

**Meeting of the Central Valley Flood Protection Board
July 27, 2012**

Staff Report – Encroachment Permit

Sacramento Regional County Sanitation District

Demolition and site restoration, Sacramento City, Sacramento County

1.0 – ITEM

Consider approval of Permit No. 18742. (See Attachment B)

2.0 – APPLICANT

Sacramento Regional County Sanitation District

3.0 – LOCATION

This project is located within the channel and on the east, left bank of the Sacramento River approximately 4.17 miles downstream of the Business 80 Bridge crossing the Sacramento River at River Mile 53.9, City of Sacramento, Sacramento County. Also being within State of California Dept. of Water Resources Division of Flood Management Maintenance Area 9 at Levee Mile 1.85. (See Attachment(s) A).

4.0 – DESCRIPTION

The applicant proposes to remove an abandoned sewage outfall structure consisting of six bents and two groups of dolphin piers; back-fill voids left by the removal of said piles/piers and rehabilitate the immediate area. (See attachment C).

5.0 – PROJECT ANALYSIS

This project will remove a non-functional encroachment from within the Sacramento River which poses a safety hazard for channel and levee maintenance personnel along with being a safety hazard for the public at large.

5.1 – Hydraulic Analysis

This project removes a minor flow restriction and therefore a hydraulic analysis is unwarranted.

5.2 – Geotechnical Analysis

The scope of work for this project does not require a geotechnical analysis.

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers 208.10 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 said letter to ensure conformity with the permit language and incorporate it into the permit as Exhibit A.

7.0 – CEQA ANALYSIS

The Board, as a responsible agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (IS/MND) (September 2010, SCH# 2010092040) and Mitigation Monitoring and Reporting Program for the Sump 119 Outfall Demolition Project prepared by the lead agency, Sacramento Regional Sanitation District (SRSD). These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvpfb.ca.gov/meetings/2012/06-22-2012.cfm> under a link for this agenda item. These documents are also available for review in hard copy at the Board and Sacramento County offices.

SRSD determined that the project would not have a significant effect on the environment on December 8, 2010 and subsequently filed a Notice of Determination with the Sacramento County Clerk on December 14, 2010. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant

impacts will occur. These mitigation measures are included in the project proponent's IS/MND and address impacts to biological resources, cultural resources, and hydrology and water quality. The description of the mitigation measures are further described in the adopted IS/MND.

8.0 – SECTION 8610.5 CONSIDERATIONS

1. 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 will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the facilities authorized under this permit as regulated by Title 23 have been applied to the review of this application.

3. Effects of the decision on the entire State Plan of Flood Control:

The project as proposed will have a positive impact on the State Plan of Flood Control by minimizing the potential of debris accumulating on the piers/dolphins and creating an adverse hydraulic impact and or scouring within the channel.

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

There are no foreseeable detrimental effects to the adopted plan of flood control relative to the permitting of this project due to reasonable projected future events.

9.0 – STAFF RECOMMENDATION

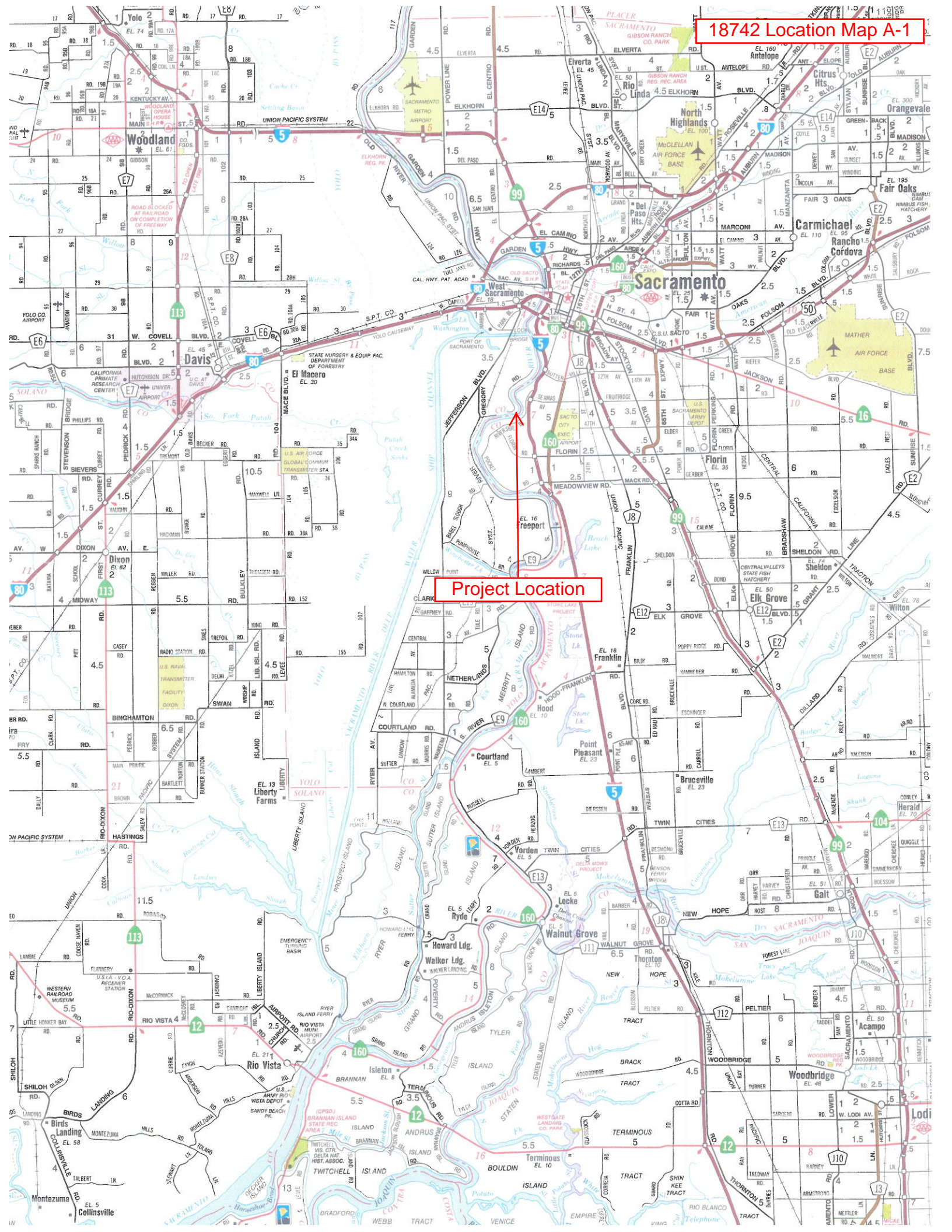
Staff recommends that the Board adopt the CEQA findings and approve the permit, conditioned upon receipt of a U.S. Army Corps of Engineers comment letter indicating that the District Engineer has no objection to the project, subject to conditions, and direct staff to file a Notice of Determination with the State Clearinghouse.

