

**Meeting of the Central Valley Flood Protection Board
March 28, 2014**

Staff Report

**Pacific Gas and Electric Company
Gas Pipeline Replacement, Sutter County**

1.0 – REQUESTED ITEM

Consider a gas pipeline replacement (Attachment A) by Draft Permit No. 18912 (Attachment B).

2.0 – APPLICANT

Pacific Gas and Electric Company (PG&E)

3.0 – PROJECT LOCATION

The project crosses the Feather River West Levee (FRWL) approximately one mile north of Highway 20 and one mile east of State Route 99 in Sutter County (Attachment A).

4.0 – PROJECT DESCRIPTION

PG&E proposes to construct a new eight inch gas pipeline which will cross the levee at Station 1076+70 to replace an existing gas pipeline crossing the levee at Station 1080+00. The existing gas pipeline will be removed by the levee contractor hired to construct levee improvements authorized under Flood System Improvement Permit No. 18793-1 (Sutter Butte Flood Control Agency (SBFCA), Project Area C). On the landside of the levee the new pipeline will tie into the existing pipeline approximately 80 feet from the landside levee toe. On the waterside of the levee the new pipeline will tie into the existing pipeline outside of the levee right-of-way.

5.0 – AUTHORITY OF THE BOARD

California Water Code § 8534, 8590 – 8610.5, and 8700 – 8710

California Code of Regulations, Title 23 (Title 23):

- § 6, Need for a Permit
- § 11, Variances

- § 13, Evidentiary Hearings
- § 108, Existing Encroachments
- § 112, Streams Regulated and Nonpermissible Work Periods
- § 116, Borrow and Excavation Activities – Land and Channel
- § 120, Levees
- § 121, Erosion Control
- § 123, Pipelines, Conduits and Utility Lines
- § 124, Abandonment of Pipelines

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with the project are as follows:

- The U.S. Army Corps of Engineers comment letter has not been received for this application. Staff anticipates receipt of a letter indicating that the USACE District Engineer has no objection to the project, subject to conditions. Upon receipt of the letter, staff will review to ensure conformity with the permit language and incorporate it into the permit as Exhibit A.
- Levee District 1 (LD 1) conditionally endorsed the project on March 17, 2014, and the endorsement has been incorporated into the permit as Exhibit B.

7.0 – PROJECT ANALYSIS

7.1 – Project Background

- January 10, 2014 – project assigned Application No. 18912.
- March 6, 2014 – PG&E submitted a variance request and resubmitted drawings (Attachment D) to justify the location of a rapid closure device on the levee (landside or waterside). Refer to Section 7.4 for additional variance information.
- March 10, 2014 – PG&E submitted updated plans showing the location of the rapid closure device, and the plans were forwarded to the USACE.
- March 17, 2014 – LD 1 conditionally endorsed the project.

7.2 – Hydraulic Summary

The project will not alter the waterside of the levee and therefore has no hydraulic impacts. Pipeline work will be coordinated with SBFCA's levee improvement project under Flood System Improvement Permit No. 18793-1.

7.3 – Geotechnical Summary

Board staff reviewed the design plans and concurs with the applicant's conclusion that the proposed pipeline replacement will result in no adverse geotechnical impacts to the Sacramento River Flood Control Project (SRFCP). All work will be performed in a manner that will not threaten the levee's structural integrity. Earthwork will be completed in compliance with the conditions of Draft Permit No. 18912 and Title 23 Standards.

7.4 – Project Variance

In accordance with Title 23, § 11(a) and (b), Variances, PG&E is requesting a variance from Title 23, § 123(d)(7). Section 123(d)(7) requires pipelines carrying gas or fluids under pressure to have a readily accessible rapid closure device located within ten feet of the landside levee toe. In this case, PG&E already has a rapid closure device within approximately 80 feet of the levee at an easily accessible location. The existing location also allows PG&E personnel to safely reach the closure device in a flood event without any impacts to ongoing flood fight operations.

Board staff, in coordination with the USACE, has determined that PG&E has provided sufficient justification for in Attachment C for the proposed variance. The close proximity of the rapid closure device is consistent with the technical intent of the Board's standards. Therefore, staff has determined that the requested variance to Title 23, § 123(d)(7) is appropriate for this proposed project and the use of the existing rapid closure device is not anticipated to adversely impact the SRFCP.

8.0 – CEQA ANALYSIS

In May 2013, California Environmental Quality Act (CEQA) Findings were considered and adopted by the Board and an EIR certified by the Board acting as a responsible agency. (Attachment D).

The Board finds that its prior CEQA findings made on May 24, 2013 regarding the FRWL project are still valid and that this activity was covered in the original project description. The Board finds that the proposed utility relocation was within the scope of the previously certified EIR. No new environmental effects could occur and no new

mitigation measures are required as a result of this utility relocation. Therefore, no new environmental documents are required pursuant to CEQA Guidelines section 15162.

The documents and other materials which constitute the record of the Central Valley Flood Protection Board proceedings in this matter are in the custody of Jay Punia, Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Room 151, Sacramento, California 95821.

9.0 – SECTION 8610.5 CONSIDERATIONS

- Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board has considered all the evidence presented in this matter, including the applications for Permit No. 18912 and all supporting technical documentation provided by PG&E.

- The best available science related to the scientific issues presented by the Executive Officer, Chief Counsel, the Department or other parties that raise credible scientific issues.

In making its findings, the Board has used the best available science relating to the issues presented by all parties. All analyses provided adhere with industry standard methods and the project is compliant with State and federal standards, with the exception of the proposed variance discussed in Section 7.4, herein.

- Effects of the decision on the facilities of the State Plan of Flood Control, and consistency of the proposed project with the Central Valley Flood Protection Plan as adopted by Board Resolution 2012-25 on June 29, 2012:

This project has no adverse effect on facilities of the State Plan of Flood Control and is consistent with the adopted 2012 Central Valley Flood Protection Plan and current Title 23 standards with the exception of the proposed variance discussed in Section 7.4, herein. The project has no hydraulic impacts to the SRFCP and all State and federal geotechnical standards for pipeline placement shall be met.

- Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

Wood Rodgers has reviewed the SBFCA FRWL Project documents and the City of Yuba City General Plan and has determined that the proposed gas pipeline relocation does not conflict with the FRWL Project and General Plan documents. Therefore, there are no foreseeable impacts between the proposed gas pipeline relocation, the FRWL Project, and the City of Yuba City General Plan.

10.0 – STAFF RECOMMENDATION

Board staff recommends that the Board:

Approve:

- the requested variance to Title 23, § 123(d)(7) pursuant to § 11(a) and (b), as summarized in Section 7.4 herein;
- the Draft Encroachment Permit No. 18912 (Attachment B), in substantially the form provided, conditioned upon receipt of the USACE Sacramento District Engineer letter indicating that the District Engineer has no objection to the project, subject to conditions; and

Direct:

- the Executive officer to take the necessary actions to execute the permit and file a Notice of Determination pursuant to CEQA with the State Clearinghouse.

11.0 – LIST OF ATTACHMENTS

A – Project Vicinity and Location Maps

B – Draft Permit No. 18912

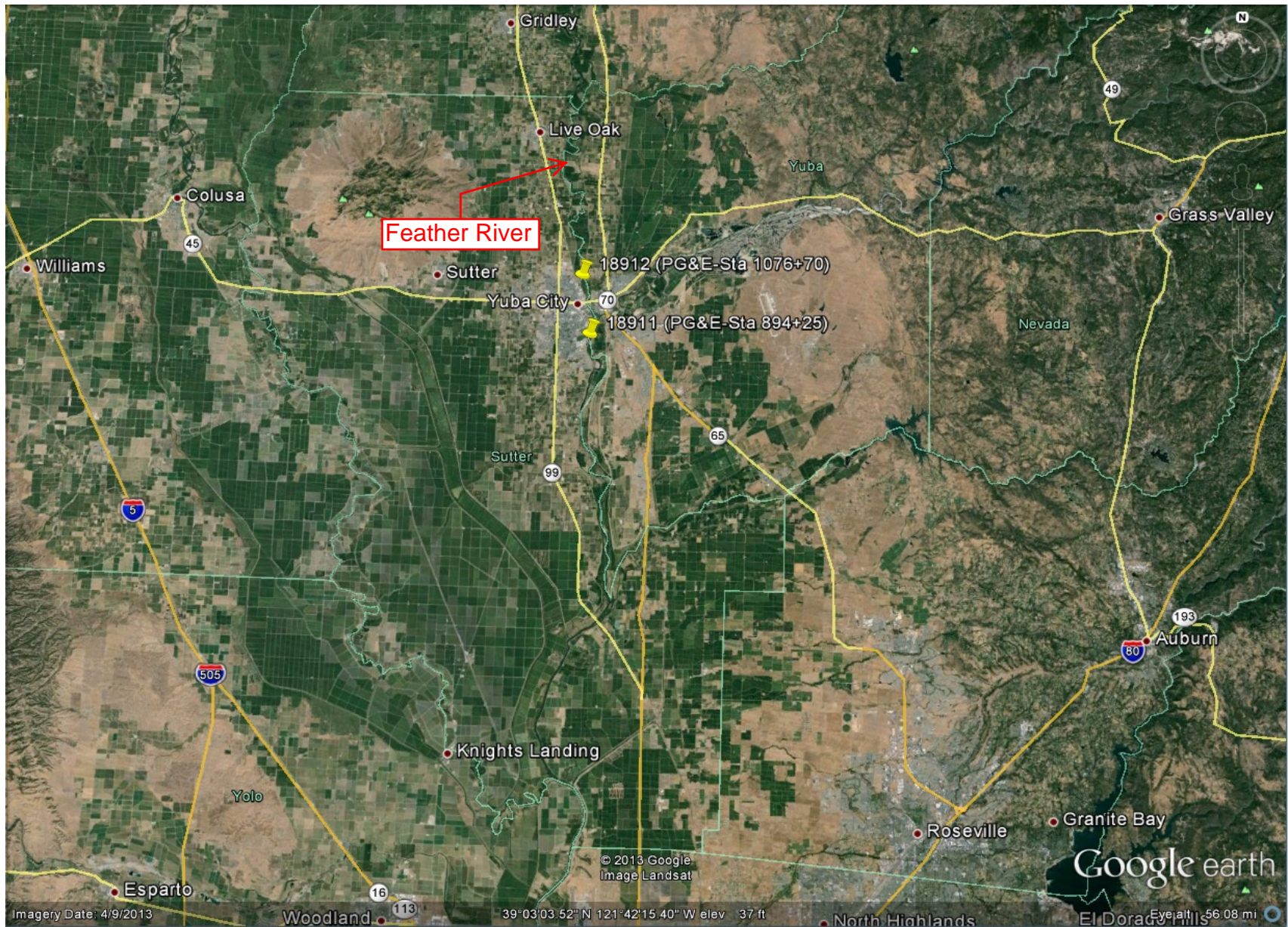
Exhibit A – USACE Comment Letter (expected prior to Board meeting)

Exhibit B – LD 1 Conditional Endorsement (dated March 17, 2014)

C – PG&E Variance Request and Resubmitted Drawings (dated March 6, 2014)

D – Resolution No. 2013-07

Technical Review:	Lee Sungho, Engineer, WR
Environmental Review:	Andrea Buckley, Environmental Scientist
Document Review:	Nancy Moricz, PE, Lead Person
	Eric Butler, PE, Projects and Environmental Branch Chief
	Len Marino, PE, Chief Engineer





Attachment A - Project Vicinity and Location Maps

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18912 BD

This Permit is issued to:

Pacific Gas and Electric Company
3301 Industrial Blvd
Rocklin, California 95765

Construct a new eight inch gas pipeline which will cross the levee at Station 1076+70 to replace an existing gas pipeline crossing the levee at Station 1080+00. The existing gas pipeline will be removed by the levee contractor hired to construct levee improvements authorized under Flood System Improvement Permit No. 18793-1 (Sutter Butte Flood Control Agency (SBFCA), Project Area C). On the landside of the levee the new pipeline will tie into the existing pipeline approximately 80 feet from the landside levee toe. On the waterside of the levee the new pipeline will tie into the existing pipeline outside of the levee right-of-way.

The project is located at Sta. 1080+00 00 of Feather River West Levee (FRWL). The project is approximately 0.96 miles north of the Colusa Highway 20 and 1.03 miles east of State Route 99 (Section 15, T15N, R3E, MDB&M, Levee District 1, Feather River, Sutter County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18912 BD

THIRTEEN: All work completed under this permit, as directed by the general and special conditions herein, shall be accomplished to ensure that the work is not injurious to adopted plans of flood control, regulated streams, and designated floodways under Board jurisdiction, as defined in California Code of Regulations, Title 23. This permit only applies to the completion of work in the project description located within, or adjacent to and having bearing on Board jurisdiction, and which directly or indirectly affects the Board's jurisdiction. This special condition shall apply to all subsequent conditions herein.

LIABILITY AND INDEMNIFICATION

FOURTEEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the Central Valley Flood Protection Board, the Department of Water Resources, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, arising out of failure on the permittee's part to perform the obligations under this permit, the permittee shall defend and shall hold each of them harmless from each claim. This condition shall supersede condition TEN.

FIFTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board

and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SIXTEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SEVENTEEN: The Central Valley Flood Protection Board, Department of Water Resources, and Levee District 1 shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

BOARD CONTACTS

EIGHTEEN: The permittee shall contact the Board by telephone at (916) 574-0609, and the Board's Construction Supervisor at (916) 651-1299 to schedule a preconstruction conference. Failure to do so at least 20 working days prior to start of work may result in delay of the project.

PERMITTING AND AGENCY CONDITIONS

NINETEEN: The permittee shall comply with all conditions set forth in the letter from the U.S. Army Corps of Engineers District Engineer dated XXXX, which is attached to this permit as Exhibit A and is incorporated by reference.

TWENTY: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY-ONE: The permittee agrees to incur all costs for compliance with local, State, and federal permitting and resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

TWENTY-TWO: If the permittee does not comply with the conditions of this permit and enforcement by the Board is required, the permittee shall be responsible for bearing all costs associated with the enforcement action, including reasonable attorney's fees.

PRE-CONSTRUCTION

TWENTY-THREE: The permittee shall provide construction supervision and inspection services acceptable to the Board.

TWENTY-FOUR: Prior to commencement of work, the permittee shall create a photo record, including associated descriptions of project conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or licensed civil engineer registered in the State of California and submitted to the Central Valley Flood Protection Board within thirty (30) calendar days of beginning the project.

TWENTY-FIVE: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Central Valley Flood Protection Board.

TWENTY-SIX: Thirty (30) calendar days prior to start of any demolition and/or construction activities within the channel and banks of Feather River, the permittee shall submit to the Chief Engineer two sets of plans, specifications and supporting geotechnical and / or hydraulic impact analyses, for any and all temporary, in channel cofferdam(s), gravel work pad(s), work trestle(s), scaffolding, piles, and/or other appurtenances that are to remain in the floodway during the flood season from November 1 through April 15. The Central Valley Flood Protection Board shall acknowledge receipt of this submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Central Valley Flood Protection Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or local maintaining agency when necessary. The Central Valley Flood Protection Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days.

CONSTRUCTION

TWENTY-SEVEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

TWENTY-EIGHT: All addenda and contract change orders made to the approved plans and / or specifications by the permittee after Board approval of this permit shall be submitted to the Board's Chief Engineer for review and approval prior to incorporation into the permitted project. The submittal shall include all supplemental plans, specifications, and necessary supporting geotechnical, hydrology and hydraulics, or other technical analyses. The Board shall acknowledge receipt of the addendum or change submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or local maintaining agencies when necessary. The Board will provide written notification to the permittee if the review period is likely to exceed forty five (45) calendar days. Upon approval of submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes.

TWENTY-NINE: The stability of the levee shall be maintained at all times during construction.

THIRTY: All debris generated by this project shall be disposed outside of the floodway.

THIRTY-ONE: No material stockpiles, temporary buildings, or equipment shall remain in the floodway

during the flood season from November 1 to April 15.

THIRTY-TWO: Density tests by a certified materials laboratory will be required to verify compaction of backfill within the project levee right of way.

THIRTY-THREE: Backfill material for excavations within the levee section and within ten (10) feet of the levee toes shall be placed in four (4) to six (6) inch layers, moisture conditioned above optimum moisture content, and compacted to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY-FOUR: Backfill material for excavations within the levee section shall be free of stones or lumps that exceed three (3) inches in greatest dimension, organic matter, or other unsatisfactory material and shall be compacted to at least 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY-FIVE: Except with respect to the activities expressly allowed under this permit, the work area shall be restored to the condition that existed prior to start of work.

THIRTY-SIX: Any damage to the levee crown roadway or access ramps that will be utilized for access for this project shall be promptly repaired to the condition that existed prior to this project.

THIRTY-SEVEN: The pipeline shall be tested and confirmed free of leaks by X-ray, pressure tests, or other approved methods during construction or anytime after construction upon request by the Central Valley Flood Protection Board.

THIRTY-EIGHT: The pipeline shall be installed below the levee section at a as nearly at a right angle to the centerline of the levee as is possible.

THIRTY-NINE: The pipe shall be buried at least 12 inches below the levee slopes and 24 inches below the levee crown.

FORTY: An earth pad shall be constructed on the levee crown over the pipe to provide at least two (2) feet of cover and shall have end slopes no steeper than ten (10) horizontal to one (1) vertical.

FORTY-ONE: The pipeline must be separated from parallel pipelines, conduits, and utility lines by a minimum of 12 inches, or the diameter of the largest pipeline, conduit, or utility line, whichever is larger, to a maximum of 36 inches.

FORTY-TWO: The pipeline must have a minimum vertical spacing of 12 inches when crossing other pipelines, conduits, and utility lines.

FORTY-THREE: The permittee shall ensure that all pipe joints are watertight.

FORTY-FOUR: Pipes and joints shall be designed to withstand all anticipated loading conditions.

FORTY-FIVE: Pipes shall be inspected prior to installation to ensure no cracked, broken, or defective materials are used.

FORTY-SIX: The permittee shall be responsible for all damages due to settlement, consolidation, or heave from any construction-induced activities.

VEGETATION / ENVIRONMENTAL MITIGATION

FORTY-SEVEN: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to April 15.

FORTY-EIGHT: Trees, brush, sediment, and other debris shall be kept cleared from the project site and disposed of outside the floodway to maintain the design flow capacity and flowage area.

FORTY-NINE: The mitigation measures approved by the CEQA lead agency and the permittee are found in its Mitigation and Monitoring Reporting Program (MMRP) adopted by the CEQA lead agency. The permittee shall implement all such mitigation measures.

POST-CONSTRUCTION

FIFTY: The permittee shall be responsible for repair of any damages to the Feather River channel and floodway due to construction, operation, or maintenance of the proposed project.

FIFTY-ONE: Within 120 days of completion of the project, the permittee shall submit to the Central Valley Flood Protection Board as-built drawings and a certification report, stamped and signed by a professional civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Central Valley Flood Protection Board permit conditions and submitted drawings and specifications.

OPERATIONS AND MAINTENANCE

FIFTY-TWO: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Central Valley Flood Protection Board, Department of Water Resources, or any other agency responsible for maintenance.

FIFTY-THREE: In the event the pipeline becomes exposed due to erosion, the permittee shall repair the erosion or remove the abandoned pipe as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.

FIFTY-FOUR: If the permitted structure results in any adverse hydraulic impact or scouring the permittee shall provide appropriate mitigation measures subject to review and approval of the Central Valley Flood Protection Board.

FIFTY-FIVE: The permitted encroachment(s) shall not interfere with the flood conveyance capability of the Feather River channel. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the

encroachment(s) at the permittee's expense.

PROJECT ABANDONMENT, CHANGE IN PLAN OF FLOOD CONTROL

FIFTY-SIX: Abandoned pipes within the levee section shall be removed from the levee section or completely filled with concrete in accordance with Central Valley Flood Protection Board standards. A detailed plan for filling the abandoned pipe with concrete shall be submitted to and approved by the Central Valley Flood Protection Board prior to commencing work.

FIFTY-SEVEN: If the project, or any portion thereof, is to be abandoned in the future, the permittee shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's cost and expense.

FIFTY-EIGHT: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

END OF CONDITIONS

ATTACHMENT B – Exhibit A: USACE Comment Letter

This letter has not yet been received by Board staff; however, it is expected to arrive prior to the Board Meeting on March 28, 2014

State of California

DEPARTMENT OF WATER RESOURCES
CENTRAL VALLEY FLOOD PROTECTION BOARD

California Natural Resources Agency

**APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD
ENCROACHMENT PERMIT**Application No. _____
(For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

In support of the Sutter Butte Flood Control Agency's Feather River West Levee (FRWL) Project, PG&E will be modifying existing facilities within the levee O&M area. This application covers PG&E work associated with the first phase of the FRWL Project, Construction Project C, between Sta. 845+00 & Sta. 1623+86. Work includes relocating utility poles and a gas pipeline, and modifying existing gas pipelines. (Attch. A)

2. Project

Location: Sutter & Butte (Near Yuba City) County, in Section Multiple (Attachment B)Township: Multiple (Attachment B) (N) (E)
(S), Range: Multiple (Attachment B) (W), M. D. B. & M.Latitude: 38°53'51.02"N Longitude: 121°37'0.36"WStream: Feather River, Levee: Feather River W. Levee Designated Floodway: _____APN: (See attachment C)3. Pacific Gas and Electric Company of 3301 Industrial Blvd.
Name of Applicant / Land Owner AddressRocklin California 95765 916-408-3234
City State Zip Code Telephone Numberjzhc@pge.com
E-mail4. Peter Blum of Wood Rodgers, Inc.
Name of Applicant's Representative CompanySacramento California 95816 916-440-8073
City State Zip Code Telephone Numberpblum@woodrogers.com
E-mail

5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

We, the Trustees of LD1, D9, and MA16 approve this plan, subject to the following conditions:
Name of LMA☐ Conditions listed on back of this form☒ Conditions Attached☐ No Conditions

William H. Hump 3/12/14
Trustee Date

Trustee Date

Levee District No. 1 of Sutter County (LD1) has the following conditions to be included on the Central Valley Flood Protection Board Encroachment Permit for the Pacific Gas and Electric L-050A-1 Replacement Project. The conditions are as follows:

- All improvements shall meet or exceed Central Valley Flood Protection Board Title 23, Department of Water Resources Urban Levee Design Criteria (ULDC), FEMA, and U.S Army Corps of Engineers Standards and requirements current and any future modifications of the standards;
- All work endorsed by this permit shall be in accordance with the submitted drawings except as noted. The abandoned gas line (shown on plans as “to be retired” and “to be deactivated”) within twenty (20) feet of the levee landside toe to fifteen (15) feet of the levee waterside toe shall be “remove and disposed” outside of the levee right-of-way. The improvement plans shall include a positive closure device within ten (10) feet of the landside toe in accordance with Title 23 and a positive closure device located at the waterside hinge in accordance with DWR ULDC. All reference to “top of sand” shall be removed from the typical trench details within levee area. The structural section of the roadway shall be a minimum of three (3) inches AC over eight (8) inches Class 2 AB. The improvement plans shall indicate the type of corrosion proof steel pipe. The coating and lining shall meet or exceed Title 23, ULDC, and USACE standard. The plans need to indicate the type and thickness. No further work, other than approved by this permit, shall be done in the area without prior endorsement of LD1. The submitted drawings are not stamped and signed. PG&E shall provide stamped and signed improvement plans with noted corrections prior to construction;
- A copy of operation and maintenance manual shall be provided to Levee District No. 1 upon completion of the work. The O&M manual shall include provisions for annual inspection (i.e. pressure test, video of pipe, etc.) which meet or exceed the CVFPB, DWR, USACE, and LD 1 standards. The results of the annual inspection shall be provided to LD1 prior to October 1 each year;
- The encroachment permit shall include a provision that the permittee shall be required to remove or alter all or any part of the herein permitted project if removal or alteration is necessary as part of or in conjunction with any present or future flood control plan or project, or if damaged by any cause. If the permittee or successor does not comply, LD1, USACE, and/or the CVFPB may remove or modify the herein permitted project at the permittee’s expense. If the encroachment is removed, all rights to the easement within lands owned by Sutter Butte Flood Control Agency (SBFCA), LD 1, or Sacramento San Joaquin Drainage District (SSJDD) shall be quitclaimed;
- The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation and maintenance of the flood control project to interfere, the permittee shall be required, at permittee’s or successor’s sole cost and expense, to modify or remove the permitted encroachment(s). If the encroachment is removed, all rights to the easement within lands owned by SBFCA, LD 1 or SSJDD shall be quitclaimed.

- The proposed project shall not increase, as determined by the U.S. Corps of Engineers and the California Central Valley Flood Protection Board the 1-in-100 and 1-in-200 water surface elevation or the velocity on the east or west bank of the Feather River;
- If the project or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project, at the permittee's or successor's sole cost and expense. If the encroachment is removed, all rights to the easement within lands owned by SBFCA, LD 1 or SSJDD shall be quitclaimed
- A set of As-Built Mylar plans and specifications shall be provided to Levee District No. 1 upon completion of the work.
- A copy of the final Central Valley Flood Protection Board Permit shall be provided to LD1 prior to any work.
- LD1 shall be notified five (5) working days prior to any construction activities.



Darrell M. Davis – Major Projects
Pacific Gas and Electric Company
6121 Bollinger Canyon Road,
Building Z
San Ramon, CA 94583

March 6, 2014

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Ave., LL40
Sacramento, California 95821

REF: Pacific Gas and Electric Company, Feather River West Levee Project – Central Valley Flood Protection Board (CVFPB) Encroachment Permit Application No. 18912 BD

Subject: Request for Variance to Design Specification CCR Title 23 – 123.(d)(7)

Dear Mr. Punia:

In conjunction with application No. 18912 BD, a request for an encroachment permit from the Central Valley Flood Protection Board (CVFPB) for the above-referenced project, Pacific Gas and Electric Company (PG&E) is requesting a variance from one of the design specifications that is applicable to the project scope. Specifically, CCR Title 23 – 123.(d)(7) which, in the case of an installation of a new pipeline through a levee, calls for the installation of a closure device (valve) within ten (10) feet of the landside levee toe.

