- CLEAR AND GRUB LIMITS
- OHE — OVERHEAD ELECTRIC
- DESIGN
- ALIGNMENT CENTERLINE
- 375 — EXISTING MAJOR
- 376 — EXISTING MINOR
- BW — BLOCK WALL
- x x — EXISTING FENCE

CALLOWAY CANAL

(A/13) CALLOWAY CANAL PLAN

NOTES:
SEE SHEET 22 AND 23 FOR CROSS-SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS



(B/13) CALLOWAY CANAL PROFILE

0 40 80
HORIZ. SCALE IN FEET

0 5 10
VERT. SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 13 of 61

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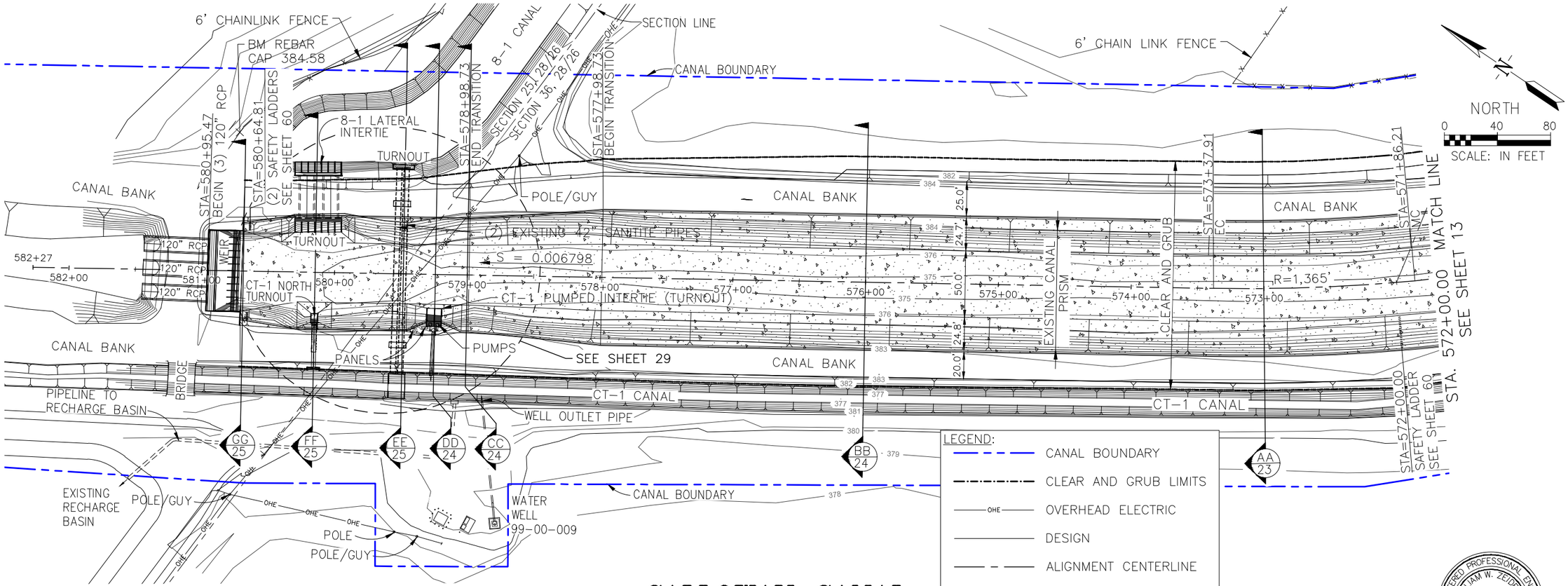
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 562+00.00 TO STA. 572+00.00

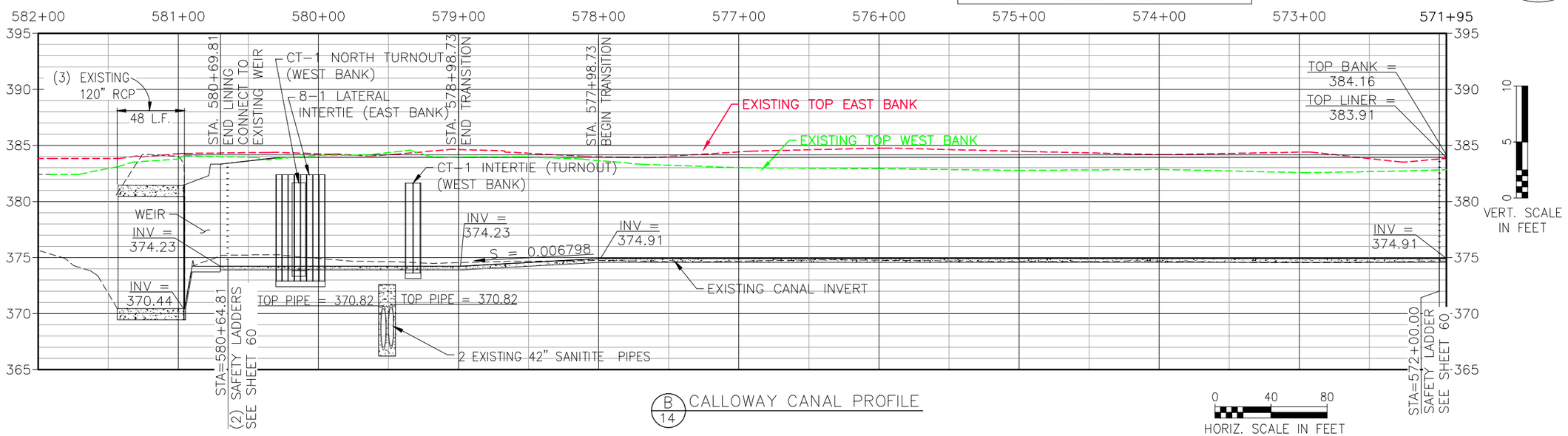


NOTES:

SEE SHEETS 23–25 FOR CROSS–SECTIONS.
SEE SHEETS 58 AND 59 FOR SAWCUT DETAILS

CALLOWAY CANAL

A 14 CALLOWAY CANAL PROFILE



B 14 CALLOWAY CANAL PROFILE

REGISTERED PROFESSIONAL ENGINEER WILLIAM W. ZEIDERS Lic. No. 40,031 Expires 12/31/27 CIVIL STATE OF CALIFORNIA

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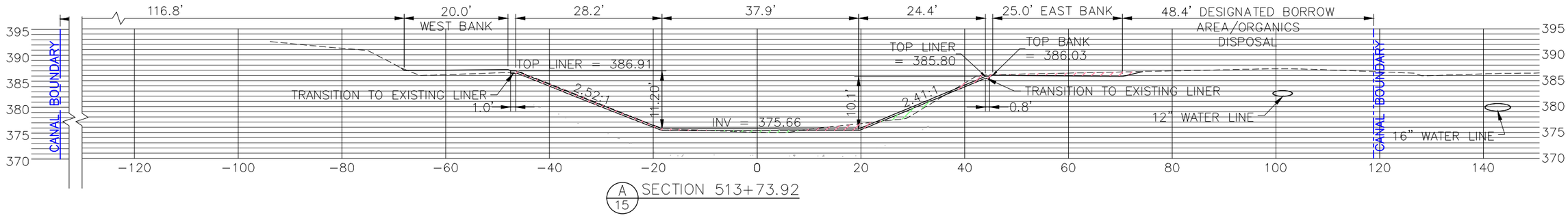
DRAWING NO. 14 of 61

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

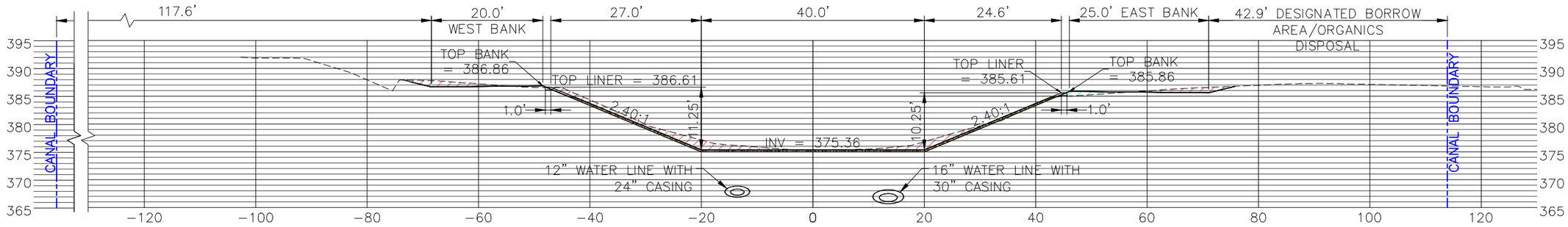
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
PLAN & PROFILE STA. 572+00.00 TO STA. 580+69.81

REV.	DATE	DESCRIPTION
1		

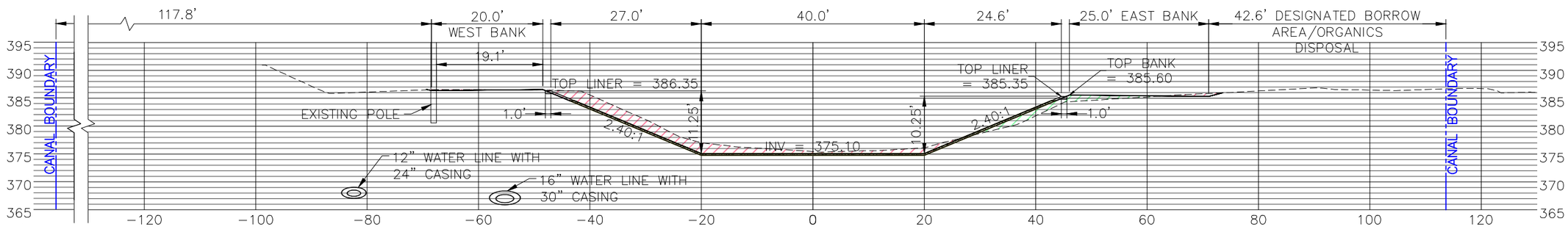
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/15 SECTION 513+73.92



B/15 SECTION 514+13.07



C/15 SECTION 514+47.86

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. | DATE | DESCRIPTION

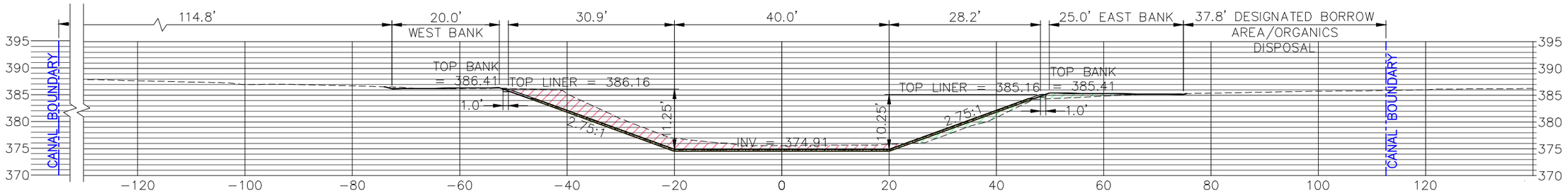
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

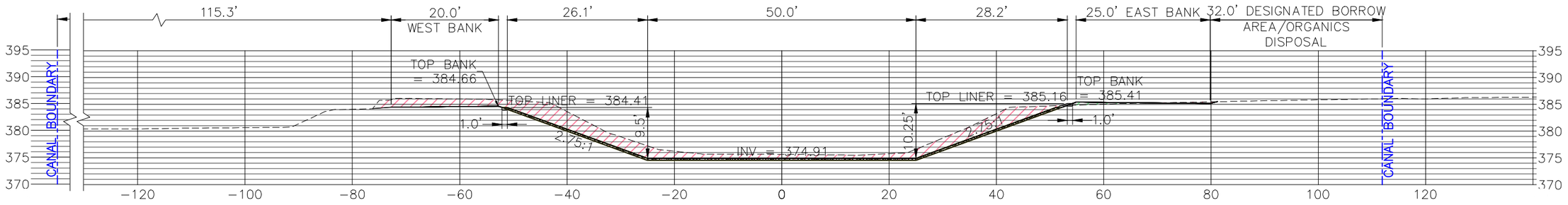
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

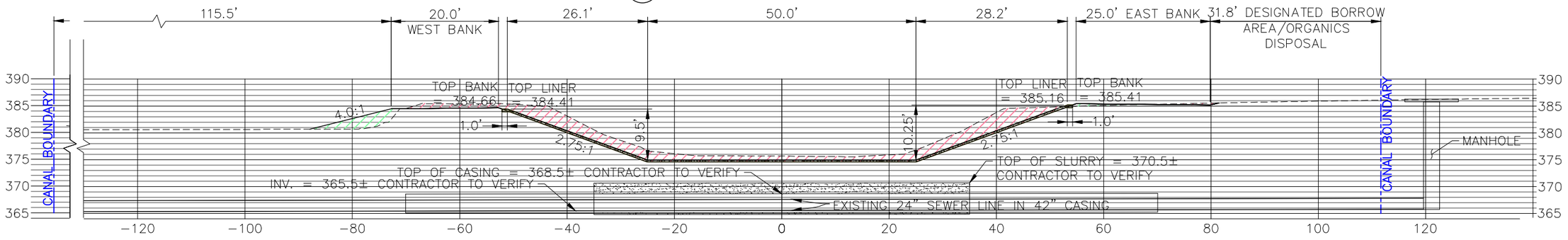
DRAWING NO. 15 of 61



D/16 SECTION 516+00.00



E/16 SECTION 517+00.00



F/16 SECTION 517+32.81

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. | DATE | DESCRIPTION
1 | |

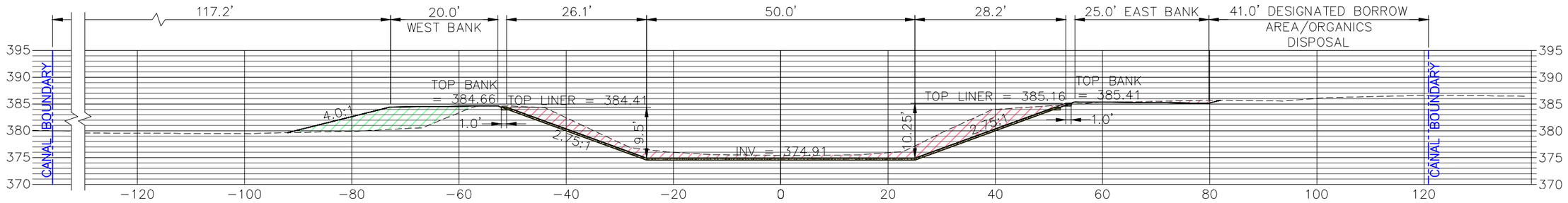
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 16 of 61

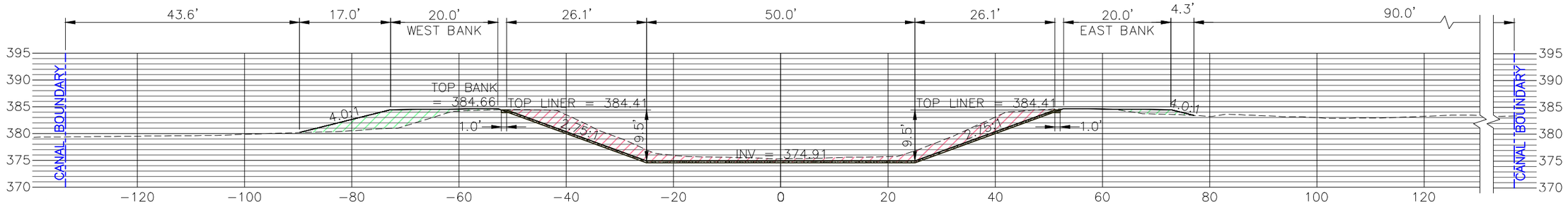
ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

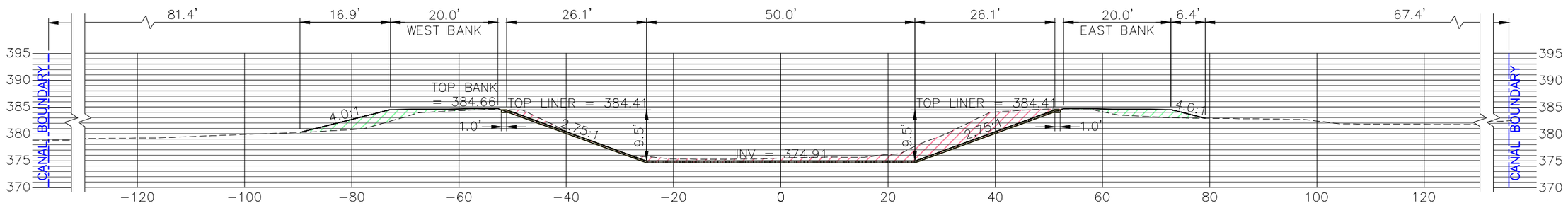
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS



G/17 SECTION 519+00.00



H/17 SECTION 522+00.00



I/17 SECTION 525+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
STATE OF CALIFORNIA
CIVIL

REV.	DATE	DESCRIPTION
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DRAWING NO. 17 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

DATE: AUGUST 3, 2026
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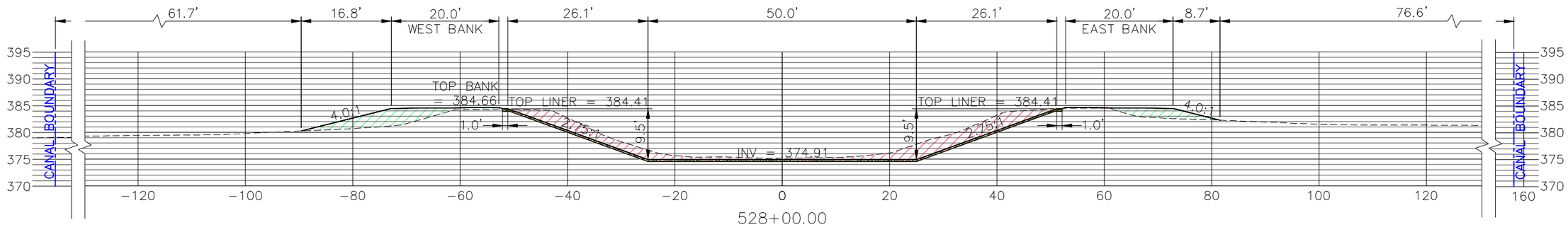
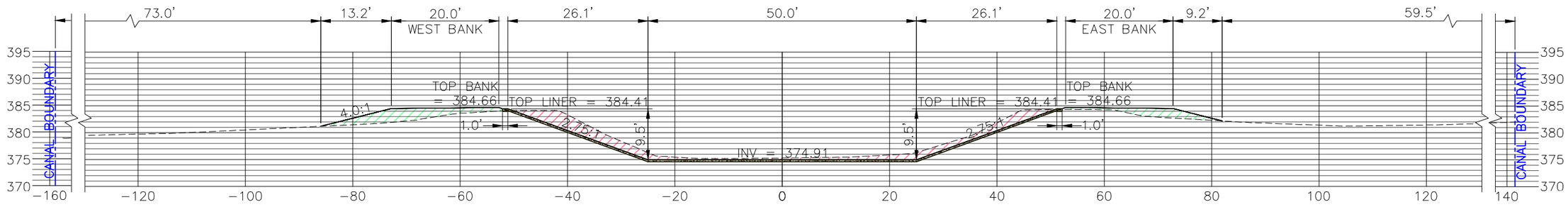
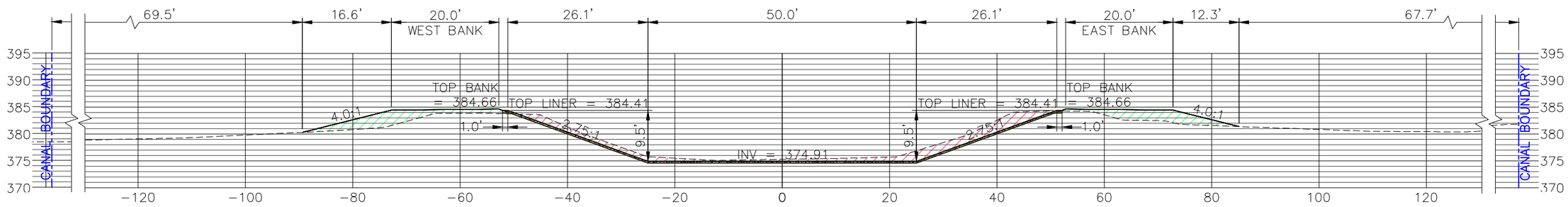
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



J/18 SECTION



K/18 SECTION 531+00.00



L/18 SECTION 534+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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STATE OF CALIFORNIA

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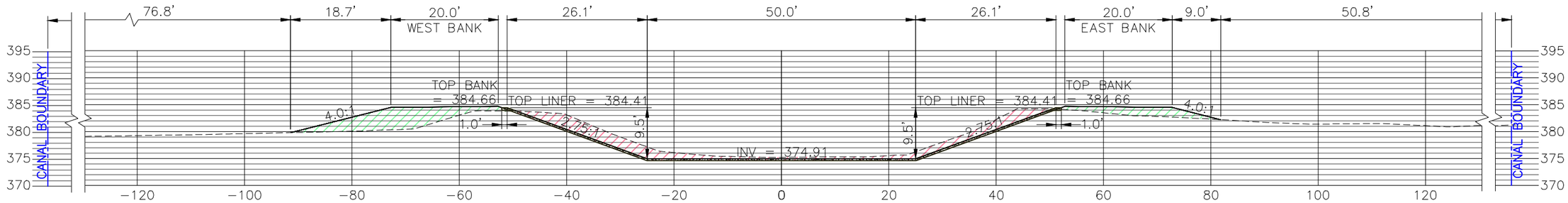
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

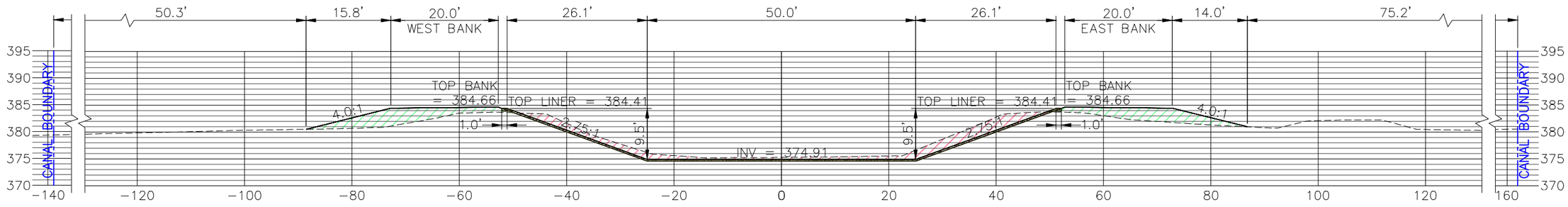
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

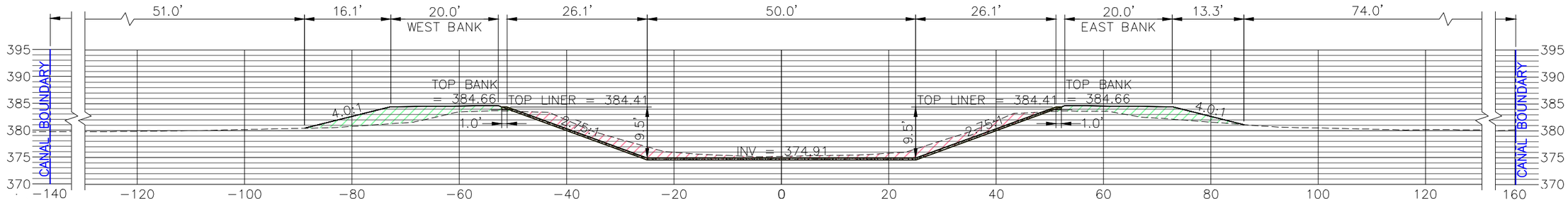
DRAWING NO. 18 of 61



M/19 SECTION 537+00.00



N/19 SECTION 540+00.00



O/19 SECTION 543+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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2		
3		
4		

DATE: AUGUST 3, 2026
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FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
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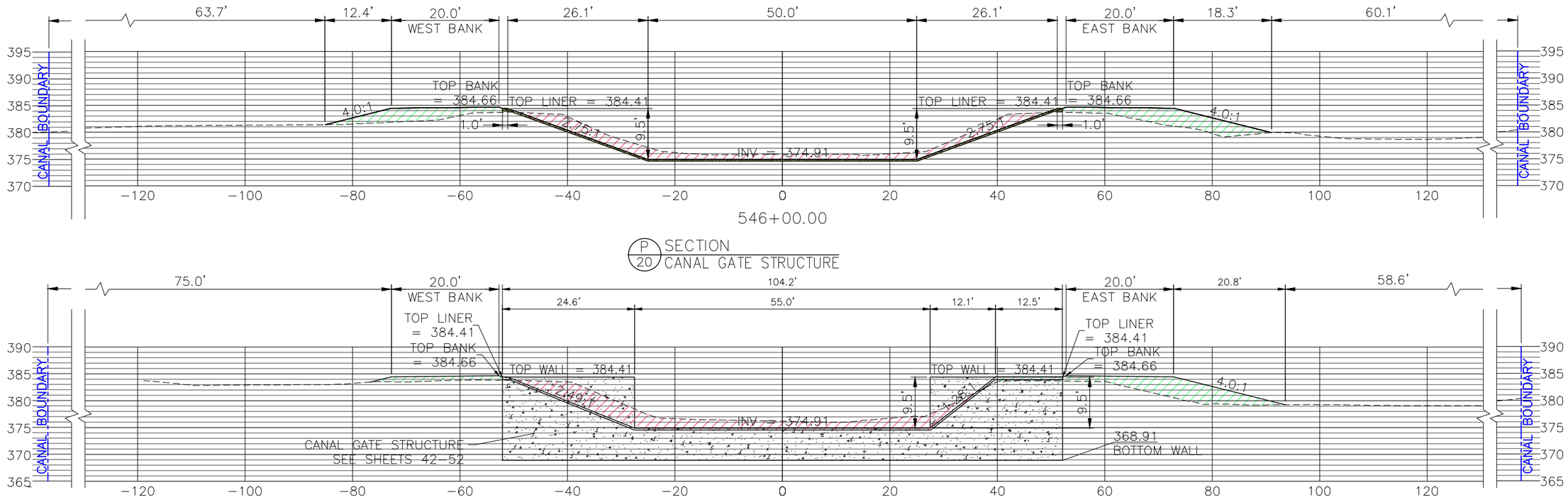
BAKERSFIELD, CA. 93314
(661) 589-8366

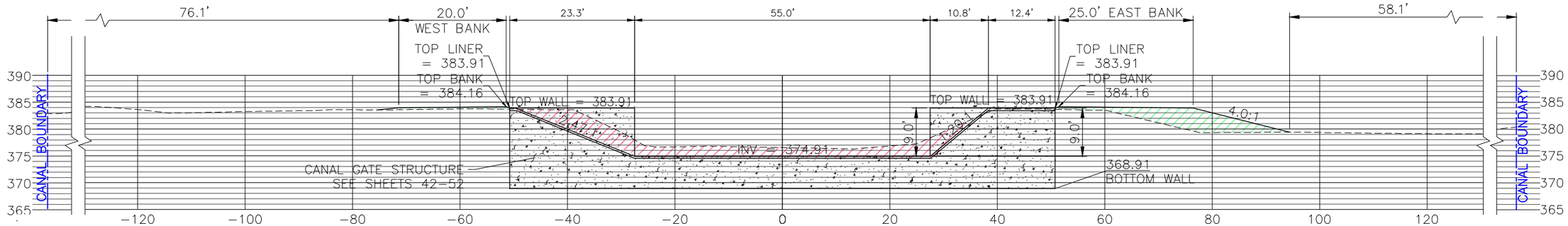
DRAWING NO. 19 of 61



546+00.00

P/20 SECTION
CANAL GATE STRUCTURE

Q/20 SECTION 547+20.00
CANAL GATE STRUCTURE



R/20 SECTION 547+45.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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CALLOWAY CANAL
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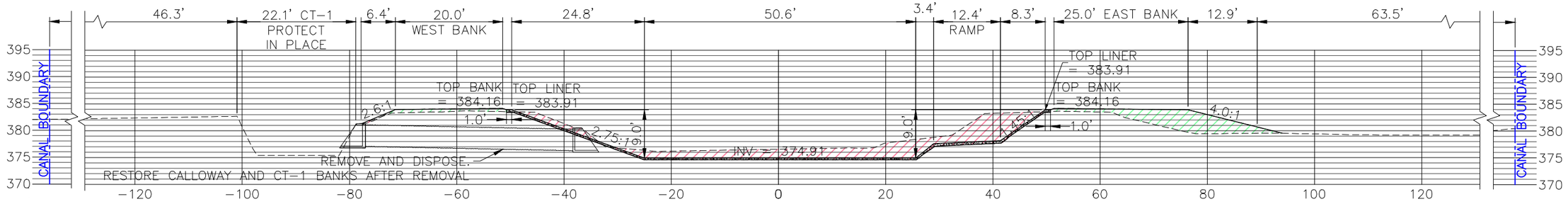
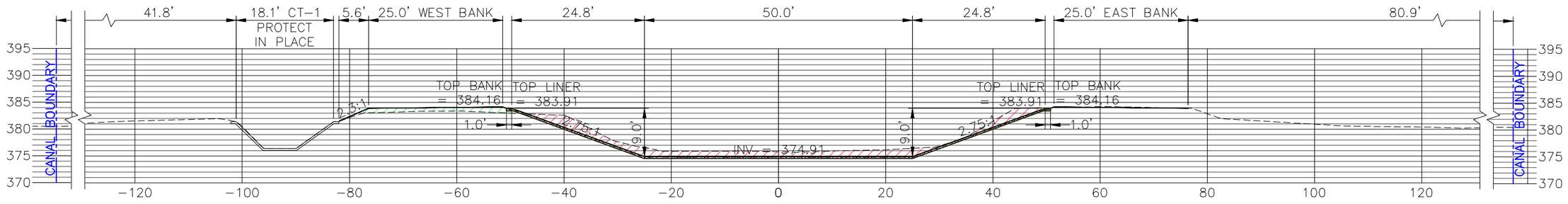
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

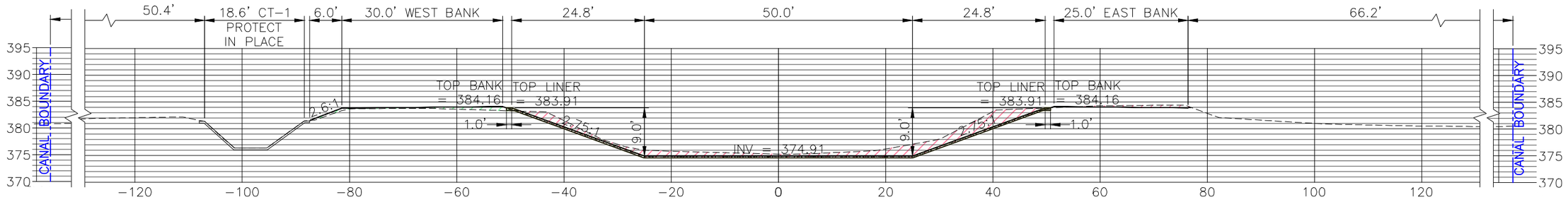
DRAWING NO. 20 of 61



S/21 SECTION 547+80.04



T/21 SECTION 552+00.00



U/21 SECTION 555+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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CALLOWAY CANAL
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CROSS SECTIONS