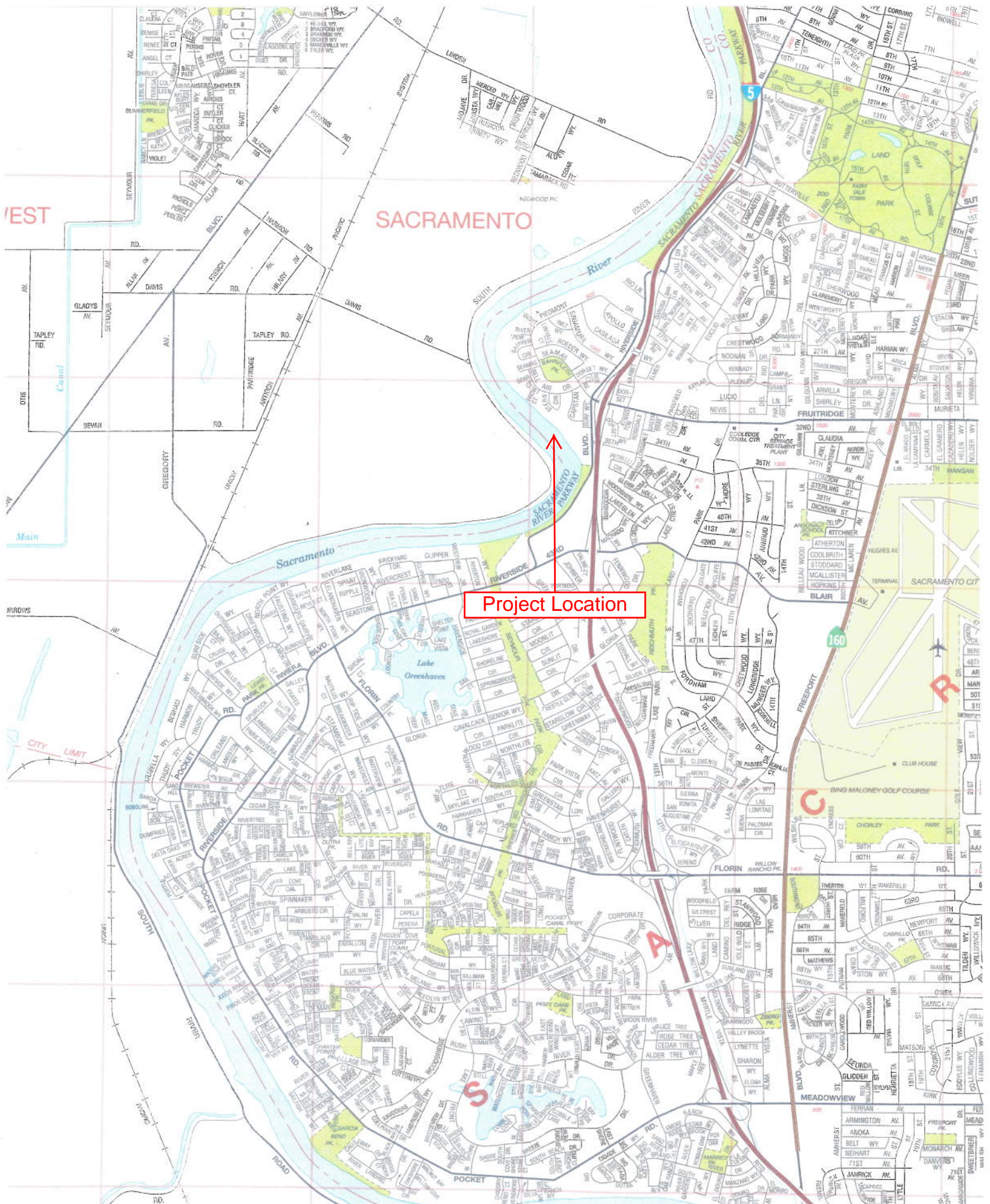
10.0 – LIST OF ATTACHMENTS

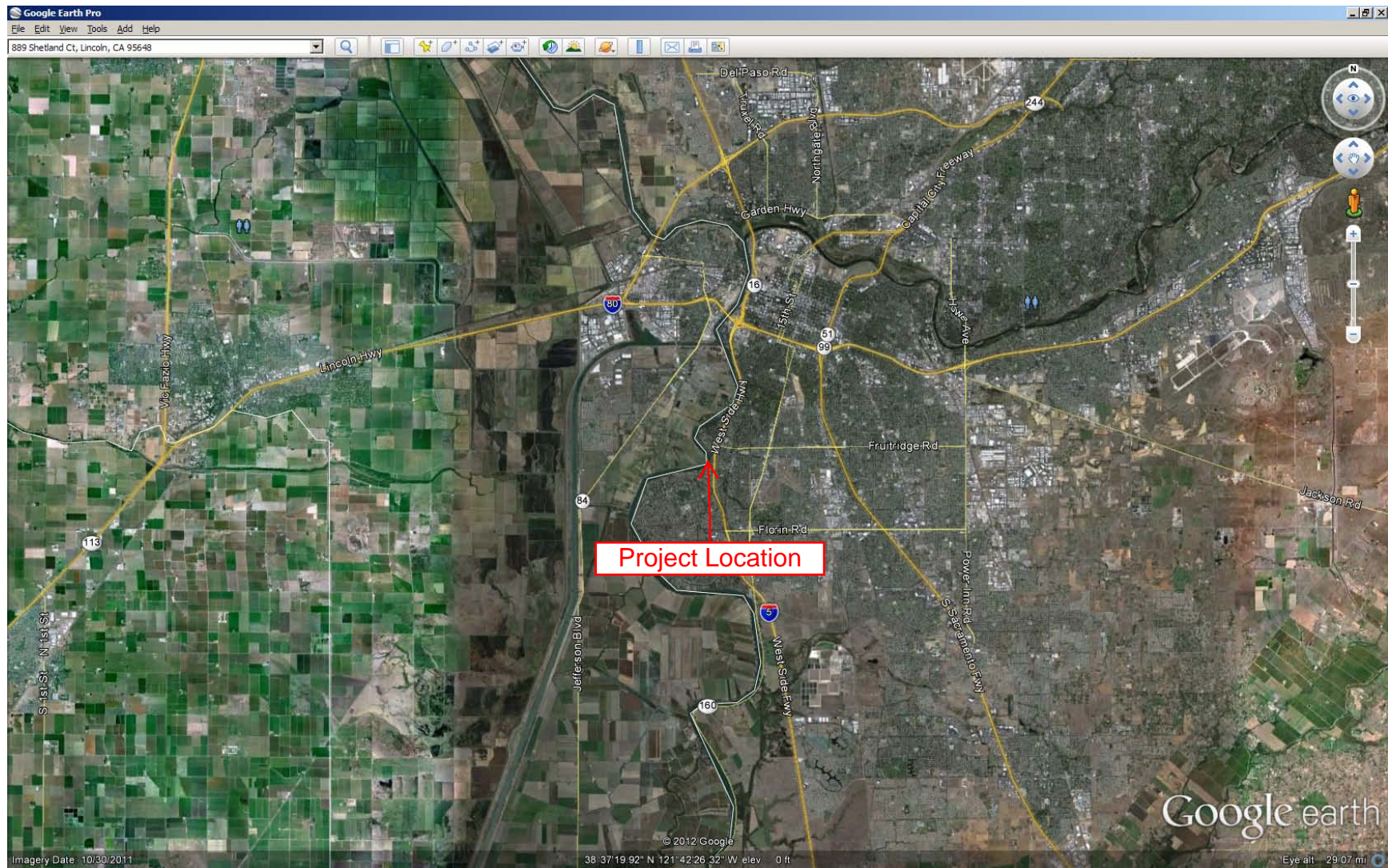
- A. Location Maps and Photos
- B. Draft Permit No. 18742
- C. Design Drawings

