



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



rec'd
10/29/18

October 12, 2018

Mr. Johannes Hoevertsz
Sonoma County Department of Transportation and Public Works
2300 County Center Drive, B100
Santa Rosa, CA 95403

Dear Mr. Hoevertsz:

Subject: Incidental Take Permit for Little Wohler Bridge Replacement, Sonoma County,
2081-2018-007-03

Enclosed you will find two originals of the Incidental Take Permit for the above referenced project, which have been signed by the California Department of Fish and Wildlife (CDFW). Please read the permit carefully, sign the acknowledgement on both copies of the permit, and return one original no later than 30 days from CDFW signature and prior to initiation of ground-disturbing activities to:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
Post Office Box 944209
Sacramento, CA 94244-2090

You are advised to keep the other original signature permit in a secure location and distribute copies to appropriate project staff responsible for ensuring compliance with the conditions of the permit. Note that you are required to comply with certain conditions of approval prior to initiation of ground-disturbing activities. Additionally, a copy of the permit must be maintained at the project work site and made available for inspection by CDFW staff when requested.

The permit will not take effect until the signed acknowledgment is received by CDFW. If you wish to discuss these instructions or have questions regarding the permit, please contact Mr. James Hansen, Environmental Scientist, at (707) 576-2869; or Ms. Karen Weiss, Senior Environmental Scientist (Supervisory), at (707) 944-5525.

Sincerely,

Gregg Erickson
Regional Manager
Bay Delta Region

Enclosures

cc: California Department of Fish and Wildlife
Ryan Mathis – Habitat Conservation Planning Branch, Sacramento
James Hansen – Bay Delta Region, Napa
Karen Weiss – Bay Delta Region, Napa
Craig Weightman – Bay Delta Region, Napa

Conserving California's Wildlife Since 1870



California Department of Fish and Wildlife
Bay Delta Region
2825 CORDELIA ROAD, SUITE 100
FAIRFIELD, CA 94534

California Endangered Species Act
Incidental Take Permit No. 2081-2018-007-03

LITTLE WOHLER BRIDGE REPLACEMENT

Authority: This California Endangered Species Act (CESA) incidental take permit (ITP) is issued by the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 et seq. CESA prohibits the take¹ of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.² CDFW may authorize the take of any such species by permit if the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c) are met. (See Cal. Code Regs., tit. 14, § 783.4).

Permittee:	Sonoma County Department of Transportation and Public Works
Principal Officer:	Johannes Hoevertsz
Contact Person:	Mary Nicholl, (707) 565-1367
Mailing Address:	2300 County Center Drive, B100 Santa Rosa, CA 95403

Effective Date and Expiration Date of this ITP:

This ITP shall be executed in duplicate original form and shall become effective once a duplicate original is acknowledged by signature of the Permittee on the last page of this ITP and returned to CDFW's Habitat Conservation Planning Branch at the address listed in the Notices section of this ITP. Unless renewed by CDFW, this ITP's authorization to take the Covered Species shall expire on **December 31, 2022**.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations pursuant to this ITP do not end until CDFW accepts as complete the Permittee's Final Mitigation Report required by Condition of Approval 7.7 of this ITP.

¹ Pursuant to Fish and Game Code section 86, "'take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (See also *Environmental Protection Information Center v. California Department of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 507 [for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "'take' ... means to catch, capture or kill"].)

² "The definition of an endangered, threatened, and candidate species for purposes of CESA are found in Fish and Game Code sections 2062, 2067, and 2068, respectively.

Project Location:

The Little Wohler Bridge Replacement project (Project) is located on Mark West Creek where Wohler Road crosses the creek, within the City of Forestville, County of Sonoma, State of California (See Figure 1). The Project is located approximately 650 feet north of the Intersection of Wohler Road and River Road, at approximately 38.492400 N, -122.883417 W.

Project Description:

The Project includes the removal of an existing seven-span reinforced concrete girder bridge measuring 134 feet long and 20 feet wide. This includes removal of 15 piles within the channel over 30 square feet and 22 piles within the banks over 45 square feet. The replacement bridge will be just upstream with a new three-span concrete slab bridge measuring 125 feet long and 40 feet wide; all new piles will be cast in Drilled Hole piers and within the banks of the channel (Figure 2). This Project will occur over two years. The first construction season will include placement of approximately 70 linear feet of K-rails on the creek bank, cutting of upstream benches for cranes, and construction of abutment piles and abutment walls. The second construction season will include extended placement of K-rails along the creek bank (approximately 190 linear feet total), cutting of downstream benches for cranes, construction of the new bridge, placement of rock slope protection, removal of the existing bridge, placement of K-rails in an approximately 100-linear foot section of the creek, dewatering that section, and removal of piles, revegetation, habitat restoration, and mitigation plantings will occur immediately after the second construction season (Figure 3). Project activities will temporarily impact 100 linear feet, approximately 3,500 square feet of the creek from dewatering, permanently impact approximately 0.11 acres (4,777 square feet) of existing upland riparian area from the placement of the new bridge abutments and associated rock slope protection, and will temporarily impact approximately 0.34 acres (15,000 square feet) of existing riparian area from vegetation removal for project access. The Project will restore approximately 0.34 acres (15,000 square feet) of temporarily impacted riparian habitat, restore and enhance 0.52 acres (22,500 square feet) of riparian habitat, remove 15 piles in the channel over 30 square feet, and will install a single large rootwad habitat feature (Figure 4).

Construction activities within the channel will be completed in approximately 12 days, and the entire Project will be completed within approximately 18 months.

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name	CESA Status
1. Coho salmon, south of Punta Gorda, (<i>Oncorhynchus kisutch</i>)	Endangered ³

This species and only this species is the "Covered Species" for the purposes of this ITP.

Impacts of the Taking on Covered Species:

Project activities and their resulting impacts are expected to result in the incidental take of individuals of the Covered Species. The activities described above expected to result in incidental take of individuals of the Covered Species include approximately 12 days of temporary dewatering an

³ See Cal. Code Regs. tit. 14 § 670.5, subd. (a)(2)(N)

approximately 100-foot long channel reach (3,500 square feet) for an entire construction season (Covered Activities) (Figure 3). Temporarily dewatering the 100-foot long channel is necessary to remove 15 pier pilings, which will permanently provide additional instream coho habitat.

Incidental take of individuals of the Covered Species in the form of mortality ("kill") may occur as a result of Covered Activities such as in-channel construction, dewatering and Project-related habitat loss. Incidental take of individuals of the Covered Species may also occur from the Covered Activities in the form of catch and capture of the Covered Species during temporary dewatering, fish rescue operations, and monitoring. Additional indirect impacts may occur due to minor changes in local drainage patterns, reducing water quality due to increased turbidity, inhibiting movement and potential changes in flow velocities. Removal of trees in the riparian habitat will temporarily affect perennial stream habitat by reducing overstory shade, which may reduce habitat quality by increasing water temperatures, and lowering dissolved oxygen levels. The areas where authorized take of the Covered Species is expected to occur are within the wetted channel throughout the Project site (collectively, the Project Area).

The Project is expected to cause the temporary loss of approximately 100 linear feet of in-stream habitat as a result of dewatering. Impacts of the authorized taking also include adverse impacts to the Covered Species related to temporal losses, increased habitat fragmentation and edge effects, and the Project's incremental contribution to cumulative impacts (indirect impacts). These impacts include: capture and relocation, harassment resulting from noise and ground vibration during heavy equipment operation, long-term effects due to increased rock substrate, and increased vulnerability to predation and displacement from preferred habitat.

Incidental Take Authorization of Covered Species:

This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, CDFW authorizes the Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Covered Activities, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Covered Activities, take of Covered Species outside of the Project Area, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species except for capture and relocation of Covered Species as authorized by this ITP.

Conditions of Approval:

Unless specified otherwise, the following measures apply to all Covered Activities within the Project Area, including river access areas used for equipment that may cause take. CDFW's issuance of this ITP and Permittee's authorization to take the Covered Species are subject to Permittee's compliance with and implementation of the following Conditions of Approval:

1. **Legal Compliance:** Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of this ITP or adopted thereafter.
2. **CEQA Compliance:** Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Biological Resources section of the Mitigated Negative Declaration and Initial Study (SCH No.:2007042060) adopted by Sonoma County on June 5, 2007, as lead agency for the Project pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).

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3. **LSA Agreement Compliance:** Permittee shall implement and adhere to the mitigation measures and conditions related to the Covered Species in the Lake and Streambed Alteration Agreement (LSAA) (Notification No. 1600-2018-0034-R3) for the Project executed by CDFW pursuant to Fish and Game Code section 1600 et seq.
4. **ESA Compliance:** Permittee shall implement and adhere to the terms and conditions related to the Covered Species in federal Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion for the Wohler Road Bridge Replacement, National Marine Fisheries Service Consultation Number WCR-2017-8205, for the Project pursuant to ESA. For purposes of this ITP, where the terms and conditions for the Covered Species in the federal authorization are less protective of the Covered Species or otherwise conflict with this ITP, the conditions of approval set forth in this ITP shall control.
5. **ITP Time Frame Compliance:** Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 1 to this ITP.
6. **General Provisions:**
 - 6.1. Designated Representative. Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP. Permittee shall obtain CDFW approval of the Designated Biologist in writing before starting Covered Activities, and shall also obtain approval in advance in writing if the Designated Biologist must be changed.
 - 6.2. Designated Biologist. Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a biological monitor (Designated Biologist) at least 30 days before starting Covered Activities. Permittee shall ensure that the Designated Biologist is knowledgeable and experienced in the biology, natural history, including collecting and handling of the Covered Species. The Designated Biologist shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered
 - 6.3. Designated Biologist Authority. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species in consultation with CDFW.
 - 6.4. Education Program. Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties

for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees that will be conducting work in the Project Area.