NORTH KERN WATER DISTRICT
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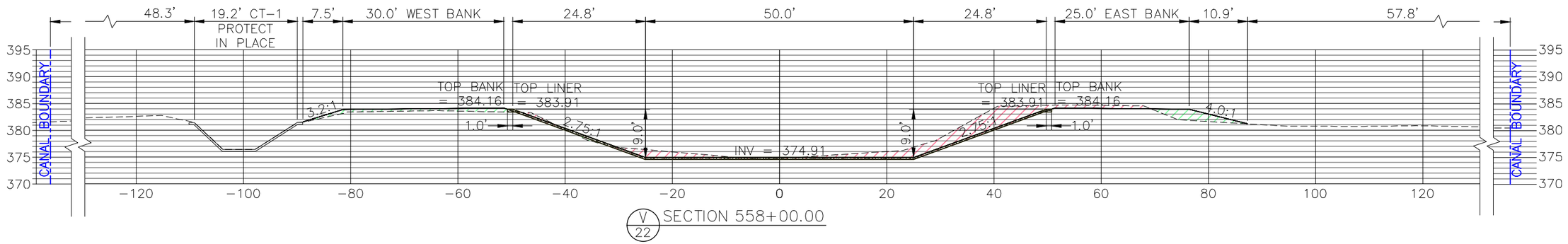
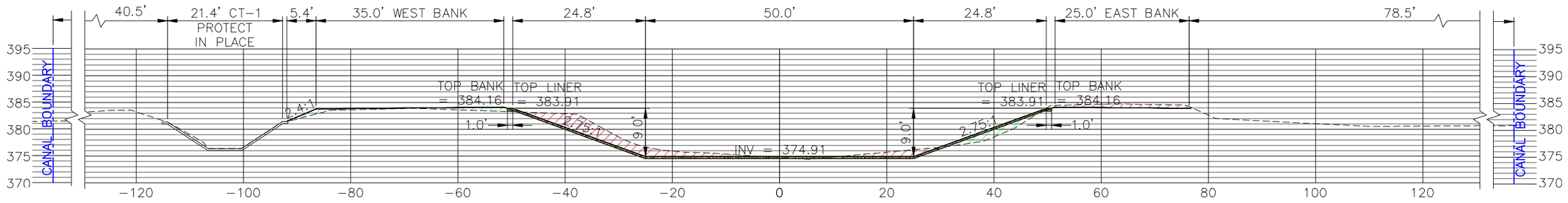
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

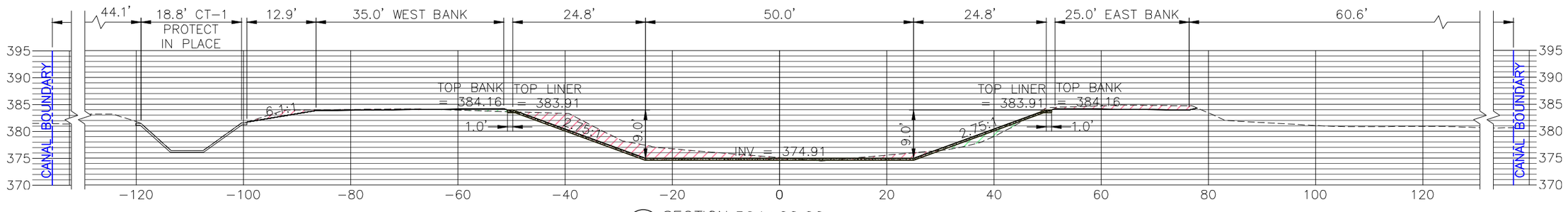
DRAWING NO. 21 of 61



V/22 SECTION 558+00.00



W/22 SECTION 561+00.00



X/22 SECTION 564+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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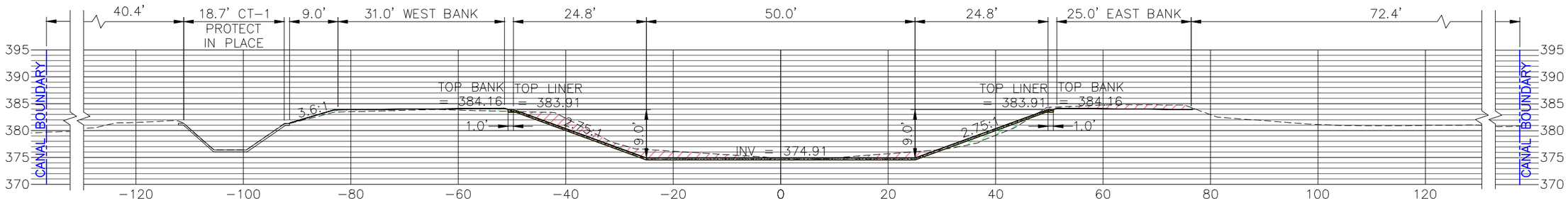
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

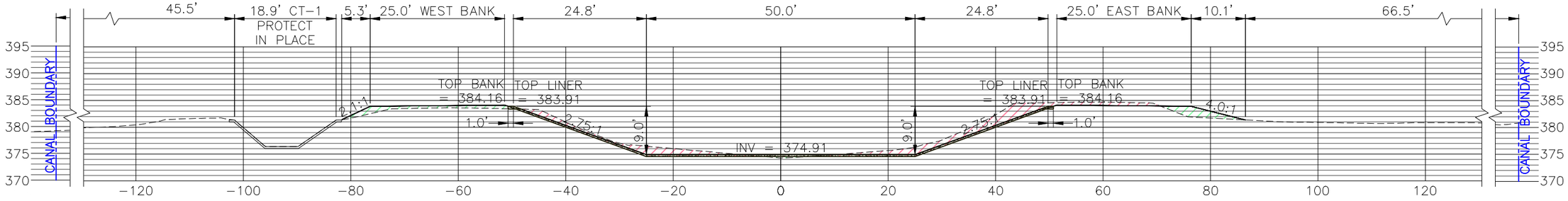
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

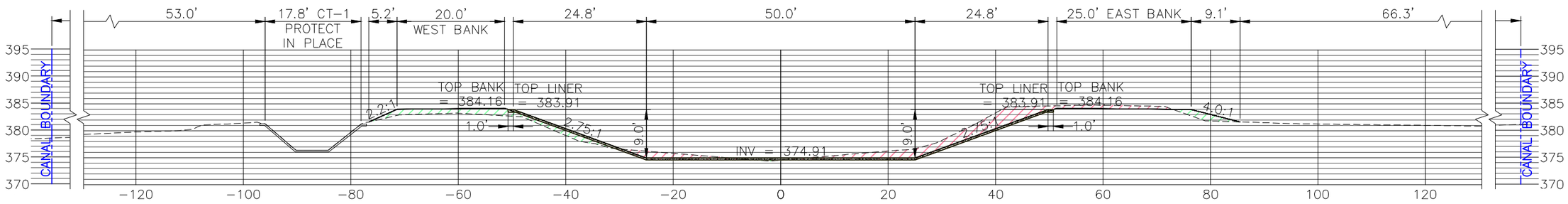
DRAWING NO. 22 of 61



Y/23 SECTION 567+00.00



Z/23 SECTION 570+00.00



AA/23 SECTION 573+00.00

0 10 20
HORIZ. SCALE IN FEET

0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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CALLOWAY CANAL
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7th STANDARD ROAD TO 8-1 CANAL
CROSS SECTIONS

NORTH KERN WATER DISTRICT
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BAKERSFIELD, CALIFORNIA, 93308

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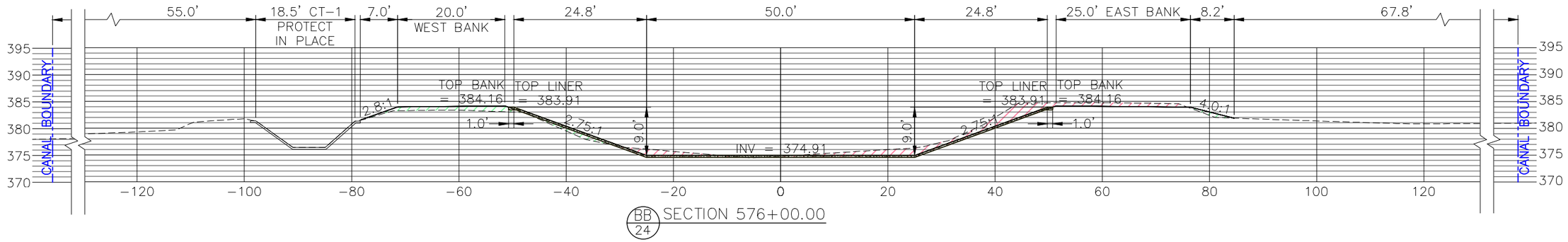
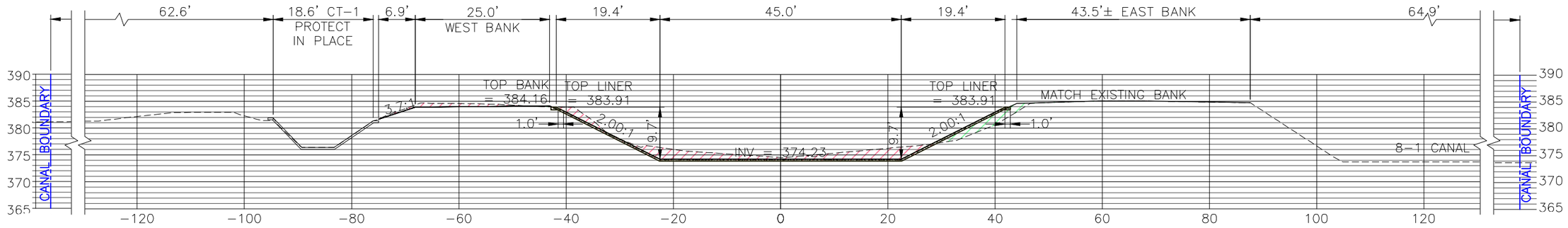
BAKERSFIELD, CA. 93314
(661) 589-8366

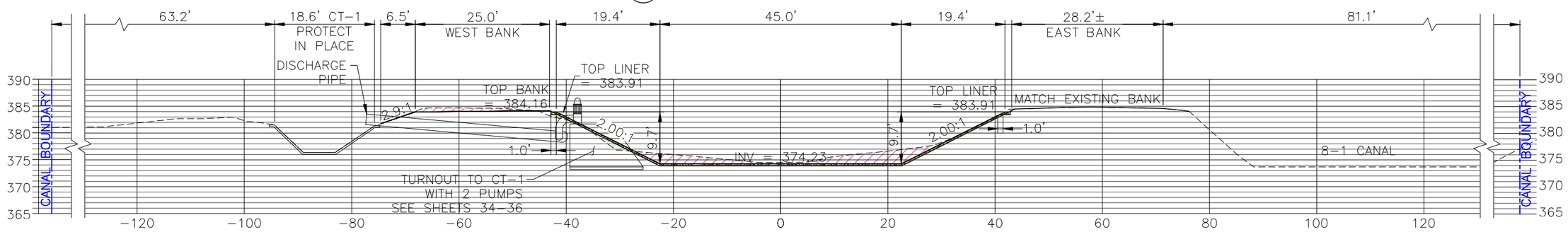
DRAWING NO. 23 of 61



BB / 24 SECTION 576+00.00



CC / 24 SECTION 579+00.00



DD / 24 SECTION 579+24.14

0 10 20
HORIZ. SCALE IN FEET
0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
EXISTING GROUND
CANAL BOUNDARY

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CALLOWAY CANAL
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CROSS SECTIONS

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

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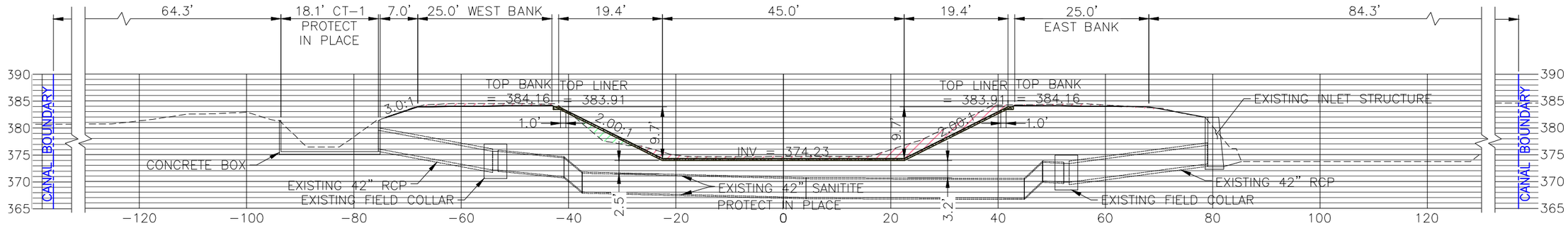
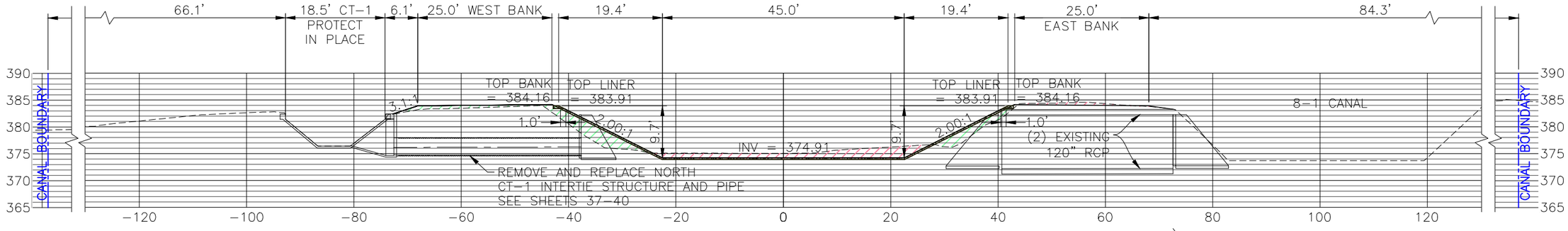
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 24 of 61

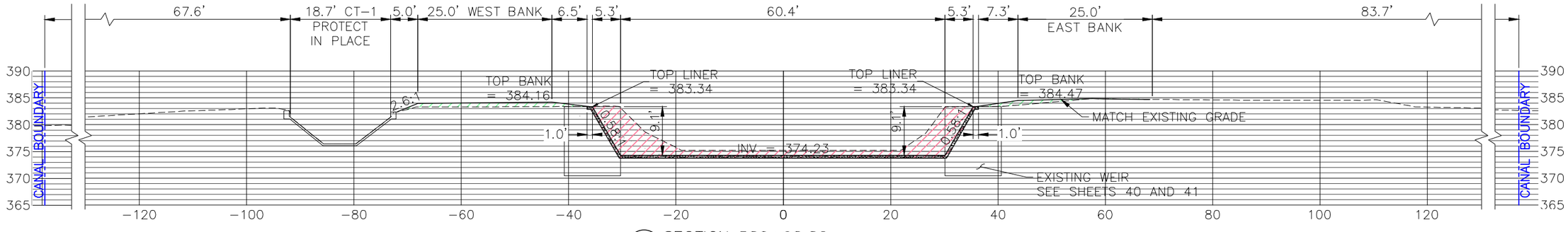


NOTE:
ONLY 1' OVER-EXCAVATE AND RECOMPACT REQUIRED WITHIN 2' OF 42" SANITITE PIPES

EE 25 SECTION 579+48.15



FF 25 SECTION 580+14.74



GG 25 SECTION 580+68.82

0 10 20
HORIZ. SCALE IN FEET
0 10 20
VERT. SCALE IN FEET

LEGEND:
CUT
FILL
DESIGN
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CANAL BOUNDARY

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CROSS SECTIONS

NORTH KERN WATER DISTRICT
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BAKERSFIELD, CALIFORNIA, 93308

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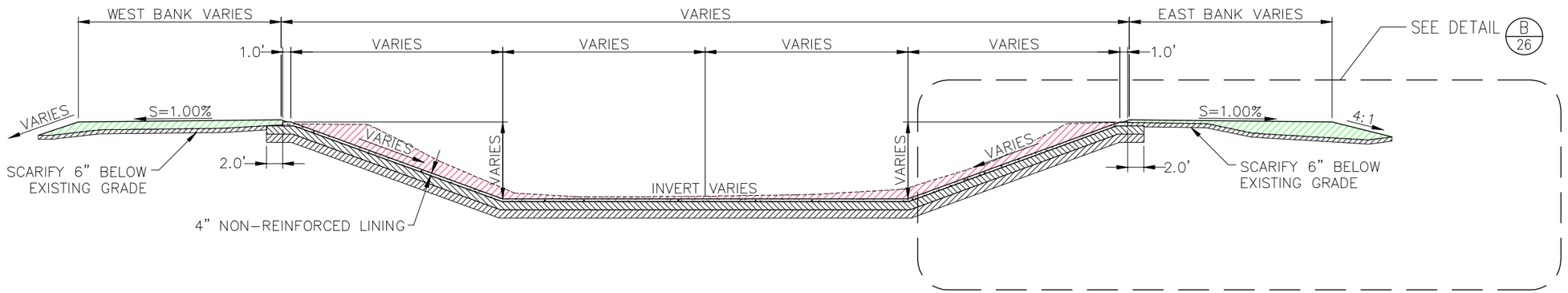
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 25 of 61



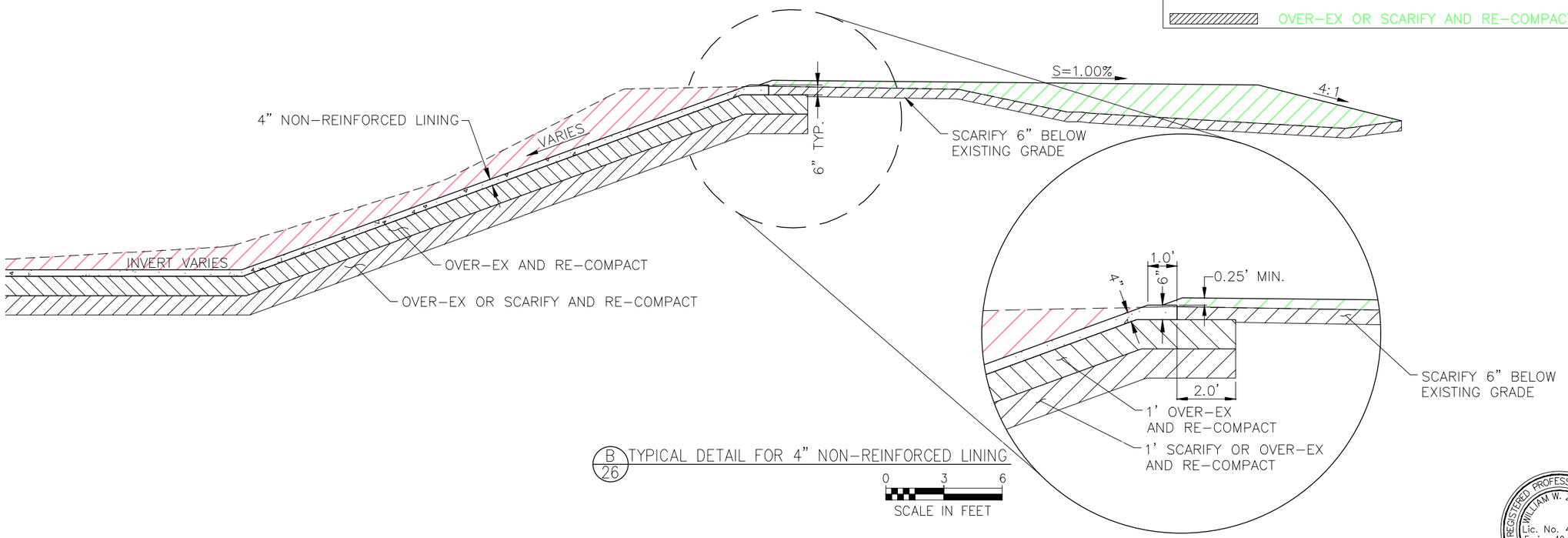
A 26 TYPICAL DETAIL FOR 4" NON-REINFORCED LINING

0 7.5 15

SCALE IN FEET

LEGEND:

- CUT
- FILL
- OVER-EX AND RE-COMPACT
- OVER-EX OR SCARIFY AND RE-COMPACT



B 26 TYPICAL DETAIL FOR 4" NON-REINFORCED LINING

0 3 6

SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. DATE DESCRIPTION

DRAWING NO. 26 of 61

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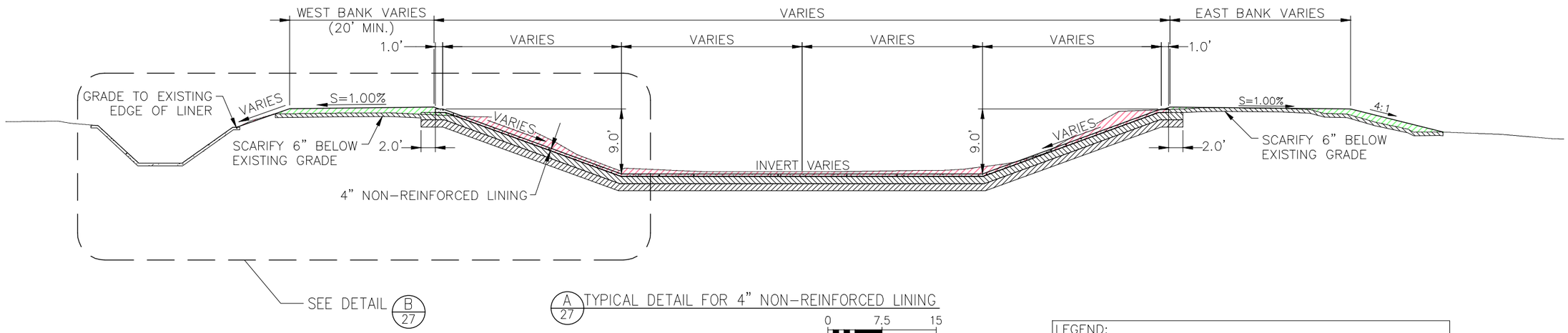
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
TYPICAL NON-REINFORCED LINER DETAIL

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD



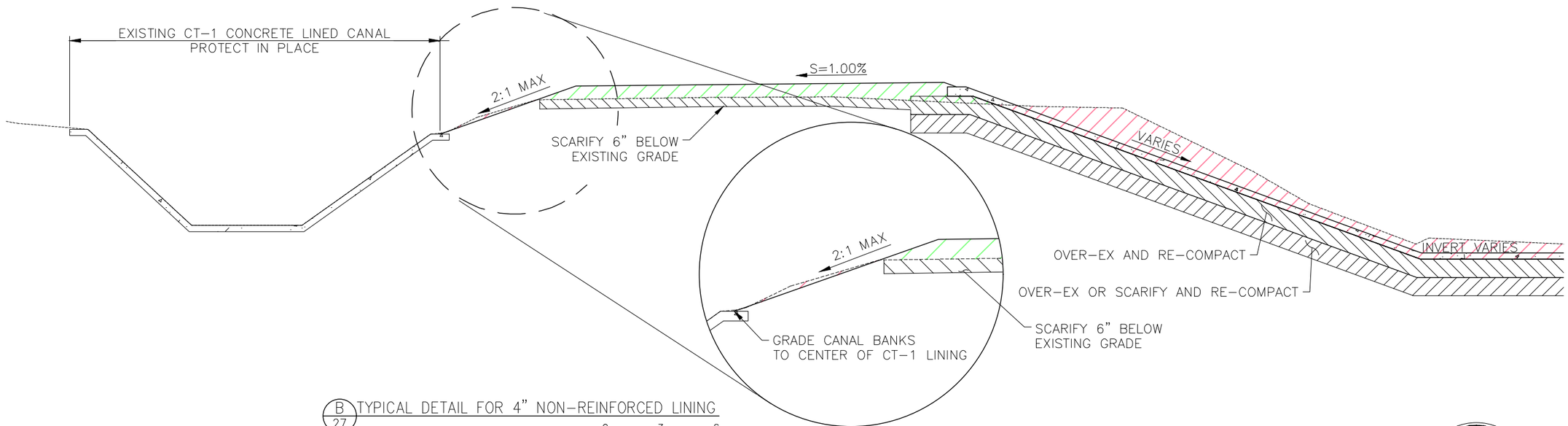
A 27 TYPICAL DETAIL FOR 4" NON-REINFORCED LINING

0 7.5 15

SCALE IN FEET

LEGEND:

- CUT
- FILL
- OVER-EX AND RE-COMPACT
- OVER-EX OR SCARIFY AND RE-COMPACT



B 27 TYPICAL DETAIL FOR 4" NON-REINFORCED LINING

0 3 6

SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
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(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
TYPICAL NON-REINFORCED LINER DETAIL ALONG CT-1

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

TRACT 7333

TRACT 7244

BLOCK WALL

BW

CANAL BOUNDARY

GUY

OHE

POLE

UNDERGROUND SEWER LINE

DESIGNATED BORROW AREA/
ORGANICS DISPOSAL

100.0' TRANSITION

127.2'

100.0' AT CENTERLINE VERTICAL TRANSITION

16" WATER PIPE WITH
30" CASING

LADDER
SEE SHEET 60

MATCH EXISTING GRADE

MATCH
EX. GRADE

EXISTING LINING

513+00

515+00

CLEAR AND GRUB

EXISTING CANAL PRISM

NEW CANAL SECTION

25.0'

50.0'

40.0'

20.0'

2.75:1

2.40:1

28.4'

26.1'

31.1'

24.6'

27.0'

385.41 FG

385.16 LINER

374.91 LINER

384.66 FG

386.16 LINER

386.41 FG

386.05 FG

385.80 LINER

375.66 LINER

386.91 LINER

387.16 FG

2.52:1

12" WATER
LINE WITH
24" CASING

TRANSITION TO
EXISTING LINING

MATCH EXISTING GRADE

EXISTING RAMP

7TH STANDARD ROAD

SECTION LINE

CANAL BOUNDARY

NORTH

0 20 40

SCALE: IN FEET

A
28
TRANSITION STRUCTURE PLAN
SOUTH TRANSITION TO EXISTING

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Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

DRAWING NO. 28 of 61

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(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL TRANSITION - STA. 513+72.82 TO STA. 517+00.00

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

NORTH
0 15 30
SCALE: IN FEET

EXISTING FENCE
8-1 CANAL
8-1 LATERAL INTERTIE STRUCTURE
2- 42" C-10 GATES
CONCRETE STRUCTURE
EXISTING FIELD COLLAR
CANAL BANK
SECTION 25, 28/26
SECTION 36, 28/26
POLE/GUY
100.0' TRANSITION
EXISTING CROWN
120" RCP
120" RCP
120" RCP
120" RCP
8-1 BACKUP WEIR
8-1 LATERAL INTERTIE STRUCTURE
SANITIZE PIPE UNDER CANAL
42" SANITIZE PIPE UNDER CANAL
CT-1 NORTH INTERTIE (TURNOUT)
CT-1 NORTH TURNOUT
PUMPS
POLE
PANELS
EXISTING FIELD COLLAR
EXISTING CROWN
36" PIPE TO CALLOWAY
PIPE TO CT-1
CANAL BANK
CALLOWAY CANAL
CLEAR AND GRUB
EXISTING CANAL PRISM
TOP OF EXISTING CONCRETE LINING
DISCHARGE INTO CT-1
CT-1 CANAL
WELL OUTLET PIPE
TOP OF EXISTING CONCRETE LINING
BRIDGE OVERCROSSING
CONCRETE STRUCTURE
UNDERGROUND PIPE
S = 0.006798
45.0'
50.0'
581+00
580+00
579+00
578+00
383.59 FG
384.16 FG
383.34 LINER
374.23 INV.
383.91 FG
383.91 LINER
374.91 INV.
2.00'
2.75'

A
29
TRANSITION STRUCTURE PLAN VIEW
NORTH TRANSITION

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REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
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DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL TRANSITION - STA. 577+98.76 TO STA. 578+98.76

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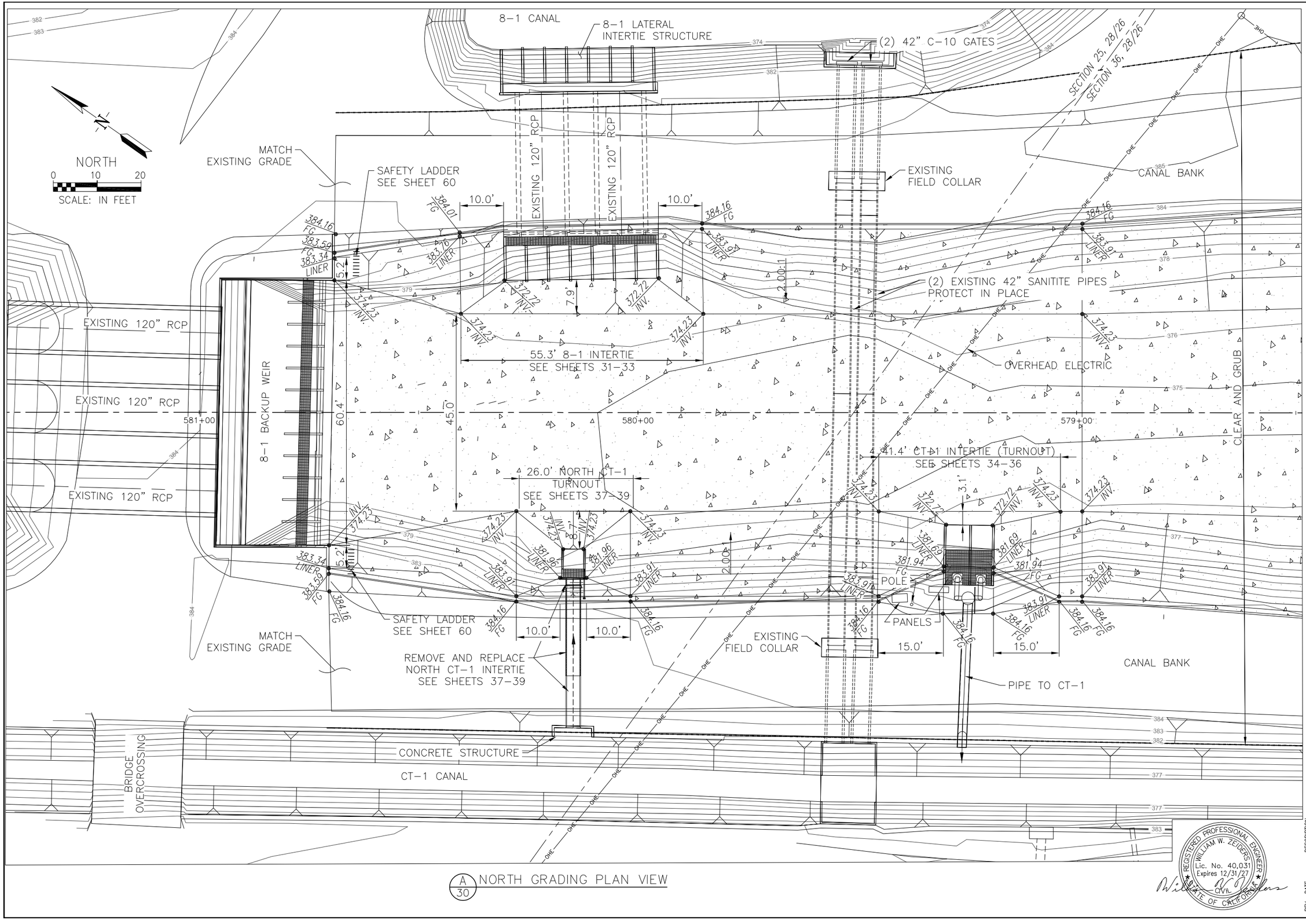
DRAWING NO. 29 of 61