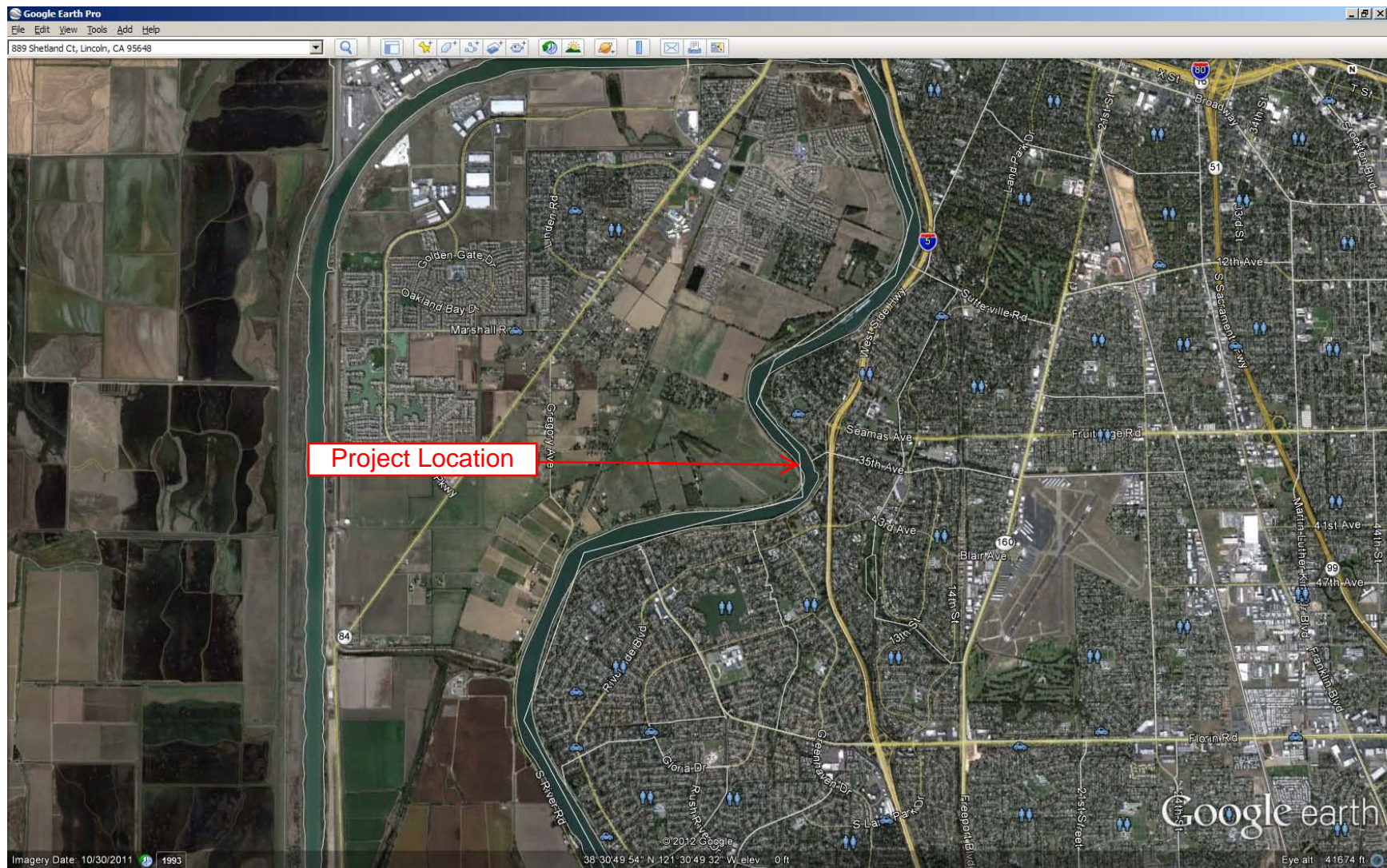
Design Review:	Sterling Sorenson
Environmental Review:	James Herota / Andrea Mauro
Document Review:	Mitra Emami P.E., Len Marino P.E.