While it is possible to install the subject valve in conjunction with the pipeline replacement project, it is our contention that doing so would not increase the level of protection provided by or to the levee system and would rather only serve to cause the installation of unnecessary additional equipment within the levee project works and provide redundant facilities that would complicate the operation and maintenance of our natural gas pipeline system. The following is a list of points in support of this contention.

1. PG&E has existing shutoff valves in relatively close proximity to either side of the levee being crossed by the pipeline. The closest existing valves are located within PG&E's Yuba City Holder facility, directly adjacent to the Feather River West Levee. The location and properties of these existing valves provide for the rapid isolation and venting to atmosphere of the section of pipe passing through the subject levee and across the associated floodway. The positioning and spacing of the existing shutoff and venting valves are compliant with 49 CFR Part 192, which governs the Transportation of Natural and Other Gas by Pipeline. Attachment A illustrates the positioning and nature of the existing facilities and how they would be operated to isolate the relevant pipe section.
2. It is our understanding that a primary reason for installing a shutoff at the levee, is to prevent a pipeline ruptured during a flood event from transporting waters from the floodway to the landside of the levee. However, in the case of our pipeline system, the closure of a valve at the levee would not provide significant additional protection over the closure of the existing landside valves. First, the invert of the proposed pipeline is to be installed above both the 1957 Design WSEL and 200-Year Event WSEL. Thus, a flood event in excess of both of these would have to occur along with a pipeline failure in order for water to flow into the pipeline. Additionally, as our pipeline is a closed system, if water were to enter the pipe from the floodway, only a discreet amount of water could pass into the pipeline until the point it was filled to the existing closed landside valve(s). There is no means for water to escape the pipeline above or below ground on the landside.

3. In the event of an emergency situation, the locations of the existing shutoff valves facilitate isolation of the subject pipe section much better than would an additional valve located within or adjacent to the levee. The existing valves are located close enough to the levee and floodway to provide a rapid isolation and venting of the pipe section but far enough away that they can be safely accessed by PG&E Operations personnel in the case of a flood stage event, levee failure, or pipeline leak or rupture within the levee or floodway. To approach a valve installation located at the levee under these conditions may be difficult and/or unsafe, and our personnel would likely utilize the existing facilities to perform the shutoff.
4. If a shutoff valve were to be installed within the levee project works, it would be installed without pipeline venting/blowoff valves and stacks in order to reduce the complexity of the facilities. As such, even in the case of a planned isolation and venting of this pipe section, PG&E Operations personnel would use the existing shutoff valves and venting/blowoffs to perform this procedure, as the pipe section could be more safely and rapidly vented with existing blowoffs at both ends rather than at just one end.
5. Additional valves installed at the levee would likely never be used in either an emergency or routine condition and would only serve to add complication and expense to the installation of the pipeline system and future levee maintenance and operation.
6. The product transported by the PG&E pipeline is a gas rather than a liquid and poses no threat of contamination of the waterway in the case of a pipeline leak or rupture, as the product would dissipate into the atmosphere. As such, a closure device at the levee does not provide the potential to reduce the amount of a product released into the waterway as would be the case with a liquid product.

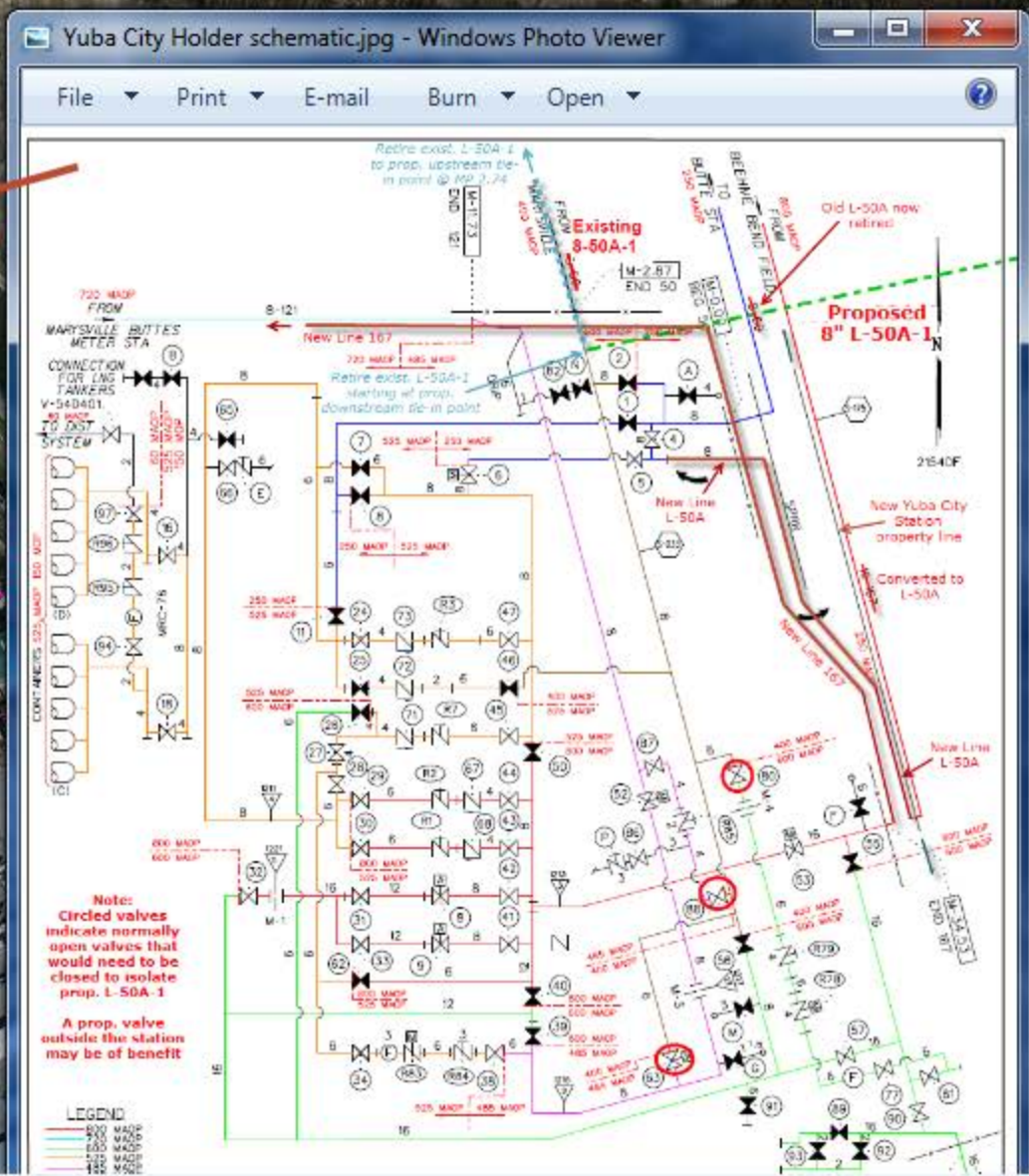
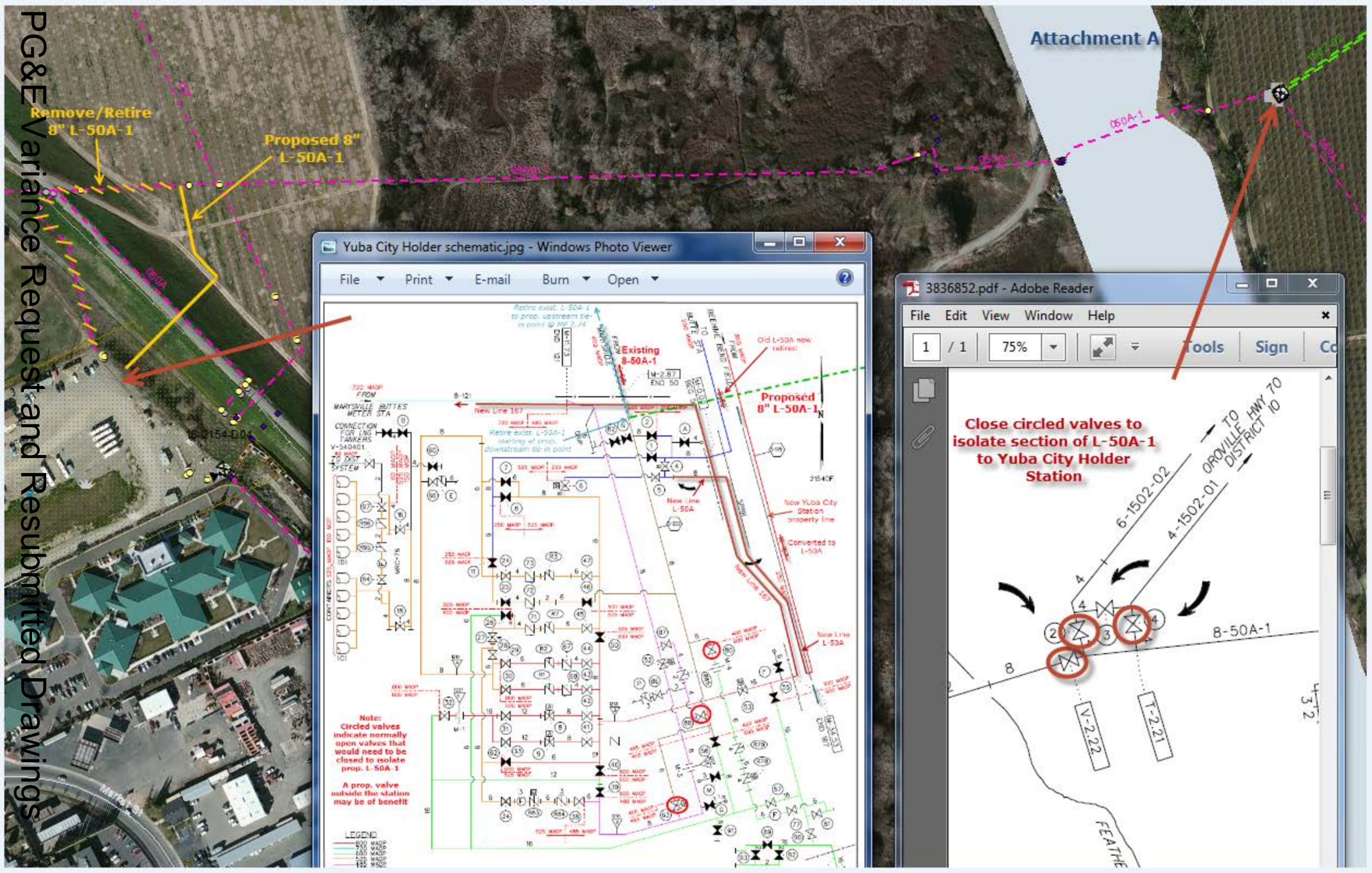
PG&E is seeking CVFPB consideration and subsequent approval of our request for variance to Title 23 – 123.(d)(7) that calls for the installation of a rapid closure device (valve) within ten (10) feet of the landside levee toe, in conjunction with our application for CVFPB encroachment permit request (application No. 18912 BD). To meet schedule requirements imposed by the forthcoming Feather River West Levee Project, PG&E construction activities are scheduled to begin April 15, 2014 pending CVFPB approval of our encroachment permit request. If you have any questions, please contact Danielle Wilson, PG&E Senior Land Planner by phone (916.923.7094) or email (D1WZ@pge.com). Thank you in advance for your consideration in this matter.