A/30 NORTH GRADING PLAN VIEW

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STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

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DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
NORTH GRADING PLAN

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

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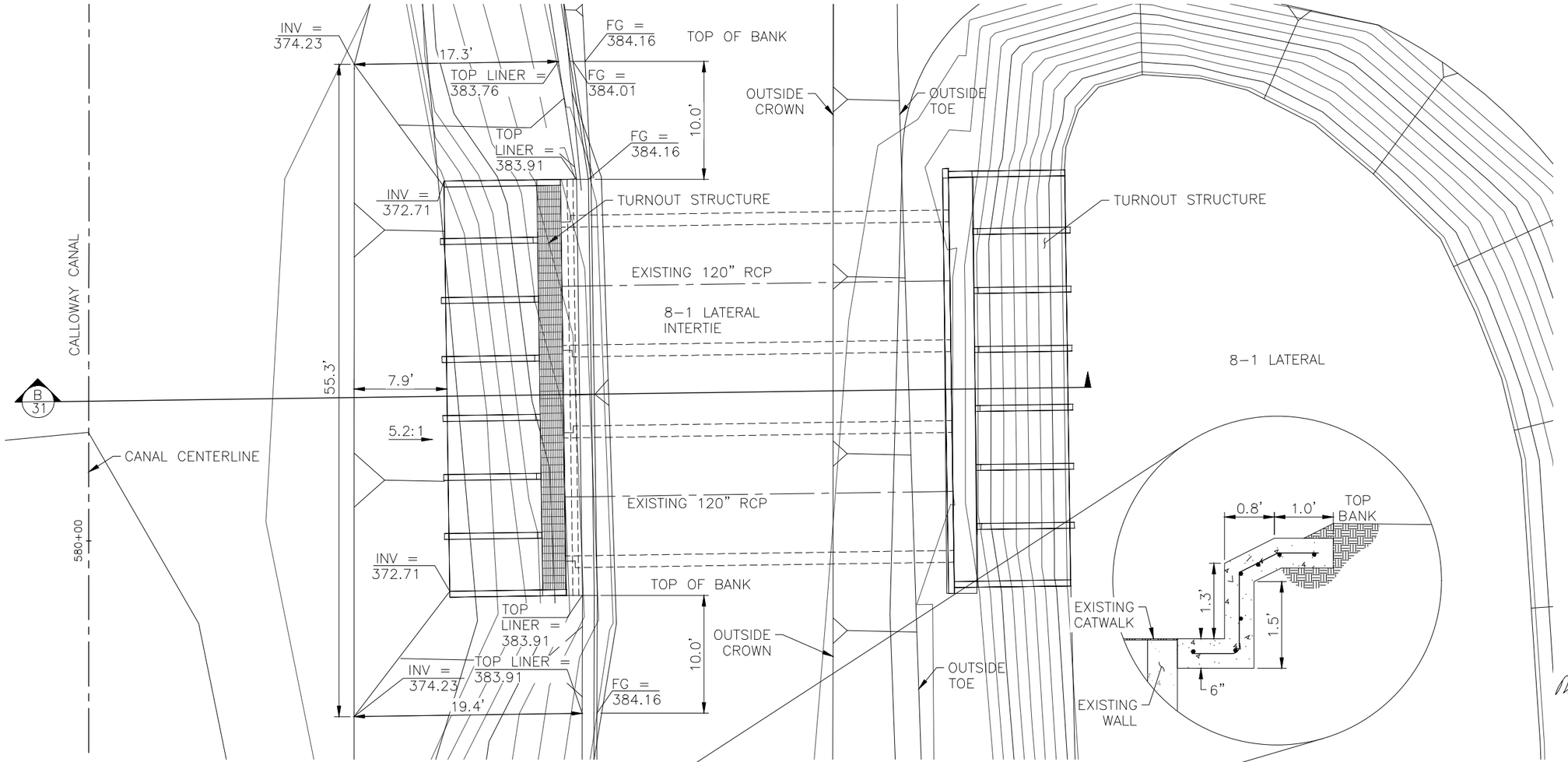
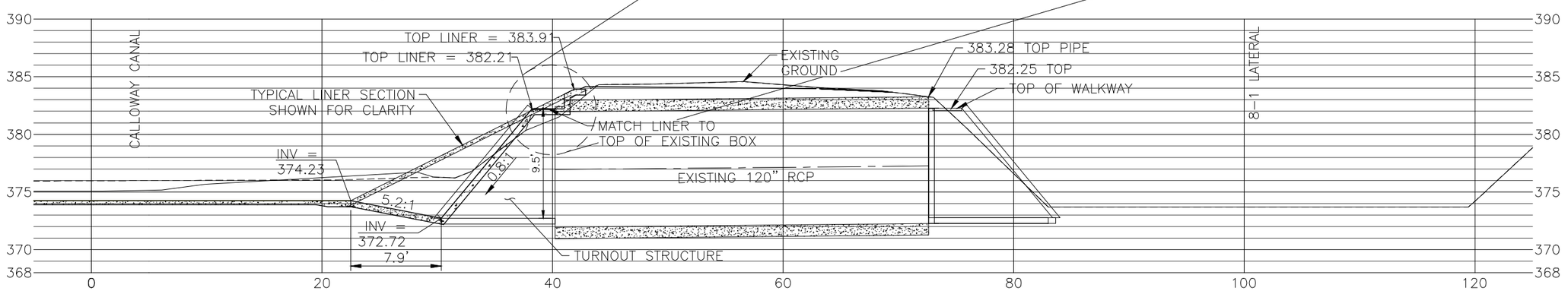
DRAWING NO. 30 of 61



A 31 8-1 INTERTIE PLAN VIEW



B 31 8-1 INTERTIE SECTION VIEW

0 5 10
HOIRZ. SCALE IN FEET

0 5 10
VERT SCALE IN FEET

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REV.	DATE	DESCRIPTION
1		

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DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
8-1 INTERTIE - PLAN AND PROFILE - STA. 580+12.86

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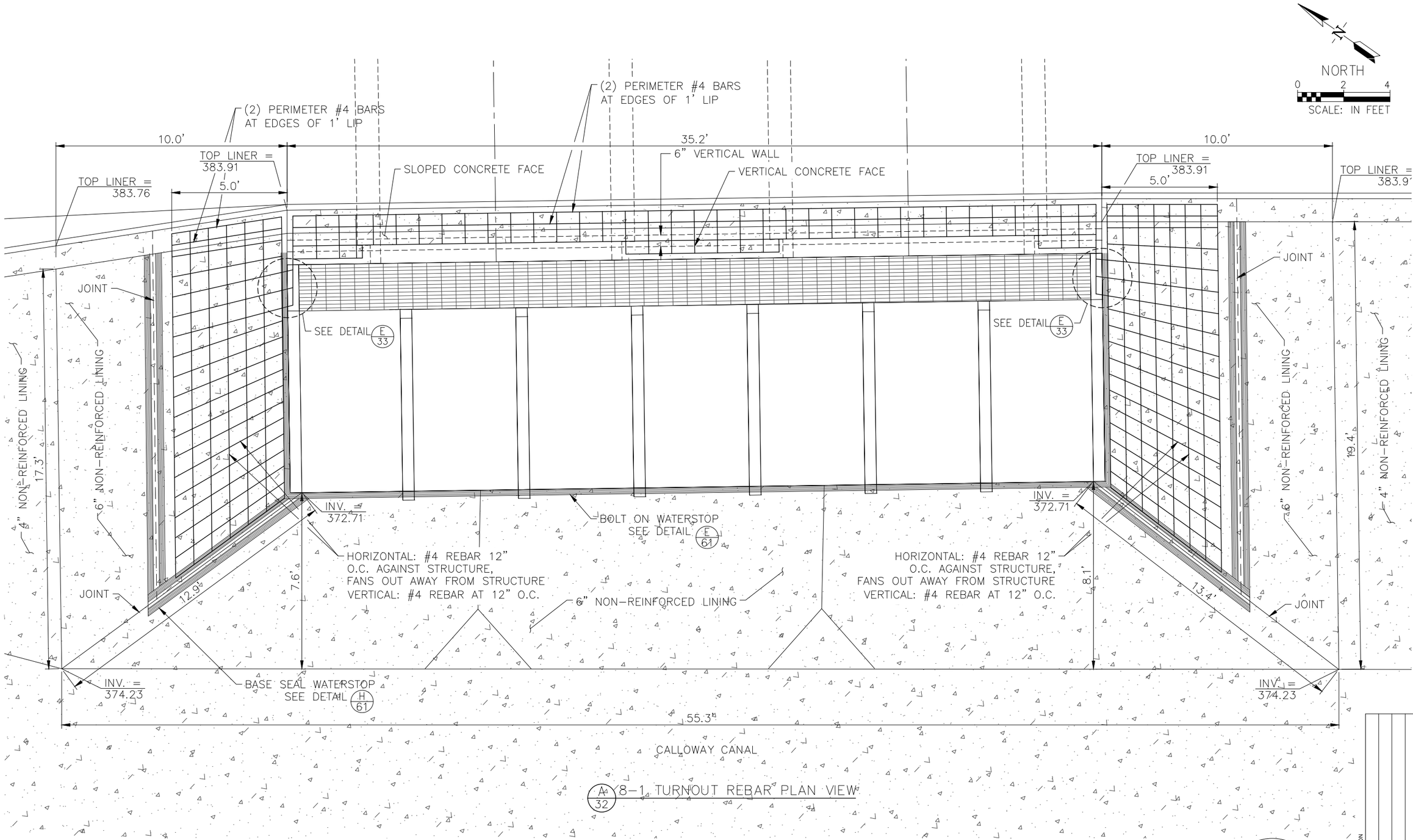
DRAWING NO. 31 of 61



A4/32 8-1 TURNOUT REBAR PLAN VIEW

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REV.	DATE	DESCRIPTION
1		

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DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
8-1 INTERTIE - REINFORCEMENT PLAN - STA. 580+12.86

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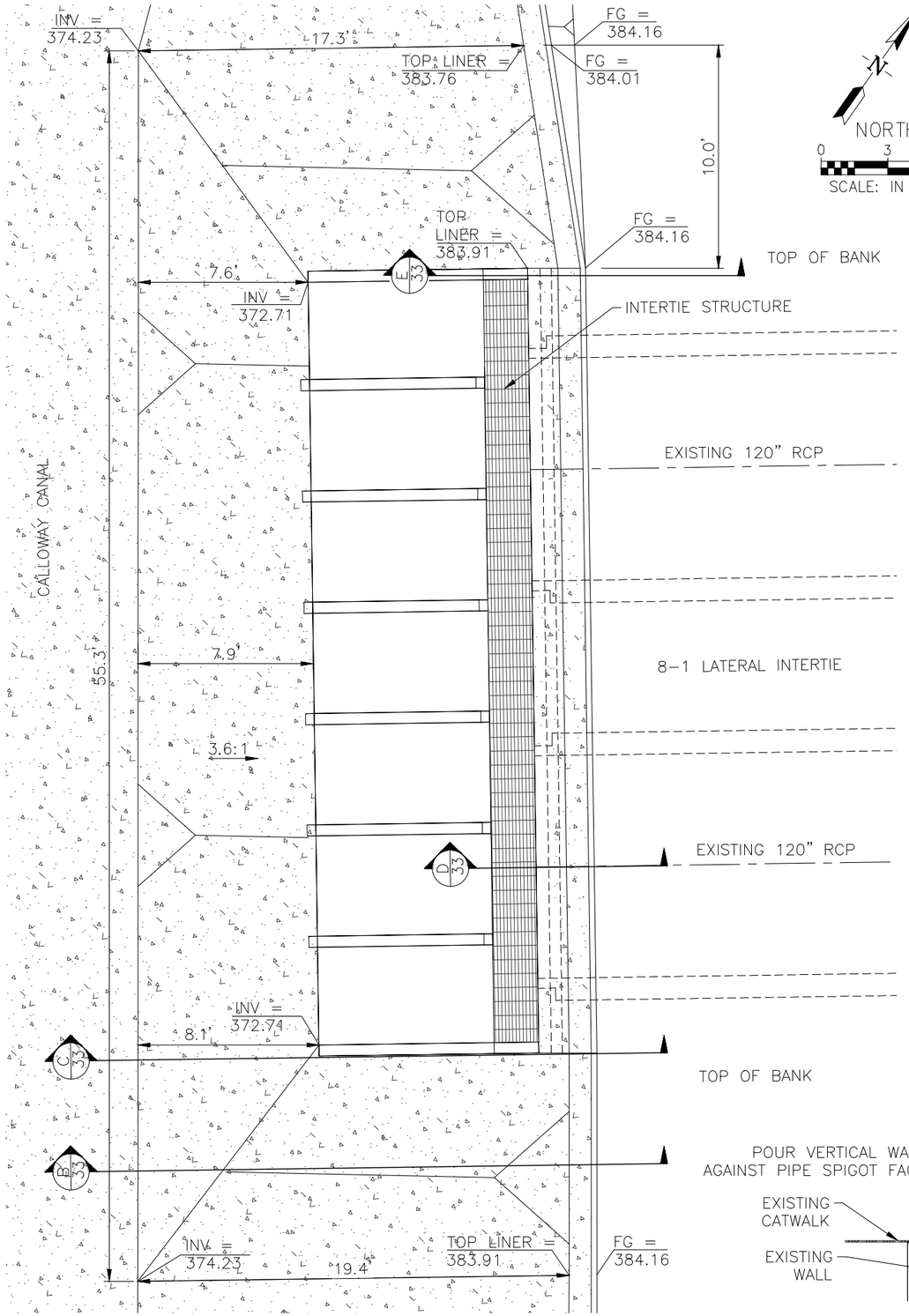
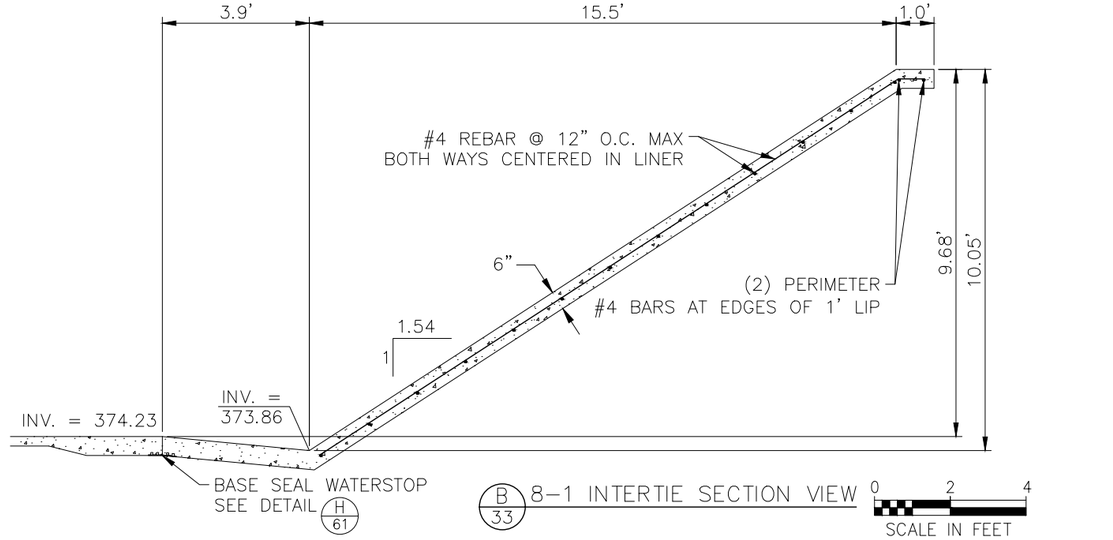
DRAWING NO. 32 of 61



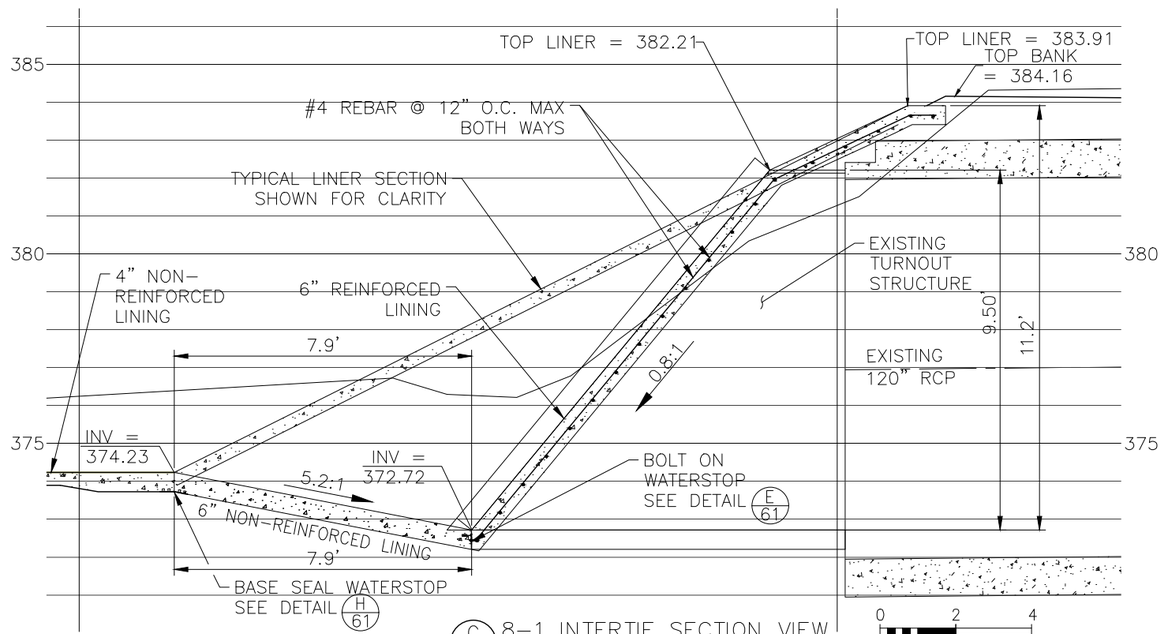
A 33 8-1 INTERTIE PLAN VIEW

SCALE IN FEET 0 3 6



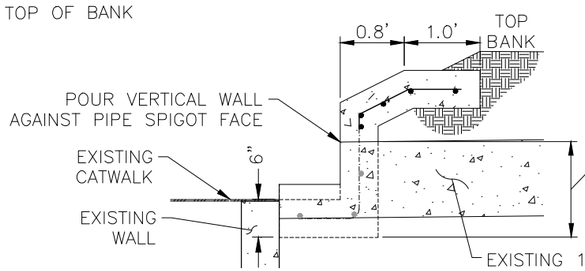
B 33 8-1 INTERTIE SECTION VIEW

SCALE IN FEET 0 2 4



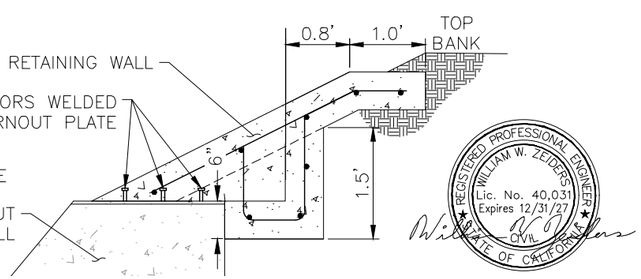
C 33 8-1 INTERTIE SECTION VIEW

SCALE IN FEET 0 2 4



D 33 8-1 INTERTIE SECTION VIEW

SCALE IN FEET 0 1 2



E 33 8-1 INTERTIE SECTION VIEW

SCALE IN FEET 0 1 2

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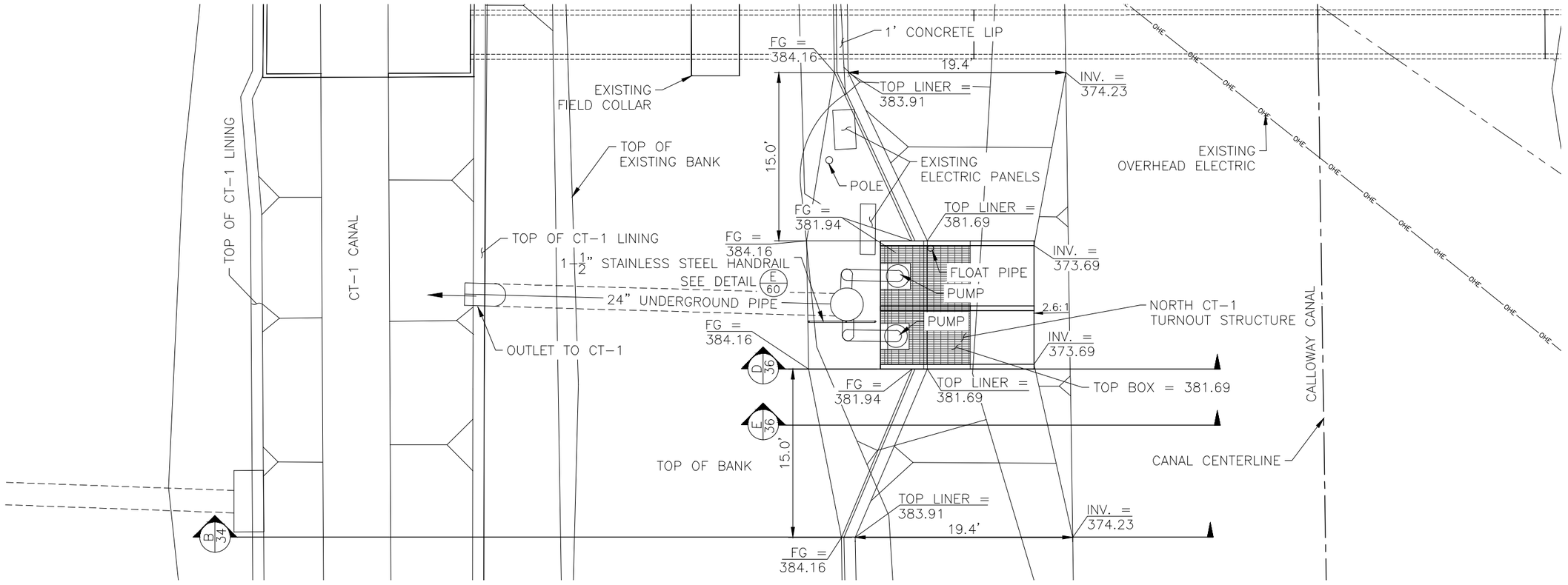
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

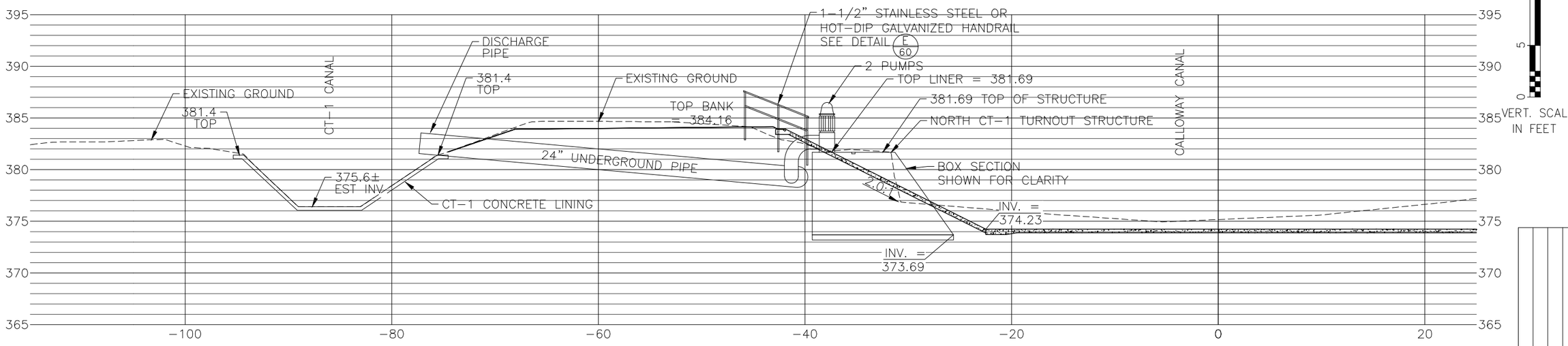
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
8-1 INTERTIE - REINFORCEMENT DETAILS - STA. 580+12.86

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A 34 TURNOUT PLAN VIEW



B 34 TURNOUT SECTION VIEW

0 5 10
HORIZ. SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 34 of 61

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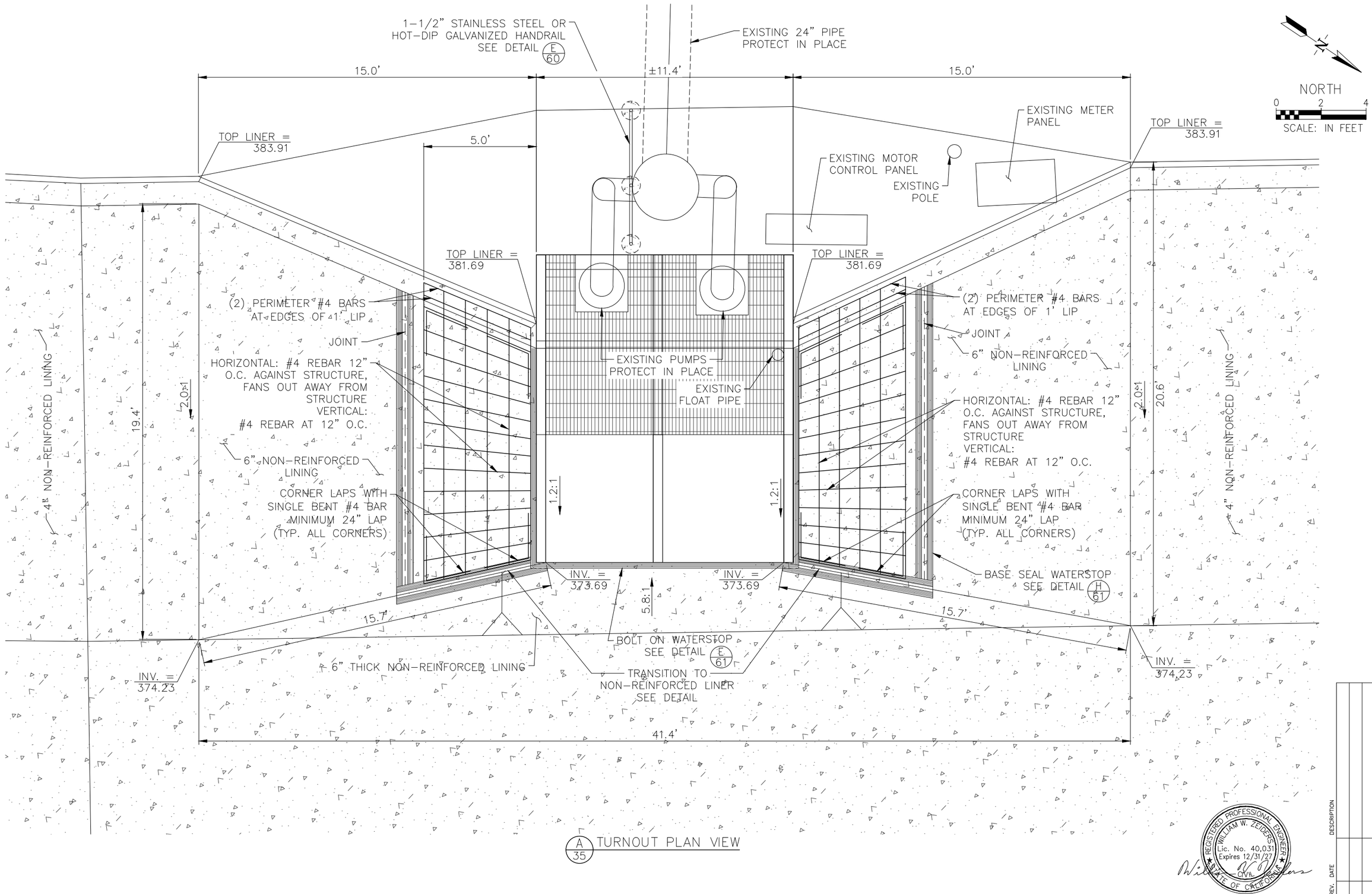
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CT-1 DOUBLE BAY TURNOUT - PLAN AND PROFILE - STA. 579+24.13