- 6.5. Construction Monitoring Notebook. The Designated Biologist shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.
- 6.6. Trash Abatement. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at least once a week to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.
- 6.7. Dust Control. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.
- 6.8. Erosion Control Materials. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.
- 6.9. Delineation of Property Boundaries. Before starting Covered Activities, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities in that area.
- 6.10. Delineation of Habitat. Permittee shall clearly delineate habitat of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.
- 6.11. Project Access. Project-related personnel shall access the Project Area using existing routes, or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.

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- 6.12. Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 6.11 of this ITP.
- 6.13. Hazardous Waste. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.
- 6.14. CDFW Access. Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.
- 6.15. Refuse Removal. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

7. Monitoring, Notification and Reporting Provisions:

- 7.1. Notification Before Commencement. The Designated Representative shall notify CDFW 14 calendar days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.
- 7.2. Notification of Non-compliance. The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW within 24 hours.
- 7.3. Compliance Monitoring. The Designated Biologist shall be on-site daily when Covered Activities occur. The Designated Biologist shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by this ITP. The Designated Biologist shall conduct compliance inspections a minimum of once a week during periods of inactivity and after de-watering and riparian vegetation removal are completed.

- 7.4. Quarterly Compliance Report. The Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 7.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of this ITP's approval, the CDFW Regional Representative is James Hansen (James.Hansen@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.
- 7.5. Annual Status Report. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 7.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.
- 7.6. CNDDDB Observations. The Designated Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDDB) within 60 calendar days of the observation and the Designated Biologist shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first relative to the observation.
- 7.7. Final Mitigation Report. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.

- 7.8. Notification of Take or Injury. Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (707) 428-2002. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.

8. Take Minimization Measures:

The following requirements are intended to ensure the minimization of incidental take of Covered Species in the Project Area during Covered Activities. Permittee shall implement and adhere to the following conditions to minimize take of Covered Species:

- 8.1. Work Window. Permittee shall conduct Covered Activities between June 15 and October 15 of any year.
- 8.2. Work Period. Work within the Project Area shall be confined to the period of June 15 to October 15. Any extension of the work period will require an amendment to this ITP. The amendment request for a work period extension shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; 4) provide photographs of both the current work completed and the proposed site for continued work; and 5) include an assessment of the impacts of the work extension of Covered Species.
- 8.3. Work in Isolation from Flowing Water. All in-water work within Mark West Creek shall be conducted inside cofferdams or leak proof K-rails and in isolation from flowing water.
- 8.4. Work According to Plans. All Covered Species habitat enhancement work shall be completed according to 'construction ready' plans. *Wohler Road Bridge at Mark West Creek Replacement*, prepared by Biggs Cardosa Associates INC., dated May, 2018 (Figure 2); *Dewatering Plan Figures* prepared by Sonoma County Department of Transportation and Public Works (DTPW), dated April 2018 (Figure 3); and *Environmental Exhibit*, prepared by BKF Engineers, dated April 2018 (Figure 4), where further detailed plans shall be reviewed and accepted by CDFW within 60 days of final ITP issuance. The Permittee shall notify CDFW if modifications are made to any Attachment listed in this ITP prior to construction. At the discretion of CDFW, minor plan modifications may require an amendment to this ITP.
- 8.5. Covered Species Entrainment. Permittee shall minimize the potential for Covered Species to be entrained during de-watering activities. The Permittee shall implement the use of a screen in accordance with the National Marine Fisheries Service 1996 Juvenile Fish Screen Criteria for Pump Intakes. Screen material may be constructed of any rigid woven, perforated, or slotted material that provides water passage while physically excluding fish. Round openings in the screen shall not exceed 3/32-inch diameter, square openings shall not exceed 3/32-inch measured diagonally, and slotted openings shall not exceed 0.069

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inches in width. Approach velocity shall not exceed 0.33 feet per second.

8.6. Covered Species Dewatering and Rescue Plan. The Permittee shall implement a detailed Dewatering and Covered Species Rescue Plan to include, at a minimum, the following measures:

- a) Only a CDFW-approved biologist with experience in Covered Species capture and handling shall participate in the capture, handling, and monitoring of Covered Species.
- b) Relocation activities shall be performed during the morning when temperatures are coolest. Hourly air and water temperatures shall be measured and recorded.
- c) Before removal and relocation of Covered Species, the Designated Biologist shall identify the most appropriate release location(s). Release locations shall provide suitable habitat for Covered Species and shall be selected to minimize the likelihood of reentering the work area. Suitable habitat is defined as creek sections that will remain wet over the summer.
- d) Following installation of water diversion structures, and prior to Project activities, a CDFW-approved biologist shall perform surveys for Covered Species in the Project Area, collect, and relocate them to the nearest predetermined suitable habitat. During holding and transportation, Covered Species shall be held in stream water collected from the site.
- e) Prior to fully dewatering the Project Area, remaining Covered Species in the work area shall be rescued. Dewatering efforts shall be monitored by the Designated Biologist at all times. The Designated Biologist shall reduce the rate of diversion if it appears that Covered Species may be stranded.
- f) Efforts shall be made to reduce collecting and handling stress, minimize the time that Covered Species are held in buckets, and minimize handling stress during processing and release. Covered Species shall not be held in containers with other species. If not immediately released, buckets must be kept in the shade and water temperatures monitored to be consistent with the temperature in the creek. Immediately after collection, Covered Species shall be identified and counted. Capture methods may include dip nets. All nets shall be made of a soft braded nylon material that is non-abrasive. Mesh sizing shall be matched to species and the life stages likely encountered.
- g) No employee or contractor shall remove any Covered Species, dead or alive, from the site for personal use. All efforts to reduce the time that live Covered Species are out of the water shall be made to reduce the chances of incidental take during the rescue. All Covered Species are to be promptly returned to the water with the exception of mortality.
- h) Covered Species shall be processed first and released as soon as possible. Species name and length data will be recorded on data sheets, as well as time, date, location, gear type, water temperature, and any other pertinent observations of the Covered Species.

- i) Rescue operations may result in Covered Species mortality. If Covered Species suffer mortality, the Permittee shall preserve individuals by freezing or placing in a sealed container with 10 percent formalin solution. Information on time and exact location of any incidental take, method of take, length of time from death to preservation, water temperature, and any other relevant information will be recorded in writing. Permittee shall contact the CDFW regional representative for instructions on transmitting preserved individuals.
- j) After completing the rescue, a brief documentation report shall be prepared. The report shall include information on the personnel conducting the Covered Species rescue, methods used, numbers of Covered Species collected and relocated, length data, and estimate of the survival of Covered Species immediately after release. Photographs of the site and rescue operations shall be included. Any take of non-Covered Species shall be documented. The report shall be provided by the Permittee to CDFW in the next Quarterly Compliance Report required by Condition of Approval 7.4.
- k) After the Covered Species rescue effort is completed, if additional Covered Species are observed, Project activities shall cease until those individuals have been relocated. The Designated Biologist shall remain at the site during dewatering to rescue additional Covered Species as necessary.
- l) Reintroduction of stream flows shall be gradual to the isolated work area, so as to prevent stranding, channel instability, or excessive scour. The Designated Biologist shall monitor upstream and downstream reaches to ensure no Covered Species are stranded or in distress during reintroduction of flows. If conditions causing or contributing to stress and/or injury are observed, the Permittee shall take immediate remedial actions directed at lessening sources of stress. This may include a more gradual reintroduction of flows, to avoid abrupt water surface elevation changes both downstream and upstream of the Project Area.

9. Habitat Creation, Restoration and Management:

CDFW has determined that habitat restoration, enhancement and long-term management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result with implementation of the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation.

To meet this requirement, the Permittee shall restore approximately 15,000 square feet of temporary riparian habitat disturbance on-site, enhance and restore approximately 22,500 square feet of riparian habitat on-site that is contiguous with other Covered Species habitat adjacent to the Project site, restore 30 square feet of creek channel, and install a Covered Species Rootwad Habitat Feature, and manage the Habitat Management (HM) pursuant to Conditions of Approval 9.1 and 9.2 below. Long-term funding for monitoring and management of created Covered Species habitat must be complete before starting Covered Activities or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 10 below for all uncompleted obligations.

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9.1. Cost Estimates. CDFW has estimated the cost of habitat creation, restoration, enhancement, and interim management of riparian vegetation enhancement and restoration as follows:

- 9.1.1. Habitat improvement costs for restoration of 30 square feet of creek channel, estimated at \$55,000.
- 9.1.2. Habitat restoration and enhancement costs for a total of 37,500 square feet of riparian habitat, and habitat creation costs for a large rootwad habitat feature, estimated at \$56,902.50.
- 9.1.3. Long-term management funding as described in Condition of Approval 9.2, estimated at \$144,500. Management funding is estimated initially for the purpose of providing Security to ensure implementation of habitat creation, restoration, monitoring and management.

9.2. Habitat Enhancement and Long-Term Management Plan. The Permittee shall prepare a Habitat Enhancement and Long-Term Management Plan (Plan) for CDFW review and acceptance within 60 days of finalizing this ITP. The Plan shall outline restoration of approximately 15,000 square feet of temporary riparian habitat disturbance, enhancement and restoration of approximately 22,500 square feet of riparian habitat on-site that is contiguous with other Covered Species habitat adjacent to the Project site, restoration of 30 square feet of creek channel and installation of a Covered Species Rootwad Habitat Feature. The Plan shall include detailed specifications for restoring all temporarily disturbed areas and a minimum of ten years monitoring unless otherwise approved by CDFW. The Plan shall include a description of how all future management of the project area shall be conducted to enhance existing habitat:

- 1) Construction level designs for the Covered Species Rootwad Habitat feature to be located along the downstream left bank of the Project Area. The feature will be composed of a single large rootwad keyed into the rock slope protection to establish habitat complexity and refuge for juvenile and migrating salmonids.
- 2) Detailed Riparian Restoration Planting Plan including a map to scale, installation specifications for RSP pole plantings, seed mixes and application methods, species, quantity, size, and spacing.
- 3) A 10-year Long-Term Management Plan to ensure the long-term viability of the on-site mitigation, which includes a description of how all future management of the riparian enhancement and restoration will be conducted to enhance and maintain habitat for the benefit of the Covered Species. At a minimum, the Plan shall record annually: a) location and alignment of the habitat feature, b) density of plantings, c) dated photographs, d) survival of riparian restoration plantings, e) vegetation viability with success criteria, and g) recommendations for on-going adaptive management of the habitat feature and vegetation.