Sincerely,



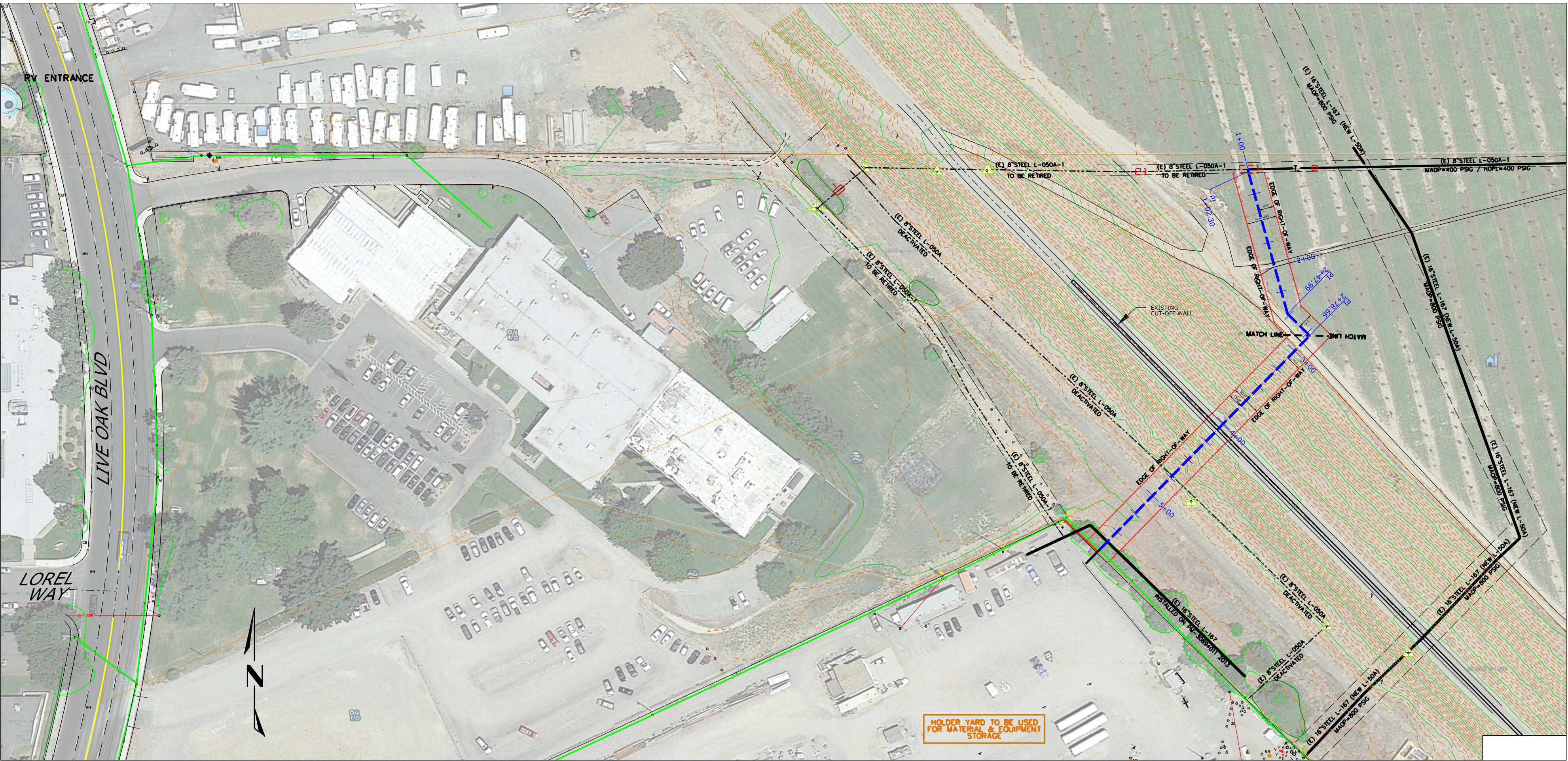
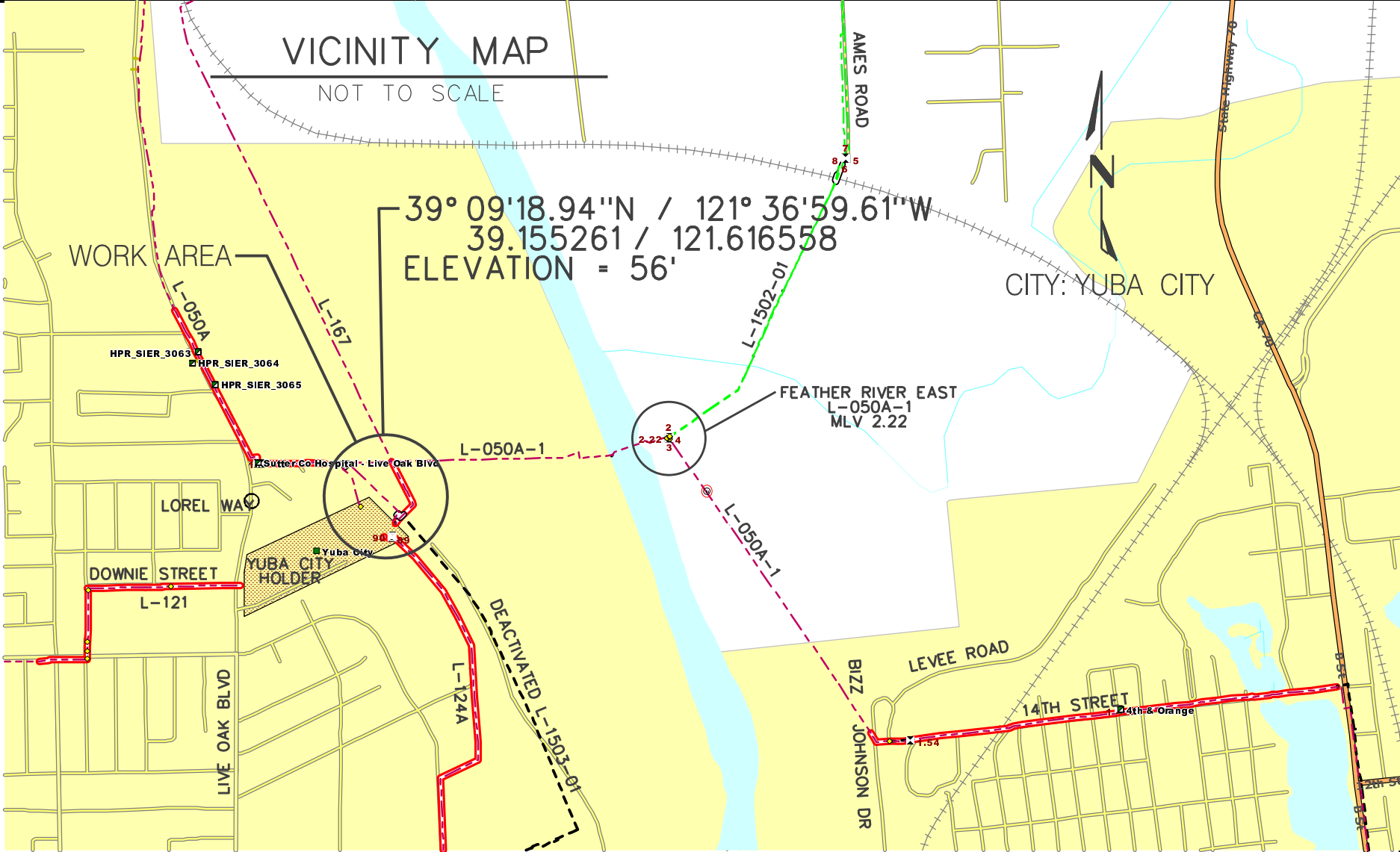
3-07-14

Darrell Davis
Sr. Project Manager
PG&E Gas Transmission
e-mail: d3d5@pge.com
(Office) 925-244-3791
(Cell) 925-487-5057



BTU AREA * H-01
CP AREA * 12-L050A
WALL MAP 2154
PLAT D-4
SUTTER COUNTY

L-050A-1 REPLACEMENT MP 2.73 TO MP 2.86 YUBA CITY : COUNTY OF SUTTER



SCHEDULE OF SHEETS

- SHEET 1 -- COVER SHEET
- SHEET 2,3- CONSTRUCTION NOTES
- SHEET 4 -- OVERALL MAP - LAND LAYOUT
- SHEET 5,6- PIPING (PLAN & PROFILE)
- SHEET 7 -- TIE-IN #1 DETAILS
- SHEET 8 -- TIE-IN #2 DETAILS
- SHEET 9 -- DEACTIVATION SHEET
- SHEET 10 --TRENCH BACKFILL DETAILS
- SHEET 11 --TYPICAL DETAILS / BILL OF MATERIAL

90% PLANS FOR VARIANCE
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PRELIMINARY

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CUSTOM DESIGNED BY:

GAS TRANSMISSION
ESTIMATING & DESIGN

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
1	- -	ISSUED FOR CONSTRUCTION	30960540	SDS4	RPA3	GPJ6	

APPROVED BY	DATE	SCALE
JN 30960540 SUPV R. MORALES DSGN S. STICKSEL DWN S. STICKSEL CHK R. ANTONUCCI OK	03-07-14	AS SHOWN

PIPING - COVER SHEET
L-50A-1 REPLACEMENT
MP: 2.73 TO 2.86
YUBA CITY LEVEE / YUBA CITY GAS HOLDER
YUBA CITY, SUTTER COUNTY, CA.
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO , CALIFORNIA

BILL OF MATL	SHEET 11
DWG LIST	SHEET
SUPSDS	
SUPSD BY	
SHEET NO.	1 OF 11 SHEETS
30960540	1

SAFETY

SAFETY PLEDGE

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I LOOK FOR AND ACT TO
RESOLVE UNSAFE SITUATIONS.

I HELP AND ENCOURAGE
OTHERS TO ACT SAFELY.

REFERENCE DRAWINGS:

- 383685-2 - OPERATING MAP
- 284091 - OPERATING DIAGRAM
- 2154 D4 - DISTRIBUTION PLAT SHEET

PSRS* 28196

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DATE: 03-07-14

1:47:30 PM

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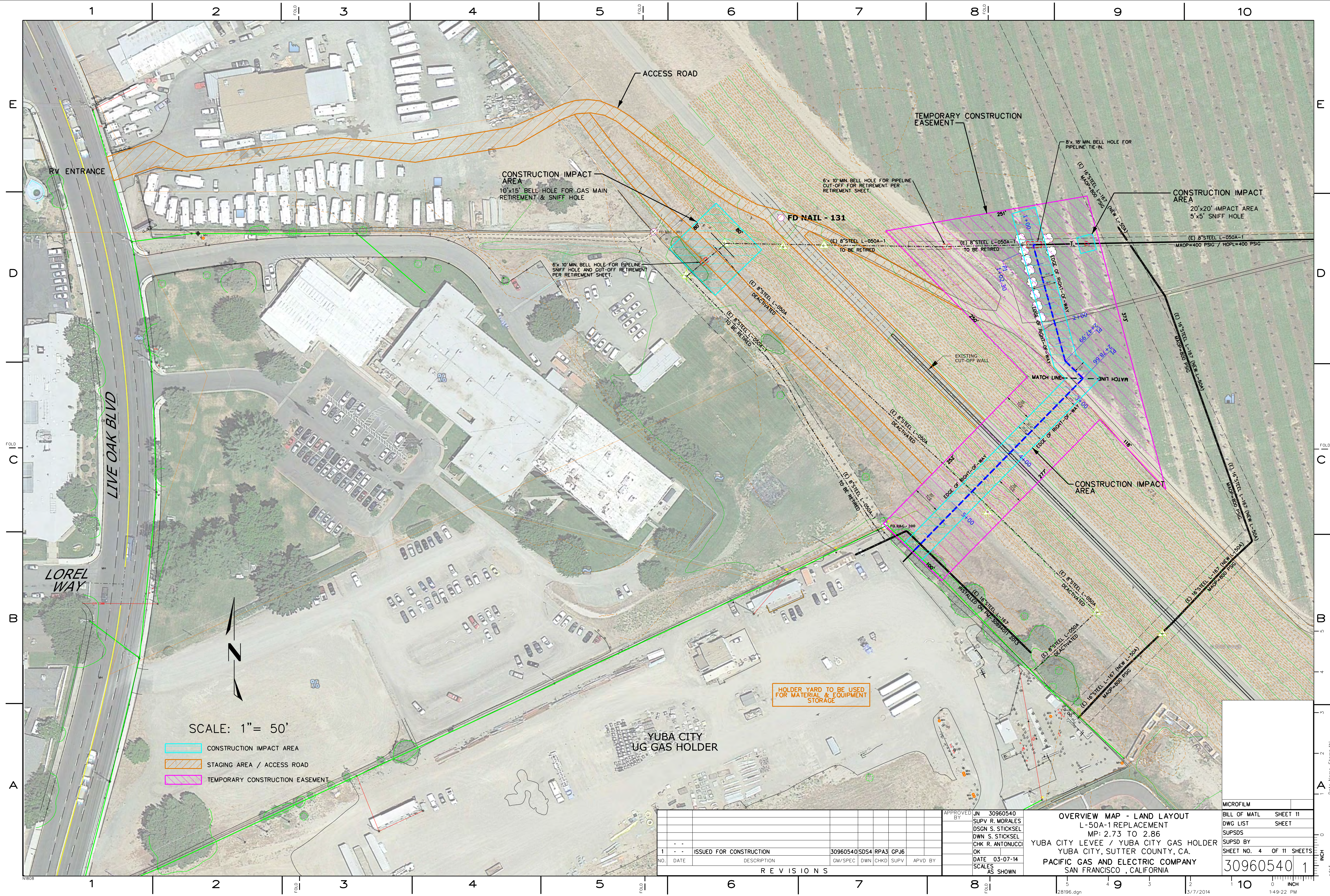
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REVISIONS		DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD	BY
1	-	-	ISSUED FOR CONSTRUCTION	30960540	SDS4	RPA3	GPJ6		

APPROVED BY	JN	30960540
SUPV	R. MORALES	
DSGN	S. STICKSEL	
DWN	S. STICKSEL	
CHK	R. ANTONUCCI	
OK		
DATE	03-07-14	
SCALE	AS SHOWN	

OVERVIEW MAP - LAND LAYOUT
L-50A-1 REPLACEMENT
MP: 2.73 TO 2.86
YUBA CITY LEVEE / YUBA CITY GAS HOLDER
YUBA CITY, SUTTER COUNTY, CA.
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM	
BILL OF MATL	SHEET 11
DWG LIST	SHEET
SUPSDS	
SUPSD BY	
SHEET NO.	4 OF 11 SHEETS
30960540	1

1 2 3 4 5 6 7 8 9 10

ENVIRONMENTAL
GENERAL
CLASS LOC
CULTURAL
BIOLOGICAL
WATERBODIES
EXCLUSIONS

RIGHT OF WAY
TRACT NUMBER
OWNERSHIP/AGENCY
PROPERTY SKETCH NO.
PERMIT DWG. NO.