A/35 TURNOUT PLAN VIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD

DRAWING NO. 35 of 61

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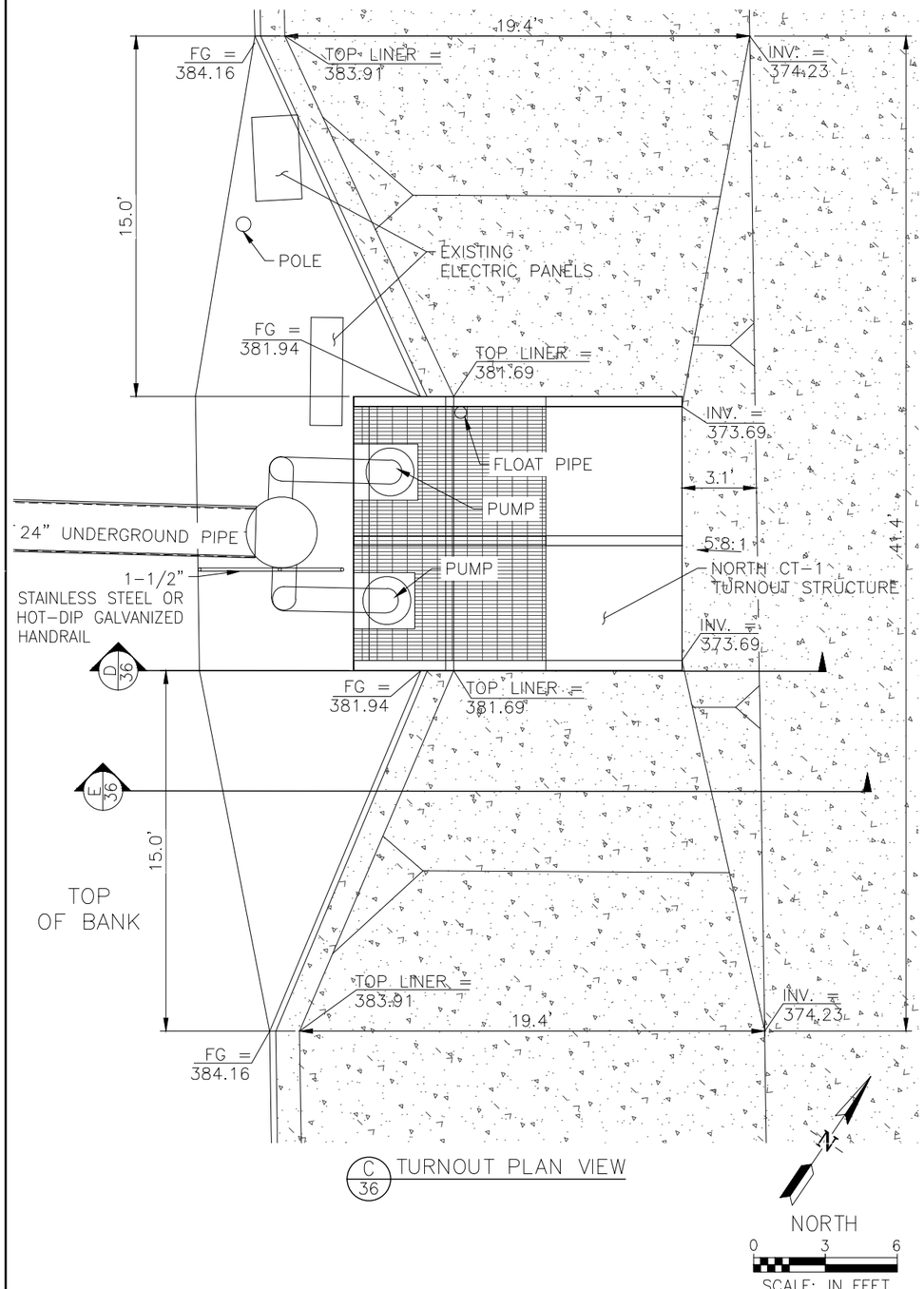
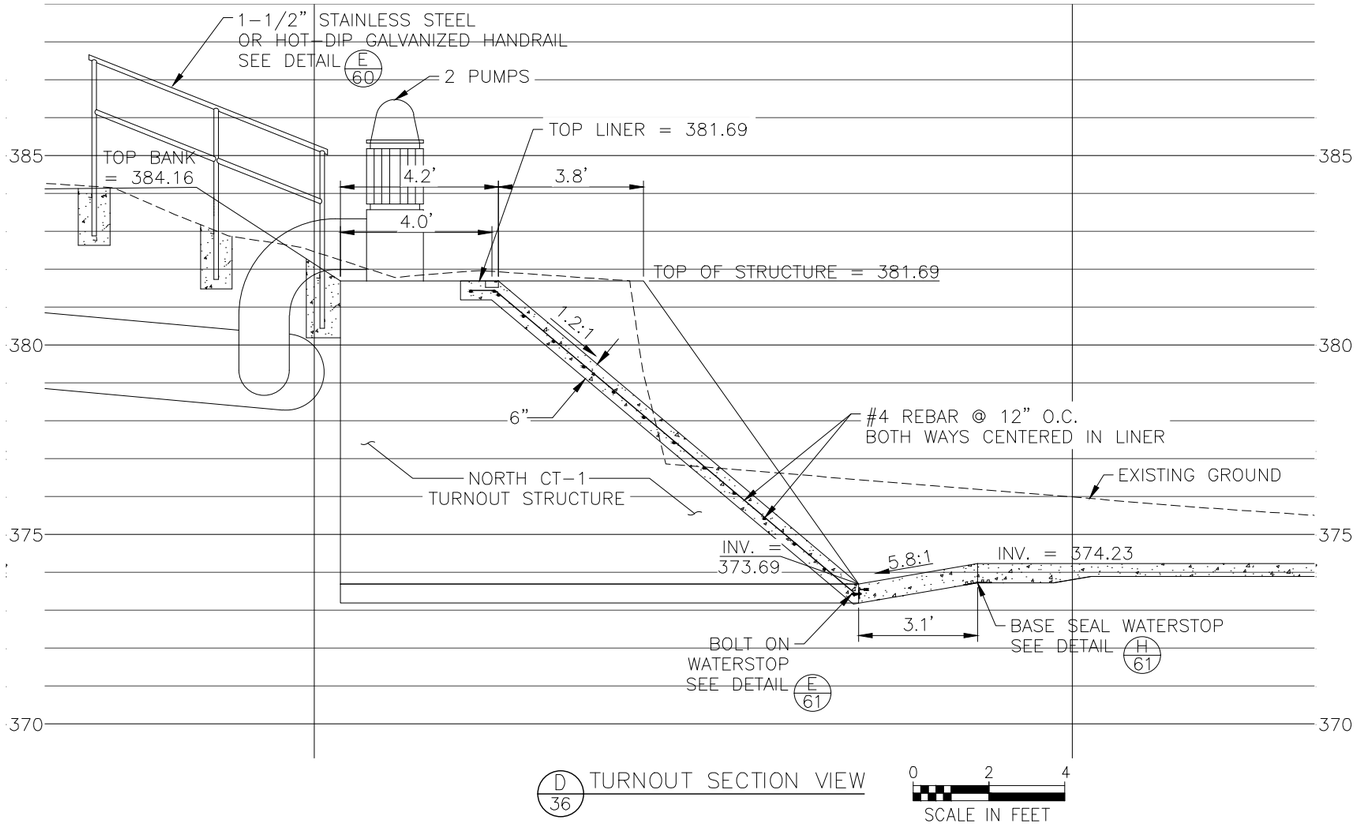
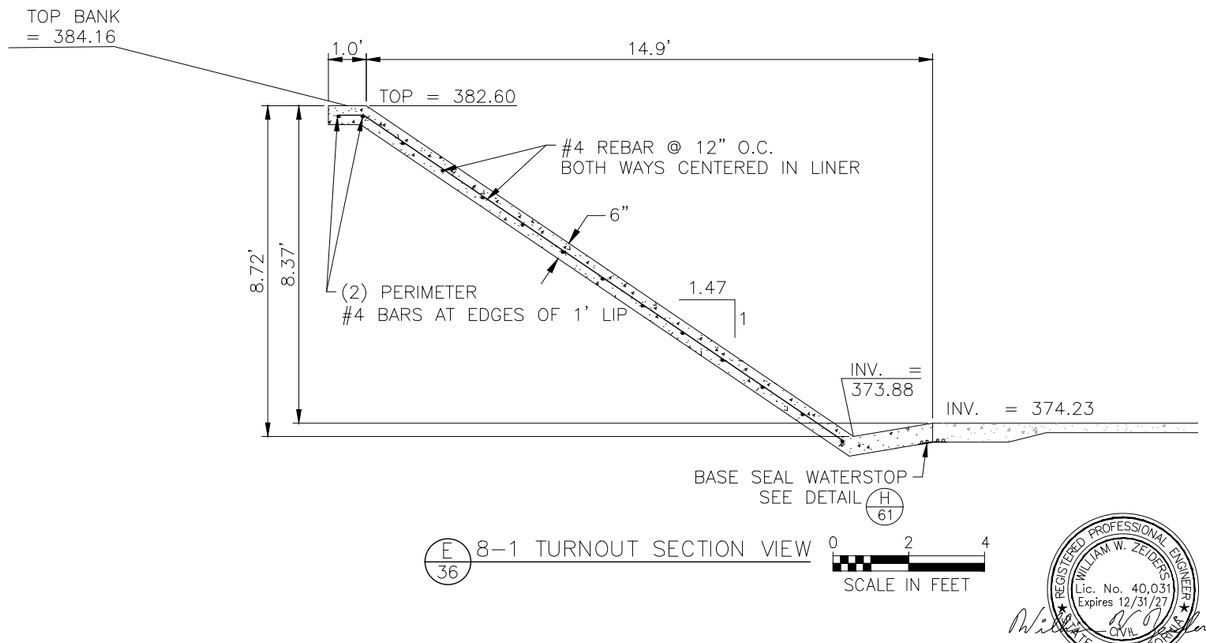
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CT-1 DOUBLE BAY TURNOUT - REINFORCEMENT PLAN - STA. 579+24.13







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STATE OF CALIFORNIA

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1		

DATE: AUGUST 3, 2026
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DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CT-1 DOUBLE BAY TURNOUT - REINFORCEMENT DETAILS - STA. 579+24.13

NORTH KERN WATER DISTRICT
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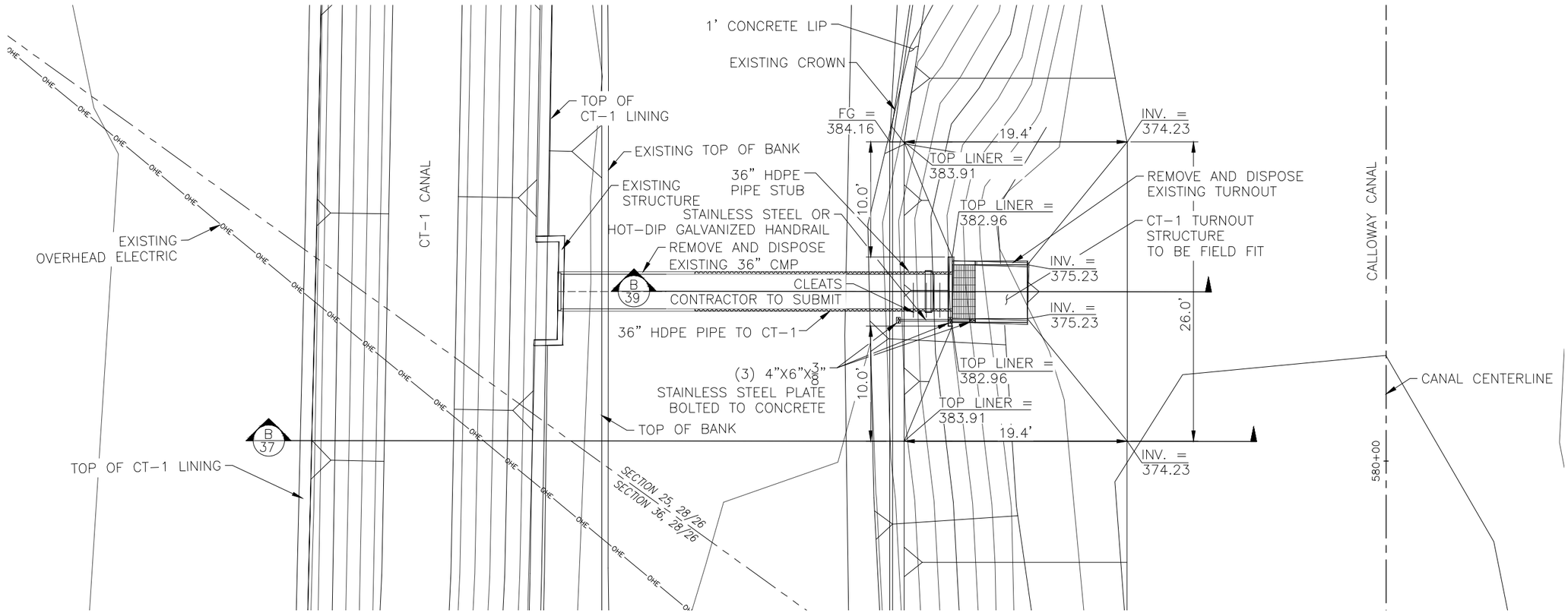
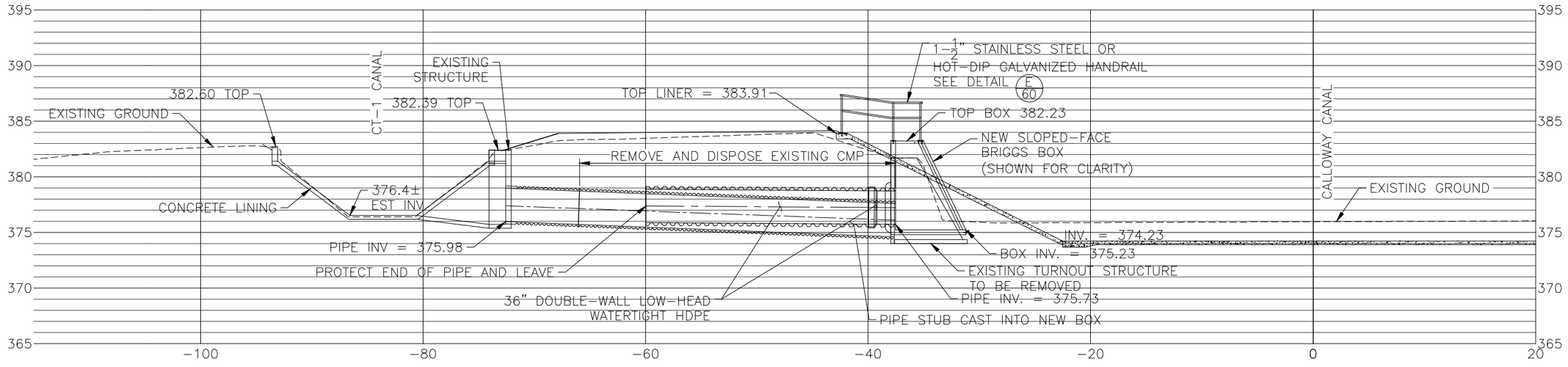


A 37 TURNOUT PLAN VIEW



B 37 TURNOUT SECTION VIEW

0 4 8
HORIZ SCALE IN FEET

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DRAWING NO. 37 of 61

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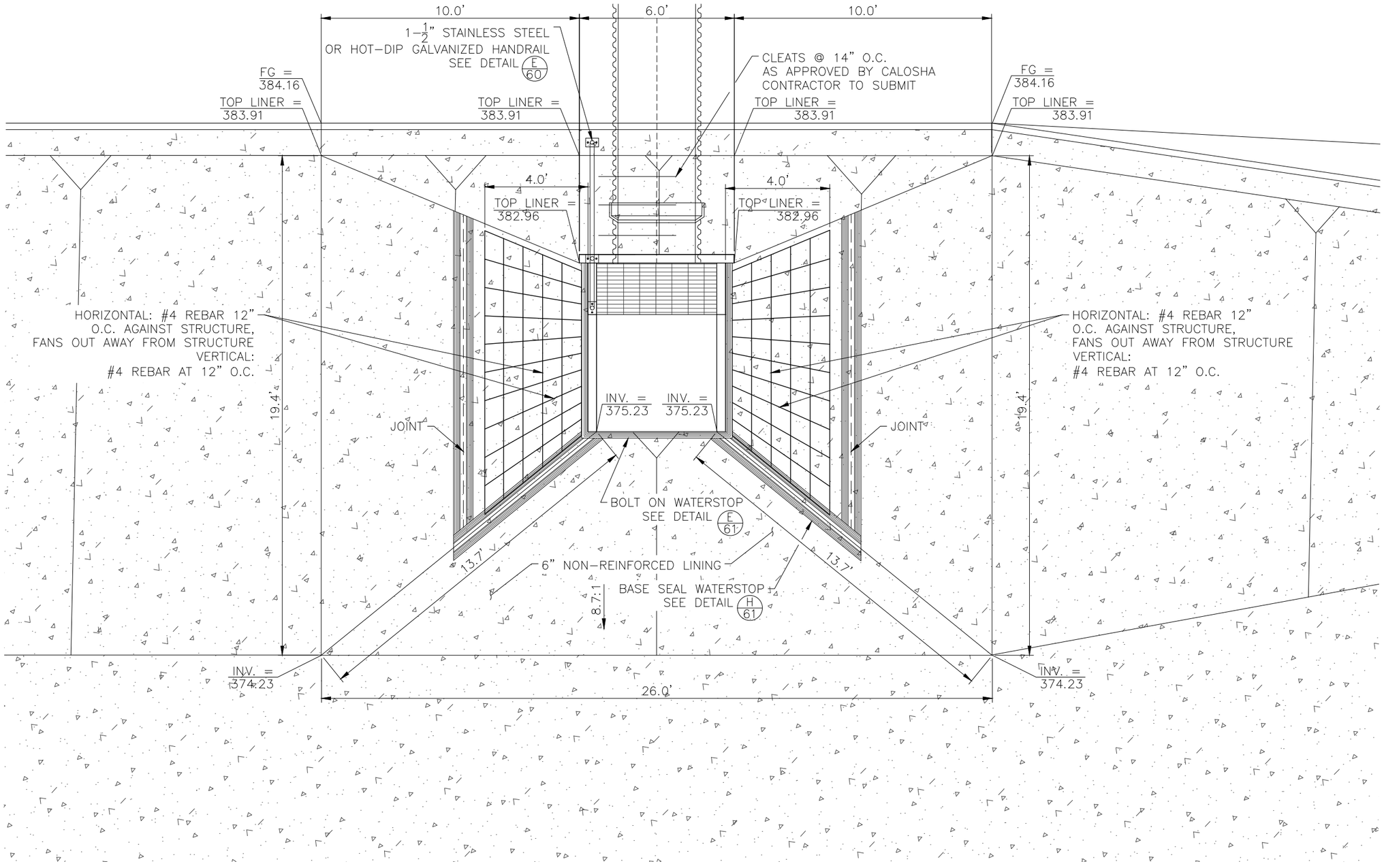
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CT-1 SINGLE BAY TURNOUT - PLAN AND PROFILE - STA. 580+14.72

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD



A/38 TURNOUT REBAR PLAN VIEW

NORTH

0 2 4

SCALE: IN FEET

DRAWING NO. 38 of 61

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BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CT-1 SINGLE BAY TURNOUT - REINFORCEMENT PLAN - STA. 580+14.72

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REV.	DATE	DESCRIPTION
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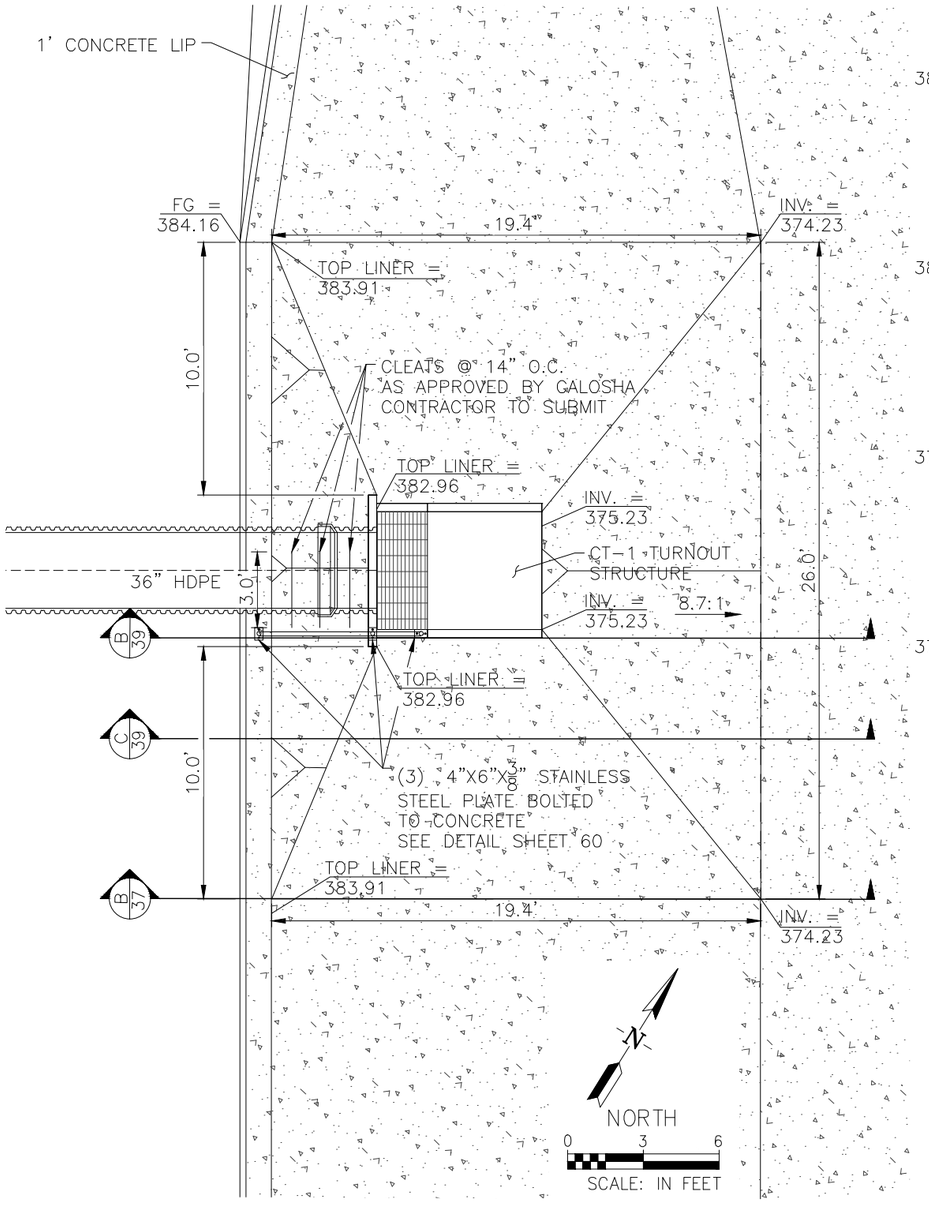
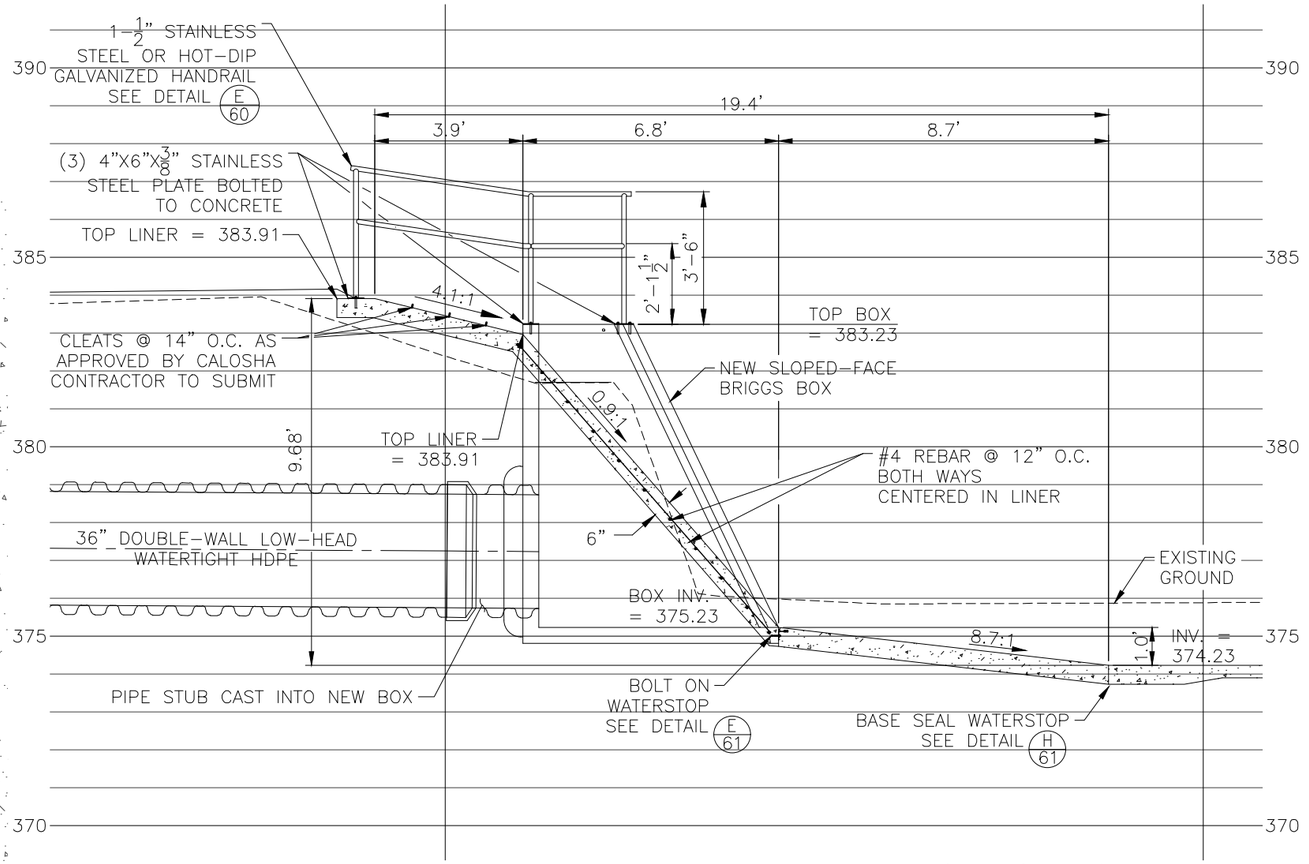
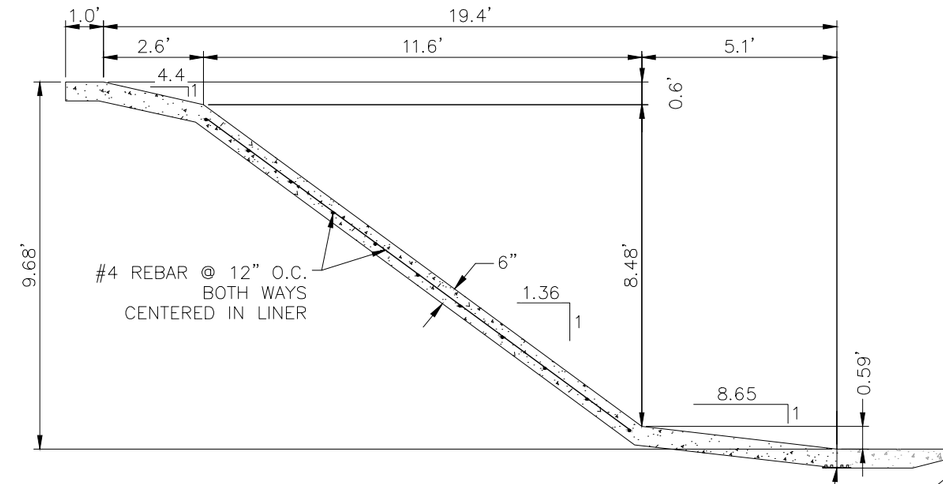
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A 39 TURNOUT PLAN VIEW
SCALE: 1"=8'



B 39 TURNOUT SECTION VIEW
0 2 4
SCALE IN FEET



C 39 8-1 TURNOUT SECTION VIEW
0 2 4
SCALE IN FEET

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Lic. No. 40,031
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REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD CT-1 SINGLE BAY TURNOUT - REINFORCEMENT DETAILS - STA. 580+14.72

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

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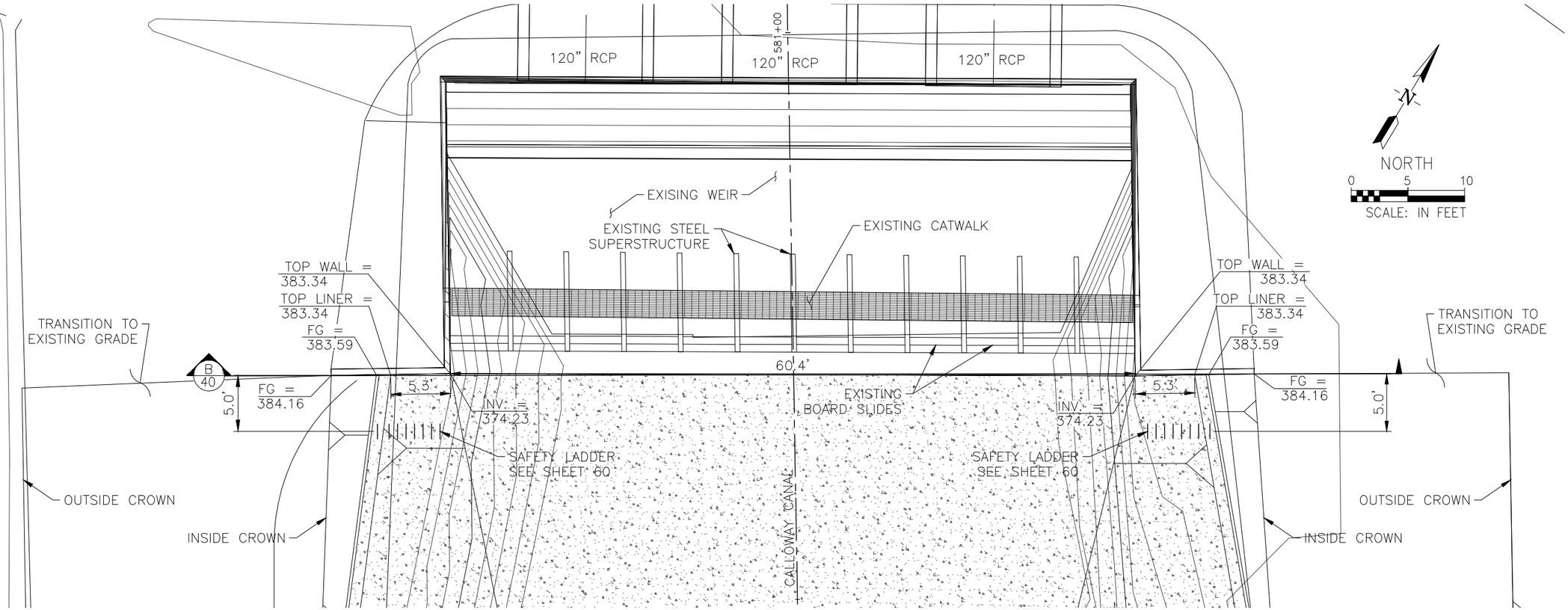
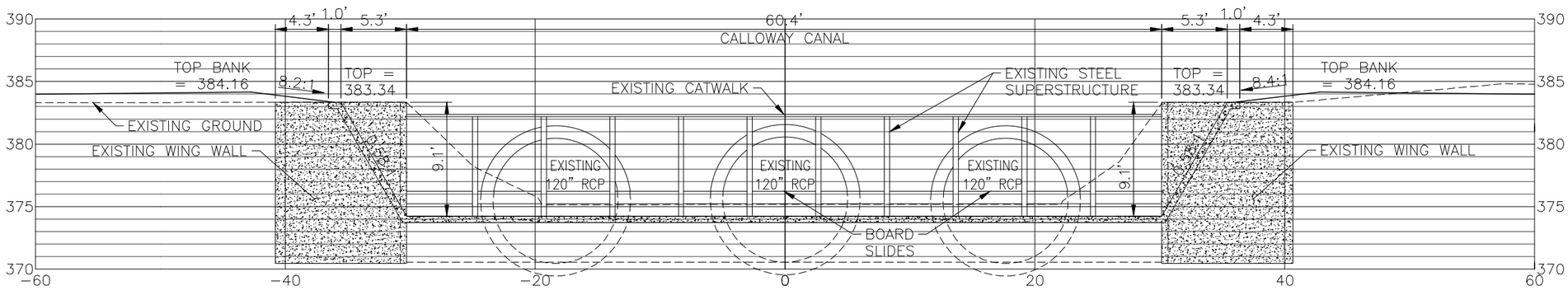
DRAWING NO. 39 of 61