9.3. Management Fund. The Permittee shall ensure that HM lands are managed, maintained, and monitored as described in this ITP. After obtaining CDFW approval of the HM lands,

Permittee shall provide ten years of monitoring and management funding for activities outlined in the final accepted Plan consistent with Measure 9.2 above.

10. Performance Security

The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 9 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:

- 10.1. Security Amount. The Security shall be in the amount of **\$256,402.50**. This amount is based on the cost estimates identified in Condition of Approval 9.1 above.
- 10.2. Security Form. The Security shall be in the form of an irrevocable letter of credit (see Attachment 2) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel.
- 10.3. Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first.
- 10.4. Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.
- 10.5. Security Transmittal. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see Attachment 3) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.
- 10.6. Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP.
- 10.7. Security Release. The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:
 - Timely submission of all required reports.

Amendment:

This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable law. This ITP may be amended without the concurrence of the Permittee as required by law, including if CDFW determines that continued implementation of the Project as authorized under this ITP would jeopardize the continued existence of the Covered Species or where Project changes or changed biological conditions necessitate an ITP amendment to ensure that all Project-related impacts of the taking to the Covered Species are minimized and fully mitigated.

Stop-Work Order:

CDFW may issue Permittee a written stop-work order requiring Permittee to suspend any Covered Activity for an initial period of up to 25 days to prevent or remedy a violation of this ITP, including but not limited to the failure to comply with reporting or monitoring obligations, or to prevent the

unauthorized take of any CESA endangered, threatened, or candidate species. Permittee shall stop work immediately as directed by CDFW upon receipt of any such stop-work order. Upon written notice to Permittee, CDFW may extend any stop-work order issued to Permittee for a period not to exceed 25 additional days. Suspension and revocation of this ITP shall be governed by California Code of Regulations, Title 14, section 783.7, and any other applicable law. Neither the Designated Biologist nor CDFW shall be liable for any costs incurred in complying with stop-work orders.

Compliance with Other Laws:

This ITP sets forth CDFW's requirements for the Permittee to implement the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable federal, state, and local law.

Notices:

The Permittee shall deliver a fully executed duplicate original ITP by registered first class mail or overnight delivery to the following address:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
Post Office Box 944209
Sacramento, CA 94244-2090

Written notices, reports and other communications relating to this ITP shall be delivered to CDFW by registered first class mail at the following address, or at addresses CDFW may subsequently provide the Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081-2018-007-03) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

Gregg Erickson, Regional Manager
California Department of Fish and Wildlife
2825 Cordelia Rd, Suite 100
Fairfield, CA 94534
Telephone (707) 428-2002

and a copy to:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
Post Office Box 944209
Sacramento, CA 94244-2090

Unless Permittee is notified otherwise, CDFW's Regional Representative for purposes of addressing issues that arise during implementation of this ITP is:

Incidental Take Permit
No. 2081-2018-007-03
SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
LITTLE WOHLER BRIDGE REPLACEMENT

James Hansen
California Department of Fish and Wildlife
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
Telephone (707) 576-2869

Compliance with CEQA:

CDFW's issuance of this ITP is subject to CEQA. CDFW is a responsible agency pursuant to CEQA with respect to this ITP because of prior environmental review of the Project by the lead agency, Sonoma County. (See generally Pub. Resources Code, §§ 21067, 21069). The lead agency's prior environmental review of the Project is set forth in the Mitigated Negative Declaration and Initial Study (SCH No.:2007042060), dated March 2007 that Sonoma County adopted for Little Wohler Bridge Replacement on June 5, 2007. At the time the lead agency adopted the Mitigated Negative Declaration and approved the Project, it also adopted various mitigation measures for the Covered Species as conditions of Project approval.

This ITP, along with CDFW's related CEQA findings, which are available as a separate document, provide evidence of CDFW's consideration of the lead agency's Mitigated Negative Declaration for the Project and the environmental effects related to issuance of this ITP [CEQA Guidelines, § 15096, subd. (f)]. CDFW finds that issuance of this ITP will not result in any previously undisclosed potentially significant effects on the environment or a substantial increase in the severity of any potentially significant environmental effects previously disclosed by the lead agency. Furthermore, to the extent the potential for such effects exists, CDFW finds adherence to and implementation of the Conditions of Project Approval adopted by the lead agency, and that adherence to and implementation of the Conditions of Approval imposed by CDFW through the issuance of this ITP, will avoid or reduce to below a level of significance any such potential effects. CDFW consequently finds that issuance of this ITP will not result in any significant, adverse impacts on the environment.

Findings Pursuant to CESA:

These findings are intended to document CDFW's compliance with the specific findings requirements set forth in CESA and related regulations. [Fish and Game Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds. (a)-(b), 783.5, subd. (c)(2)].

CDFW finds based on substantial evidence in the ITP application, Mitigated Negative Declaration and Initial Study for Wohler Road Over Mark West creek Bridge Replacement Project, the results of site visits and consultations, and the administrative record of proceedings, that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs pursuant to CESA:

- (1) Take of Covered Species as defined in this ITP will be incidental to the otherwise lawful activities covered under this ITP;
- (2) Impacts of the taking on Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP. Measures include: (1) long-term habitat creation and restoration; (2) establishment of avoidance zones; (3) worker education; and (4) Quarterly Compliance Reports. CDFW evaluated factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage

Incidental Take Permit
No. 2081-2018-007-03

SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
LITTLE WOHLER BRIDGE REPLACEMENT

required to provide for adequate compensation. Based on this evaluation, CDFW determined that restoration of 15,000 square feet of temporarily impacted riparian habitat and enhancement of 22,500 square feet of riparian habitat on-site that is contiguous with other Covered Species habitat adjacent to the Project site, installation of a Covered Species Rootwad Habitat Feature, and removal of 30 square feet of piers within the channel along with the minimization, monitoring, reporting, and funding requirements of this ITP minimizes and fully mitigates the impacts of the taking caused by the Project;

- (3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the taking authorized by this ITP;
- (4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;
- (5) All required measures are capable of successful implementation;
- (6) This ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;
- (7) Permittee has ensured adequate funding to implement the measures required by this ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and
- (8) Issuance of this ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, CDFW's finding is based, in part, on CDFW's express authority to amend the terms and conditions of this ITP without concurrence of the Permittee as necessary to avoid jeopardy and as required by law.

Attachments:

FIGURE 1	<i>Project Location</i> , prepared by Sonoma County DTPW, signed May 3, 2017
FIGURE 2	<i>Wohler Road Bridge at Mark West Creek Replacement</i> prepared by Biggs Cardosa Associates INC., dated May 4, 2018
FIGURE 3	<i>Dewatering Plan Figures</i> , prepared by Sonoma County DTPW, dated April 2018
FIGURE 4	<i>Environmental Exhibit</i> , prepared by BKF Engineers, dated April 2018
ATTACHMENT 1	Mitigation Monitoring and Reporting Program
ATTACHMENT 2	Letter of Credit Form
ATTACHMENT 3	Mitigation Payment Transmittal Form

ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

on 10-12-18.



Gregg Erickson, Regional Manager
BAY DELTA REGION

ACKNOWLEDGMENT

The undersigned: (1) warrants that he or she is acting as a duly authorized representative of the Permittee, (2) acknowledges receipt of this ITP, and (3) agrees on behalf of the Permittee to comply with all terms and conditions

By:



Date:

11-5-2018

Printed Name:

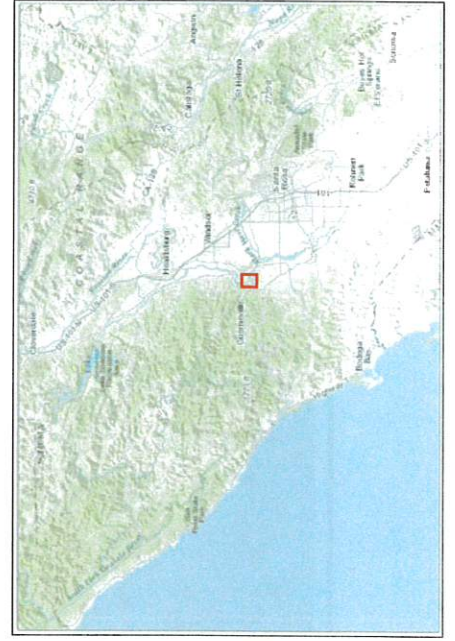
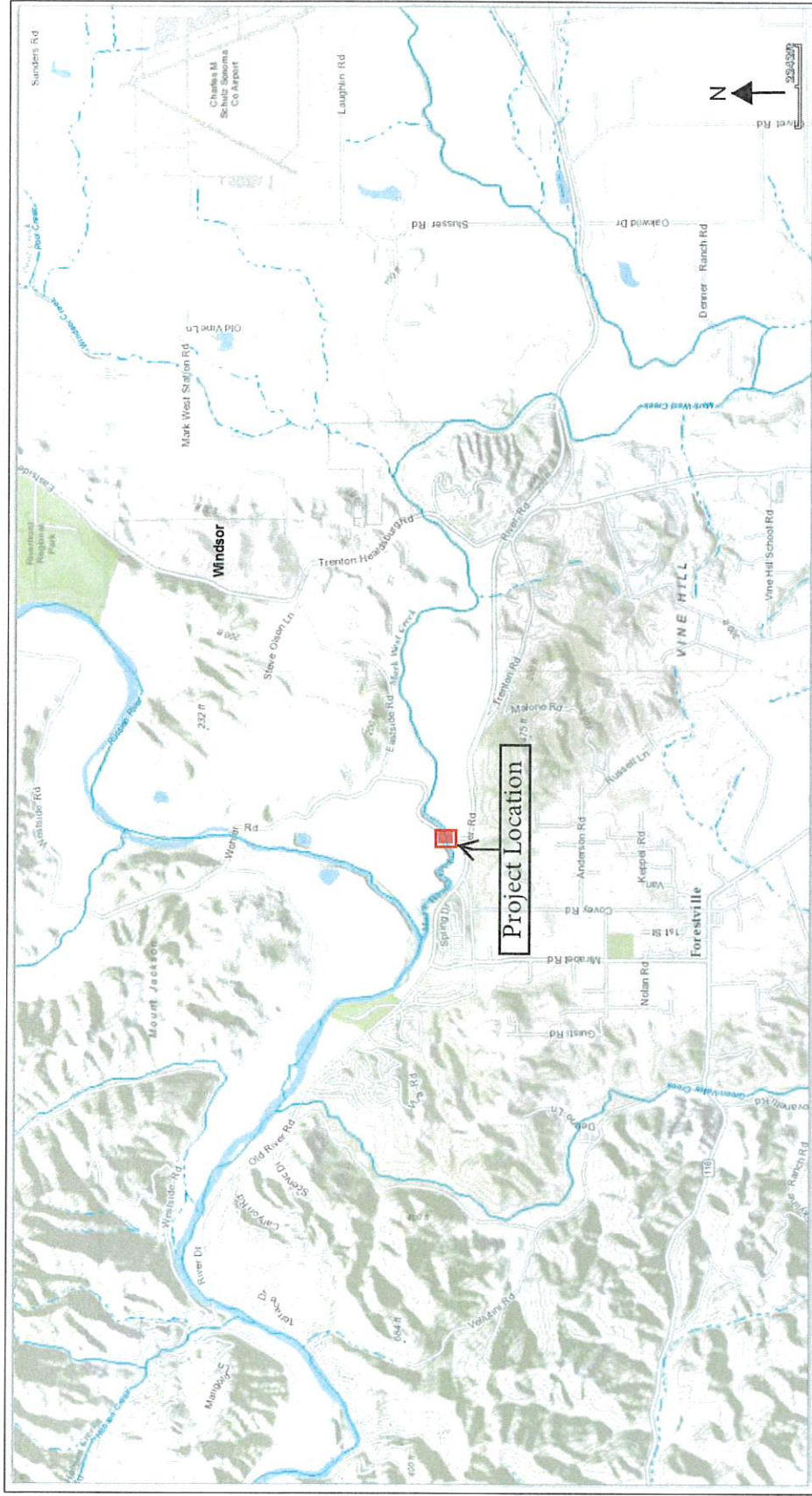
Johannes J. Hoeverstz

Title:

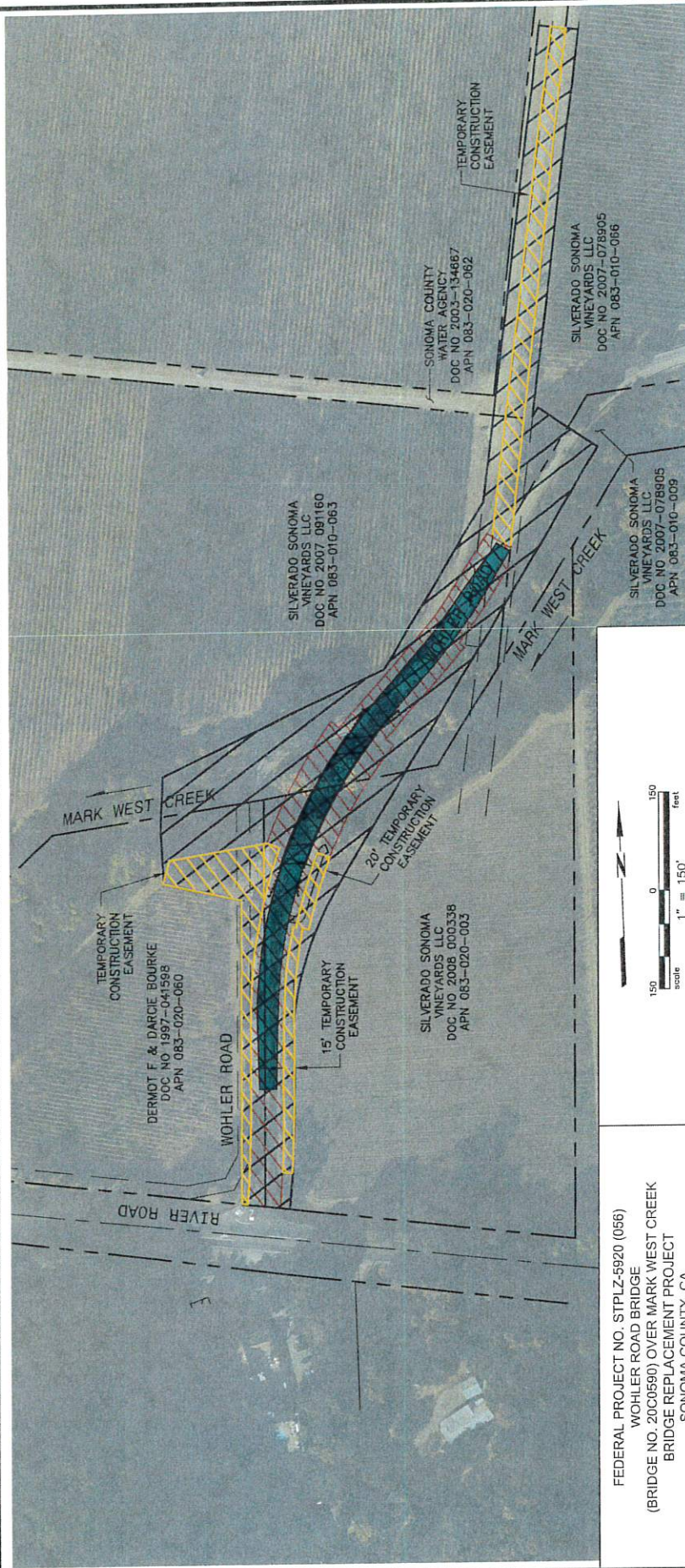
Director

Incidental Take Permit
No. 2081-2018-007-03

SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
LITTLE WOHLER BRIDGE REPLACEMENT

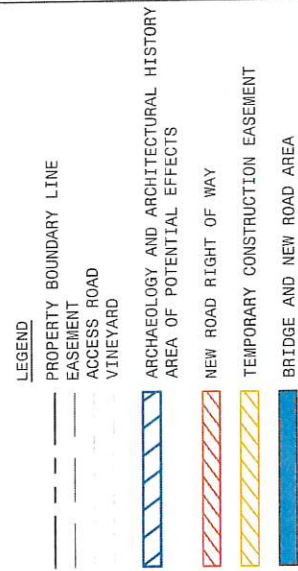


Project Location Map



FEDERAL PROJECT NO. STPLZ-5920 (056)
WOHLER ROAD BRIDGE
(BRIDGE NO. 20C0590) OVER MARK WEST CREEK
BRIDGE REPLACEMENT PROJECT
SONOMA COUNTY, CA

Area of Potential Effects Map



[Signature]
Local Assistance Project Engineer
Office of Local Assistance, CALTRANS

06/09/2017
Date

[Signature]
Local Assistance Project Engineer
Office of Local Assistance, CALTRANS

June 12, 2017
Date

[Signature]
Local Agency Project Engineer
Sonoma County Department of
Transportation and Public Works

5-3-2017
Date

SHEET No. DWG No.

1 TITLE SHEET

SHEET NO. DWG NO.

2	CH-1	CONSTRUCTION NOTES
3	SC-1	SURVEY CONTROL
4	D-1	DEVELOPMENT PLAN
5	L-1	LOT LAYOUT PLAN
6	L-2	LAYOUT PLAN
7	L-3	LAYOUT PLAN
8	C-1	PLAN AND PROFILE
9	C-2	PLAN AND PROFILE
10	C-3	PLAN AND PROFILE
11	CD-1	CONSTRUCTION DETAILS
12	EC-1	EROSION CONTROL PLAN
13	TH-1	TRAFFIC HANDLING PLAN

SHEET No. **DWG. No.**

14	51	GENERAL PLAN
15	52	INDEX TO BRIDGE PLANS
16	53	DECK CONTOURS
17	54	FOUNDATION PLAN
18	55	ABUTMENT 1 LAYOUT
19	56	ABUTMENT 2 LAYOUT
20	57	ABUTMENT DETAILS No. 1
21	58	ABUTMENT DETAILS No. 2
22	59	BENT LAYOUT
23	60	BENT DETAILS No. 1
24	61	BENT DETAILS No. 2
25	62	PIER DETAILS No. 1
26	63	TYPICAL SECTION No. 1
27	64	SLAB DETAILS No. 1
28	65	SLAB DETAILS No. 2
29	66	STRUCTURE APPROACH TYPE
30	67	CONCRETE FLOORING
31	68	CONCRETE FLOORING
32	69	LOG OF TEST BORINGS
33	70	LOG OF TEST BORINGS

DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS

PROJECT PLANS FOR CONSTRUCTION OF

WOHLER ROAD BRIDGE AT MARK WEST CREEK (REPLACE)

(EXISTING COUNTY BRIDGE No. 20C-0139)

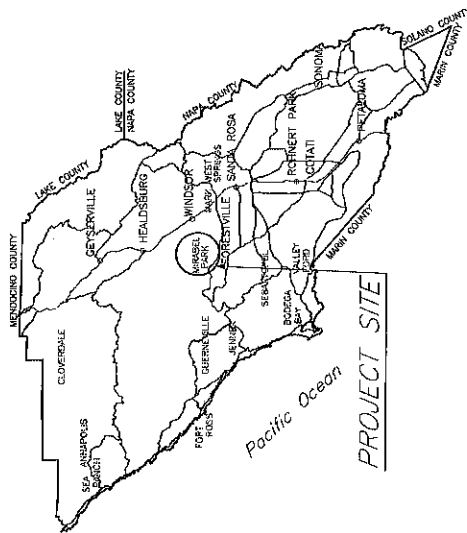
(NEW COUNTY BRIDGE No. 20C-0590)

FEDERAL PROJECT No. STPLZ-5920(056)

FROM P.M. 10.11 TO P.M. 10.14

NET LENGTH

0.17 MILES



VERTICAL DATUM:

NAVJ 88

BASIS OF BEARINGS:

BASIS OF BEARINGS:
CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE II (BASED ON CALIFORNIA SURVEYING AND DRAFTING VFN, BASED ON CSRC CORRS POSITIONS, EPOCH 2011.00). DISTANCE AND STATIONING ARE GROUND DISTANCES. MULTIPLY BY 0.99996312 TO OBTAIN GRID DISTANCES.