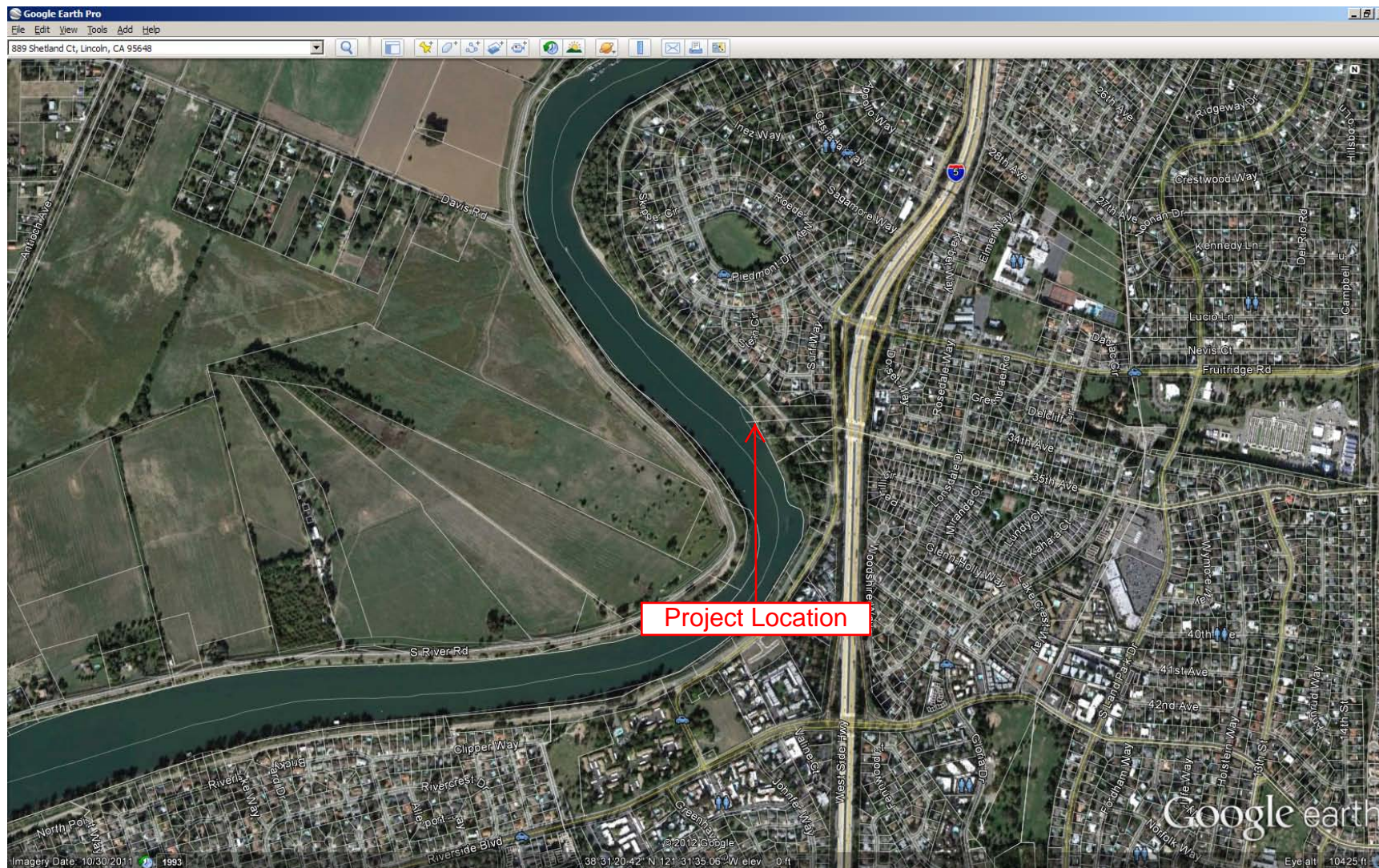
18742 Location Map A-1

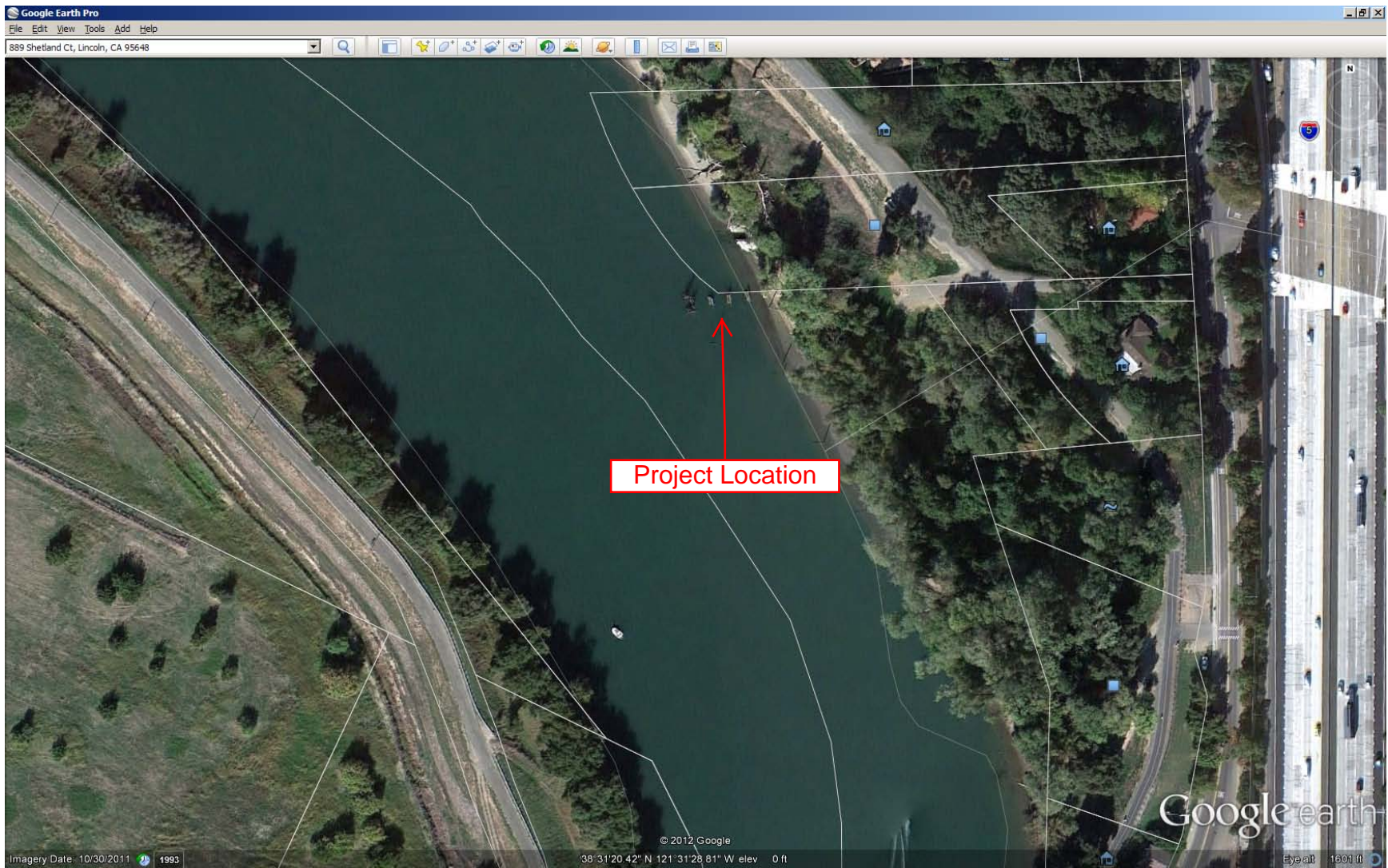




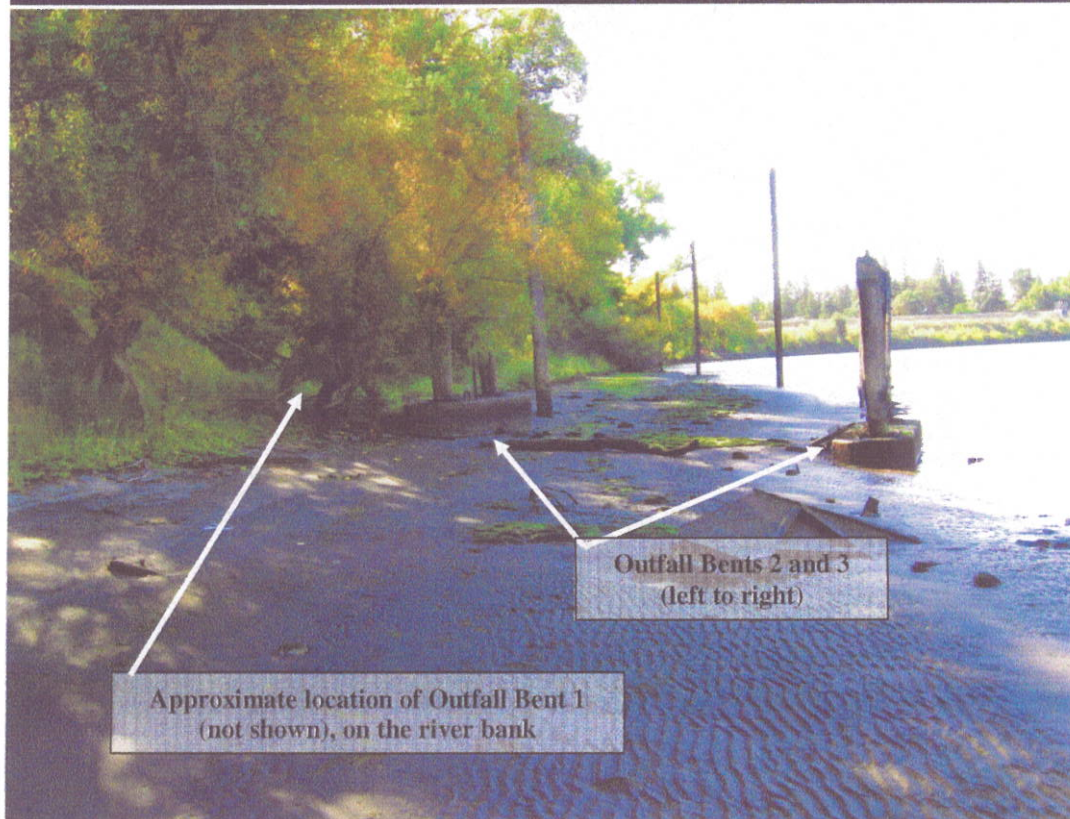
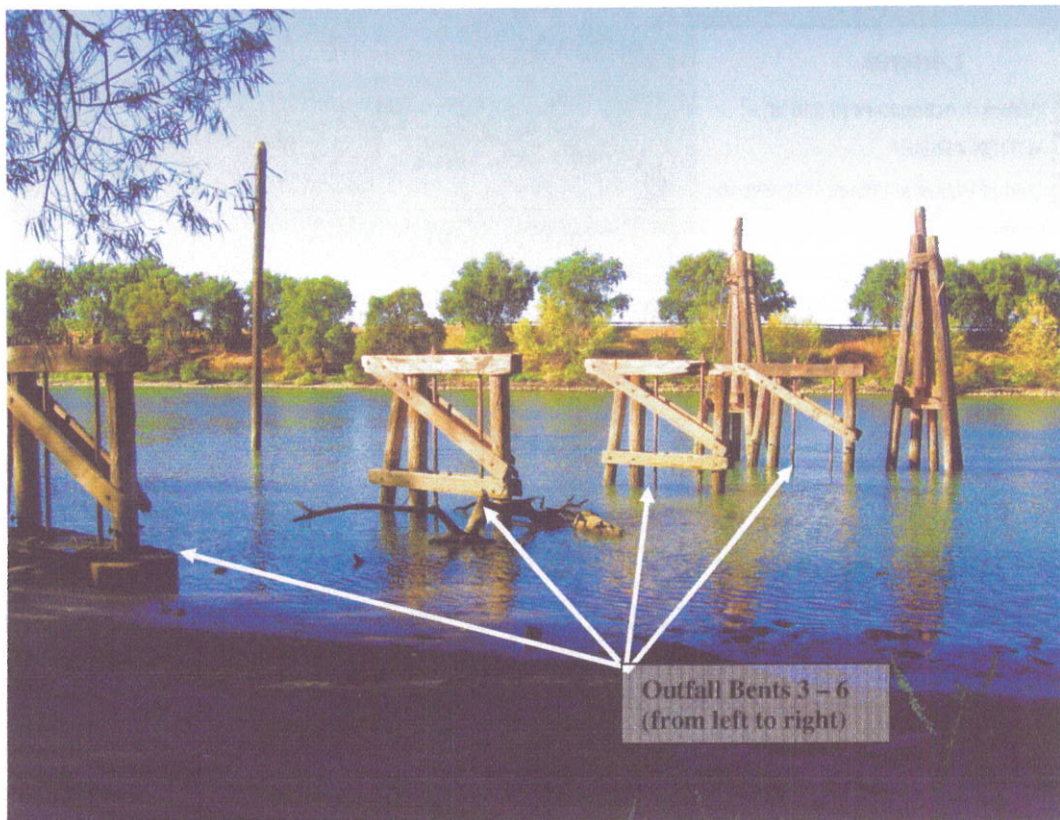












DRAFT

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

PERMIT NO. 18742 BD

This Permit is issued to:

Sacramento Regional County Sanitation District
8521 Laguna Station Road
Elk Grove, California 95758

Removal of six abandoned bents and two groups of dolphin piers from the Sacramento River. The project is located on the left bank of the Sacramento River at River Mil 53.9, within Sacramento County near 5804 Riverside Boulevard. (Section , T8N, R4E, MDB&M, Maintenance Area 9, Sacramento River, Sacramento 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. 18742 BD

THIRTEEN: 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.