A 40 EXISTING WEIR PLAN



B 40 EXISTING WEIR SECTION

0 4 8
VERTICAL SCALE: IN FEET

0 5 10
HORIZ. SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
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DRAWING NO. 40 of 61

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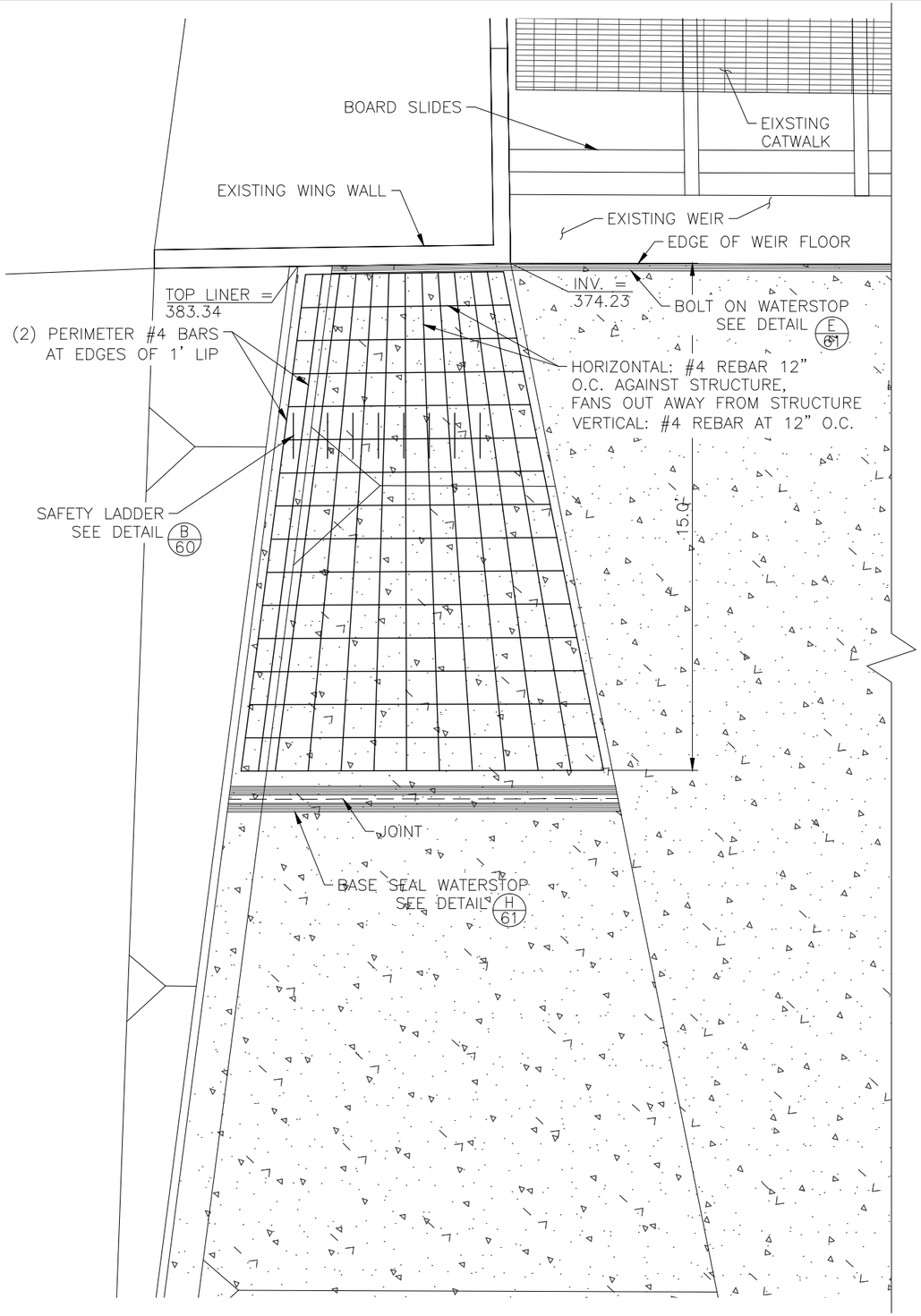
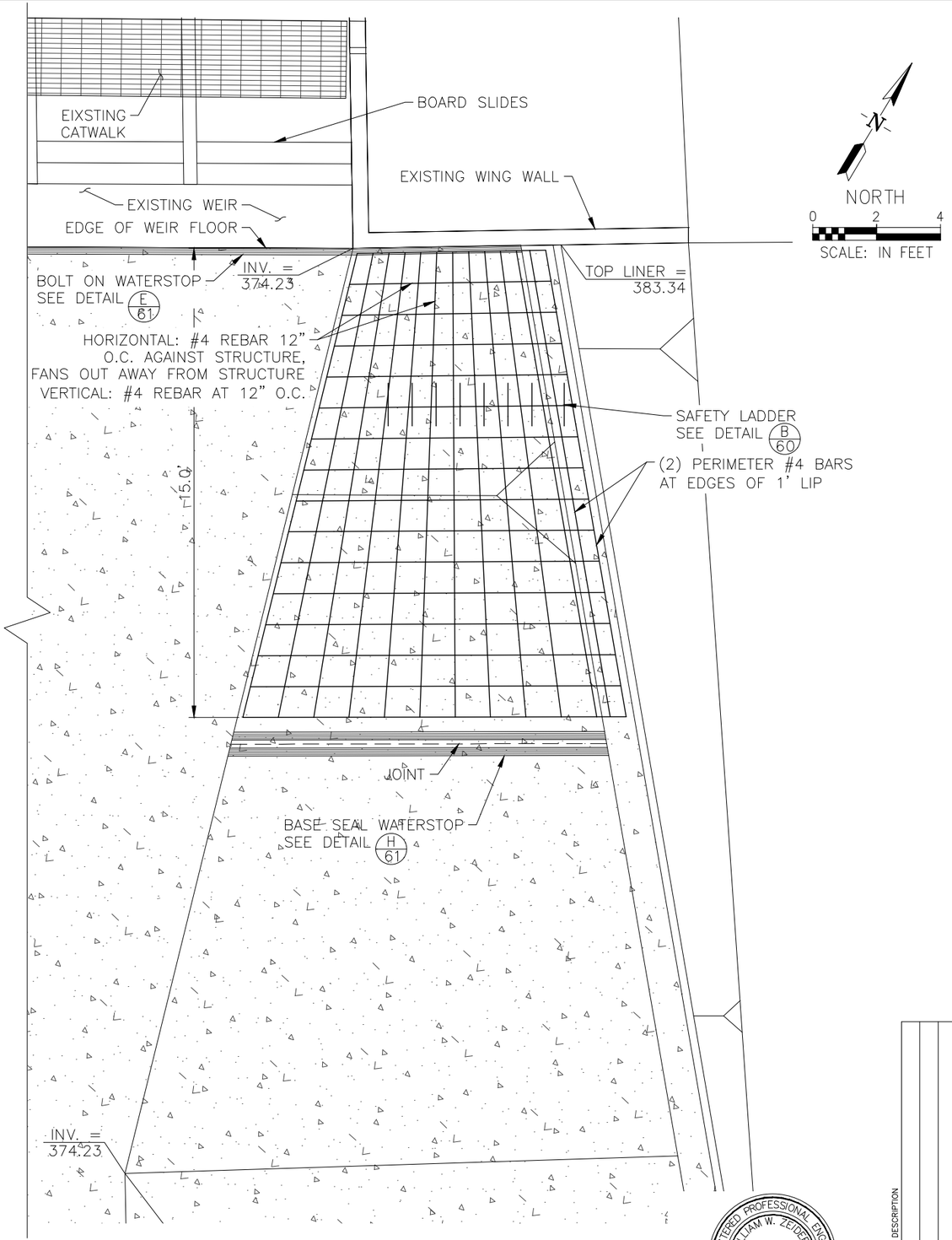
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
EXISTING WEIR PLAN AND PROFILE

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD





A/41 REINFORCED LINING AT EXISTING WEIR PLAN

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

DRAWING NO. 41 of 61

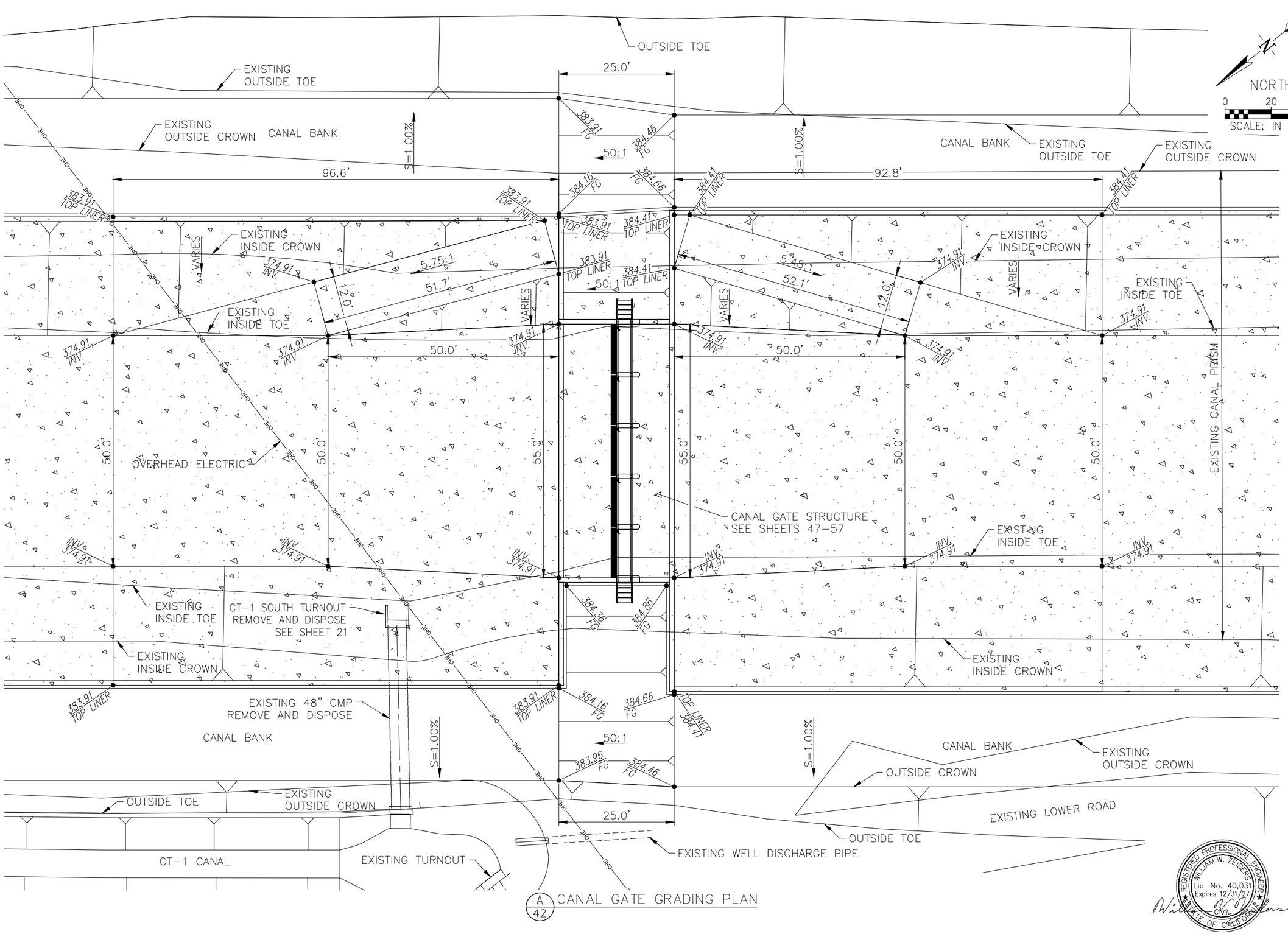
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
EXISTING WEIR - REINFORCEMENT PLAN

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/42 CANAL GATE GRADING PLAN

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

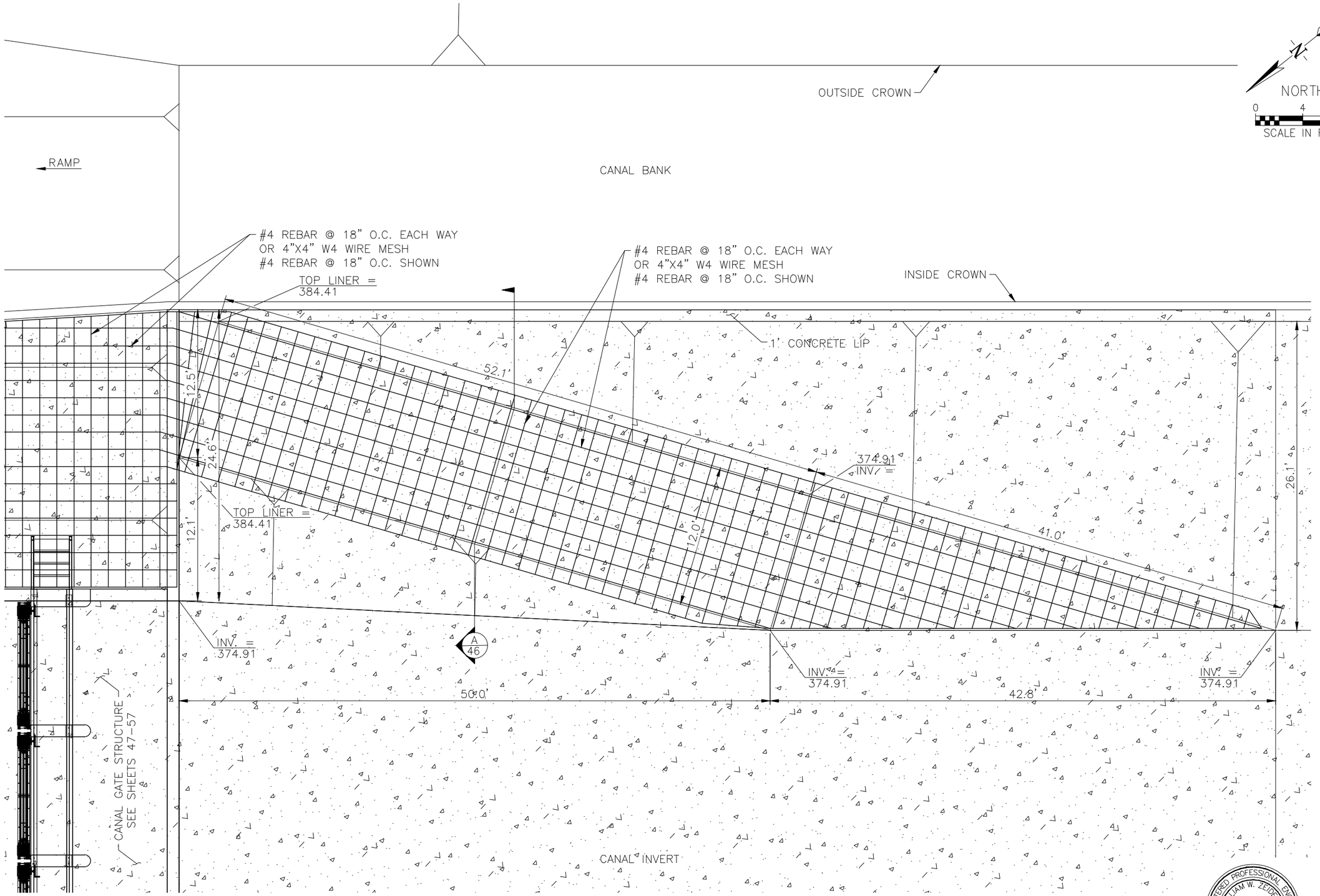
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL GATE GRADING PLAN

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 42 of 61



A/43 SOUTH ACCESS RAMP REINFORCEMENT PLAN

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

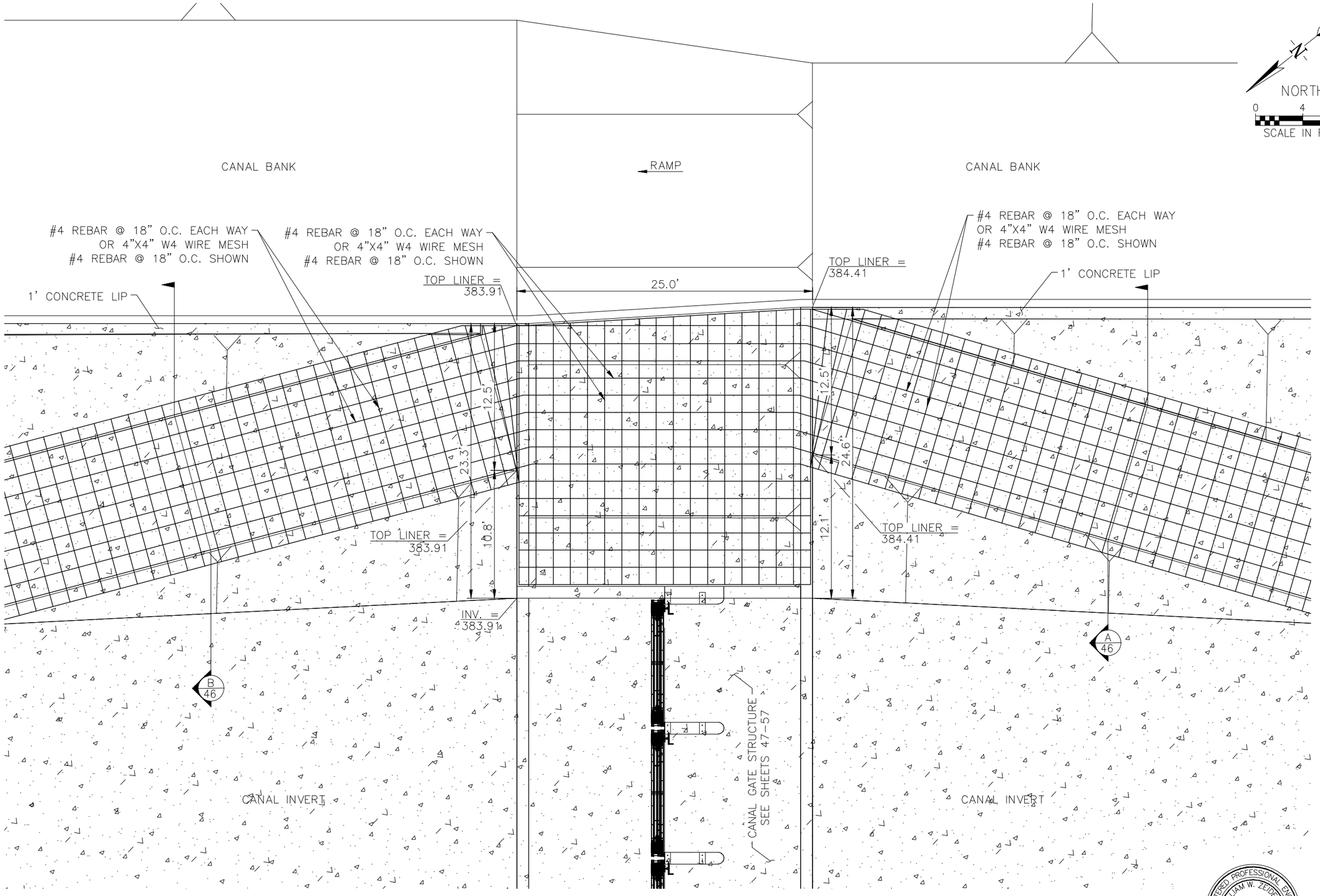
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL GATE SOUTH RAMP REINFORCEMENT PLAN

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 43 of 61



A 44 MIDDLE REINFORCED ACCESS RAMPS PLAN

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION
1		

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL GATE CONCRETE REINFORCEMENT PLAN

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 44 of 61

OUTSIDE CROWN

NORTH

0 4 8

SCALE IN FEET

CANAL BANK

RAMP

#4 REBAR @ 18" O.C.
OR 4"X4" W4 WIRE MESH
#4 REBAR @ 18" O.C. SHOWN

#4 REBAR @ 18" O.C.
OR 4"X4" W4 WIRE MESH
#4 REBAR @ 18" O.C. SHOWN

INSIDE CROWN

TOP LINER = 383.91

TOP LINER = 383.91

1' CONCRETE LIP

51.7'

12.5'

23.3'

374.91
INV. =

45.0'

12.0'

TOP LINER = 383.91

10.8'

INV. = 374.91

INV. = 374.91

INV. = 374.91

46.6'

50.0'

B
46

OVERHEAD ELECTRIC

CANAL INVERT

CANAL GATE STRUCTURE
SEE SHEETS 46-56

A
45
NORTH ACCESS RAMP REINFORCEMENT PLAN

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. DATE DESCRIPTION

1

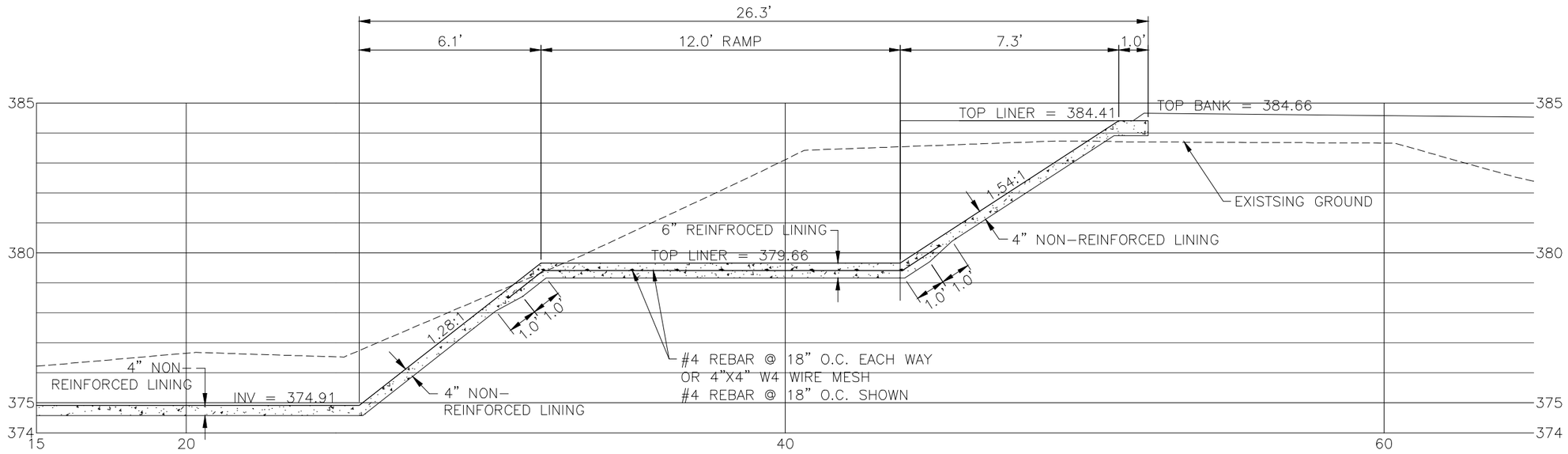
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL GATE NORTH RAMP REINFORCEMENT PLAN

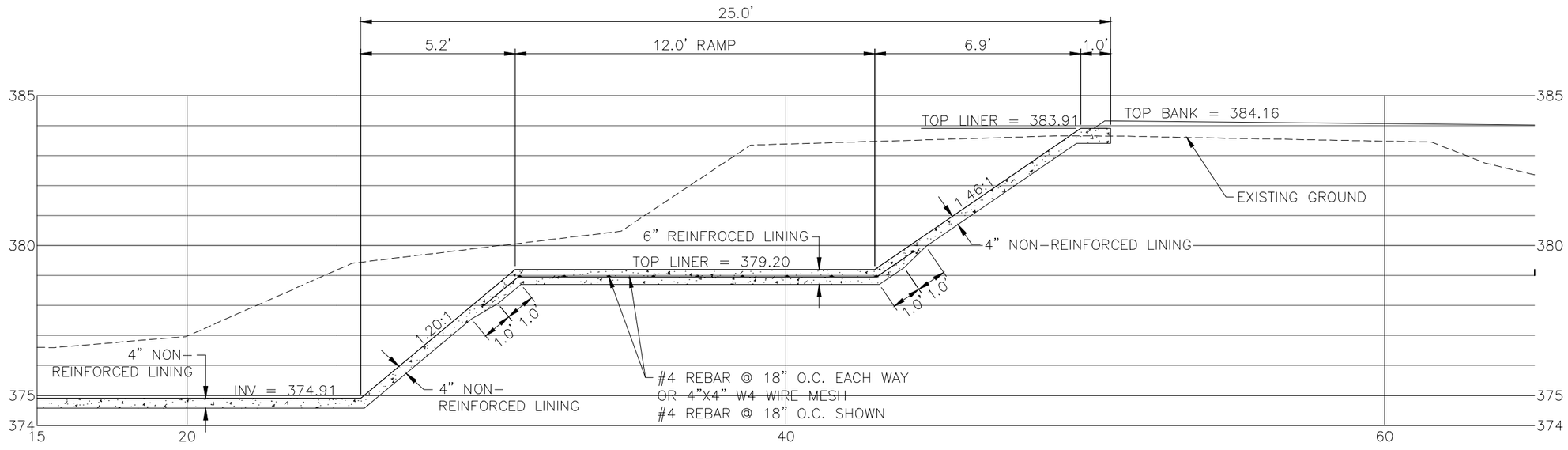
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 45 of 61



A 46 SOUTH ACCESS RAMP SECTION



B 46 NORTH ACCESS RAMP SECTION

0 2 4
HORIZ. SCALE IN FEET

0 2 4
VERT. SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. DATE DESCRIPTION

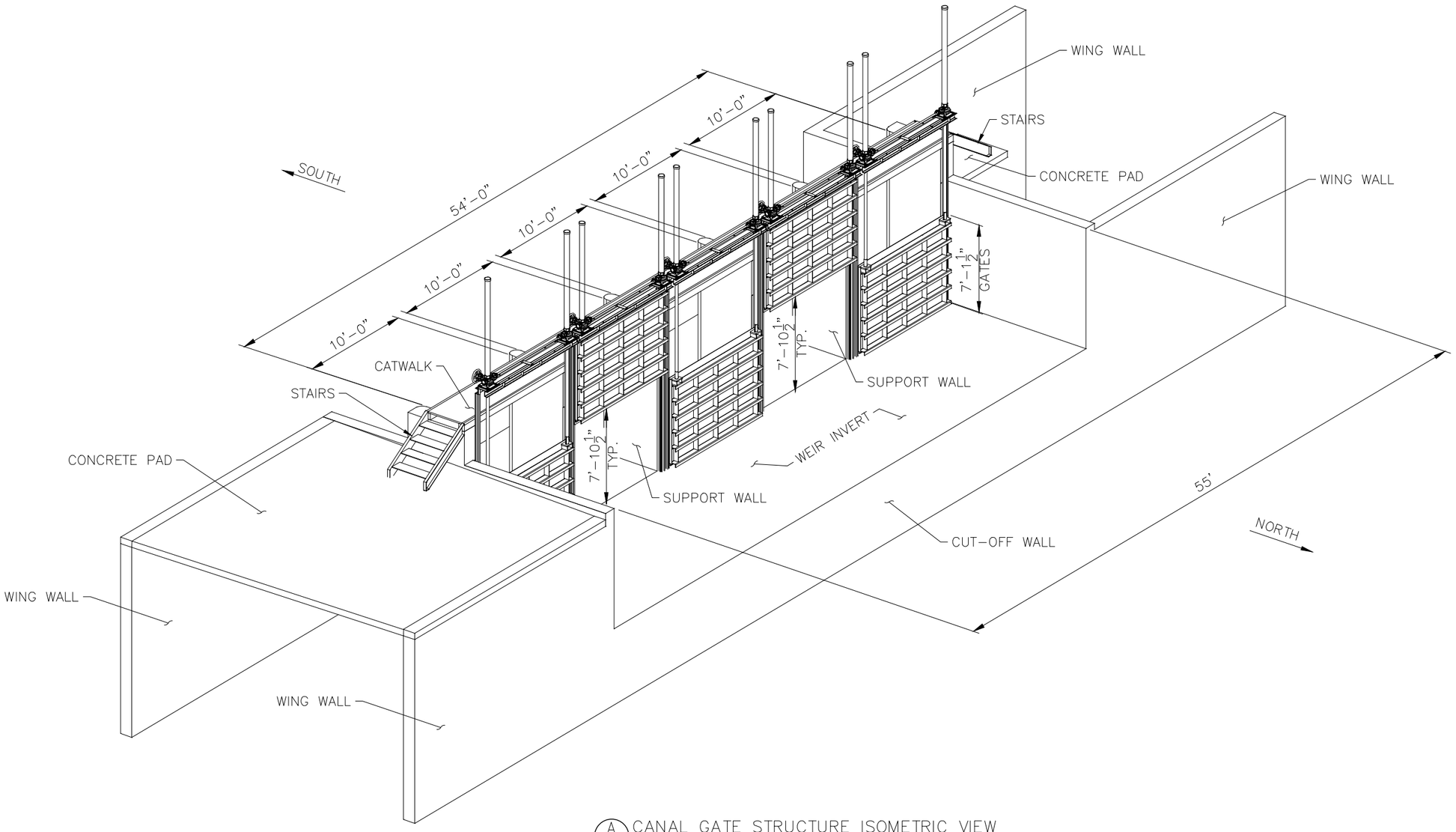
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
CANAL GATE STRUCTURE - RAMP REINFORCEMENT CROSS SECTIONS