RIGHT OF WAY DETERMINATION:

FOR ROAD RIGHT OF WAY DETERMINATION, SEE RECORD OF SURVEY RECORDED IN BOOK XX OF MAPS AT PAGE XX.

NOTE:

THE CONTRACTOR SHALL POSSESS CLASS A LICENSE AND HAZARDOUS SUBSTANCE REMOVAL CERTIFICATION AT THE TIME OF AWARD.

APPROVED FOR CONSTRUCTION:

JOHANNES J. HOEVERTS	P.F.	DIRECTOR	DATE
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DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

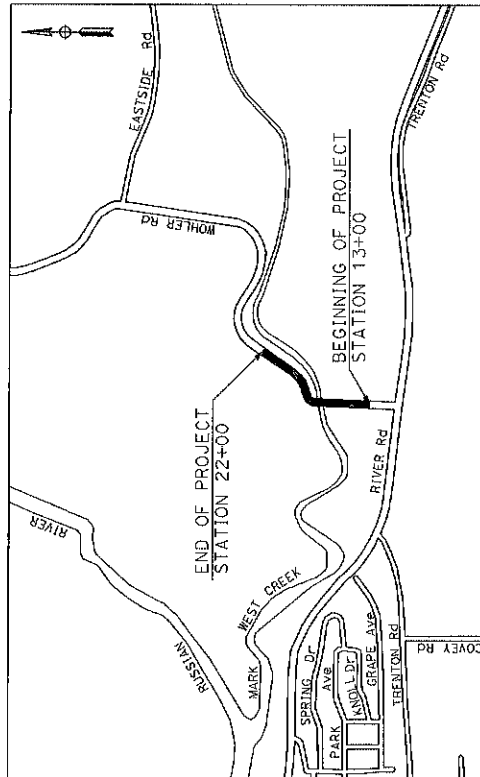
A.C.E. 67468

OLESYA TRIBIKAIT. P.F.: DEPUTY DIRECTOR	DATE
---	------

R.C.E. 70846

NAME	RELATIONSHIP	DATE
SAMUEL BAUMGARDNER	SENIOR CIVIL ENGINEER	DATE

R.C.E. 87230



VICINITY MAP

NO SCALE



DATE	BY	APPROVED
8/19/14	BCA	BCA
4/27/15	BCA	BCA
8/24/16	BCA	BCA

BIGGS CARDBOARD ASSOCIATES INC.
ST. LOUIS, MO. 63103



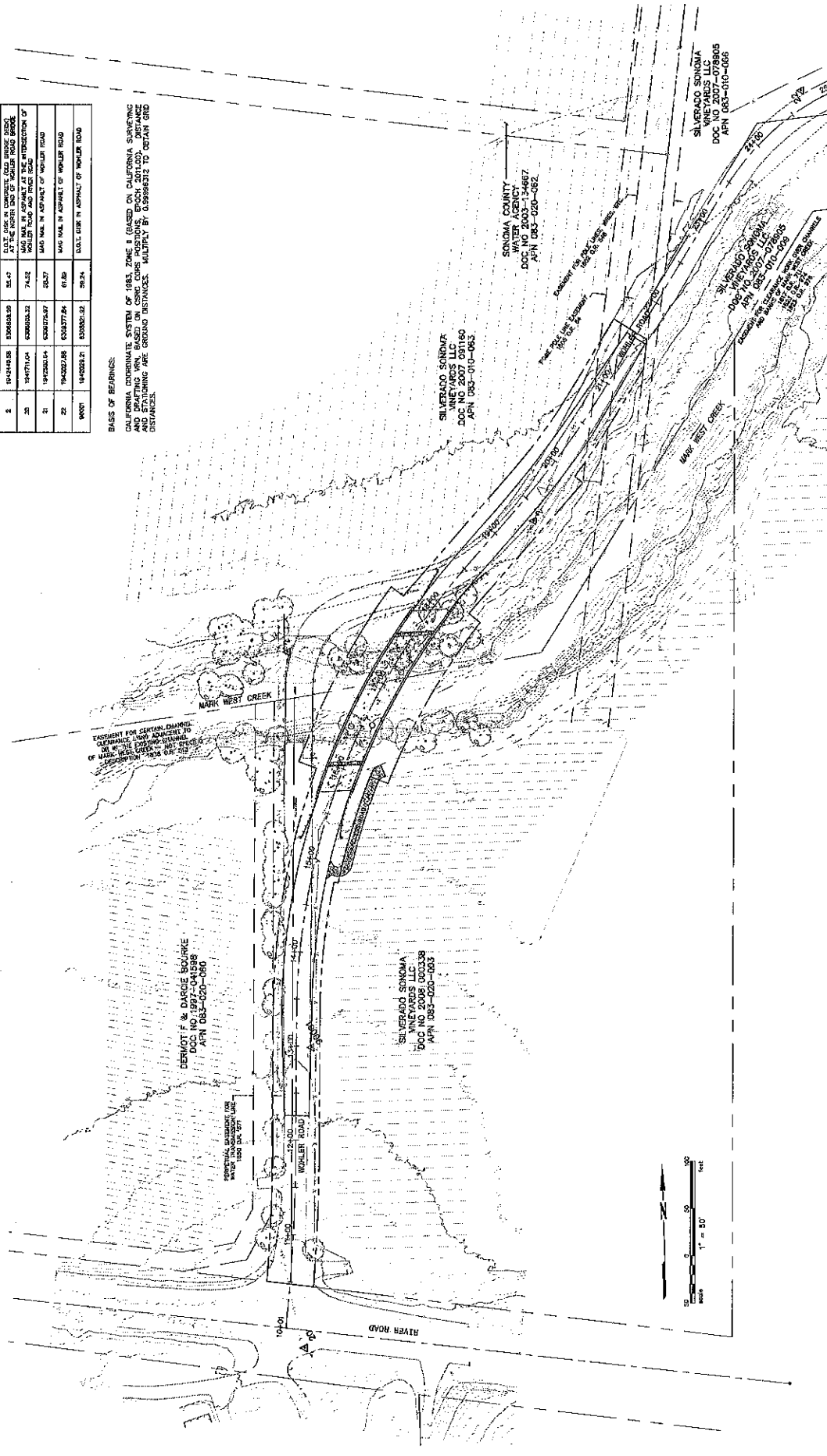
COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSAN R. KLESSEN, P.E. DIRECTOR

TITLE SHEET		PROJECT NUMBER: 020-0250	020100
WOHLER ROAD BRIDGE		FISCAL YEAR	
AT MARK WEST CREEK REPLACEMENT		SHEET NUMBER	1 OF 1
		TOTAL SHEETS	00

BENCHMARK AND DATUM		COORDINATES		ELEVATION		REMARKS	
MONUMENT	MARK	NAD 83	UTM	FEET	METERS	DATE	BY
1	19444428	600608.59	54.47			1944	DAVID
2	19477104	600608.52	74.52			1947	DAVID
3	19490014	600608.47	95.07			1949	DAVID
4	194922748	600608.44	115.07			1949	DAVID
5	194922748	600608.44	115.07			1949	DAVID
6	194922748	600608.44	115.07			1949	DAVID
7	194922748	600608.44	115.07			1949	DAVID
8	194922748	600608.44	115.07			1949	DAVID
9	194922748	600608.44	115.07			1949	DAVID
10	194922748	600608.44	115.07			1949	DAVID

BASIS OF BEARINGS:

CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 11, BASED ON CALIFORNIA SURVEYING AND DRAFTING VNM, BASED ON CSRS COORDINATES, EPOCH 2011.001. DISTANCE AND BEARING ARE GROUND DISTANCES. MULTIPLY BY 0.99996312 TO OBTAIN GRID DISTANCES.