FOURTEEN: The permittee is responsible for all liability associated with any/all demolition and site rehabilitation activities as authorized by this permit 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.

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 shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

SEVENTEEN: Demolition and/or site restoration work relative to this permit shall not be done during the flood season from November 1st to April 15th without prior written approval of the Central Valley

Flood Protection Board.

EIGHTEEN: All debris generated by this project and being created from within the Sacramento River Flood Control Project Works shall be properly disposed of outside said Project Works.

NINETEEN: In the event that channel and/or bank erosion injurious to the adopted plan of flood control occurs at or adjacent to the herein permitted demolition and restoration site, the permittee shall repair the eroded area and propose measures, to be approved by the Central Valley Flood Protection Board, to prevent further erosion.

TWENTY: In the event the herein permitted demolition project has any unforeseen adverse effect(s) on riparian vegetation adjacent to said project, permittee shall document said effect(s) and propose mitigation measures to be approved in writing by the Central Valley Flood Protection Board prior to implementation of said measure(s).

TWENTY-ONE: The permittee shall comply with all conditions set forth in the letter from the Department of the Army dated XXXXX XX, 2012, which is attached to this permit as Exhibit A and is incorporated by reference.

1. Description of proposed work

The Sacramento Regional County Sanitation District (SRCSD) will remove six abandoned bents and two groups of dolphin piers from the Sacramento River. Bents one and two consist of two wooden piles and a concrete block, bents three through six consist of three wooden piles and a concrete block (the third pile is referred to as a batter pile), and the dolphin piers consist of five piles and a wooden spacer (see the original construction plans Plate-3 through Plate-9). The bents and piers were installed in 1946 to support a 30-inch-diameter sewer force main within the Sacramento River. The piles for each of the bents and the dolphin piers were embedded into the river bed at a minimum of 20 feet until a minimum bearing of 10 tons was established. The force main has since been demolished; however, the bents and dolphin piers remain embedded within the river bed (Plate-10).

On October 23, 2007 an underwater survey was conducted by Underwater Resources, Incorporated to inspect bents three through six and the dolphin piers. Bents one and two were excluded because they were exposed above the river bank at the time of the survey. The surveyors concluded that removal could be accomplished with a relatively small equipment spread. The findings are summarized as follows:

- Timber and wooden elements of the structures appear to be in fair condition, with minimal surface deterioration observed by the investigating diver. This deterioration was limited to small areas immediately around the connecting hardware components. Light probing with a tool indicated that the material below the water surface is sound.
- Bolted connections appear in moderate states of deterioration and indicate signs of corrosion wastage. Existing connections between the timber elements have corroded, but seem to be intact and secure.
- Concrete blocks that originally contained and stabilized the removed suspended outfall pipe remain solidly in place. It appears that the former Corrugated Metal Pipe (forcemain) outfall was cutoff flush with the face of the blocks and the remaining pipe is still visible and bonded to the concrete.
- Bent No. 3: Embedded into the river bottom, the top 22 inches of the concrete block is exposed above the river bottom.
- Bent No. 4: Underside of concrete block has 4-feet clearance to river bottom. Top of concrete was 2-feet below water surface.
- Bent No. 5: Underside of concrete block has 6-feet clearance to river bottom. Top of concrete was 3-feet below water surface.
- Bent No. 6: Underside of concrete block has 6-feet clearance to river bottom. Top of concrete was 6-feet below water surface.
- Downstream and upstream timber dolphin piers appear in good condition with no visible rot or "hour glassing".

There is sufficient area between the blocks and the river bed of bents four through six for the piles to be cut without excavation. The contractor will cut the bent piles below the concrete blocks and then remove the block and the exposed portion of the piles. The dolphin piers will be cut below the spacers.

Excavation will be necessary to remove sedimentary material, which has been deposited around the blocks of bents two and three. Once the blocks are removed the remaining piles and dolphin piers will be extracted using a barge mounted crane, clamp, and vibratory extractor. Only the portion above the concrete block will be removed from Bent one; the piles and concrete block will remain embedded in the bank.

The contractor will attempt to remove each of the piles intact. If the entire length of the pile cannot be extracted, divers will excavate below the riverbed and then cut the pile off. According to the draft final report prepared for the U.S. Army Corps of Engineers Sacramento District on January 21, 2009, *Sacramento River Basin Sediment Study Phase I Data Review and Work Plan*, the maximum dune crest height at Garcia Bend (approximately 3 miles downstream) was three feet in 1999. In order to account for the maximum dune crest height piles will be cut at a minimum of three feet below the riverbed. The piles will then be abandoned in place and the resulting hole will be filled with clean, washed sand. If the pile is extracted in its entirety, it is expected that the resulting holes will close and/or be filled with river sediments; therefore, no fill will be necessary.

Primary access for demolition work will be from a barge with a tug and debris scow located within the Sacramento River.

Bents No. 1

- The structures above the concrete block will be removed. The piles and concrete block will not be removed and will remain embedded in the bank.

Bents No. 2

- The anticipated construction method includes excavating three feet below the concrete block. Once the concrete is removed the remaining piles will be extracted using a clamp and vibratory extractor to remove the piles. Engineered backfill will be required for excavation on river bank.
- The type of sediment transport minimization devices used will depend on the extent of excavation required and river level. Possible options include encasing the pile with a large diameter steel pipe or installing turbidity curtains.

Bents No. 3 - 6

- The anticipated construction method includes removing the concrete block on each bent with a barge mounted crane and using a clamp and vibratory extractor to remove the piles. No backfill is anticipated.
- If a pile breaks during the extraction process, the contractor will minimize sediment transport by encasing the pile with a large diameter steel pipe or by installing turbidity curtains. Divers will excavate to 8 feet below existing riverbed to allow access for the equipment to cut off the piling at a 3 feet depth. Sedimentary control devices will remain in place during backfill of excavation, if backfill is required.

Dolphin Piers

- The anticipated construction method includes using a clamp and vibratory extractor to remove the piles. No backfill is anticipated.
- If a pile breaks during the extraction process, the contractor will minimize sediment transport by encasing the pile with a large diameter steel pipe or by installing turbidity curtains. Divers will excavate to 8 feet below existing riverbed to allow access for the equipment to cut off the piling at a 3 feet depth. Sedimentary control devices will remain in place during backfill of excavation, if backfill is required.

The project encompasses an area that is approximately 50 feet wide, which extends approximately 150 feet from the river bank. Major demolition and debris removal work will occur from the Sacramento River using a barge with a tug and debris scow. Limited land access will be through a parcel located at 5804 Riverside Blvd. This site will also serve as a staging area, a storage area for light construction equipment, and an observation area for contractors and County employees.

No vegetation removal is anticipated; however, should incidental loss of riparian habitat occur it will be compensated for by re-vegetating the altered channel in a manner consistent with Sacramento General Plan Policies CO-62 and CO-112, which require restoration of Sacramento River riparian habitats.

The completed project will not alter drainage patterns or reduce the floodplain area. Further, all disturbed surfaces will be restored and any temporary barriers and structures used during the construction will be removed. Due to the project location within a designated federal floodplain, construction activities that may take place during the wet season may not adequately withstand high flows without resulting in the inundation and entrainment of construction material in flood flows. Consequently, construction activities will be limited to the period between June 15 and October 15.

The project will remove structures that are embedded in the river bed. The precise fill amount will not be known until the project demolition begins because it is dependant on whether the piles are removed intact or are cut and abandoned in place.

Clean and washed sand with a maximum particle size of ¼ inch and not more than 5 percent passing the No. 200 Sieve will be used to fill holes that result from removal of the bents and piers. The amount of fill was estimated using the anticipated area of excavation and the dimensions of the piles and concrete blocks. The maximum amount of fill for the project will not exceed 322 yd³.