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 46 of 61



A / 47 CANAL GATE STRUCTURE ISOMETRIC VIEW

NOT TO SCALE

DRAWING NO. 47 of 61

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589–8366

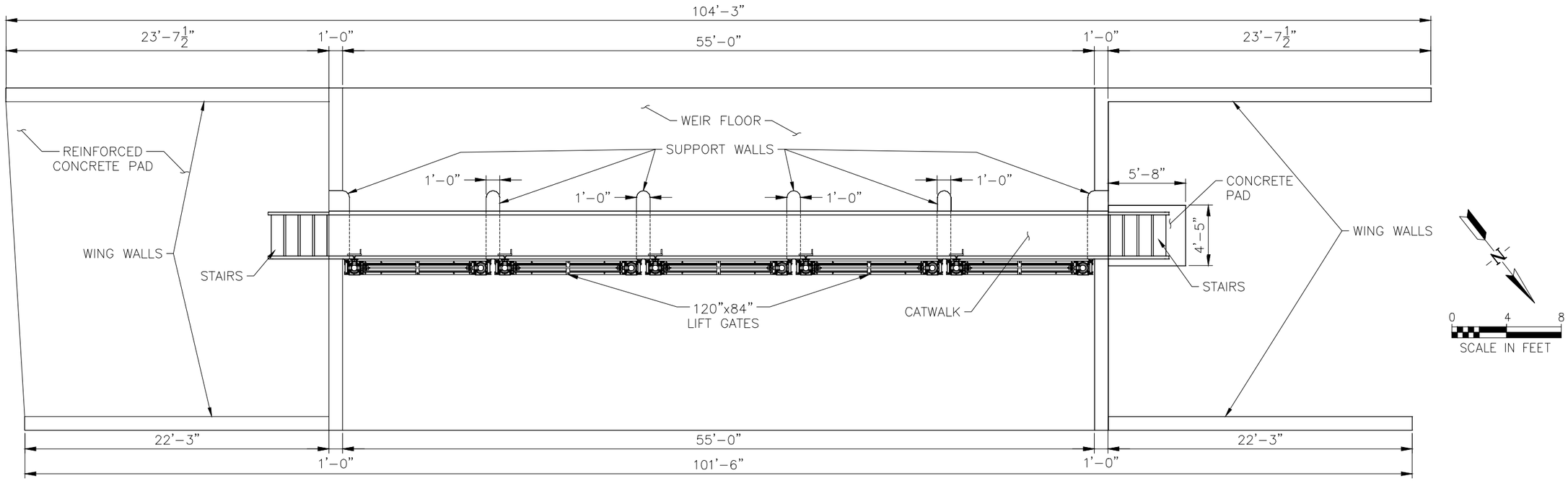
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - ISOMETRIC VIEW

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
STATE OF CALIFORNIA — CIVIL

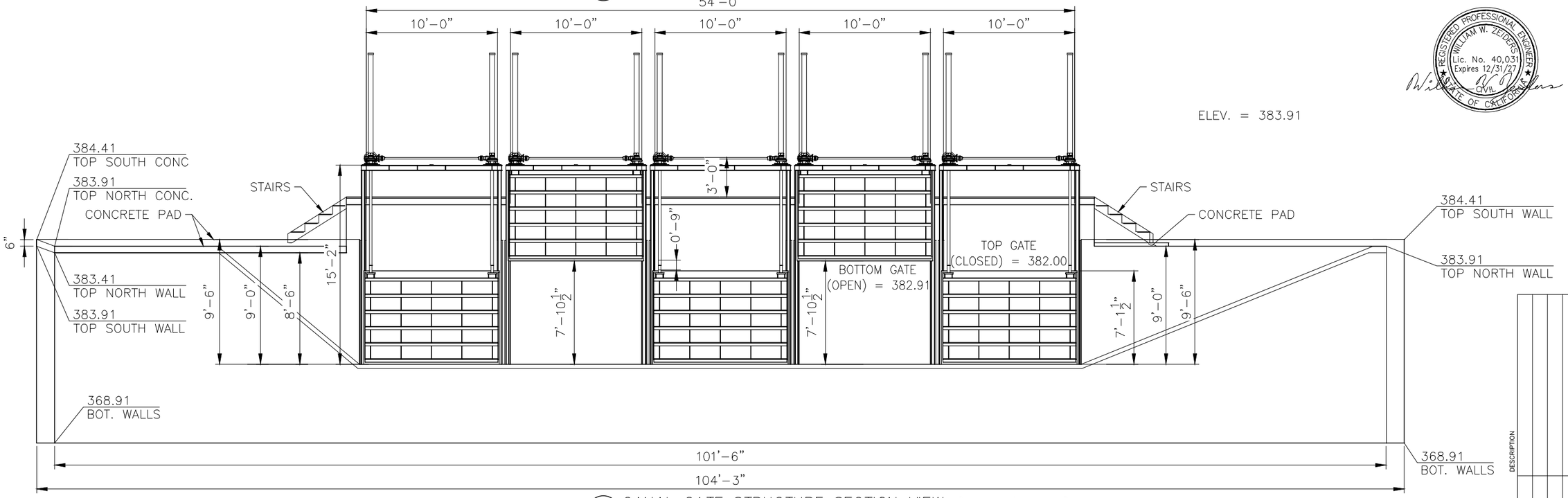
REV. | DATE | DESCRIPTION

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/48 CANAL GATE STRUCTURE PLAN VIEW

SCALE IN FEET



ELEV. = 383.91

B/48 CANAL GATE STRUCTURE SECTION VIEW LOOKING SOUTH

SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

DRAWING NO. 48 of 61

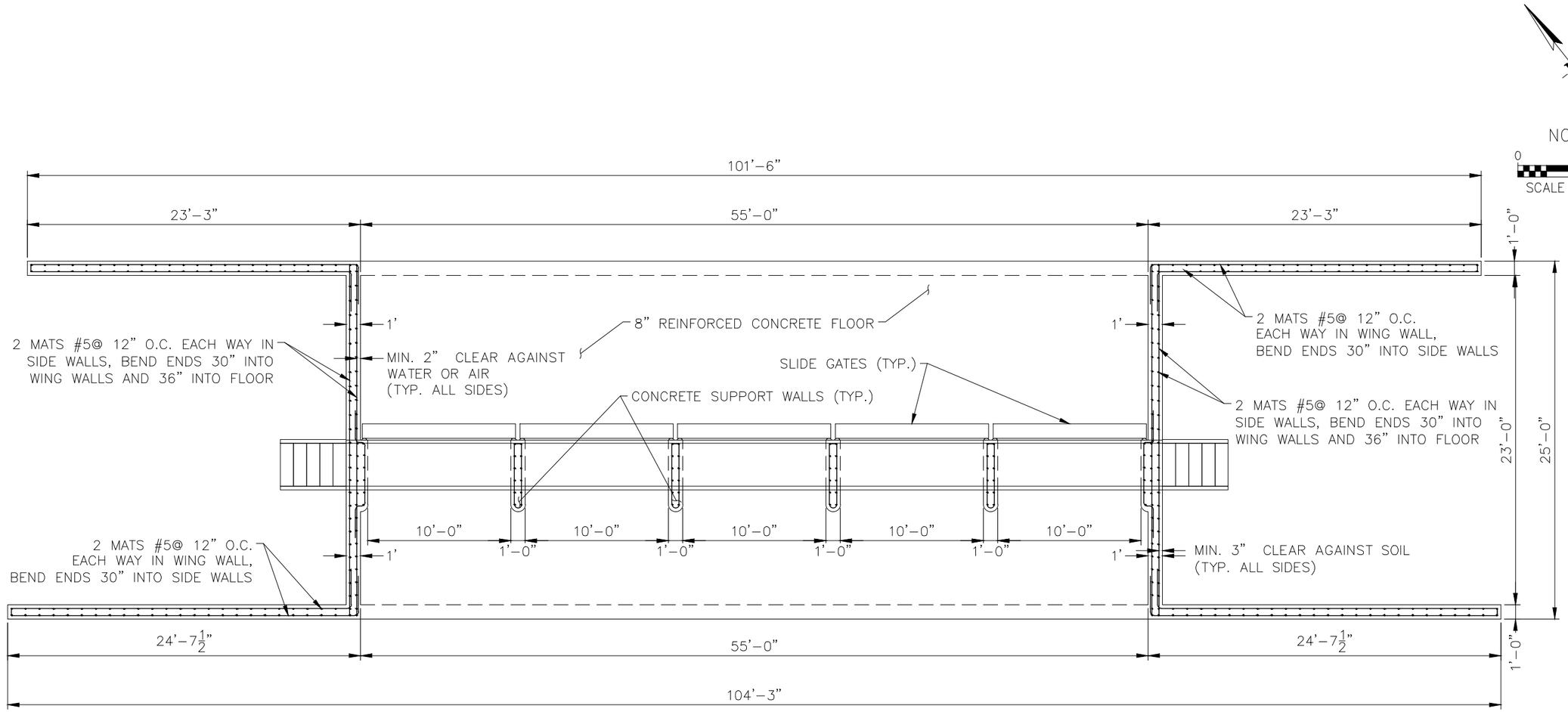
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - PLAN AND SECTION VIEW

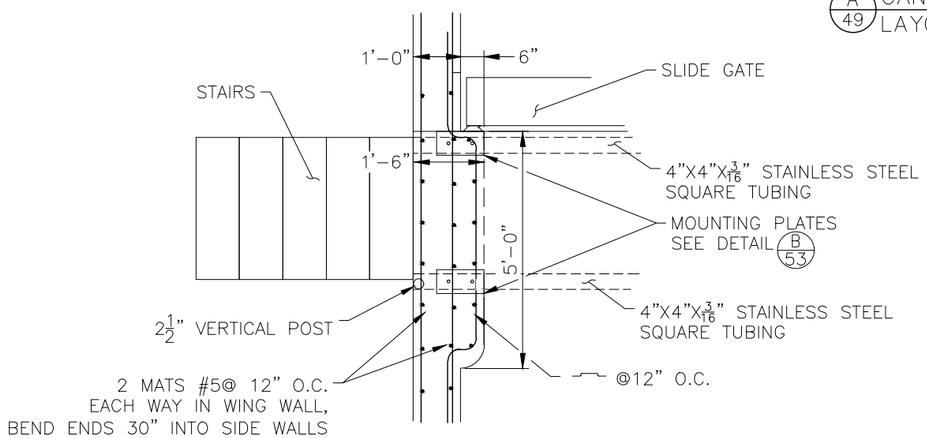
REV.	DATE	DESCRIPTION

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

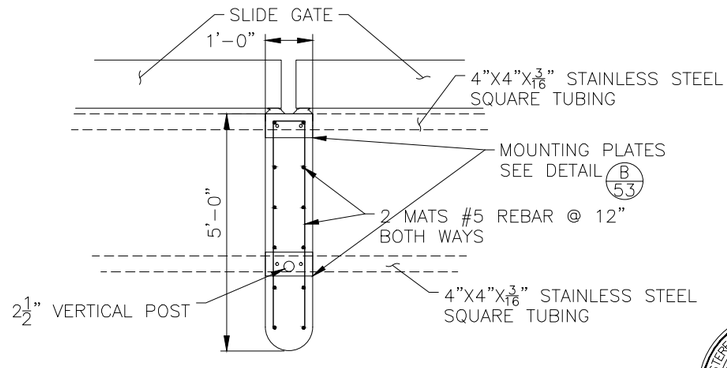


A/49 CANAL GATE STRUCTURE LAYOUT AND WALL REINFORCEMENT

0 4 8
SCALE IN FEET



B/49 THICKENED SIDE WALL REBAR
NOT TO SCALE



C/49 SUPPORT WALL REBAR
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION

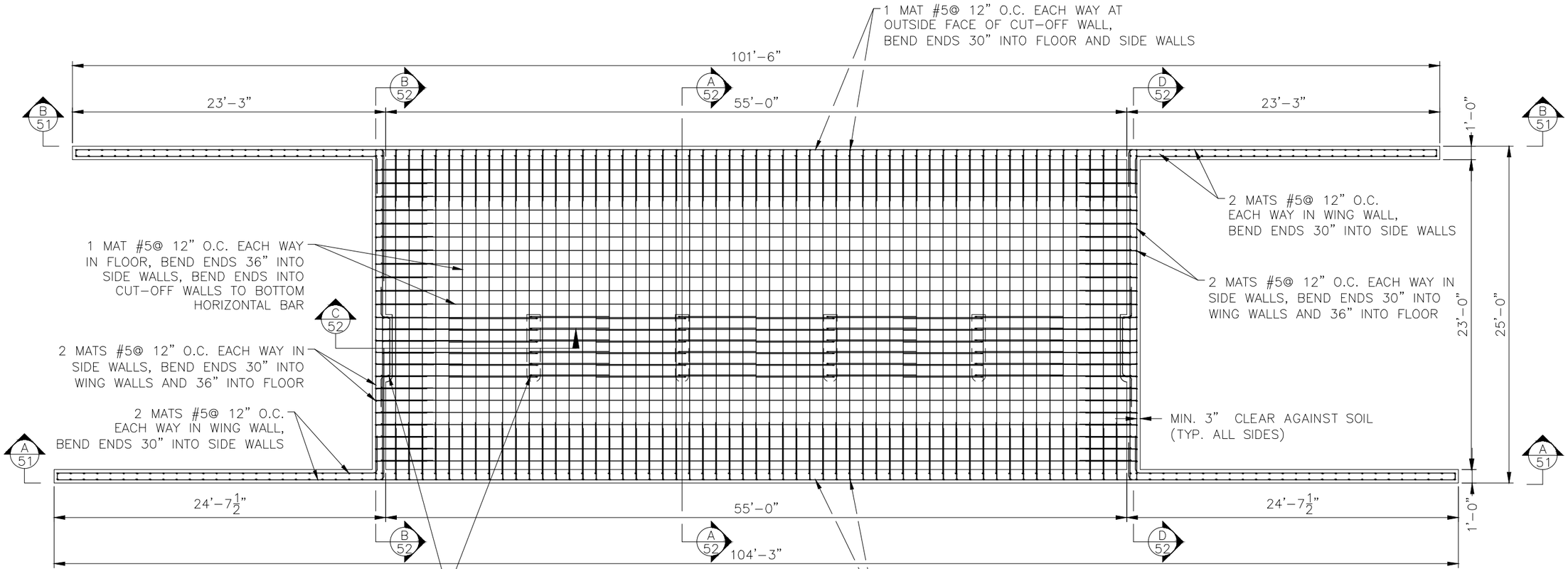
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-0F 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - FLOOR REINFORCEMENT PLAN

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

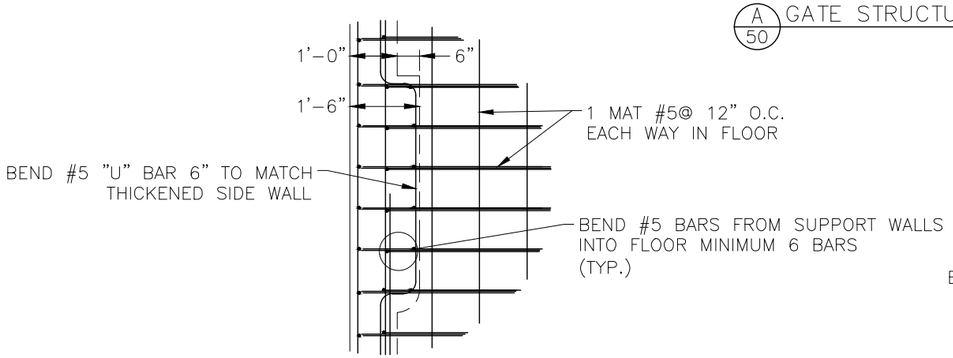
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 49 of 61

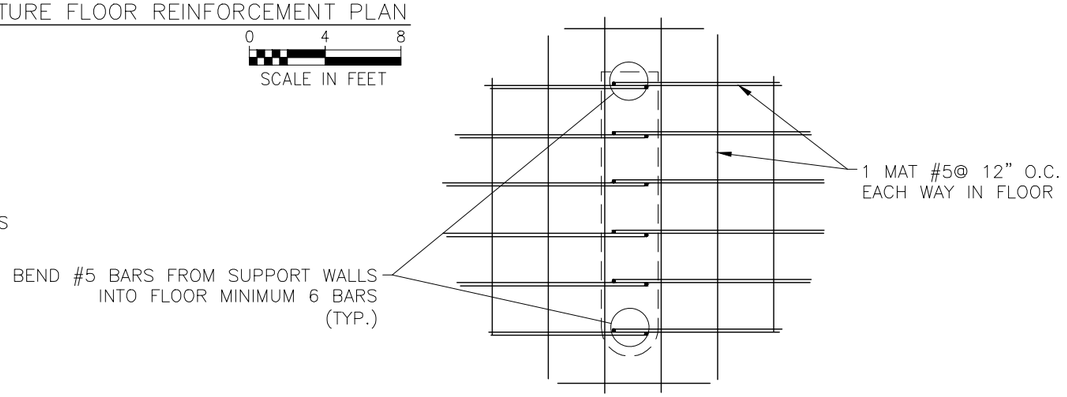


A/50 GATE STRUCTURE FLOOR REINFORCEMENT PLAN

0 4 8
SCALE IN FEET



B/50 THICKENED SIDE WALL REBAR
NOT TO SCALE



C/50 SUPPORT WALL/FLOOR REBAR INTERFACE
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION

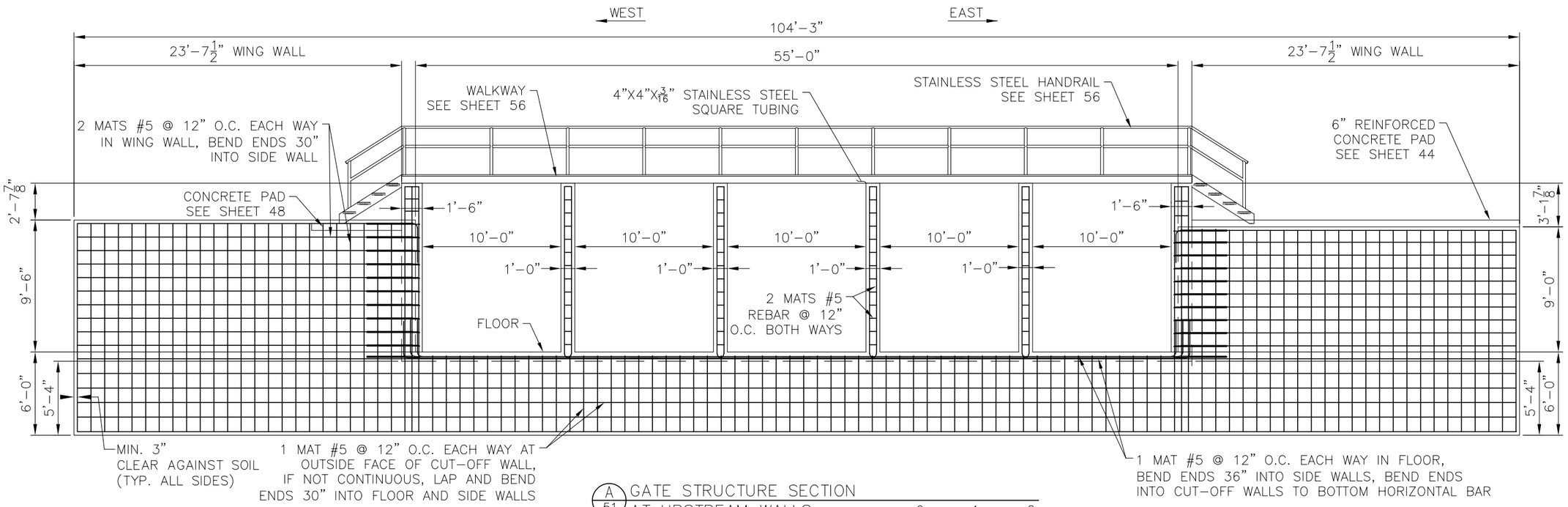
DRAWING NO. 50 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

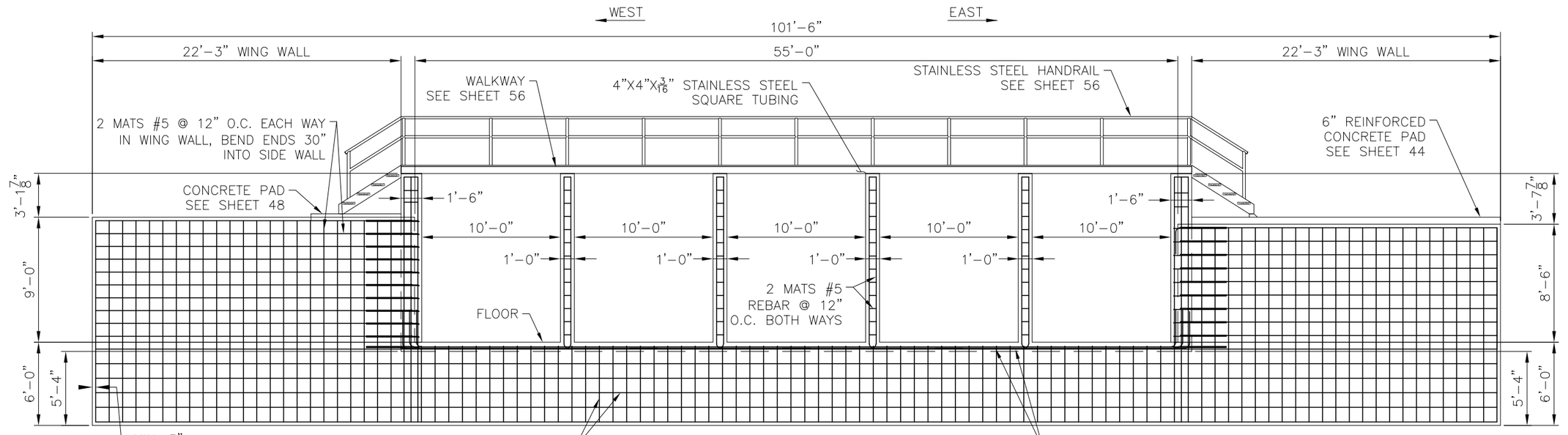
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - FLOOR REINFORCEMENT PLAN

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/51 GATE STRUCTURE SECTION
AT UPSTREAM WALLS
LAYOUT AND REINFORCEMENT

0 4 8
SCALE IN FEET



B/51 GATE STRUCTURE SECTION
AT DOWNSTREAM WALLS
LAYOUT AND REINFORCEMENT

0 4 8
SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
STATE OF CALIFORNIA
CIVIL

DRAWING NO. 51 of 61

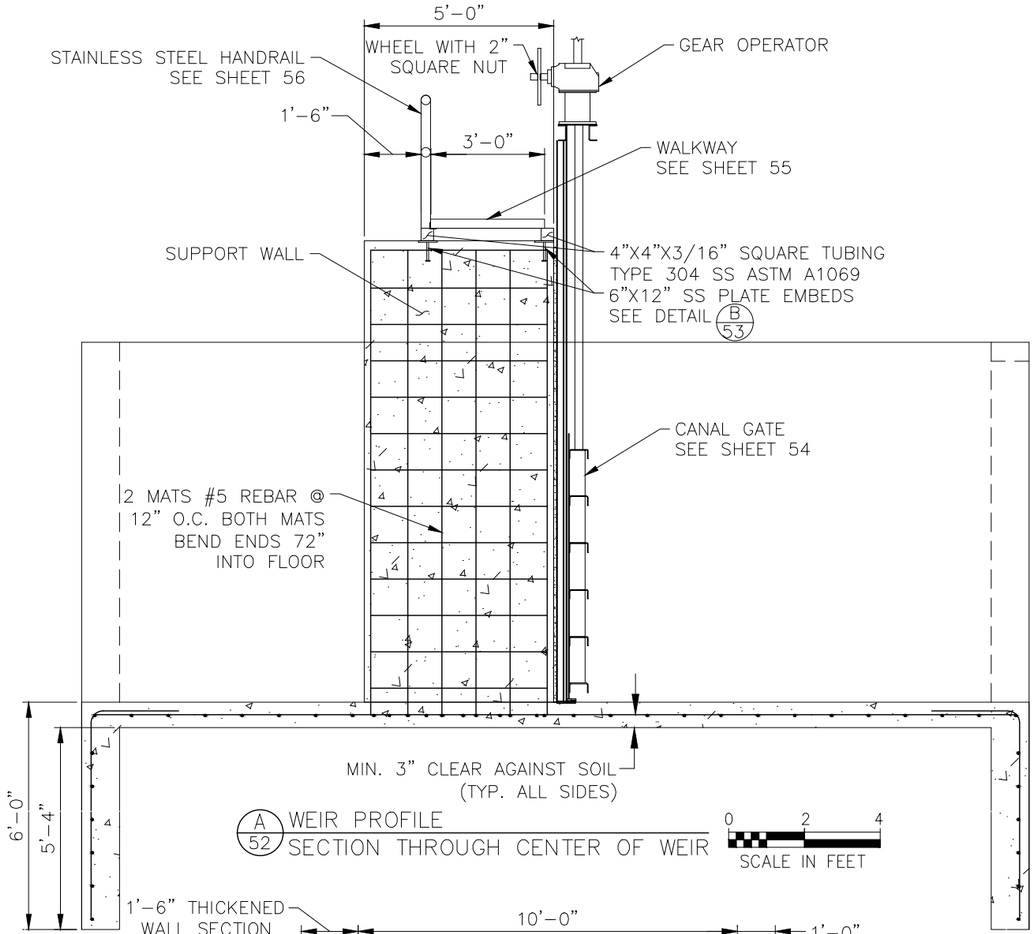
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - DETAILS - END SECTIONS

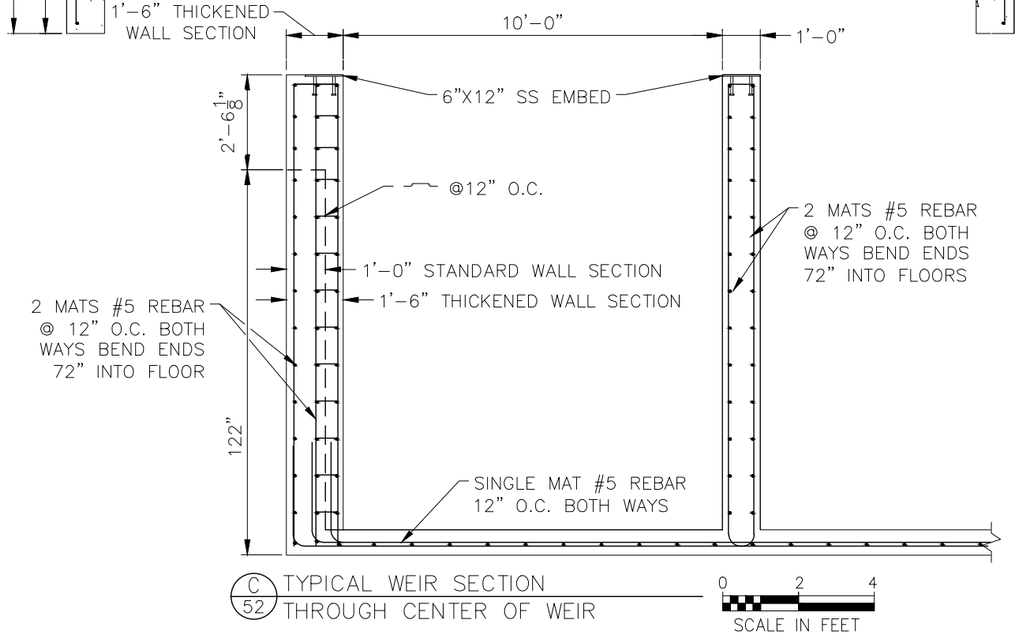
REV.	DATE	DESCRIPTION

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-GF 7TH STD



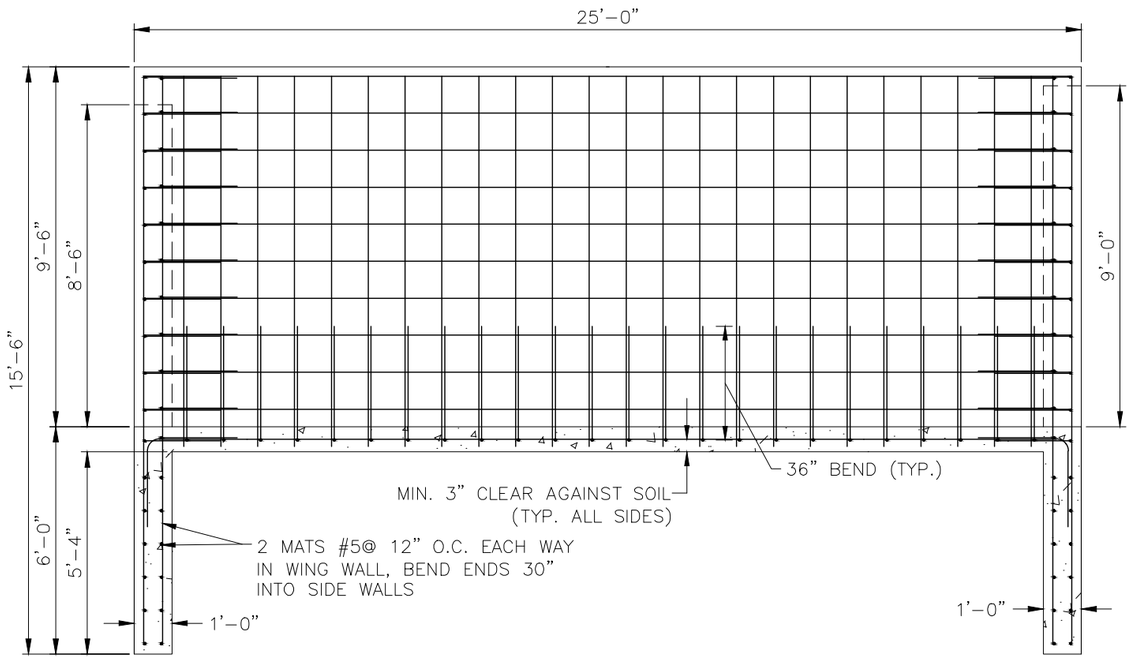
A 52 WEIR PROFILE
SECTION THROUGH CENTER OF WEIR

0 2 4
SCALE IN FEET



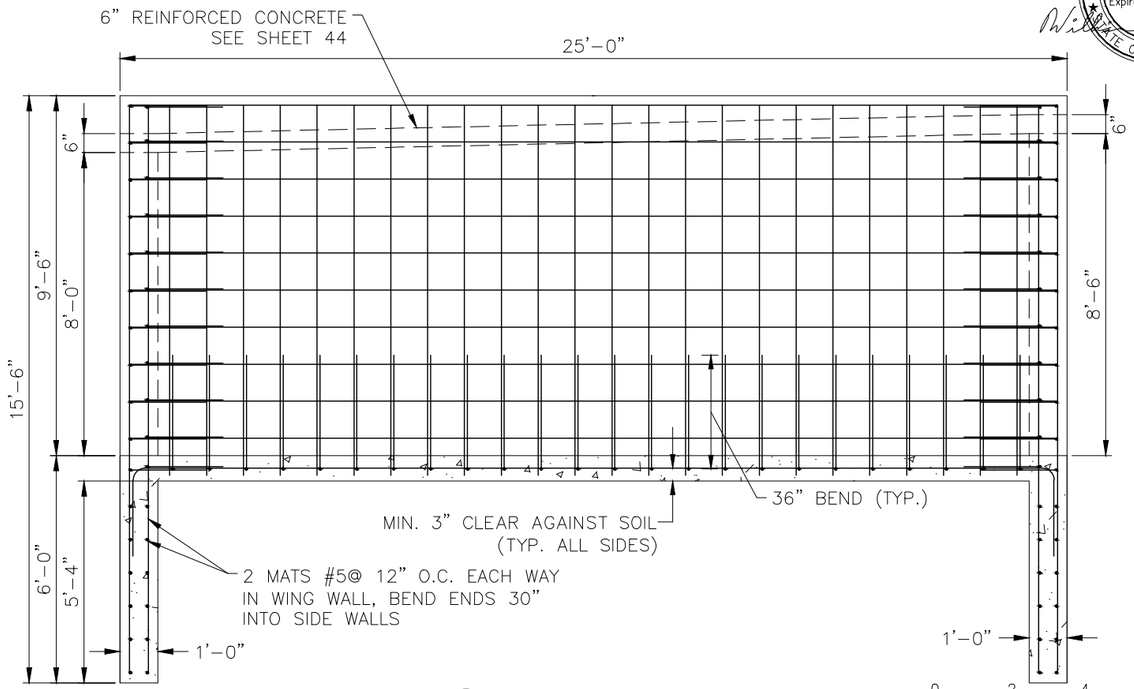
C 52 TYPICAL WEIR SECTION
THROUGH CENTER OF WEIR