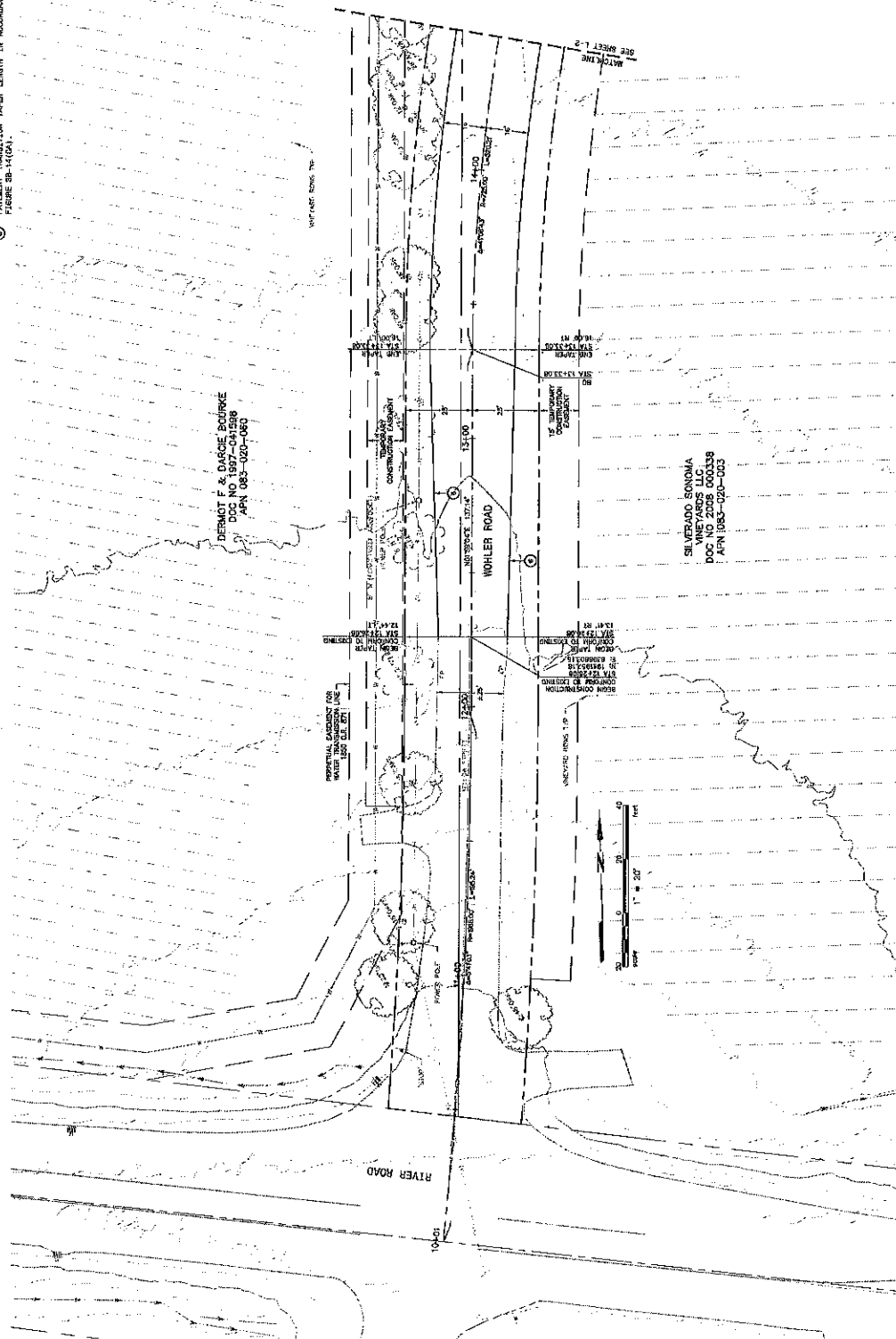
PRELIMINARY REGISTERED ENGINEER 05/04/2018 DATE 05/04/2018 BY: [Signature] FOR: [Signature]		CONSTRUCTION COMPLETED: AS SHOWN ON AS BUILT DRAWINGS BY: [Signature] DATE: 5/6/18 BY: [Signature]		REGISTERED ENGINEER: AS BUILT DRAWINGS BY: [Signature] DATE: 5/6/18 BY: [Signature]		REGISTERED ENGINEER: AS BUILT DRAWINGS BY: [Signature] DATE: 5/6/18 BY: [Signature]	
DESIGN BY: JAK	DRAWING BY: BRL	CHECKED BY: DWH	COUNTY OF SONOMA DEPARTMENT OF TRANSPORTATION & PUBLIC UTILITIES SUSAN R. ALLEN, P.E., DIRECTOR				
WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT			SURVEY CONTROL				
TOTAL SHEETS: 32			TOTAL SHEETS: 32				

1. REMOVE EXISTING BRIDGE AND DISPOSE OF UNUSED MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.
2. REMOVE EXISTING MATERIAL ON BRIDGE TO FACILITATE THE PROPOSED IMPROVEMENTS AND DISPOSE OF UNUSED MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.
3. REMOVE EXISTING FENCE WHERE SUKUN ON PLAN AND DISPOSE OF UNUSED MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.
4. REMOVE EXISTING VIEWPOINTS IN ORDER TO FACILITATE THE PROPOSED IMPROVEMENTS AND DISPOSE OF UNUSED MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.

[illegible]

KEYNOTES

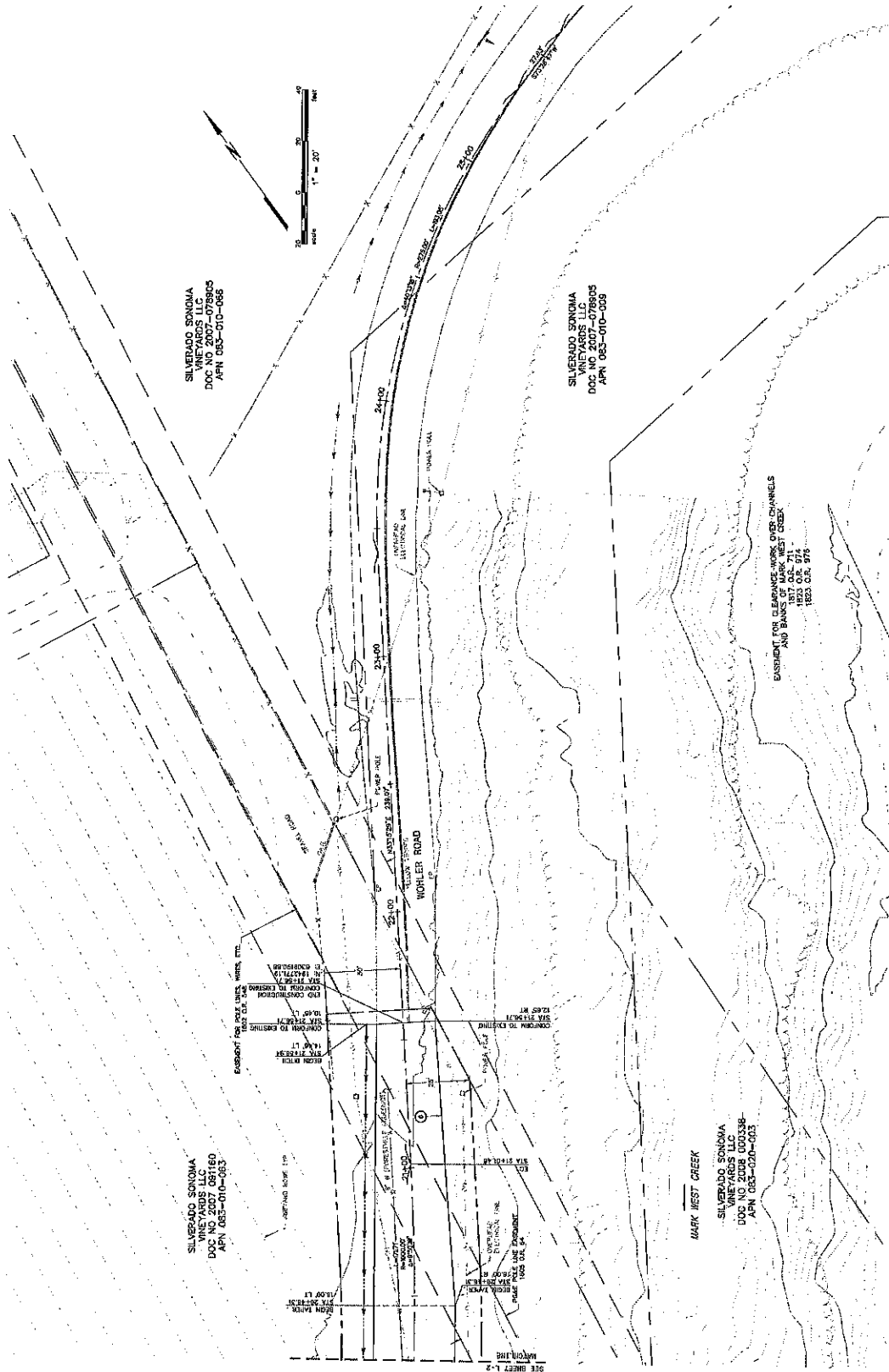
⑥ PAVEMENT TRANSITION TAPE LENGTH IN ACCORDANCE WITH CA MUTCD
FIGURE 3B-14(CA).