STATIONING
1+00 2+00 3+00

PIPELINE SPECIFICATIONS
BOM ITEM NUMBER
EXISTING
#1
#2
#3
#1

PIPELINE DETAILS
PIPELINE SPECIFICATIONS
BOM ITEM NUMBER
EXISTING
#1
#2
#3
#1

REVISIONS
NO. DATE DESCRIPTION GM/SPEC DWN CHKD SUPV APVD BY

APPROVED BY
JN 30960540
SUPV R. MORALES
DSGN S. STICKSEL
DWN S. STICKSEL
CHK R. ANTONUCCI
OK
DATE 03-07-14
SHEET NO. 5 OF 11 SHEETS

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BILL OF MATL
SHEET 11
DWG LIST
SHEET
SUPSDS
SUPSD BY
SHEET NO. 5 OF 11 SHEETS
30960540 1

PIPING - PLAN & PROFILE
L-50A-1 REPLACEMENT
MP: 2.73 TO 2.86
YUBA CITY LEVEE / YUBA CITY GAS HOLDER
YUBA CITY, SUTTER COUNTY, CA.
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STATIONING
1+00 2+00 3+00

PIPELINE SPECIFICATIONS
BOM ITEM NUMBER
EXISTING
#1
#2
#3
#1

PIPELINE DETAILS
PIPELINE SPECIFICATIONS
BOM ITEM NUMBER
EXISTING
#1
#2
#3
#1

REVISIONS
NO. DATE DESCRIPTION GM/SPEC DWN CHKD SUPV APVD BY

APPROVED BY
JN 30960540
SUPV R. MORALES
DSGN S. STICKSEL
DWN S. STICKSEL
CHK R. ANTONUCCI
OK
DATE 03-07-14
SHEET NO. 5 OF 11 SHEETS

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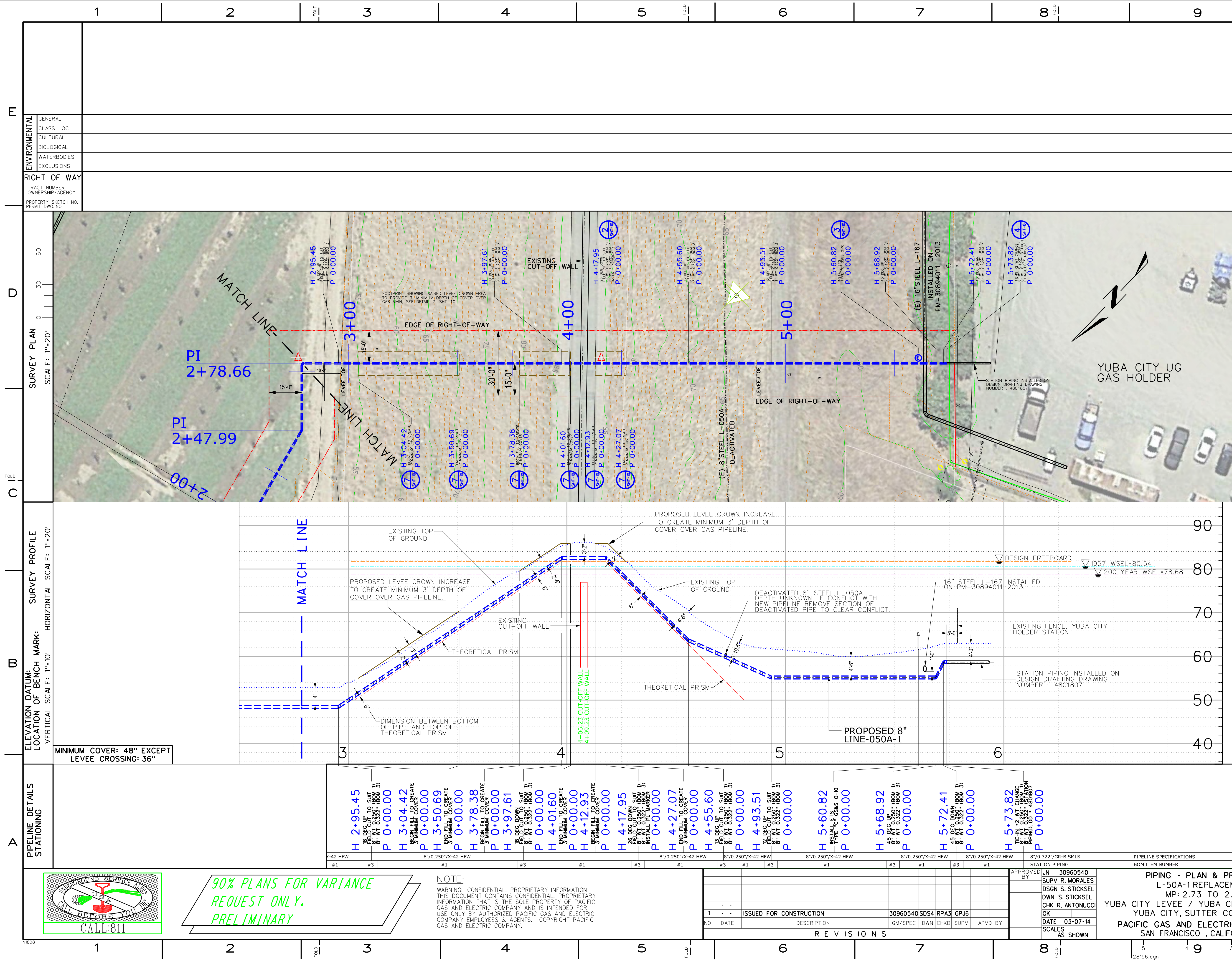
BILL OF MATL
SHEET 11
DWG LIST
SHEET
SUPSDS
SUPSD BY
SHEET NO. 5 OF 11 SHEETS
30960540 1

PIPING - PLAN & PROFILE
L-50A-1 REPLACEMENT
MP: 2.73 TO 2.86
YUBA CITY LEVEE / YUBA CITY GAS HOLDER
YUBA CITY, SUTTER COUNTY, CA.
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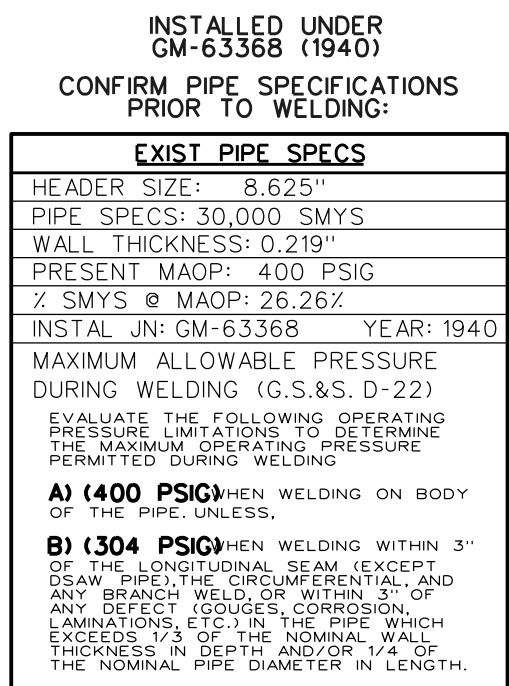
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PG&E

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PIPING - PLAN & PROFILE
 L-50A-1 REPLACEMENT
 MP: 2.73 TO 2.86
 YUBA CITY LEVEE / YUBA CITY GAS HOLDER
 YUBA CITY, SUTTER COUNTY, CA.
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 SAN FRANCISCO , CALIFORNIA

BILL OF MATL	SHEET 11
DWG LIST	SHEET
SUPSDS	
SUPSD BY	
SHEET NO. 6	OF 11 SHEETS
30960540	1



STA.		1-00 to 5+75	
JOB NO.	30960540		
B/M ITEM NO.	1		
DESIGN CRITERIA			
LOCATION CLASS	3		
DESIGN FACTOR	.50		
FDP	720	PSIG	29.57 % SMYS
MAOP	400	PSIG	16.43 % SMYS
STRENGTH TEST PRESSURE			
MAX.	1280	PSIG	52.57 % SMYS
MIN.	1080	PSIG	44.36 % SMYS
	2192	PSIG-90% SMYS	
TEST MEDIUM		WATER	
PIPE SPEC	API5L X-42 HFW		
O.D.	8.625"		
W.T.	0.250"		

STA. 1:00 to 5:75

JOB NO. 30960540

B/M ITEM NO. 2, 3

DESIGN CRITERIA

LOCATION CLASS 3

DESIGN FACTOR .50

FDP 720 PSIG 27.55 % SMYS

MAOP 400 PSIG 15.31 % SMYS

STRENGTH TEST PRESSURE

MAX. 1280 PSIG 48.98 % SMYS

MIN. 1080 PSIG 41.33 % SMYS

2352 PSIG-90% SMYS

TEST MEDIUM WATER

PIPE SPEC ASTM A234

O.D. 8.625"

W.T. 0.322"

WELD SELECTION (GAS STD.D-40)*

☒ RADIOGRAPHIC:

☐ 20% MIN. (% OF EACH WELDER'S

☒ 100% DAILY WORK)

*VISUALLY INSPECT 100% OF ALL WELDS THAT ARE NOT RADIOGRAPHICALLY INSPECTED. (THIS REQUIREMENT APPLIES EVEN IF NO RADIOGRAPHIC INSPECTION IS REQUIRED.)



PSRS# 28196

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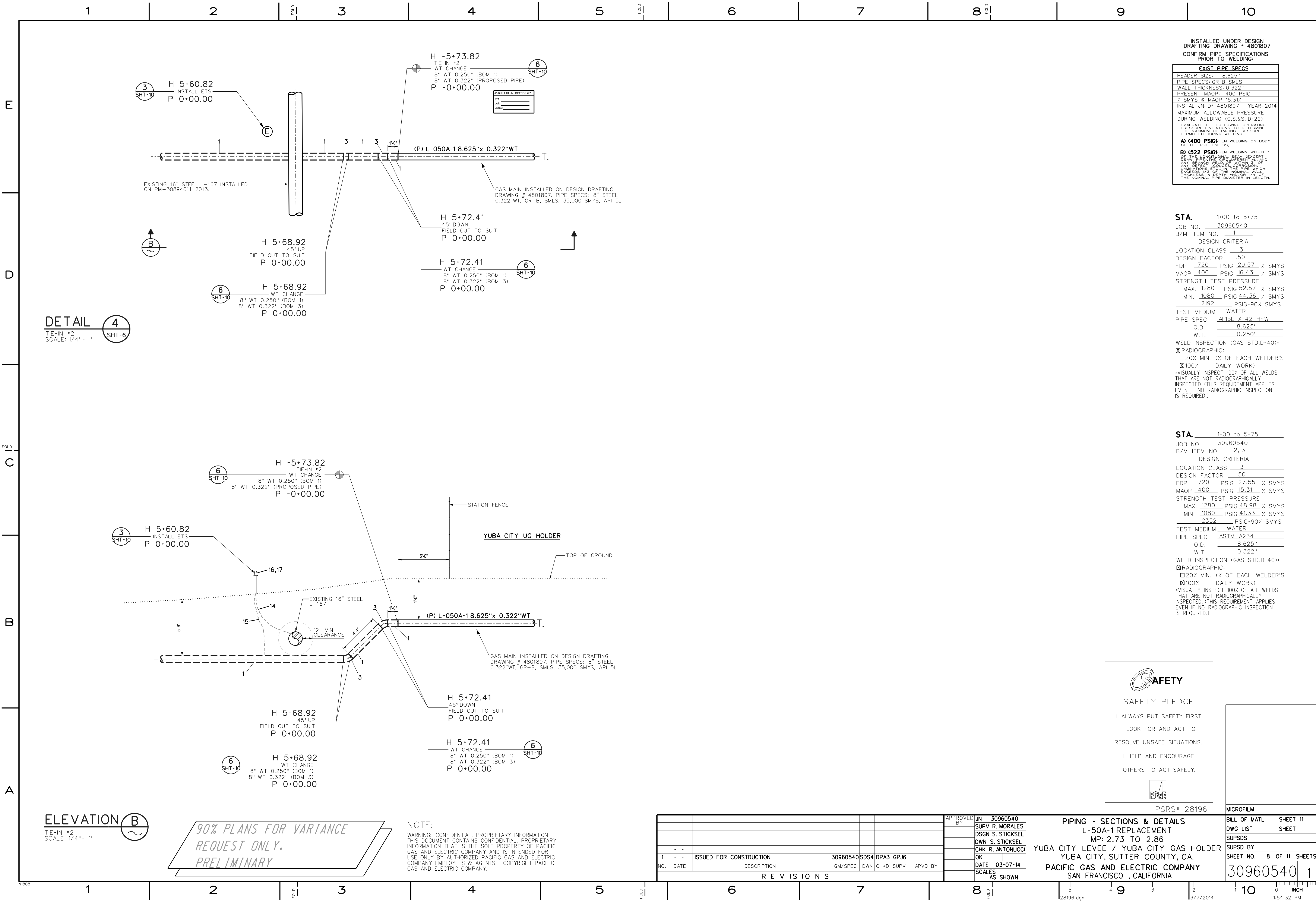
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PRELIMINARY