0 2 4
SCALE IN FEET



B 52 WEIR PROFILE
LAYOUT AND REINFORCEMENT
THROUGH WEST SIDE WALL

0 2 4
SCALE IN FEET



D 52 WEIR PROFILE
LAYOUT AND REINFORCEMENT
THROUGH EAST SIDE WALL

0 2 4
SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

DRAWING NO. 52 of 61

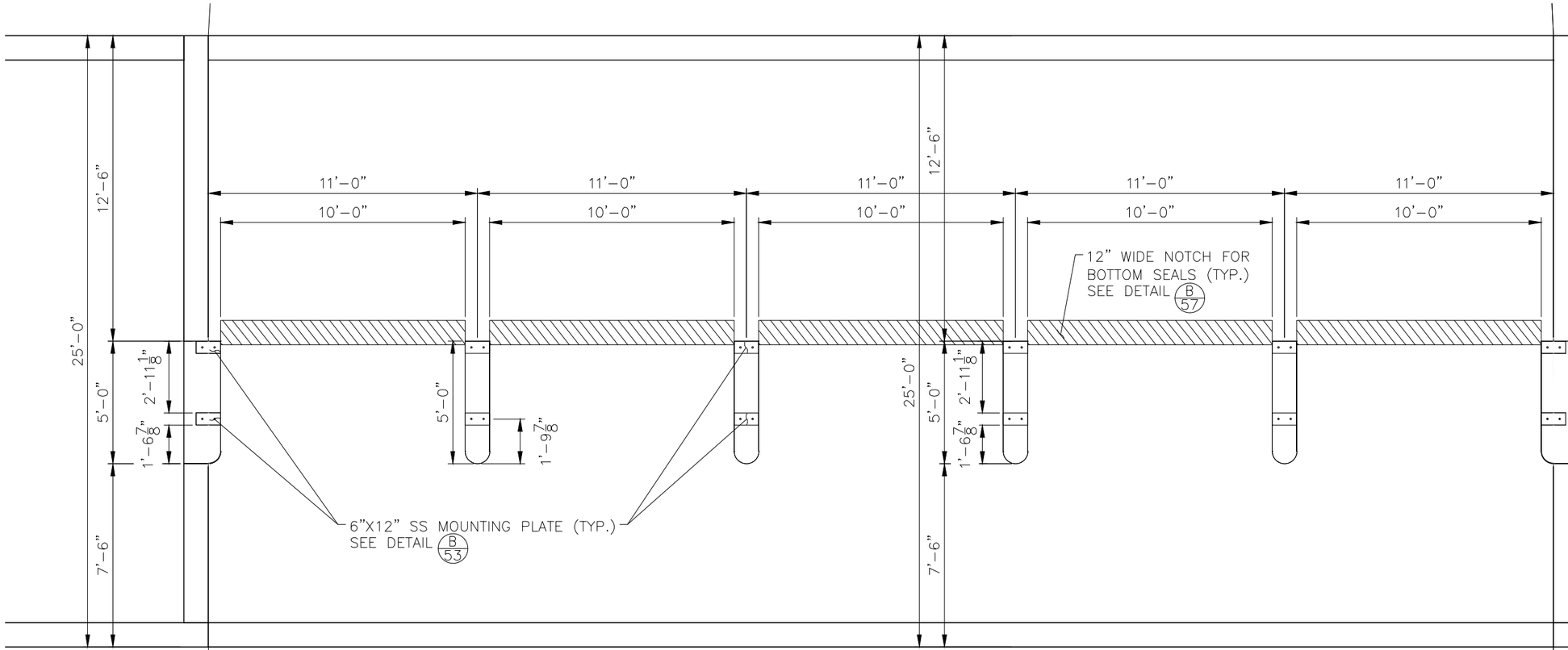
ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - DETAILS - PROFILES

REV.	DATE	DESCRIPTION

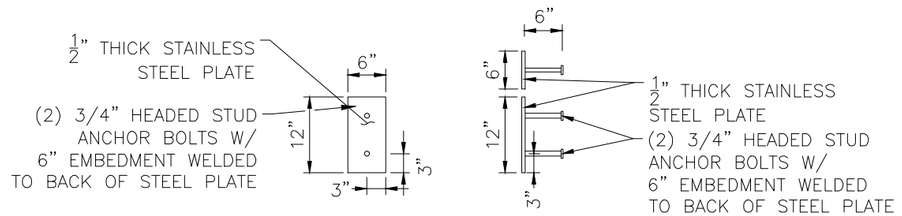
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/53 GATE STRUCTURE PLAN – EMBED LOCATIONS (TOP OF WALLS)

0 2.5 5

SCALE IN FEET



FACE (TOP) VIEW SIDE VIEWS

B/53 MOUNTING PLATE DETAIL

0 1 2

SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. DATE DESCRIPTION

DRAWING NO. 53 of 61

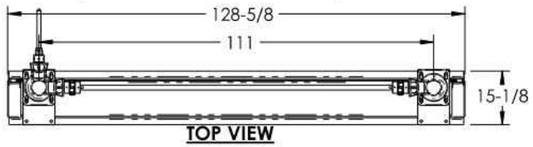
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

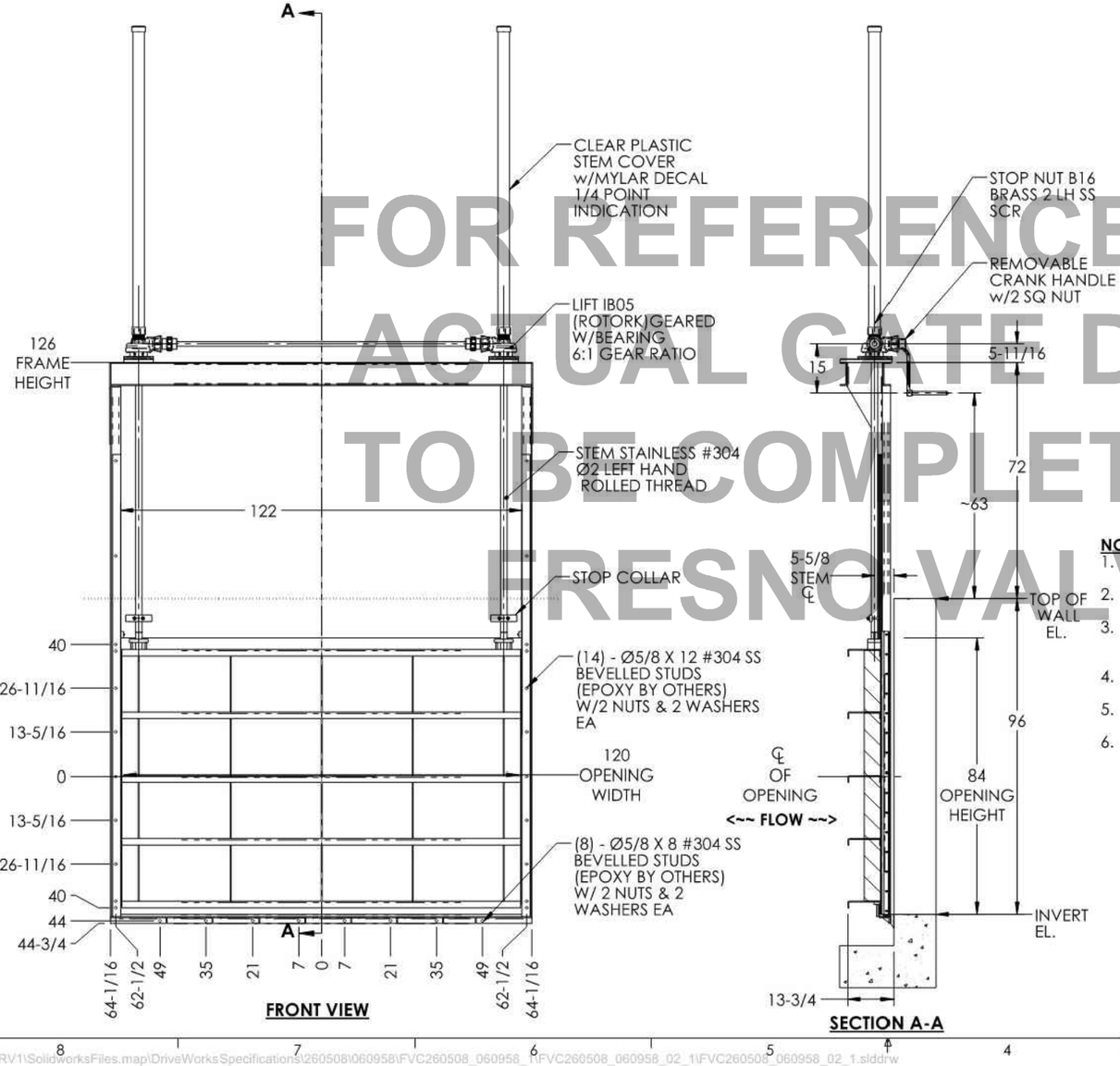
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - STEEL LAYOUT - PLAN VIEW

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-GF 7TH STD

FOR REFERENCE ONLY.
ACTUAL GATE DESIGN
TO BE COMPLETED BY
FRESNO VALVES

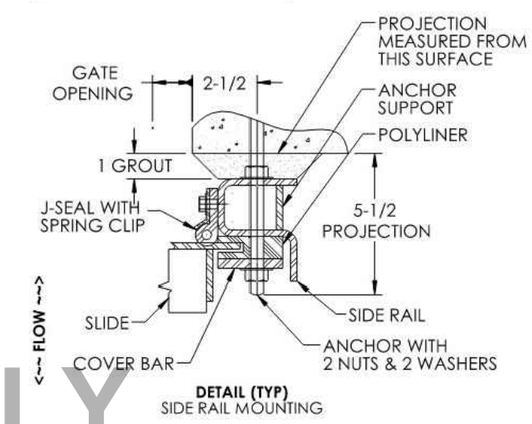


TOP VIEW

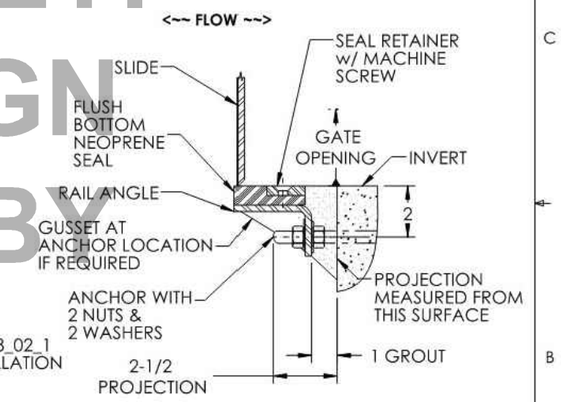


FRONT VIEW

SECTION A-A



DETAIL (TYP)
SIDE RAIL MOUNTING



DETAIL (TYP)
BOTTOM RAIL MOUNTING

NOTES:

1. REFERENCE:
   - FVC260508_060958_02_1
2. SEE MANUAL FOR INSTALLATION AND ADJUSTMENTS.
3. DESIGN HEAD:
   - SEATING : 7 FT
   - UNSEATING: 7 FT
4. TAG NUMBER:
   -
5. PROJECT INFORMATION:
   - North Kern Water Storage
6. QUANTITY REQUIRED:
   - 5 EA

FVC# xxxxxx (PLEASE VERIFY MARKED (IF ANY) ELEVATIONS.)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE: FRACTIONAL DIM ± 1/16" ANGULAR DIM ±0.50° CASTING DIM ±0.025" UPTO 6" ADD ±0.0025" / INCH OVER 6" MACHINE DIM ±0.100" X.X" MACHINE DIM ±0.010" X.XX" MACHINE DIM ±0.005" X.XXX" BENDS DIM ± 1/2° FAB DIM ±0.125" X.X" FAB DIM ±0.0625" X.XX" DEBURR ALL SHARP EDGES & CORNERS ON CASTINGS, MACH. PARTS, SHT. METAL PARTS MATERIAL : SEE SHEET 2 TYPE : MANUFACTURED	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FRESNO VALVES & CASTINGS INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF FRESNO VALVES & CASTINGS INC. IS PROHIBITED TITLE / DATE / NAME DRAWN 08MAY26 SBS CHECKED APPRVD FRESNO VALVES AND CASTINGS, INC. P.O. BOX 40, SELMA, CA 93662 PHONE (559) 834-2511, FAX (559) 834-2017 DIVISION: FRESNO VALVES **SERIES 8200 FABRICATED GATES** FABRICATED SLIDE GATE, #304 SS, 120" WIDE X 84" HIGH W/126" FRM. SELF CONTAINED, RISING STEM, 2-SIDED J-SEAL, INSTALLATION DRAWING SCALE: NTS WEIGHT: 2530 lbs SHEET 1 OF 2 DRAWING NO. FVC260508_060958_02_1

DRAWING NO. 54 of 61

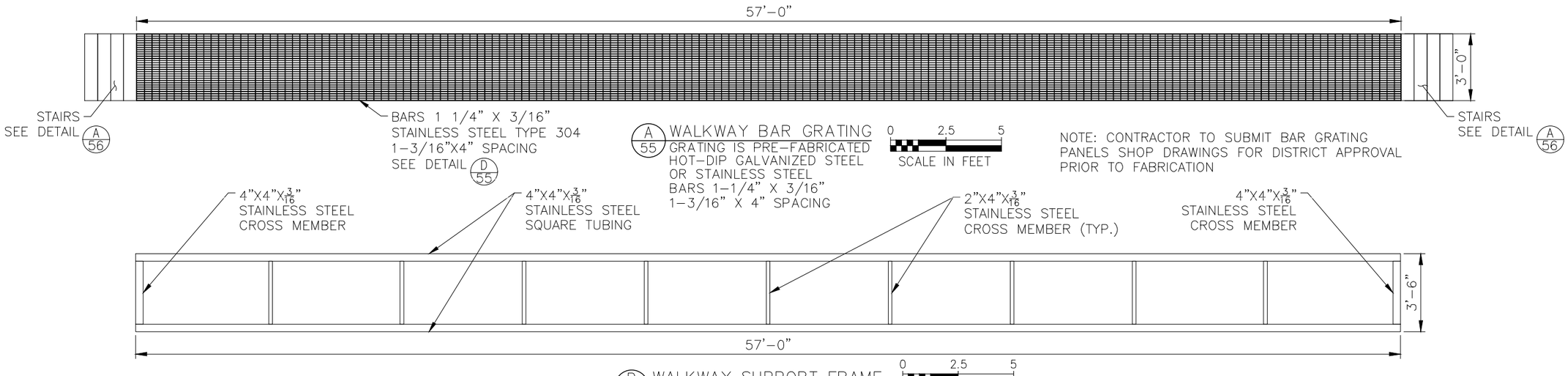
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - GATE DETAILS

REV. DATE DESCRIPTION

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-GF 7TH STD



A/55 WALKWAY BAR GRATING

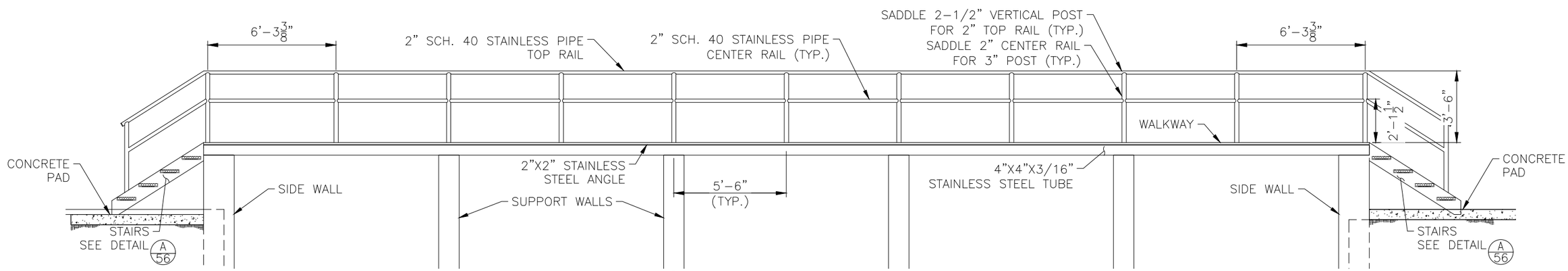
GRATING IS PRE-FABRICATED HOT-DIP GALVANIZED STEEL OR STAINLESS STEEL BARS 1-1/4" X 3/16" 1-3/16" X 4" SPACING

0 2.5 5 SCALE IN FEET

NOTE: CONTRACTOR TO SUBMIT BAR GRATING PANELS SHOP DRAWINGS FOR DISTRICT APPROVAL PRIOR TO FABRICATION

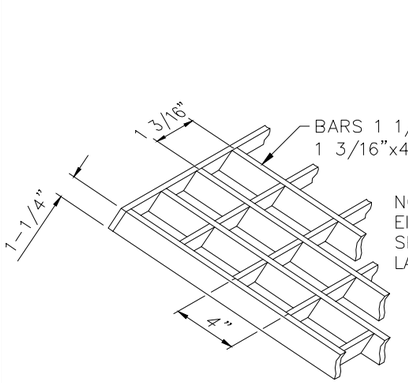
B/55 WALKWAY SUPPORT FRAME

0 2.5 5 SCALE IN FEET



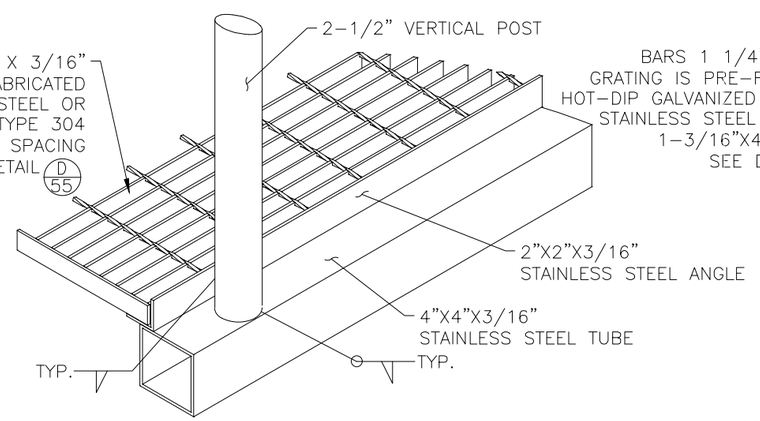
C/55 SAFETY HANDRAIL DETAIL

0 2.5 5 SCALE IN FEET

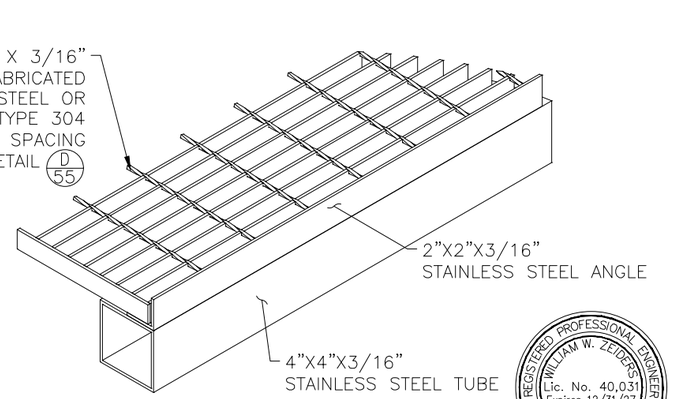


NOTE: BAR GRATING SHALL BE EITHER 1 SINGLE PIECE, OR SPLIT SO THAT SEGMENT ENDS LAND ON CROSS MEMBERS

D/55 WALKWAY GRATE DETAIL
NOT TO SCALE



E/55 WALKWAY GRATE CONNECTION DETAIL
NOT TO SCALE



F/55 WALKWAY GRATE CONNECTION DETAIL
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER WILLIAM W. ZEIDERS Lic. No. 40,031 Expires 12/31/27 STATE OF CALIFORNIA CIVIL

REV.	DATE	DESCRIPTION

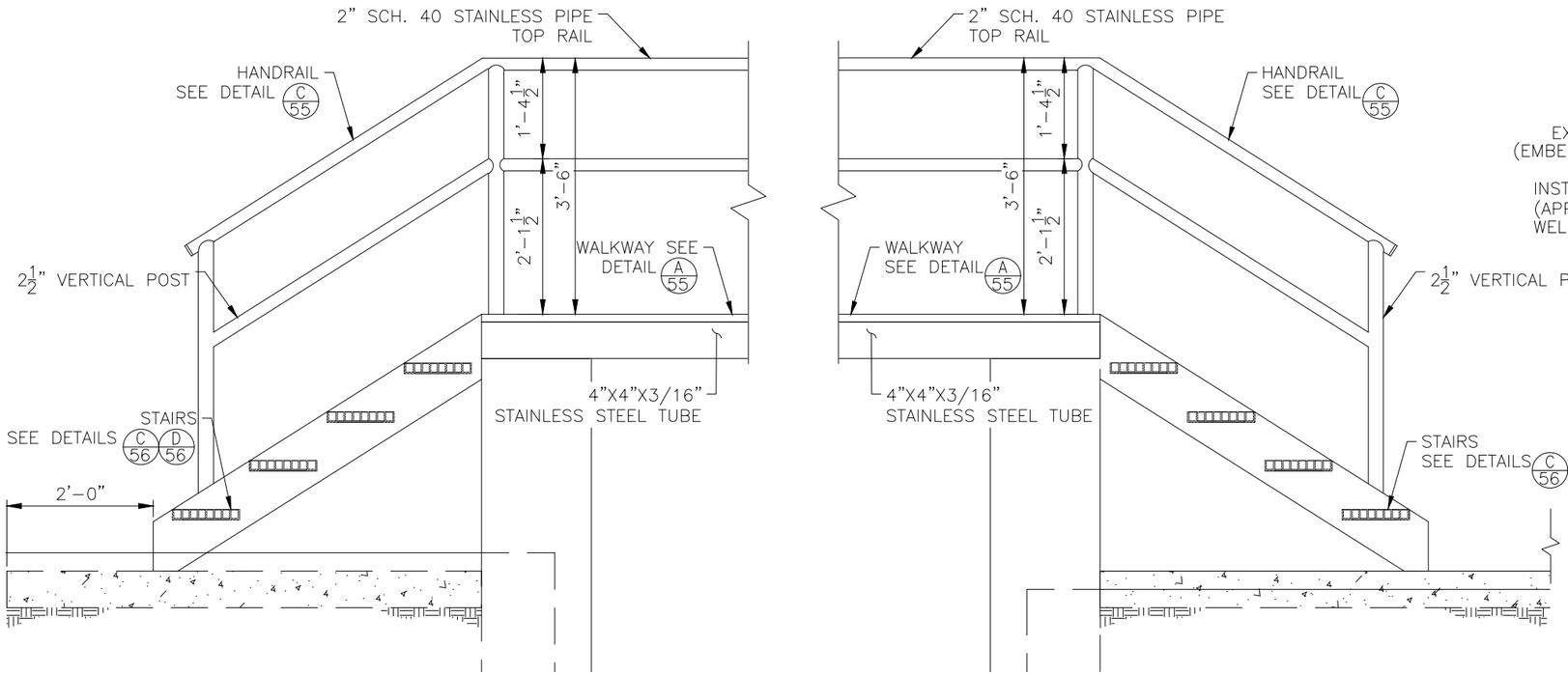
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

DRAWING NO. 55 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

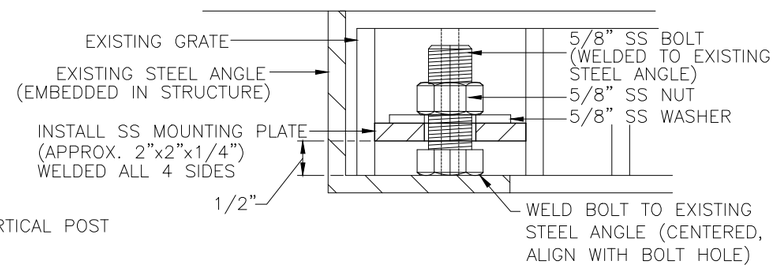
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - STRUCTURAL STEEL DETAILS



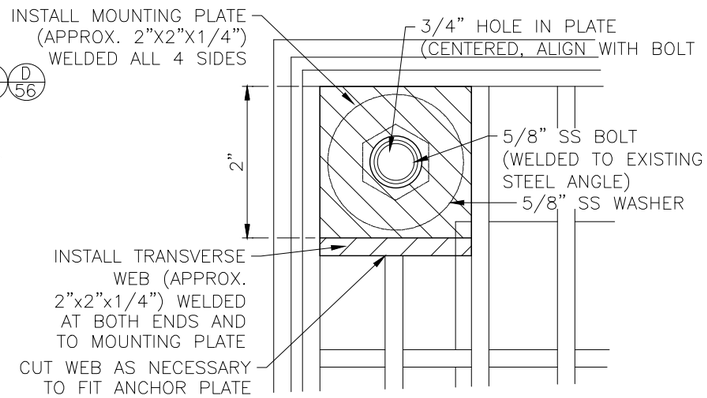
A/56 STAIRS – SECTION VIEW

0 1 2

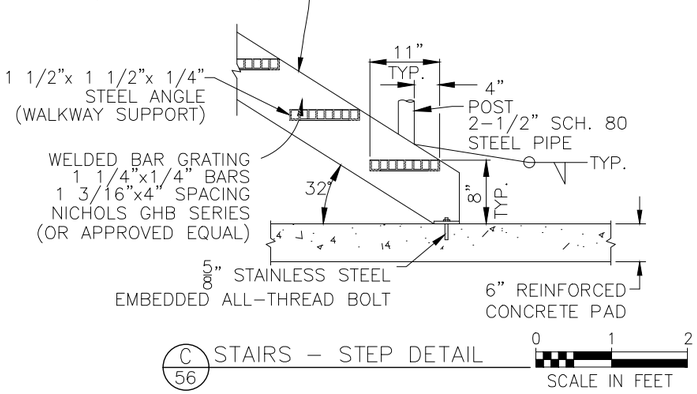
SCALE IN FEET



ANCHOR BOLT AND MOUNTING PLATE
SIDE VIEW



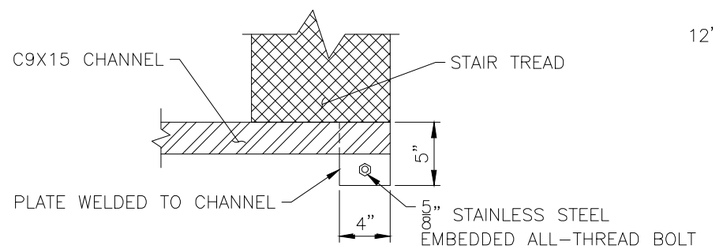
ANCHOR BOLT AND MOUNTING PLATE
TOP VIEW



C/56 STAIRS – STEP DETAIL

0 1 2

SCALE IN FEET



D/56 STAIRS – STEP DETAIL

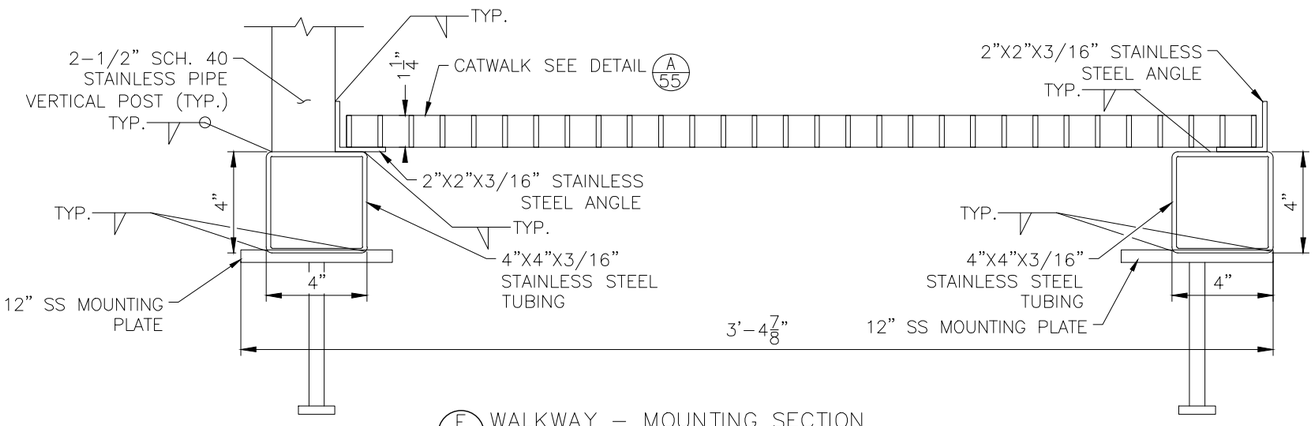
0 0.5 1

SCALE IN FEET

B/56 WALKWAY – MOUNTING SECTION

0 1 2

SCALE IN INCHES



E/56 WALKWAY – MOUNTING SECTION

0 3 6

SCALE IN INCHES

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

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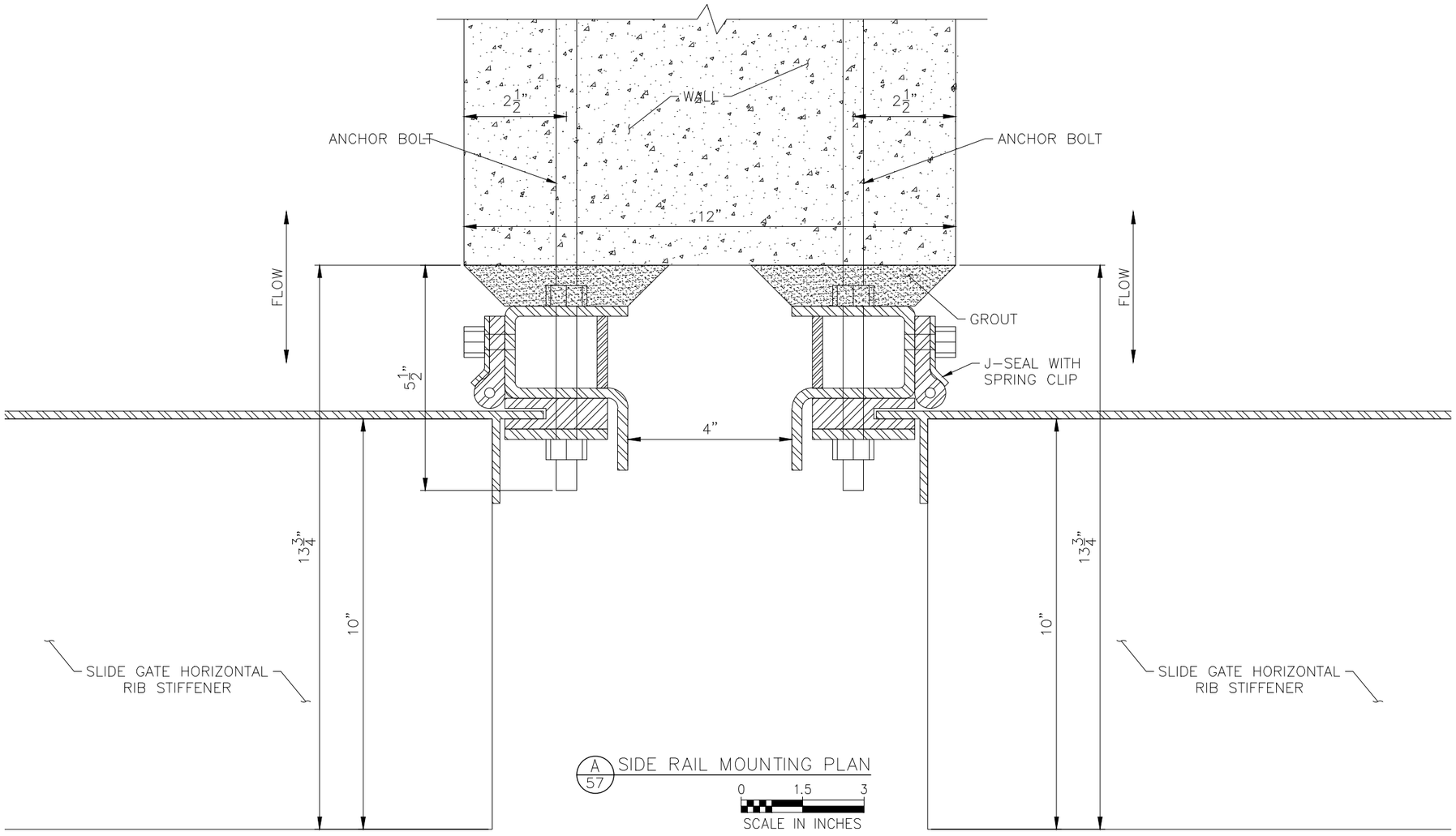
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - STRUCTURAL STEEL DETAILS