[illegible]

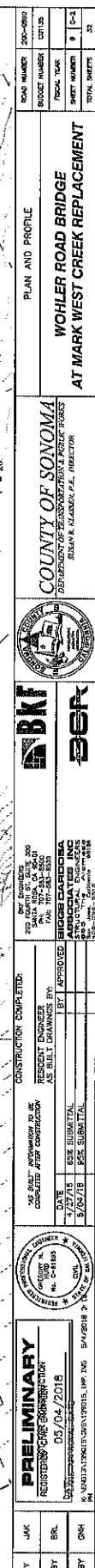
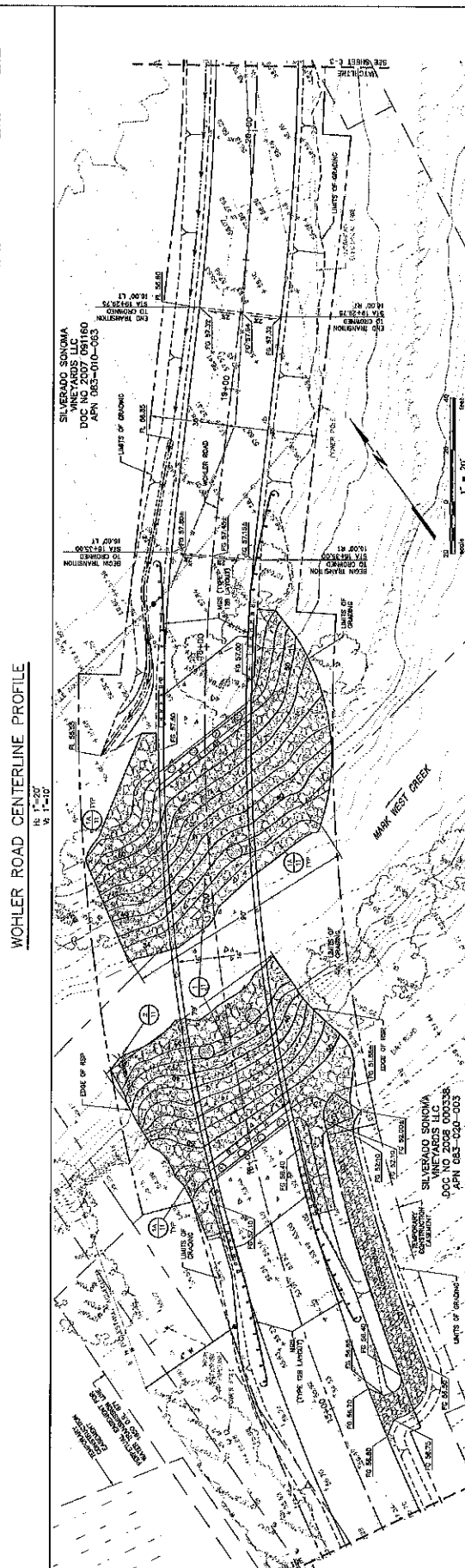
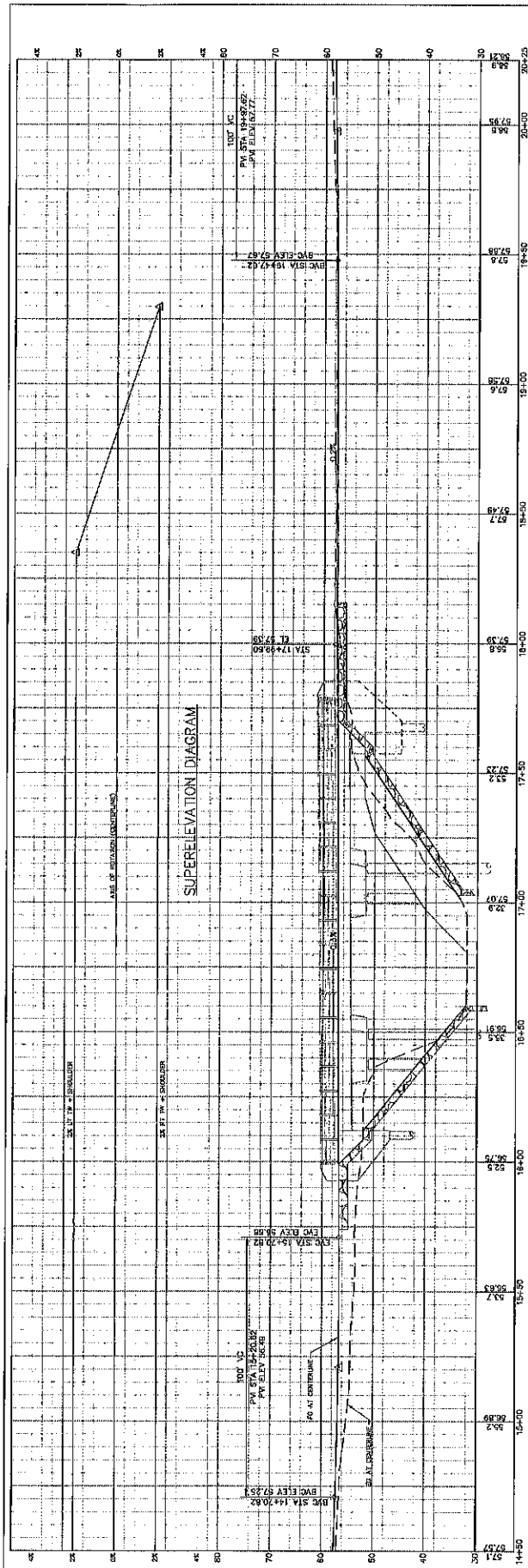
45 MPH ROAD
DESIGN SPEED

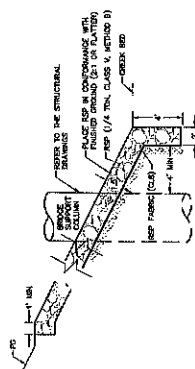
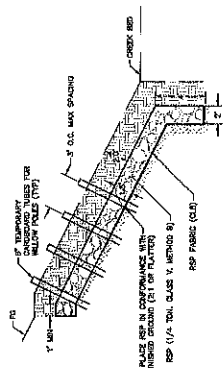
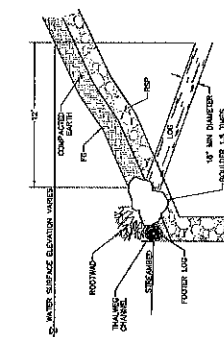
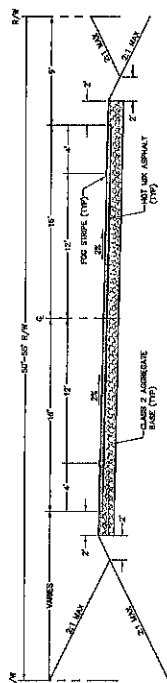
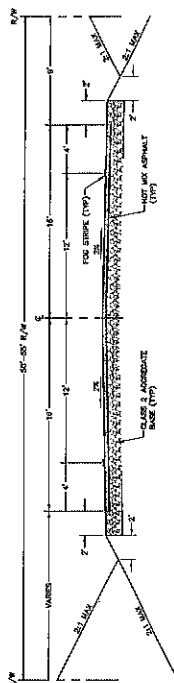
SONOMA

⑤ PAVEMENT TRANSITION TAPER LENGTH IN ACCORDANCE WITH CA MUTCD
FIGURE 2B-14(CA).



DESIGN BY	JAK	CONSTRUCTION COMPLETED	AS BUILT INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	DATE	5/12/18	60% SUBMITTAL	BY	APPROVED	DATE	5/12/18	60% SUBMITTAL	BY	APPROVED	DATE	5/12/18	60% SUBMITTAL	BY	APPROVED	
DRAWING BY	BEL	REVISIONS	NO. 1	DATE	05/04/2018	REVISIONS	NO. 2	DATE	05/04/2018	REVISIONS	NO. 3	DATE	05/04/2018	REVISIONS	NO. 4	DATE	05/04/2018	REVISIONS	NO. 5
CHECKED BY	CSH	PROJECT NO.	000338	PROJECT NAME	WOHLER ROAD BRIDGE	PROJECT LOCATION	MARK WEST CREEK	PROJECT OWNER	COUNTY OF SONOMA	PROJECT MANAGER	SONIA E. BLANCKENHORN	PROJECT ENGINEER	SONIA E. BLANCKENHORN	PROJECT ARCHITECT	SONIA E. BLANCKENHORN	PROJECT LANDSCAPE ARCHITECT	SONIA E. BLANCKENHORN	PROJECT CIVIL ENGINEER	SONIA E. BLANCKENHORN
PRELIMINARY		COUNTY OF SONOMA SONIA E. BLANCKENHORN, DIRECTOR																	
BKT		BKT																	
BCA		BCA																	
ROAD NUMBER		000-0000																	
SUBJECT NUMBER		000135																	
SHEET NUMBER		7																	
TOTAL SHEETS		25																	



[illegible]

1. PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE SONOMA COUNTY CODE, CHAPTER 11, ARTICLE 4, SECTION 20 (§11.04.020), APPLICABLE SONOMA COUNTY REGULATIONS, AND SECTION 20 OF THE CALTRANS STANDARD SPECIFICATIONS.

1. PERSONS FROM THE PREVIOUS AND SEDIMENT CONTROL ACTS IN ACCORDANCE WITH THE COUNTY CODE CHAPTER 11.1, ARTICLE 1, SECTION 11.1.01, AND THE CALTRANS STANDARD SPECIFICATIONS.
2. THE APPROVED PLANS SHALL CONFORM WITH THE EROSION PREVENTION AND SEDIMENTATION CONTROL ACTS AND THE CALTRANS STANDARD SPECIFICATIONS.
3. THE LATEST EDITIONS OF THE FOLLOWING PUBLICATIONS ARE REQUIRED FOR THE PREPARATION OF THE PLANS:
1. EROSION AND SEDIMENT CONTROL, FIVE EDITION, IN THE SAN JOAQUIN VALLEY REGION, CALIFORNIA, 1987, CALTRANS, 1987.
2. MANUAL OF STANDARD PRACTICES FOR EROSION AND SEDIMENT CONTROL, 1987, CALTRANS, 1987.
3. CONSTRUCTION WITH BEST MANAGEMENT PRACTICES MANUAL BY CALTRANS, 1987.
4. CALTRANS ENHANCED QUALITY ASSOCIATION.
- IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFERENCED HEREIN ON MANUFACTURER'S RECOMMENDATIONS, THEN THE MANUFACTURER'S RECOMMENDATIONS SHALL PREVAIL.

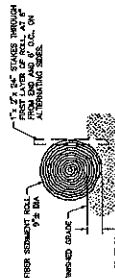
1. THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS AND THE FEDERAL WATER POLLUTION CONTROL ACT (FWPCA) FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH THE PROJECT. THE PROJECT DESIGN AND CONSTRUCTION SHALL BE LIMITED TO CLEARING, GRADING, EXCAVATION, STOCKPILING, AND RECONSTRUCTION OF EXISTING FACILITIES INVOLVING REMOVAL AND REPLACEMENT.
2. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE.