2. Location

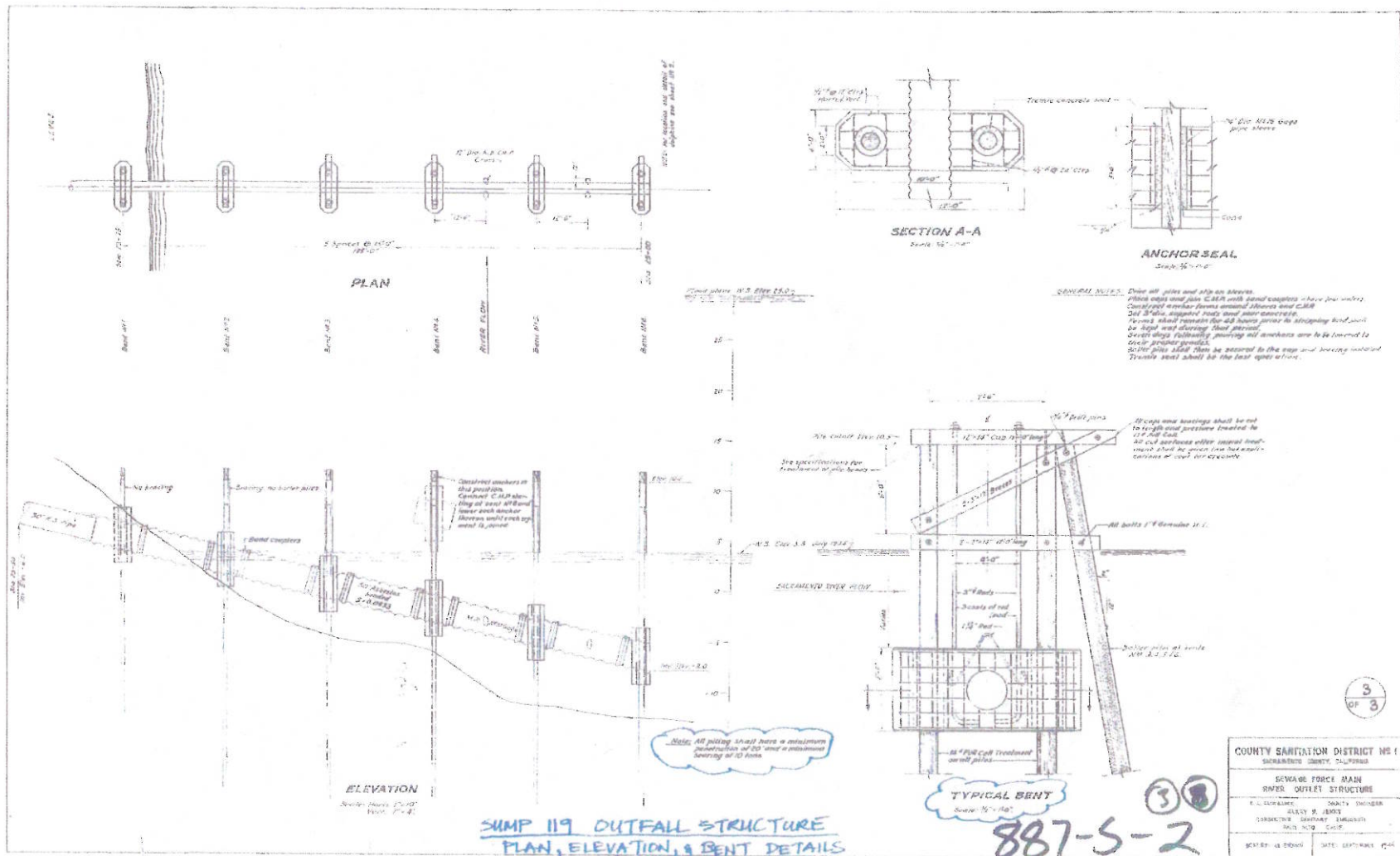
The project is located within the tide and submerged lands of the Sacramento River, within the County of Sacramento, California.

Figure 2 shows the site on the USGS Sacramento West 7.5-Minute Quadrangle Map. The site is located within Township 8N, Range 4E, Base: Mount Diablo, Latitude: 38.31'24.13"N Longitude: 121.31'26.35"W, and River Mile 53.9.

Directions to the site: From Downtown Sacramento, take I-5 south 4.3 miles to the Seamas Avenue exit toward Fruitridge Road. Turn right at Seamas Avenue and continue 121 feet, turn left at Riverside Boulevard. The site is on the right side of Riverside Boulevard just over the levee.

5. Names and addresses of adjacent property owners sharing common boundary with the land upon which the contents of this application apply

Left Bank Marina Ltd 1630 Daunting Drive El Dorado Hill, CA 95762	Linda Dankman 1991 Revocable Trust 5750 Riverside Boulevard Sacramento, CA 95822	City Of Sacramento 5730 24th Street, Bldg 1 Sacramento, CA 95822
Dick K Nishio 5708 Surf Way Sacramento, CA 95822	Jeanette M Chan Trust 5712 Surf Way Sacramento, CA 95822	Minnie Enos Po Box 931 Lakeport, CA 95453
James I/Evelyn K Tanimoto Living Trust 639 Brickyard Drive Sacramento, CA 95831	Alice M Powell Revocable 2009 Trust 5806 Riverside Boulevard Sacramento, CA 95822	Manuel Nunez 5704 Surf Way Sacramento, CA 95822