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

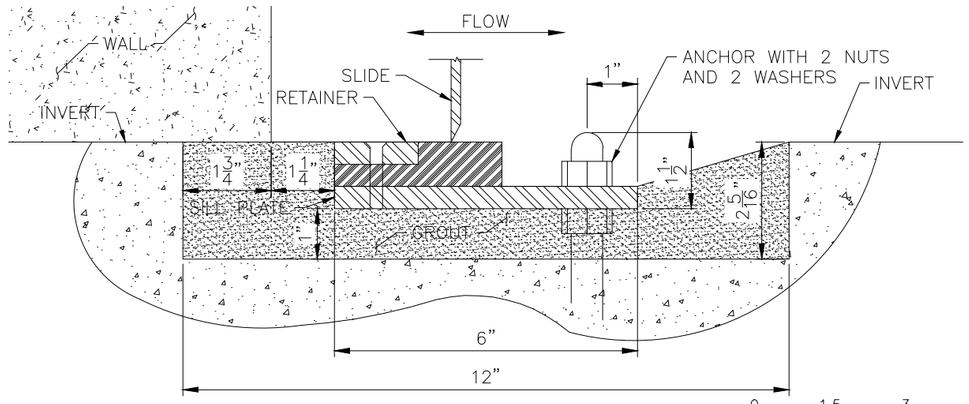
DRAWING NO. 56 of 61



A/57 SIDE RAIL MOUNTING PLAN

0 1.5 3

SCALE IN INCHES



B/57 BOTTOM RAIL MOUNTING SECTION

0 1.5 3

SCALE IN INCHES

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION

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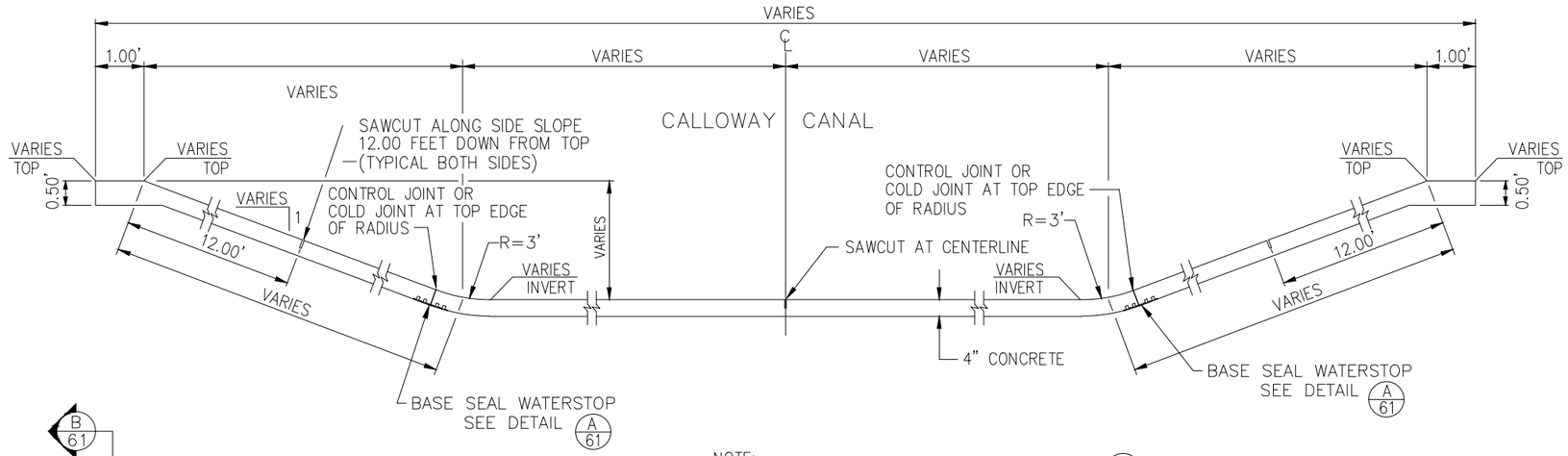
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
GATE STRUCTURE - DETAILS - PROFILES

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

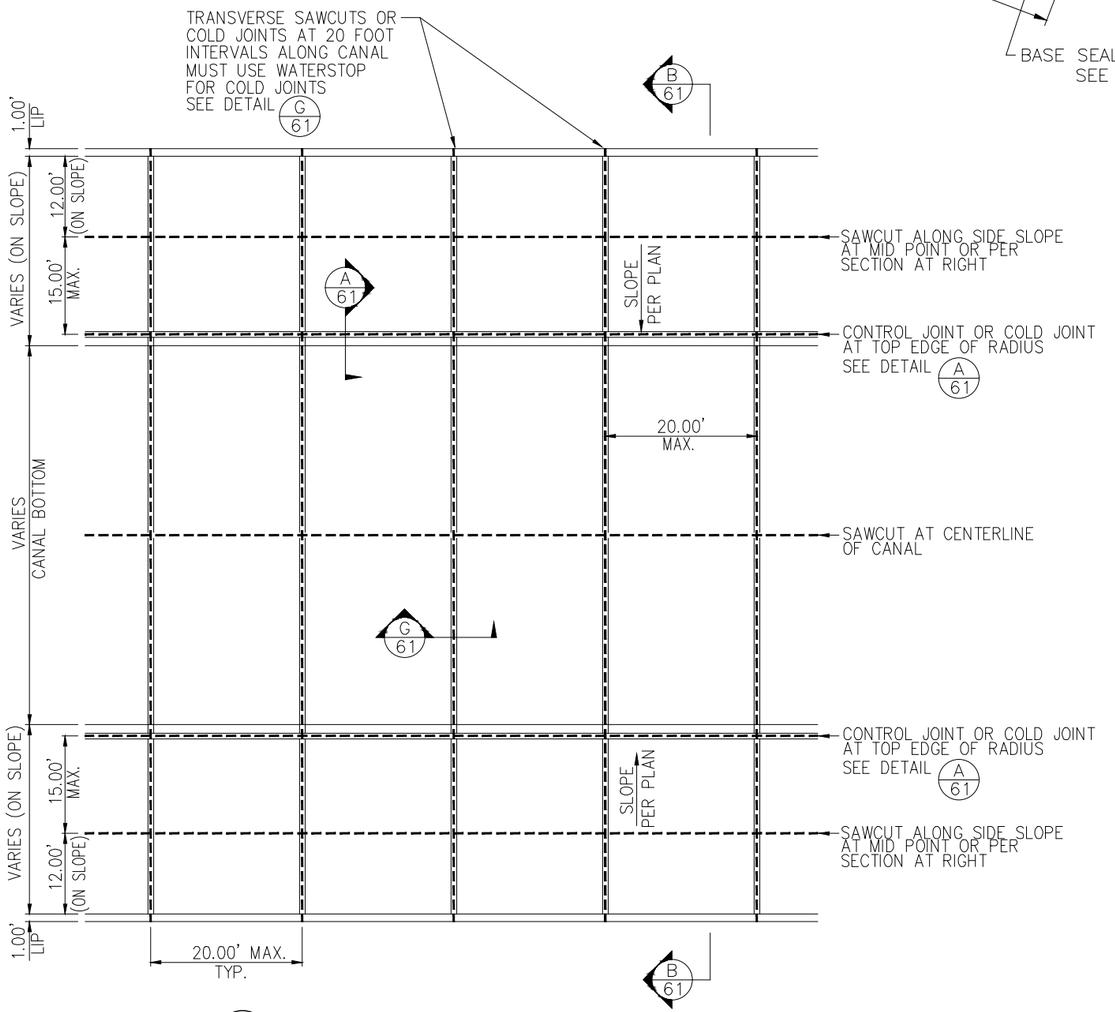
ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

DRAWING NO. 57 of 61



NOTE:
1. SAWCUT DEPTH = 1 1/2" TO 2", SEE DETAIL B 61
2. TRANSVERSE SAWCUTS OR COLD JOINTS AT 20 FOOT INTERVALS.
3. * SEE PLAN & PROFILE FOR ELEVATIONS.

B 54 TYPICAL SECTION – CANAL LINING
STANDARD CANAL CROSS SECTION NOT TO SCALE
STA. 514+72.97 TO STA. 509+06.91



A 58 TYPICAL SAWCUT DETAIL
STANDARD CANAL CROSS SECTION NOT TO SCALE
STA. 513+72.82 TO STA. 580+69.81

NOTES:

1. TRANSVERSE LINING SAWCUTS IN COMBINATION WITH COLD JOINTS SHALL BE AT MAXIMUM 20 FOOT INTERVALS AND AS SHOWN ON PLANS – WHICHEVER IS AT CLOSER INTERVAL.
2. SAWCUT DEPTH MINIMUM 1 1/2" DEEP, MAXIMUM 2" DEEP. SEE DETAIL B 61
3. SEE SHEET 61 FOR ADDITIONAL SAWCUT AND COLD (CONTROL) JOINT DETAILS.
4. FOR DIMENSIONS TO SAWCUTS SEE SHEET 61
5. FOR COLD (CONTROL) JOINT DETAILS SEE DETAILS A 61 B 61 E 61
6. THIS DETAIL IS TYPICAL, SAWCUT LAYOUT AND DIMENSIONS SHOWN HEREON SHALL APPLY TO ALL OTHER CURVED PORTIONS OF THE CANAL LINING.
7. WATERSTOPS SHOWN ARE PER BASIS OF BID. ACTUAL INSTALLATION OF WATERSTOPS IS TO BE PER EXECUTED CONTRACT

REV.	DATE	DESCRIPTION

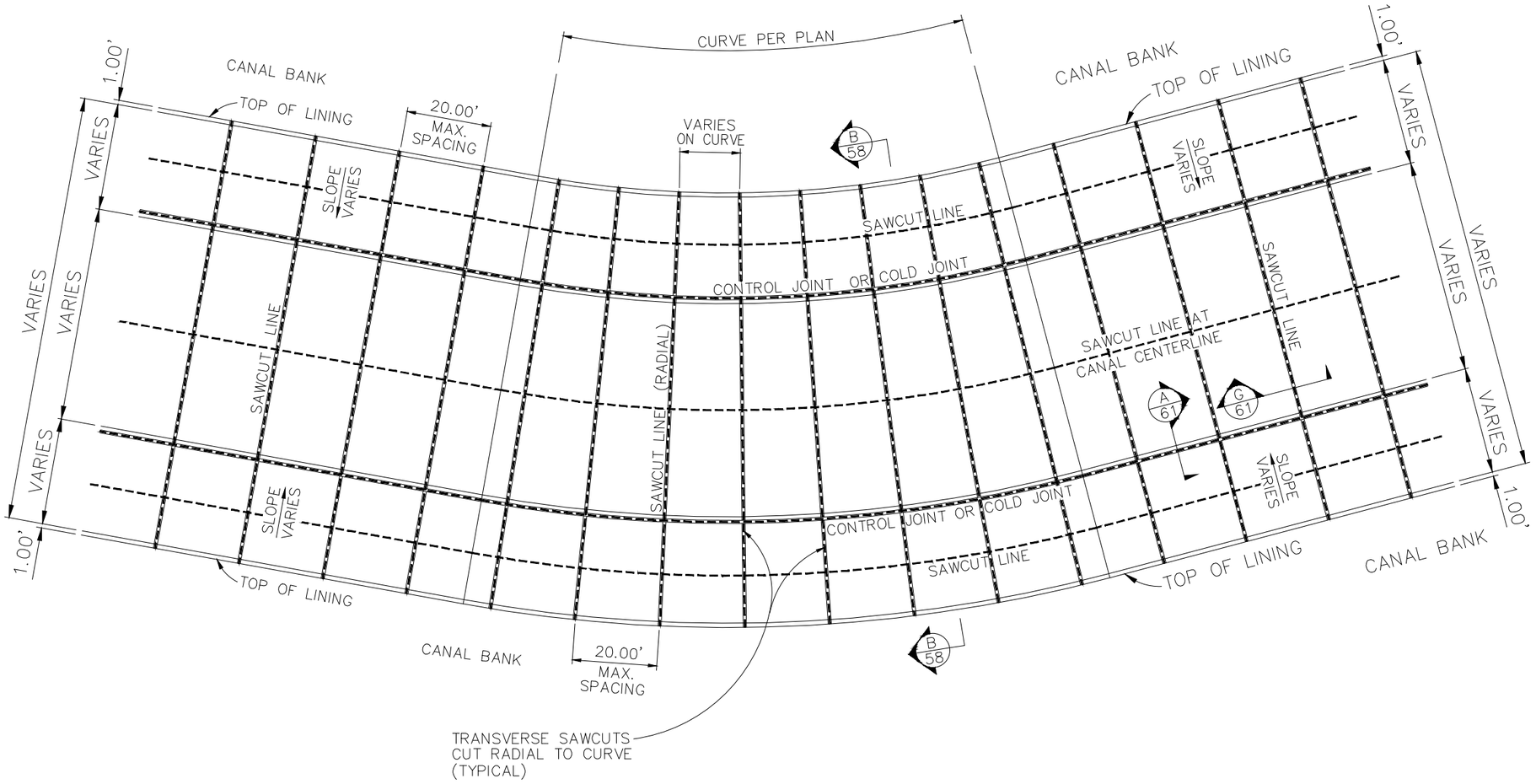
DRAWING NO. 58 of 61

ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
SAWCUT DETAILS

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD



A/59 SAWCUT AND COLD JOINT LAYOUT
TYPICAL AT CURVED SEGMENTS OF CANAL LINING

NOTES:

1. TRANSVERSE LINING SAWCUTS IN COMBINATION WITH COLD JOINTS SHALL BE AT MAXIMUM 20 FOOT INTERVALS AND AS SHOWN ON PLANS – WHICHEVER IS AT CLOSER INTERVAL.
2. SAWCUT DEPTH MINIMUM 1 1/2" DEEP, MAXIMUM 2" DEEP. SEE DETAIL B/61
3. SEE SHEET 61 FOR ADDITIONAL SAWCUT AND COLD (CONTROL) JOINT DETAILS.
4. FOR DIMENSIONS TO SAWCUTS SEE SHEET 61
5. FOR COLD (CONTROL) JOINT DETAILS SEE DETAILS A/61 B/61 E/61
6. THIS DETAIL IS TYPICAL, SAWCUT LAYOUT AND DIMENSIONS SHOWN HEREON SHALL APPLY TO ALL OTHER CURVED PORTIONS OF THE CANAL LINING.
7. WATERSTOPS SHOWN ARE PER BASIS OF BID. ACTUAL INSTALLATION OF WATERSTOPS IS TO BE PER EXECUTED CONTRACT

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV. | DATE | DESCRIPTION

DRAWING NO. 59 of 61

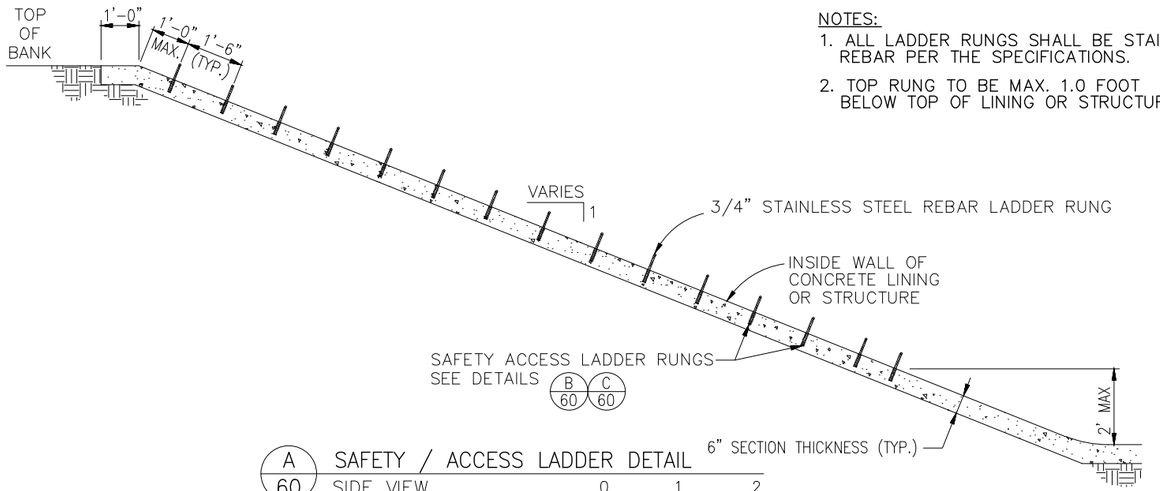
ZEIDERS CONSULTING
1655 GREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

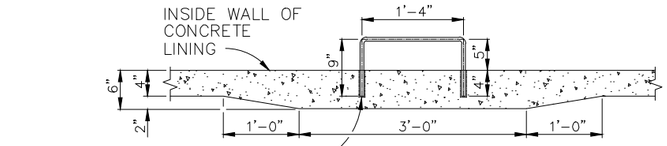
CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
SAWCUT DETAILS - CURVED SEGMENT

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

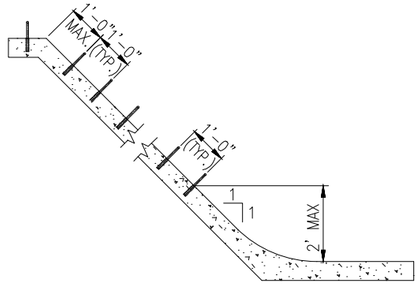
NOTES:
1. ALL LADDER RUNGS SHALL BE STAINLESS STEEL REBAR PER THE SPECIFICATIONS.
2. TOP RUNG TO BE MAX. 1.0 FOOT BELOW TOP OF LINING OR STRUCTURE.



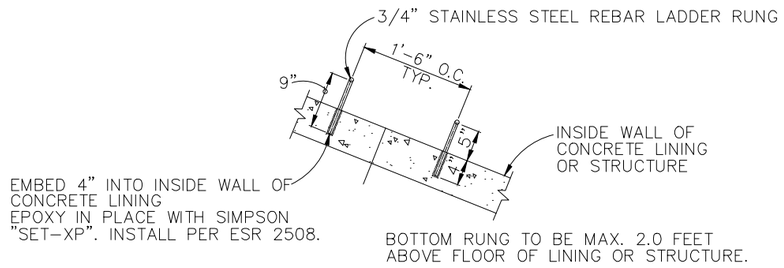
A 60 SAFETY / ACCESS LADDER DETAIL
SIDE VIEW
0 1 2
SCALE IN FEET



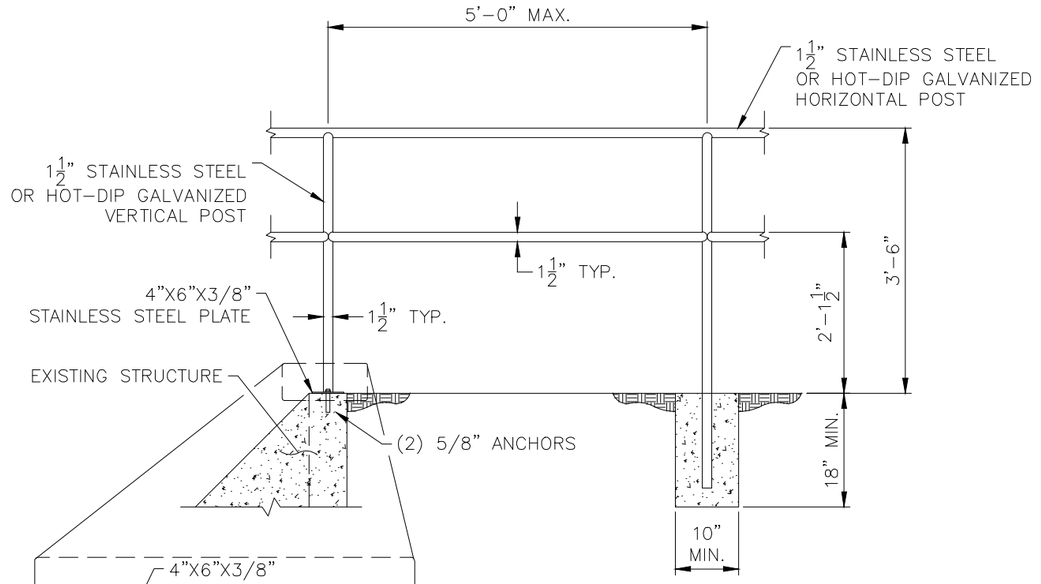
D 60 SAFETY / ACCESS LADDER RUNG DETAIL
TOP VIEW
0 0.5 1
SCALE IN FEET



B 60 SAFETY / ACCESS LADDER DETAIL
ON SLOPES 1:1 OR STEEPER
SIDE VIEW
0 1 2
SCALE IN FEET



C 60 SAFETY / ACCESS LADDER RUNG DETAIL
SIDE VIEW
0 0.5 1
SCALE IN FEET



E 60 TYPICAL SAFETY HANDRAIL
SIDE VIEW
0 1 2
SCALE IN FEET

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
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REV.	DATE	DESCRIPTION

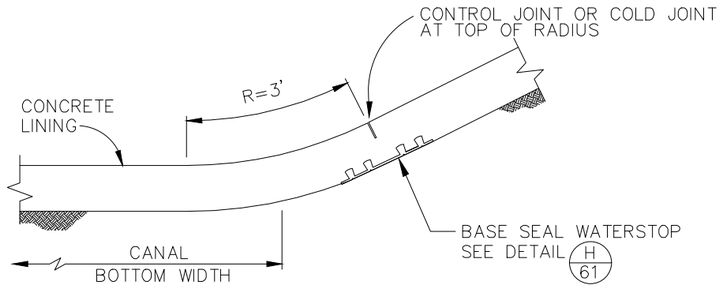
DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: J. STORMONT
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
SAFETY / ACCESS LADDER DETAILS

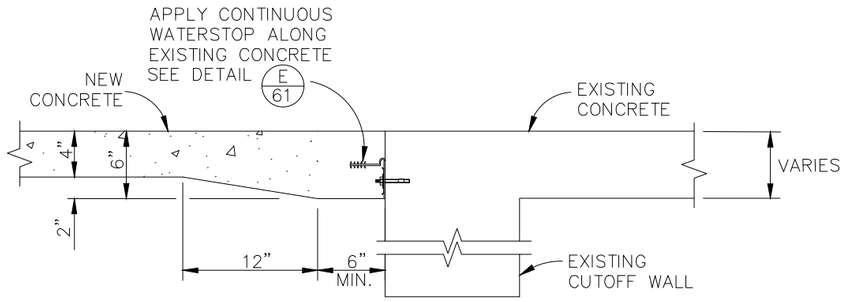
NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

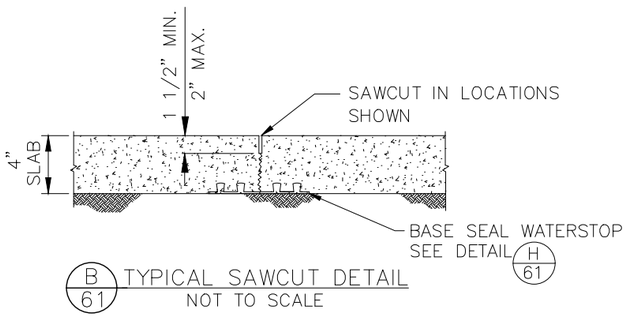
DRAWING NO. 60 of 61



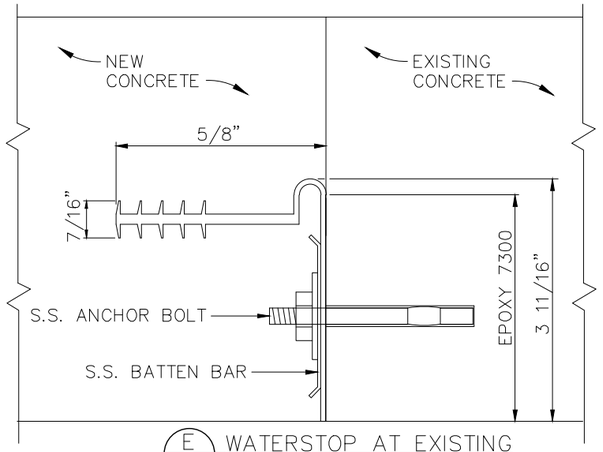
A 61 CONCRETE LINING RADIUS DETAIL
NOT TO SCALE



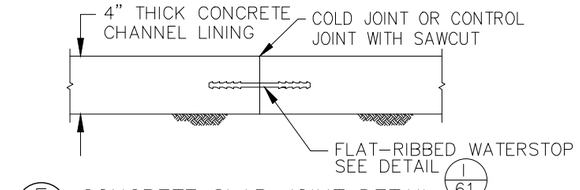
D 61 TYPICAL DETAIL FOR NEW CONCRETE LINING SECTIONS TO EXISTING CONCRETE LINING SURFACES
NOT TO SCALE



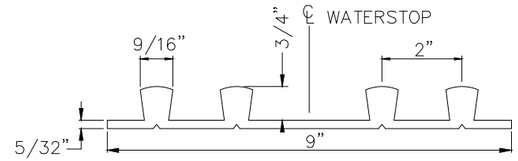
B 61 TYPICAL SAWCUT DETAIL
NOT TO SCALE



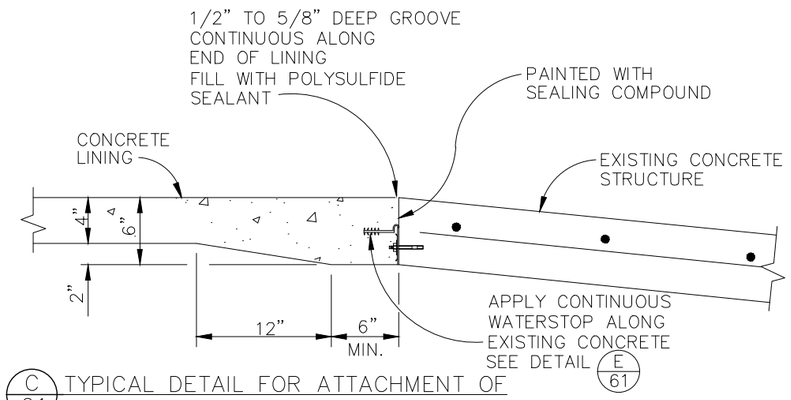
E 61 WATERSTOP AT EXISTING CONCRETE TIE-INS
SIKA-GREENSTREAK 581 OR APPROVED EQUAL
NOT TO SCALE



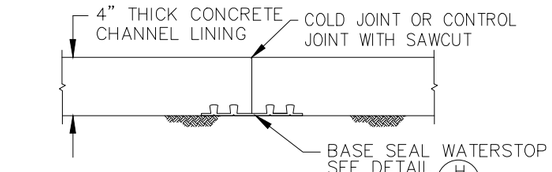
F 61 CONCRETE SLAB JOINT DETAIL
COLD (CONTROL JOINT)
NOT TO SCALE



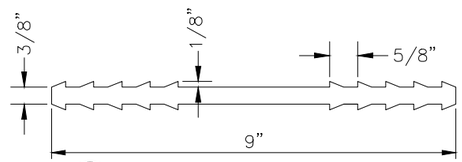
H 61 BASE SEAL WATERSTOP AT COLD JOINTS
SIKA-GREENSTREAK 771 OR APPROVED EQUAL
NOT TO SCALE



C 61 TYPICAL DETAIL FOR ATTACHMENT OF CONCRETE LINING SECTIONS TO EXISTING CONCRETE STRUCTURE SURFACES
NOT TO SCALE



G 61 CONCRETE SLAB JOINT DETAIL
COLD (CONTROL JOINT)
NOT TO SCALE



I 61 FLAT RIBBED WATERSTOP AT COLD JOINTS
SIKA-GREENSTREAK 646 OR APPROVED EQUAL
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM W. ZEIDERS
Lic. No. 40,031
Expires 12/31/27
CIVIL
STATE OF CALIFORNIA

REV.	DATE	DESCRIPTION

DRAWING NO. 61 of 61

ZEIDERS CONSULTING
1655 CREELEY ROAD
BAKERSFIELD, CA. 93314
(661) 589-8366

NORTH KERN WATER DISTRICT
33380 CAWELO AVENUE
BAKERSFIELD, CALIFORNIA, 93308

CALLOWAY CANAL
LINING PROJECT NK - 625
7th STANDARD ROAD TO 8-1 CANAL
TYPICAL DETAILS

DATE: AUGUST 3, 2026
SCALE: AS NOTED
DRAWN BY: S. BOWERS
CHECKED BY: W. ZEIDERS
FILE NAME: NK-625 CALLOWAY-N-OF 7TH STD