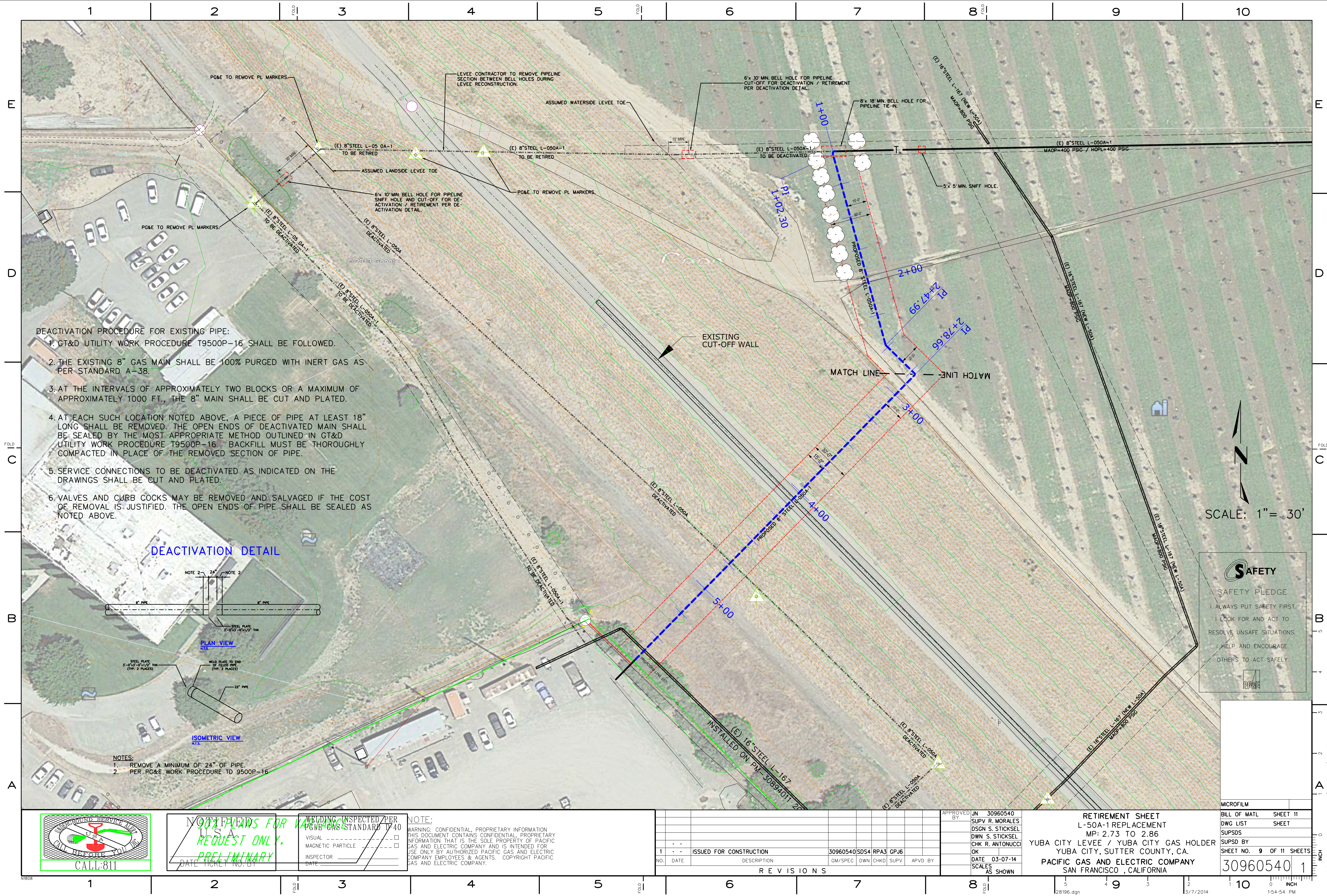
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PIPING - SECTIONS & DETAILS
 L-50A-1 REPLACEMENT
 MP: 2.73 TO 2.86
 YUBA CITY LEVEE / YUBA CITY GAS HOLDER
 YUBA CITY, SUTTER COUNTY, CA.
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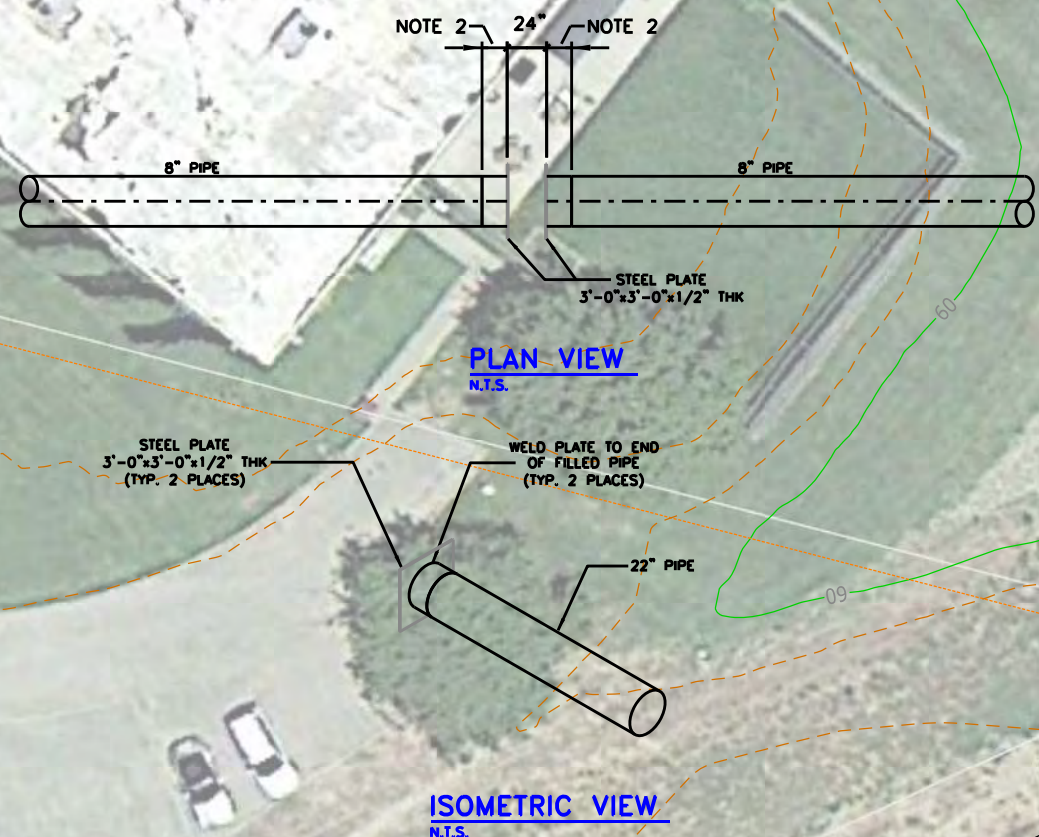
BILL OF MATL	SHEET 11
DWG LIST	SHEET
SUPSDS	
SUPSD BY	
SHEET NO. 7	OF 11 SHEETS
30960540	1





- DEACTIVATION PROCEDURE FOR EXISTING PIPE:
1. GT&D UTILITY WORK PROCEDURE T9500P-16 SHALL BE FOLLOWED.
 2. THE EXISTING 8" GAS MAIN SHALL BE 100% PURGED WITH INERT GAS AS PER STANDARD A-38.
 3. AT THE INTERVALS OF APPROXIMATELY TWO BLOCKS OR A MAXIMUM OF APPROXIMATELY 1000 FT., THE 8" MAIN SHALL BE CUT AND PLATED.
 4. AT EACH SUCH LOCATION NOTED ABOVE, A PIECE OF PIPE AT LEAST 18" LONG SHALL BE REMOVED. THE OPEN ENDS OF DEACTIVATED MAIN SHALL BE SEALED BY THE MOST APPROPRIATE METHOD OUTLINED IN GT&D UTILITY WORK PROCEDURE T9500P-16. BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE.
 5. SERVICE CONNECTIONS TO BE DEACTIVATED AS INDICATED ON THE DRAWINGS SHALL BE CUT AND PLATED.
 6. VALVES AND CURB COCKS MAY BE REMOVED AND SALVAGED IF THE COST OF REMOVAL IS JUSTIFIED. THE OPEN ENDS OF PIPE SHALL BE SEALED AS NOTED ABOVE.

DEACTIVATION DETAIL



- NOTES:
1. REMOVE A MINIMUM OF 24" OF PIPE.
 2. PER PG&E WORK PROCEDURE T9500P-16

SCALE: 1" = 30'

SAFETY

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NOT FOR CONSTRUCTION
REQUEST ONLY.
PRELIMINARY
DATE TICKET NO. BY

WARNING: INSPECTED PER
PG&E STANDARD T940
VISUAL ☐
MAGNETIC PARTICLE ☐
INSPECTOR ☐
DATE ☐

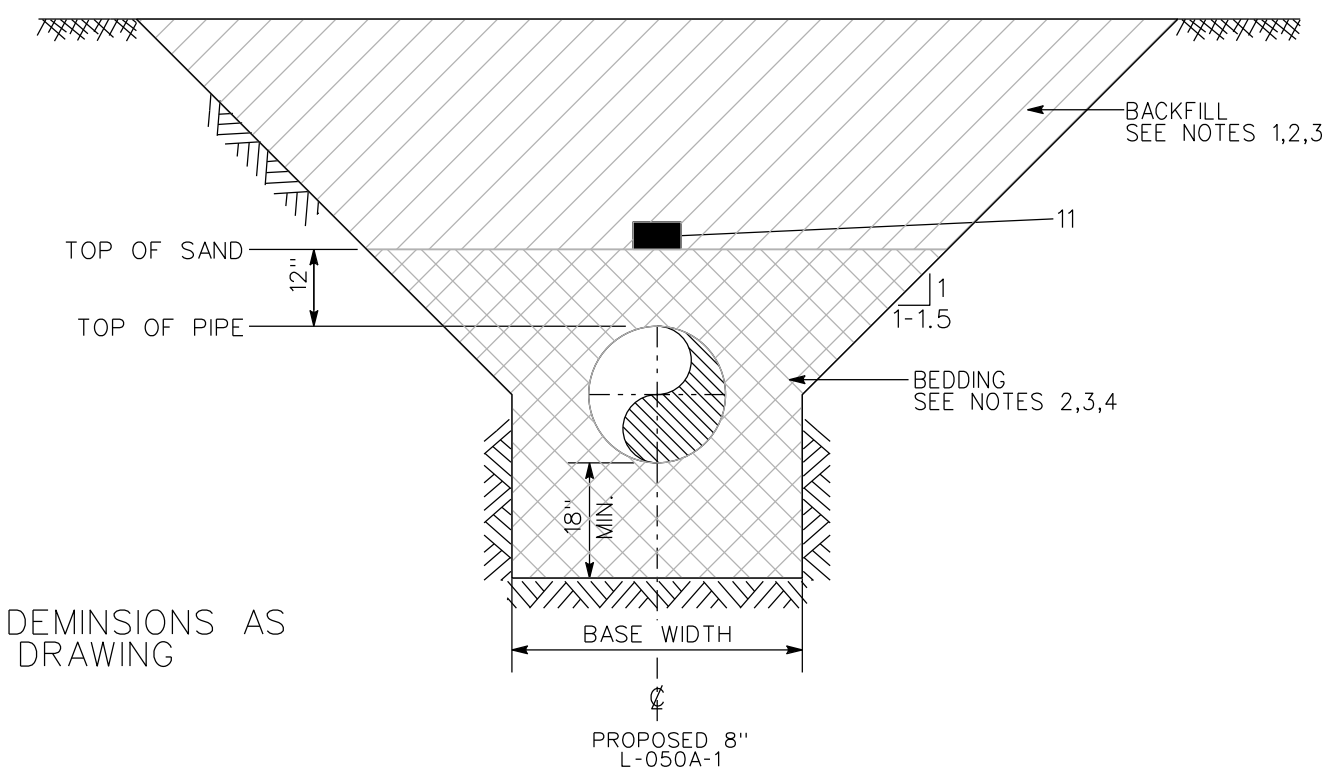
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1	- -	ISSUED FOR CONSTRUCTION	30960540	SDS4	RPA3	GPJ6		

APPROVED BY
JUN 30960540
SUPV R. MORALES
DSGN S. STICKSEL
DWN S. STICKSEL
CHK R. ANTONUCCI
DATE 03-07-14
SCALES AS SHOWN

RETIREMENT SHEET
L-50A-1 REPLACEMENT
MP: 2.73 TO 2.86
YUBA CITY LEVEE / YUBA CITY GAS HOLDER
YUBA CITY, SUTTER COUNTY, CA.
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 11
DWG LIST	SHEET
SUPSDS	
SUPSD BY	
SHEET NO.	9 OF 11 SHEETS
30960540	1



TYPICAL PG&E TRENCH BACKFILL DETAIL
OUTSIDE OF "LEEVE".
STA.: 0+97.0 TO 2+81.66
5+16.52 TO 5+73.82

TRENCH SECTION ABOVE FREEBOARD
PER TITLE 23, CHAPTER 123.d.9.B
STA.: 4+01.60 TO 4+12.93

TRENCH SECTION BELOW FREEBOARD
IN "LEVEE" AREA (SEE NOTE 6)