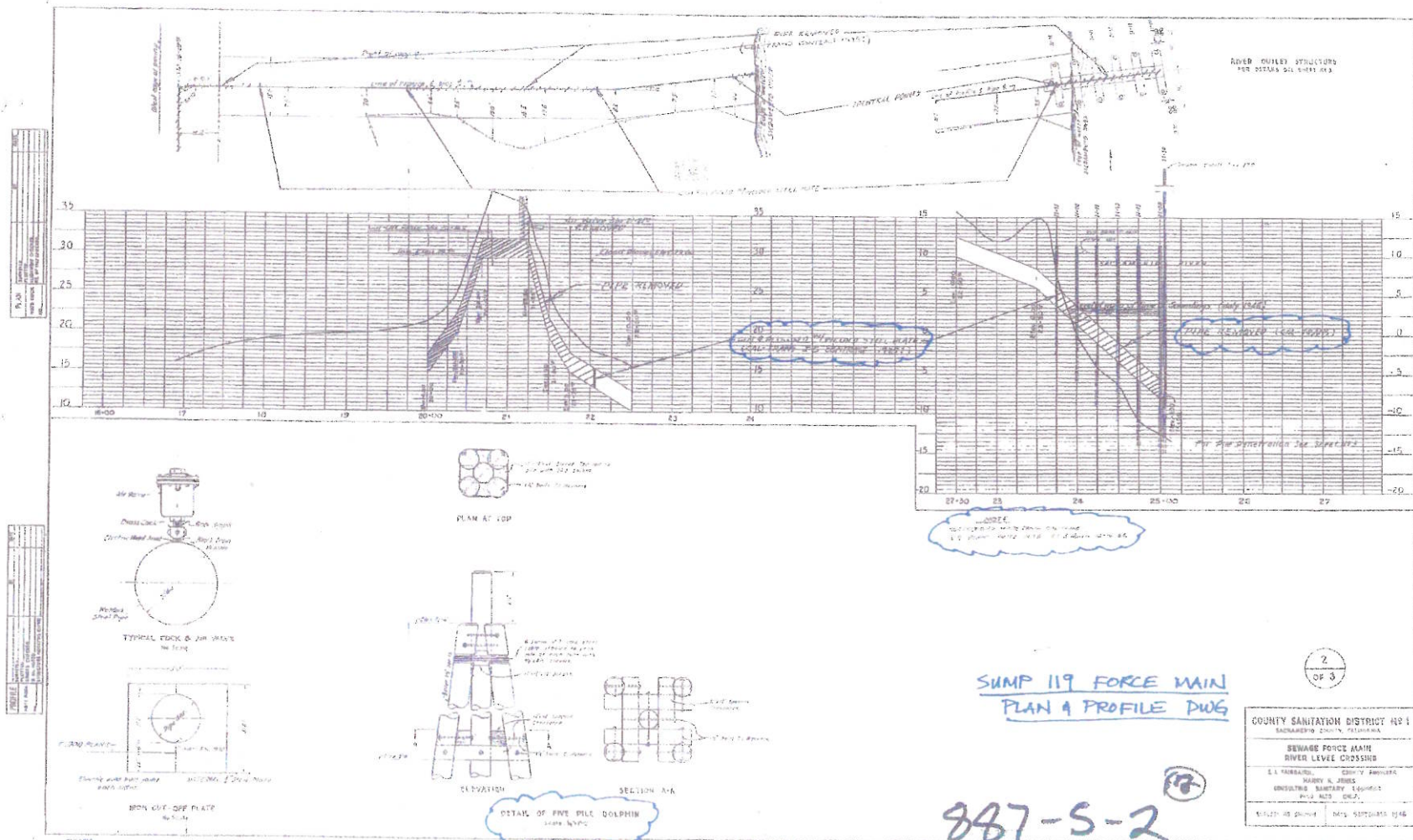


Plate-5: Outfall Plan View

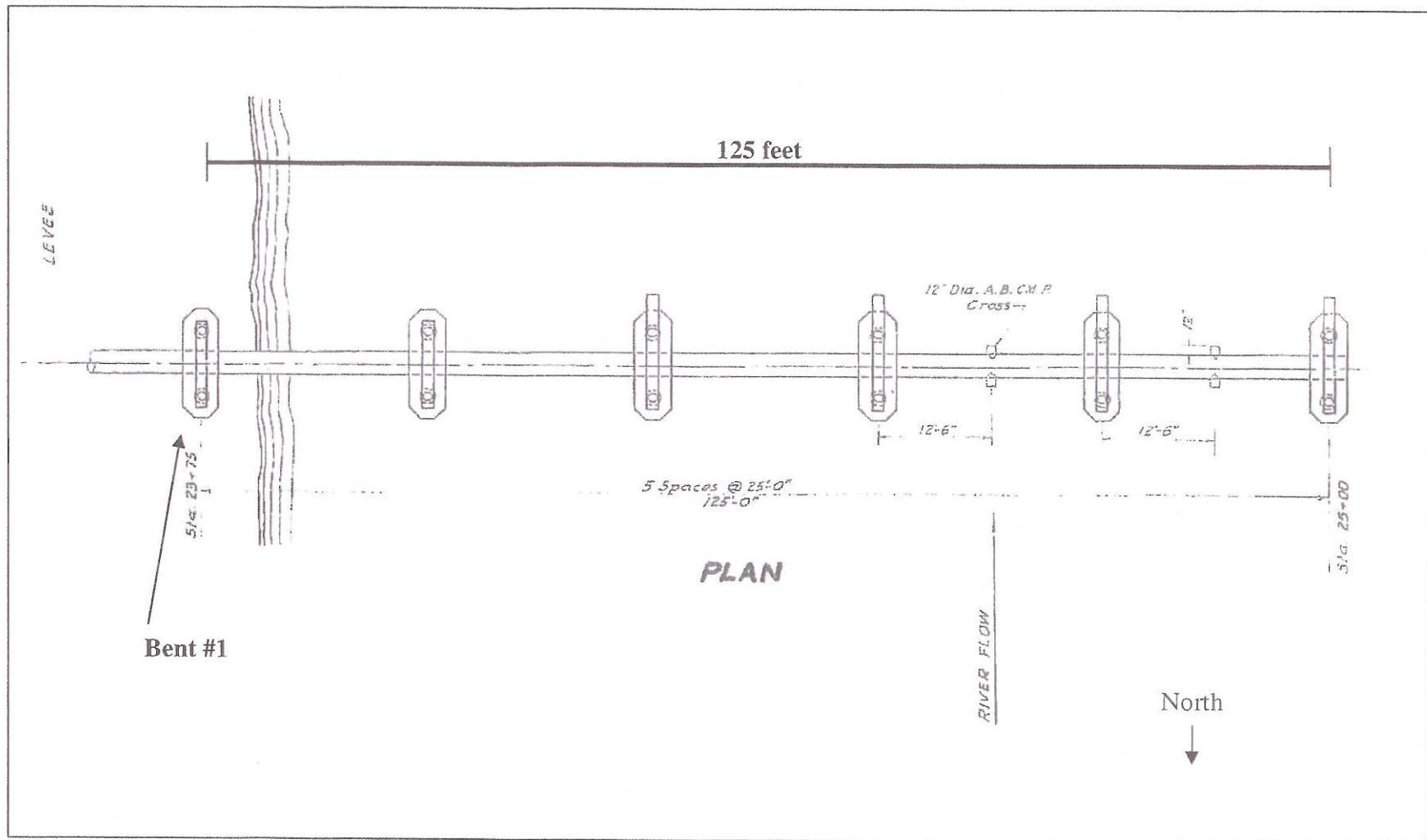


Plate-6: Outfall Elevation

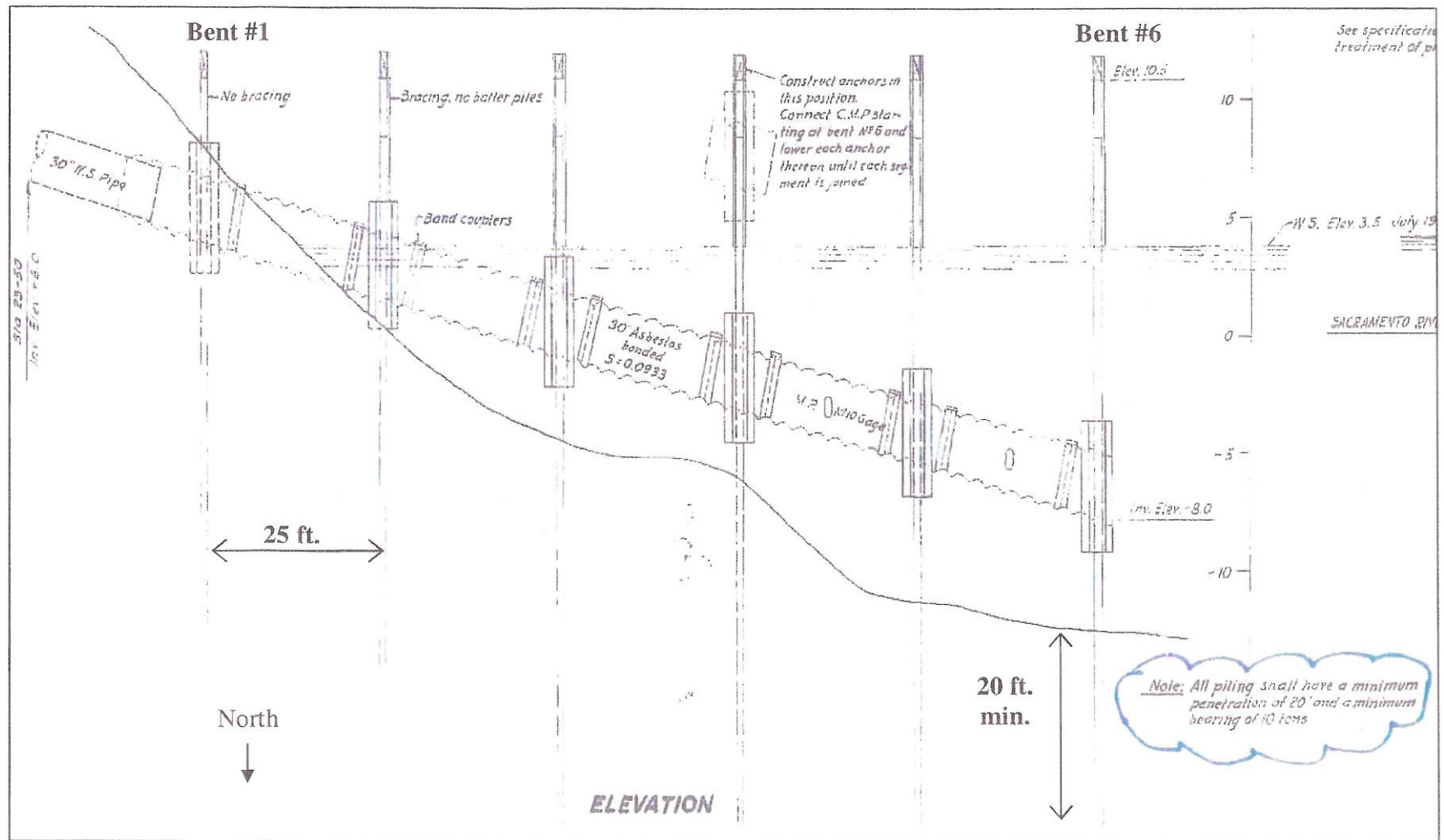


Plate-7: Concrete Block Detail

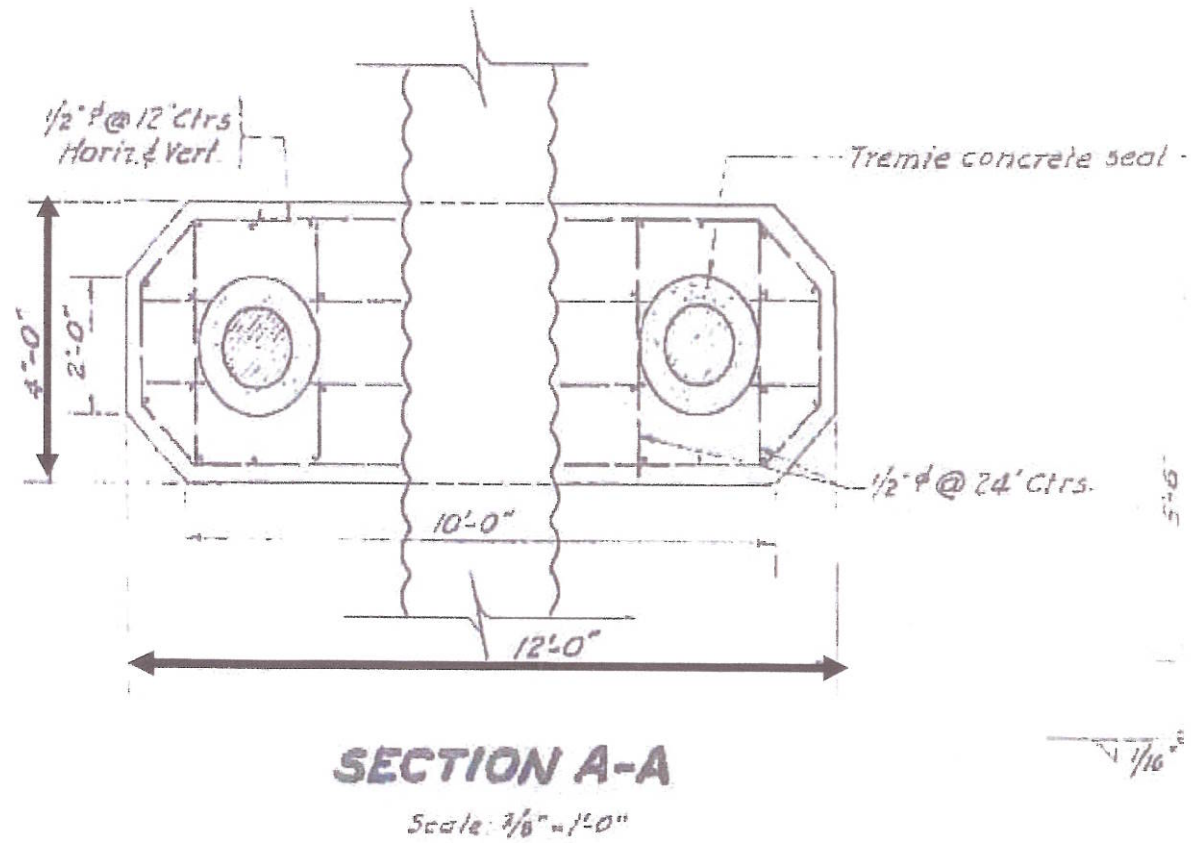


Plate-8: Bent Detail

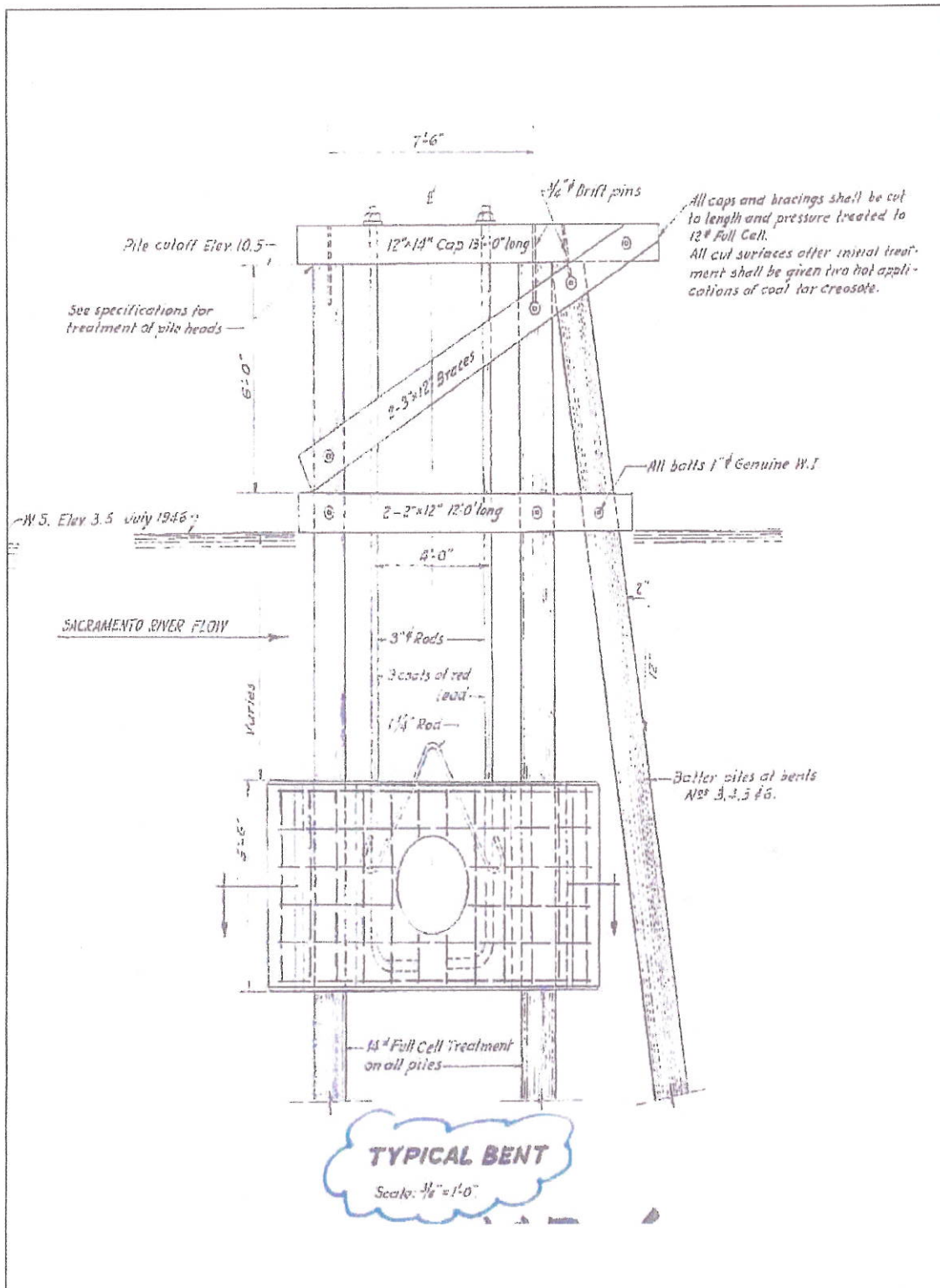


Plate-9: Dolphin Pier Detail