STA: 2+81.66 TO 3+04.92
3+50.69 TO 3+78.38
4+27.07 TO 5+16.52

BELL HOLE IN "LEEVE" AREA
PER TITLE 23, CHAPTER 123.d.9.B
(SEE NOTE 6)

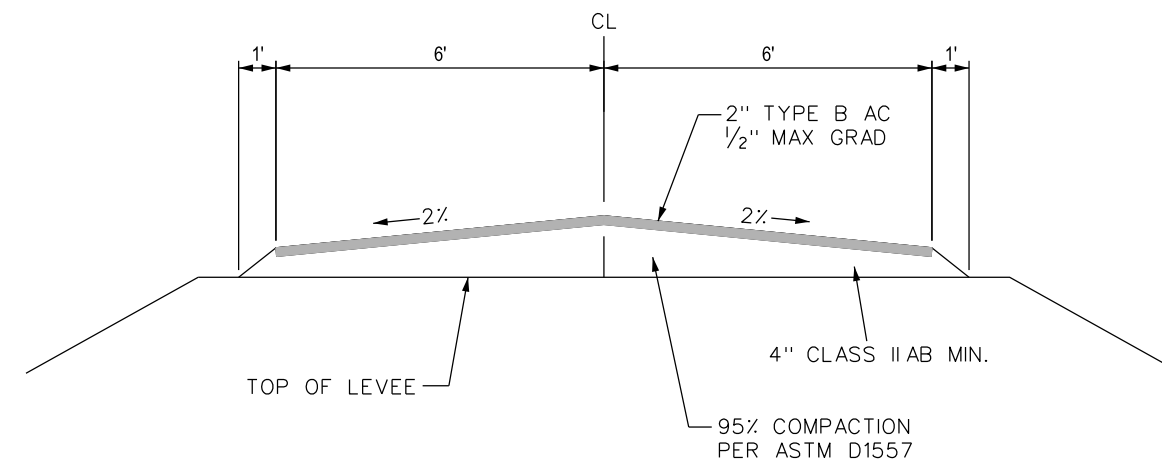
PLAN VIEW

BELL HOLE IN "LEVEE" AREA
PER TITLE 23, CHAPTER 123.d.9.B
(SEE NOTE 6)

SECTION VIEW

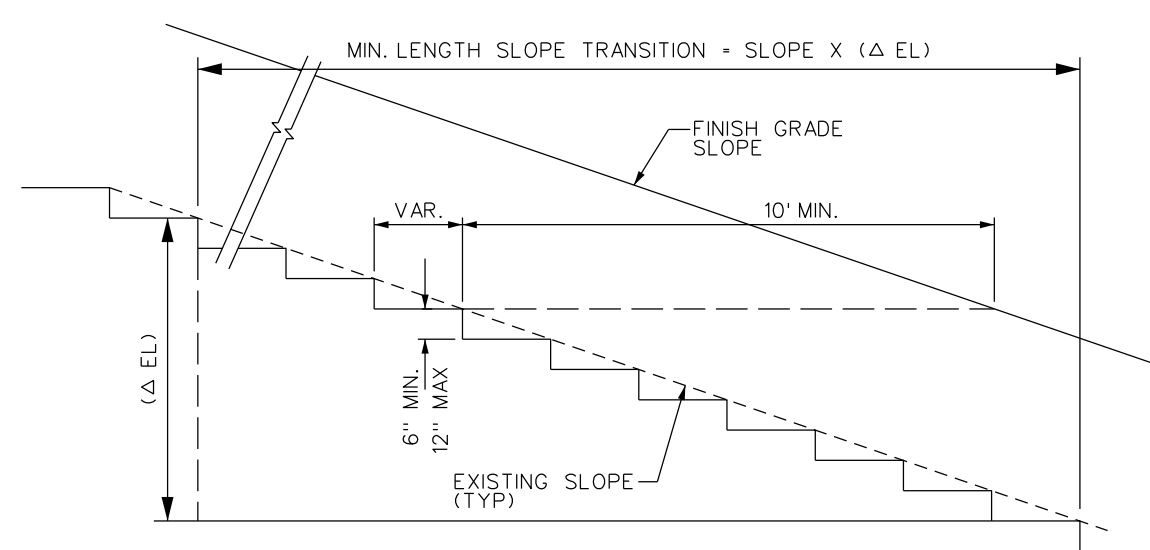
NOTES:

1. IN ACCORDANCE WITH TITLE 23, SECTION 123.6-20, TRENCHES WITHIN THE LEVEE BOUNDARY WILL BE BACKFILLED.
2. IN 4 TO 6 INCH LAYERS. ADDITIONALLY, BACKFILL WILL BE COMPACTED TO A RELATIVE COMPACTION OF 90 PERCENT PER ASTM D1557-91 OR COMPACTED TO A RELATIVE COMPACTION OF 97 PERCENT PER ASTM D698-91.
3. IN 24 INCH LAYERS. ADDITIONALLY, BACKFILL WILL BE COMPACTED TO A RELATIVE COMPACTION OF 97 PERCENT PER ENGINEERS USACE ENGINEERING MANUAL EM 1110-2-1913 SECTION 8-8.
4. BEDDING AND BACKFILL MATERIAL WITHIN THE LEVEE WILL BE IN ACCORDANCE WITH TITLE 23, SECTION 123.6-20.
5. THE QUANTITY AND LOCATIONS OF BELL HOLES WILL BE DETERMINED IN THE FIELD BY P&E ENGINEERING AND CONSTRUCTION MANAGEMENT.
6. THE LINE 15 FEET FROM THE LEVEE WILL BE USED AS THE BOUNDARY BETWEEN 15-FT FROM THE WATERSIDE LEVEE TOE TO 30-FT FROM THE LANDSIDE LEVEE TOE.



BIKE PATH GENERAL NOTES: (AS APPLICABLE)

- A. PRIOR TO PLACEMENT OF FILL AGAINST LEVEE SLOPE AND WITHIN 10' OF THE LEVEE TOE, ALL SURFACE VEGETATION SHALL BE REMOVED TO A DEPTH OF 6"; ORGANIC SOIL AND ROOTS LONGER THAN 1 1/2" IN DIAMETER SHALL BE REMOVED TO A DEPTH OF 3 FEET (ITEM 21 ON REC BOARD PERMIT).
- B. FILL ON THE LEVEE SLOPE SHALL BE KEYED INTO THE EXISTING LEVEE SECTION WITH EACH LIFT (ITEM 22 ON REC BOARD PERMIT).
- C. IMPORTED FILL MATERIAL SHALL HAVE 20% OR MORE PASSING THE No. 200 SIEVE, A P10# 8 OR MORE, A LL OF LESS THAN 50, AND SHALL BE FREE OF STONES OR LUMPS EXCEEDING 3 INCHES IN GREATEST DIMENSION, VEGETATIVE MATTER, OR OTHER UNSATISFACTORY MATERIAL (ITEM 23 ON REC BOARD PERMIT).
- D. THE LEVEE SHALL BE CONSTRUCTED TO A MINIMUM OF 2' OF FREEBOARD ABOVE THE DESIGN FLOOD RELATIVE COMPACTION PER ASTM D1557-91 AND AT OR ABOVE OPTIMUM MOISTURE CONTENT (ITEM 24 ON REC BOARD PERMIT).
- E. THE STRUCTURAL SECTION OF THE BIKE PATH ON THE LEVEE CROWN SHALL BE 2" OF AC OVER 4" (min) OF THE SUBGRADE. SHALL BE COMPACTIONED TO AT LEAST 95% RELATIVE COMPACTION PER ASTM METHOD D1557-91 (ITEM 25 REC BOARD PERMIT).
- F. HYDROSEDED SIDES OF NEW RAMP IN ACCORDANCE WITH THE 1999 STANDARD SPECIFICATIONS SECTION 20. SEED SHALL BE 50% WINTER AND 50% SUMMER. SEED SHALL BE INCORPORATED STRAW AND STABILIZER EMULSION AS DESCRIBED IN SECTION 20 OF THE STANDARD SPECIFICATIONS.
- G. CONTRACTOR TO PROVIDE A GEOTECHNICAL FORM TO PROVIDE ALL COMPACTION TESTS AT THE FREQUENCY OF NO LESS THAN ONE IN THE MORNING AND ONE IN THE AFTERNOON. NEW COMPACTION CURVES WILL BE REQUIRED WHEN TESTED BY THE ENGINEER. IF COMPACTION TEST FAILS REMOVE ALL MATERIAL PLACED SINCE LAST PASSING TEST.



RAISED LEVEE
TRENCH SECTION ABOVE FREEBOARD
PER TITLE 23, CHAPTER 123.d.9.B

STA.: 3+84.59 TO 4+01.60
4+12.93 TO 4+27.07

NOTE:

1. LEVEE EMBANKMENT FILL MATERIALS (TYPE 1) AND TYPE 2) SHALL CONSIST OF IMPORT MATERIAL AND EXCAVATED LEVEE MATERIAL BLENDED AS REQUIRED TO MEET THE REQUIREMENTS OF SPECIFICATION SECTION 3100 00.
2. FINISH GRADE LINES SHOWN ARE PRIOR TO PLACEMENT OF TOPSOIL.
3. THE CONTRACTOR SHALL SUBMIT A DE WATERING WORK PLAN IN ACCORDANCE WITH SPECIFICATION SECTION 3100 00. PART 1.7.2.

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RAISED LEVEE
TRENCH SECTION BELOW FREEBOARD
PER TITLE 23, CHAPTER 123.d.9.B

STA.: 3+04.92 TO 3+50.69
3+78.38 TO 3+84.59

PSRS# 28196

MICROFILM

PIPING - TRENCH BACKFILL DETAILS
 L-50A-1 REPLACEMENT
 MP: 2.73 TO 2.86
 YUBA CITY LEVEE / YUBA CITY GAS HOLDER
 YUBA CITY, SUTTER COUNTY, CA.
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO , CALIFORNIA

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STATE OF CALIFORNIA
THE RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD

RESOLUTION NO. 2013-07

FINDINGS AND DECISION AUTHORIZING ISSUANCE OF
FLOOD SYSTEM IMPROVEMENT PROJECT
PERMIT APPLICATION NO. 18793-1

SUTTER BUTTE FLOOD CONTROL AGENCY
FEATHER RIVER WEST LEVEE PROJECT
PROJECT AREA C (REACHES 13 THROUGH 24) CONSTRUCTION PERMIT
SUTTER COUNTY

WHEREAS, the Central Valley Flood Protection Board (Board), in support of the Sutter Butte Flood Control Agency (SBFCA), approved on October 26, 2012 a request to the U.S. Army Corps of Engineers (USACE) for 33 U.S.C. Section 408 (Section 408) approval to alter of 41 miles of federal flood control project levee, the Feather River West Levee Project (FRWLP), located on the west side (right bank) of the Feather River from Thermalito Afterbay in Butte County downstream to approximately 3.5 miles north of the Feather River's confluence with Sutter Bypass in Sutter County; and

WHEREAS, the SBFCA submitted an application and supporting documentation to the Board in March 2013 to construct Project Area C, the first phase of the FRWLP, including approximately 14.78 miles of levee improvements in Reaches 13 to 24 within Sutter County; and

WHEREAS, SBFCA released a Notice of Preparation initiating a 30-day public comment period on May 20, 2011 and extended the comment period to July 8, 2011; and

WHEREAS, SBFCA as lead agency under the California Environmental Quality Act, Public Resources Code sections 21000 *et seq.* ("CEQA") prepared a Draft Environmental Impact Report (DEIR) (SCH No. 2011052062, December 2012), and Final Environmental Impact Report (FEIR) (SCH No. 2011052062, April 2013), and Mitigation Monitoring and Reporting Plan (MMRP) for the FRWLP (incorporated herein by reference and available at Board or SBFCA offices); and

WHEREAS, the SBFCA Board approved the FRWLP (SBFCA Resolutions 2013-05 and 2013-06), the FEIR, and MMRP, and approved findings and a Statement of Overriding Considerations pursuant to the CEQA Guidelines (incorporated herein by reference), and filed a Notice of Determination with the State Clearinghouse on April 12, 2013; and

WHEREAS, the Boards of Levee District 1 (Sutter) and Levee District 9 (Sutter) endorsed the Project Area C application on April 16, 2013 without conditions; and

WHEREAS, the Department of Water Resources (DWR) Flood Maintenance Office conditionally endorsed the Project Area C application on May 16, 2013; and

WHEREAS, the USACE Washington DC headquarters Section 408 Record of Decision (ROD) and USACE Sacramento District Letter of Permission (LOP) are anticipated in late July 2013; and

WHEREAS, if the Section 408 request is approved by USACE, staff will review and incorporate any USACE conditions into the final permit; and

WHEREAS, Board staff completed a comprehensive technical review of SBFCA's Project Area C Permit Application No. 18793-1 including the following documents:

- Hydraulic analysis and geotechnical reports and data
- 100% Plans and Specifications
- 100% "Issued for Bid" Plans and Specifications:
- 100% Design Documentation Report
- 100% Technical Specifications
- 100% "Issued for Bid" Technical Specifications
- Addenda 1 and 2
- Draft and Final Environmental Impact Reports pursuant to the California Environmental Quality Act
- Project bid schedules; and

WHEREAS, in accordance with California Code of Regulations, Title 23 (CCR 23), § 11, the Board may grant variances to its standards for uses that are not consistent with the Board's standards. When approval of a permit requires variances, the applicant must clearly state in its application why compliance with the Board's standards is infeasible or not appropriate; and

WHEREAS, SBFCA has requested the Board to grant variances from CCR 23, pursuant to the requirements of CCR 23 § 11, and as summarized in Staff Report Section 8.5 and further detailed in Staff Report Attachments J, K, and L; and

WHEREAS, Board, SBFCA, DWR, and USACE staffs have developed a strategy to (1) update existing encroachment pipeline crossing permits to ensure that they conform to current CCR 23 regulations and USACE policies, and (2) issue encroachment permits to owners of currently unpermitted encroachments to ensure that all regulatory parties, levee maintainers, and owners will be able to accurately and efficiently track and inspect future operations and maintenance of these encroachments; and

WHEREAS, SBFCA has agreed to act on each owner's behalf to prepare all required encroachment permit application documents, obtain owner signatures, and support the Board staff's application review and permitting activities; and

WHEREAS, the SBFCA Area C construction project will:

- address major geotechnical concerns such as through- and under-seepage and related slope stability, and condition and impact of existing encroachments,
- reduce the risk of flooding for existing urban areas, agricultural commodities, infrastructure, and other properties,
- increase the level of flood protection to a targeted 200-year level for Yuba City and Live Oak consistent with the adopted CVFPP, and Senate Bill 5 (Statutes of 2008) to provide 200-year flood protection for urban and urbanizing areas,
- preserve riparian and other native habitats,
- bring encroachments surveyed by SBFCA into CCR 23 compliance while addressing 100 percent of the encroachment issues categorized by the USACE in their 2010 periodic inspections as “Unacceptable – likely to prevent performance in the next flood event.”; and

WHEREAS, The Board has conducted a public hearing on Permit Application No. 18793-1 and has reviewed the Staff Report and Attachments, the documents and correspondence in its file, and the environmental documents prepared by the SBFCA.

NOW, THEREFORE, BE IT RESOLVED THAT.

Findings of Fact.

1. The Board hereby adopts as findings the facts set forth in the Staff Report.
2. The Board has reviewed all Attachments, Exhibits, Figures, and References listed in the Staff Report.

CEQA Findings.

3. The Board, as a responsible agency, has independently reviewed the analyses in the DEIR (SCH No. 2011052062, December 2012) and the FEIR (April 2013) for the FRWLP which includes the SBFCA Lead Agency findings, Statement of Overriding Considerations, MMRP, and has reached its own conclusions regarding them.
4. The Board, after consideration of the DEIR (SCH No. 2011052062, December 2012) and the FEIR (April 2013) on the FRWLP, and the SBFCA Lead Agency findings, adopts the project description, analysis and findings which are relevant to the project.
5. **Findings regarding Significant Impacts.** Pursuant to CEQA Guidelines sections 15096(h)-and 15091, the Board determines that the SBFCA findings, incorporated herein by reference, summarize the FEIR determinations regarding impacts of the FRWLP,

before and after mitigation. Having reviewed the FEIR and the SBFCA findings, the Board makes its findings as follows:

a. **Findings Regarding Significant and Unavoidable Impacts.**

The Board finds that the FRWLP may have the following significant, unavoidable impacts, as more fully described in the SBFCA findings. Mitigation has been adopted for each of these impacts although it does not reduce the impacts to less than significant. The impacts and mitigation measures are set forth in more detail in the SBFCA findings.

- A. Air quality - The project could exceed applicable thresholds for construction emissions. SBFCA will provide an Advance Notification of Construction Schedule and a 24-Hour Hotline to Residents; implement a Fugitive Dust Control Plan and measures to reduce emissions. Fees will be paid to offset annual construction emissions to net zero.
- B. Noise - The project could result in temporary construction-related noise up to 24 hours per day. To the extent feasible construction contractors shall control noise from construction activity such that noise does not exceed applicable noise standards.
- C. Vegetation and wetlands - The project would result in loss of wetlands and vegetation. For direct effects on woody riparian trees that cannot be avoided, SBFCA will compensate for the loss of riparian habitat to ensure no net loss of habitat functions and values. Compensation ratios will be based on site specific information and determined through coordination with the appropriate State and federal agencies during the permitting process.
- D. Visual resources - The project could result in impacts to visual resources. Viewers would experience construction in both rural and urban reaches during more than one construction season (typically April 15 to November 30, subject to conditions). In general, construction operations along the levee and at borrow sites, construction traffic, haul trucks, and staging areas would be visible in the foreground and middleground to residents, businesses, roadway users, and recreationists.
- E. Cultural resources - The project could result in cumulative impacts to cultural resources. The project may result in the demolition of individual structures and residences that contribute to rural historic landscapes. Other projects that form the cumulative context may contribute to these effects through plan build-out, levee repair, or other actions requiring demolition of structures forming portions of rural historic landscapes also affected by the FRWLP. For these reasons the FRWLP may contribute to cumulatively significant and unavoidable effects on rural historic landscapes. SBFCA will develop and implement treatment for avoidance and preservation in place or relocation of individual California Register of Historic Resources that are eligible buildings (noncontributing or unaffected

buildings would remain in place). Where avoidance or relocation is not feasible standard treatment such as documentation through the Historic American Buildings Survey, Historic American Landscape Survey, Historic American Engineering Record, or district documentation will be completed. Interpretive displays, online resource, and historic contexts or walking tours may also be used, as appropriate.

Finding: The Board finds that changes or alterations have been required in, or incorporated into, the project which substantially lessen such impacts, as set forth more fully in the SBFCA findings, but that each of the above impacts remains significant after mitigation. Such mitigation measures are within the responsibility of another agency (SBFCA), and should be implemented as described. Specific economic, legal, social, technological or other considerations have rendered infeasible mitigation or alternatives that would have reduced these impacts to less than significant.

b. Findings regarding Significant Impacts that can be Reduced to Less Than Significant.

The significant impacts and the mitigation measures to reduce them to less than significant are described in the FEIR and SBFCA's Adopted Resolution 2013-06 dated April 10, 2013. This Resolution includes a Statement of Facts, Findings, Impacts and Mitigation Measures, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program. Based on its independent review of the FEIR and SBFCA Resolution 2013-06, the Board finds that for each of the significant impacts described, changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the FEIR. Moreover, such changes or alterations are within the responsibility and jurisdiction of another public agency (SBFCA) and such changes have been adopted by that agency. It is hereby determined that the impacts addressed by these mitigation measures will be mitigated to a less-than-significant level or avoided by incorporation of these mitigation measures into the project.

As a responsible agency, the Board has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the Project which it decides to carry out, finance, or approve. The Board confirms that it has reviewed the MMRP, and confirmed that SBFCA has adopted and committed to implementation of the measures identified therein. The Board agrees with the analysis in the MMRP and confirms that there are no feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. None of the mitigation measures in the MMRP require implementation by the Board directly, although continued implementation of the MMRP shall be made a condition of issuance of the Permit. However, the measures in the MMRP may be modified without triggering the need for subsequent or supplemental analysis under CEQA Guidelines section 15162(c).

6. **Statement of Overriding Considerations.** Pursuant to CEQA Guidelines sections 15096(h) and 15093, the Board has balanced the economic, social, technological and other benefits of the Project described in Permit Application No. 18793-1 against its significant and unavoidable impacts listed in paragraph 5(a) above, and finds that the benefits of the Project outweigh these impacts and they may, therefore, be considered "acceptable".

The Board finds the project will enhance public safety in the Sutter Basin by addressing known levee and encroachment deficiencies on the west bank of the Feather River. The Feather River west levee suffers from risks of levee failure mechanisms including through- and under-seepage and related slope stability and geometry, erosion, and levee encroachments result in the immediate need for repairs to protect the people and property at risk within the project area. The health and safety benefits of the project, which would significantly reduce the risk of an uncontrolled flood that would result in a catastrophic loss of property and threat to residents of the area, outweigh the remaining unavoidable environmental impacts.

7. **Custodian of Record.** The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Board offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

Considerations pursuant to Water Code section 8610.5.

8. **Evidence Admitted into the Record.** The Board has considered all the evidence presented in this matter, including the original application for Permit No. 18793-1 and technical documentation provided by SBFCA on the FRWLP past and present Staff Reports and attachments, the Environmental Impact Report on the FRWLP (Draft and Final Versions), SBFCA Board Resolutions 2013-05 and 2013-06 including findings, Statement of Overriding Considerations, and the MMRP.
9. **Best Available Science.** In making its findings, the Board has used the best available science relating to the issues presented by all parties. On the important issue of hydraulic impacts and the computed water surface profiles, SBFCA used a HEC-RAS one-dimensional unsteady flow model that was also utilized by the USACE for the ongoing Sutter Basin Feasibility Study. The model is considered by many experts as the best available scientific tool for the purpose of modeling river hydraulics for the Feather River. Geotechnical and overall standards for levee design including those of the USACE, DWR ULDC, and Board have been taken into consideration and the design is in compliance with these standards.
10. **Effects on State Plan of Flood Control.** This project has positive effects on the State Plan of Flood Control as it includes features that will provide 200-year protection to urban and urbanizing areas of the Sutter Basin. The Board finds that the 65 percent projects designs used to support the program-level Section 408 request, and none of the changes in project design made subsequent to 65 percent design up to and including the

100 percent issued for bid design and Addenda A and B result in adverse hydraulic impacts on the entire State Plan of Flood Control.

The Board further finds that the proposed Area C construction phase of the FRWLP, to be constructed as described in SBFCA's 100 percent "Issued For Bid Set", dated March 13, 2013, and in Addenda Nos. 1 and 2, will result in an overall betterment to the SRFCP and State Plan of Flood Control, and will be consistent with the adopted 2012 Central Valley Flood Protection Plan.

The Board further finds that the proposed project alterations can be constructed in a manner not injurious to the public interest, and that will not impair the usefulness of the SRFCP.

In California Statutes of 2007, Chapter 641 (SB276), the Legislature found and declared that "The projects authorized in Section 12670.14 of the Water Code will increase the ability of the existing flood control system in the Sacramento Valley to protect urbanized areas within Sutter County against very rare floods without altering the design flows and water surface elevations prescribed as part of the SRFCP or impairing the capacity of other segments of the SRFCP to contain these design flows and to maintain water surface elevations. Accordingly, the projects authorized in that section will not result in significant adverse hydraulic impacts to the lands protected by the SRFCP and neither the Board nor any other State agency shall require the authorized projects to include hydraulic mitigation for these protected lands."

11. **Effects of Reasonably Projected Future Events.** The project would have no net increases in operational greenhouse gas (GHG) emissions impacting climate change. Emissions associated with the project would occur over a finite period of time (2 year) as opposed to operational emissions, which would occur over the lifetime of a project. There are no other foreseeable projected future events that would impact this project.

Other Findings/Conclusions regarding Issuance of the Permit.

12. This resolution shall constitute the written decision of the Board in the matter of Permit No. 18793-1.


Approval of Encroachment Permit No. 18793-1.

13. The Board adopts the CEQA findings and Resolution 2013-07, and
14. The Board approves, pursuant to CCR 23, § 11(a) and (b) with regard to Variances to Board Standards, the requested construction variances summarized in Staff Report Section 8.5 and further detailed Staff Report Attachments J, K, and L, and
15. Based on the foregoing, the Board hereby conditionally approves issuance of Permit No. 18793-1 in substantially the form provided by the Board Staff at the May 24, 2013 meeting of the Board, subject to receipt, review and incorporation of conditions required

by the USACE in their Record of Decision and Letter of Permission anticipated to be received by late July 2013, and

16. The Board delegates authority to the Executive Officer to make non-substantive changes to the draft permit as needed to incorporate additional design changes submitted by SBFCA prior to receipt of the USACE ROD and LOP, and that if substantive changes to the draft permit are required, the Board staff will bring the permit back to the Board at a future meeting to seek approval for substantive changes, and
17. The Board directs the Executive Officer to take the necessary actions to prepare and execute Permit No. 18793-1 and all related documents and to prepare and file a Notice of Determination pursuant to the California Environmental Quality Act for the Feather River West Levee, Project Area C construction project, and
18. The Board directs the Executive Officer to consider applications to amend existing or issue new encroachment permits to owners of pipeline crossings within Project Area C that will be reconstructed as part of the Area C project, and as detailed in Staff Report Section 8.5.5. Board staff will evaluate the proposal(s) for potential approval by direct Board action or by delegation to the Executive Officer as appropriate, and
19. The Board directs the Executive Officer that if, during construction, additional non-conforming encroachments or constructability issues are discovered by any party SBFCA will consider whether or not they can be brought into compliance during construction. Board staff will evaluate the proposal(s) for potential approval by direct Board action or by delegation to the Executive Officer as appropriate.

PASSED AND ADOPTED by vote of the Board on July 24, 2013, 2013


William H. Edgar
President


Jane Dolan
Secretary