- [illegible]

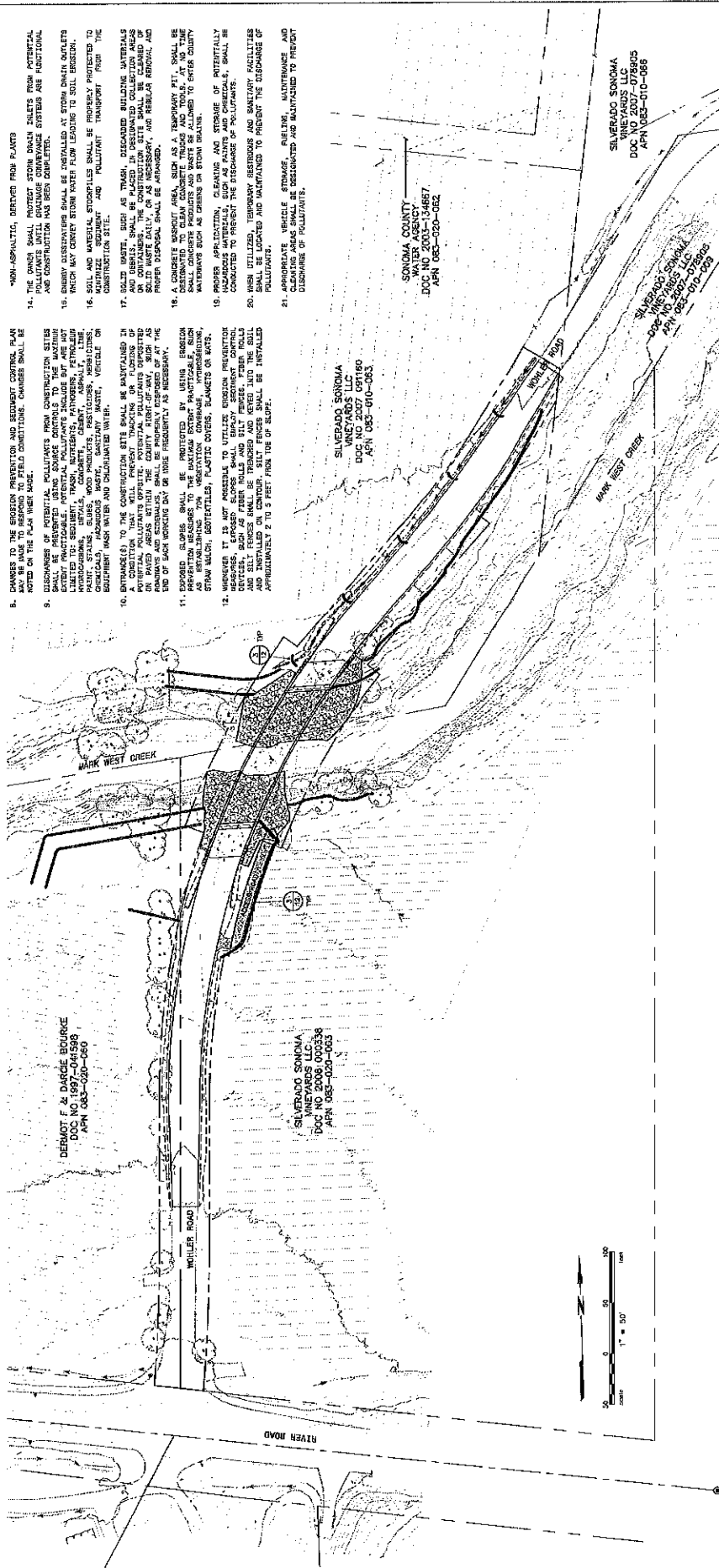
3. INTERSEEDING SHALL BE CONDUCTED IN A THREE STEP PROCESS. FIRST, EVERY APPLY, SEED MIX AND FERTILIZER TO THE EXPOSED SLOPE. SECOND, EVENLY APPLY MULCH OVER THE SEED AND FERTILIZER. THIRD, STABILIZE THE MULCH IN PLACE.

APPLICATIONS SHALL BE SPACED OUT MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE APPLIED TO THE EXPOSED SLOPE AT A RATE OF 100 LBS PER 1000 SQ YD. MULCH SHALL BE DERIVED FROM WOOD CHIPS OR BARK AND BE APPROXIMATELY 6 TO 8 INCHES IN LENGTH. STABILIZATION OF THE MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OF POLYMER AND WATER. CHIPS AND MULCH MAY BE SPREAD UP TO 10 INCHES THICK. CHIPS AND MULCH SHALL BE SPREAD TO PROTECT EXPOSED SLOPES. THEIR ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

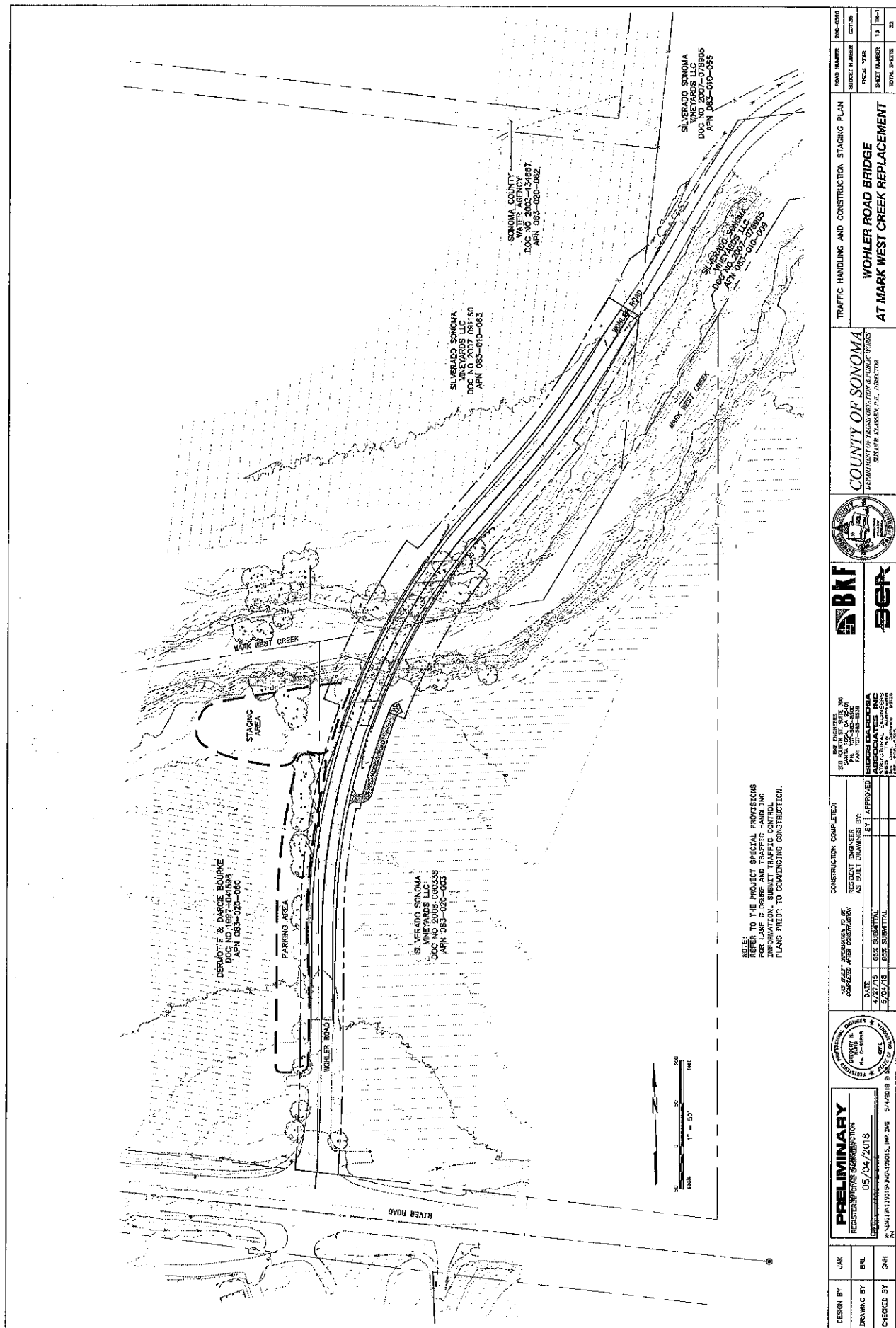
- | MATERIALS | APPROXIMATE QUANTITY
(POUNDS PER ACRE) |
|--|---|
| SEED MIX | |
| BROWN ROLL (BLANDED BROWN) | 40 |
| PERMANENT GREEN | 40 |
| PERMANENT WHITE (FROM ROSE CLOVER) | 40 |
| PERMANENT RED (FROM ROSE CLOVER) | 400 |
| 18-20-0 & 1% SULFUR | |
| MAINT. STOCK | 4000 |
| HYDRAULICALLY APPLIED ¹ 2-2-2 | |
| HYDRAULICALLY APPLIED ² 3-3-3 | |
| EQUIVALENT MATERIAL | |
| PER MANUFACTURER | 75-100 |
- ¹NON-ANIMAL, DERIVED FROM PLANTS
- ²THE OTHER SMALL PESTICIDE FROM SOIL INLEAKS FROM POTENTIAL POLLUTANTS WILL CHARGE CONFORMANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION HAS BEEN COMPLETED.
9. DRAINAGE SYSTEMS SHALL BE INSTALLED AT DRAIN OUTLETS WHICH MAY CAUSE WATER FLOW DURING A DRAIN EVENT.
10. SOIL AND MATERIALS SHALL BE PROPERLY PROTECTED TO PREVENT POLLUTION AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
11. SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS AND SHALL BE REMOVED FROM THE PROJECT SITE AS SOON AS POSSIBLE. SOLID WASTE SHALL, ON AN OCCASION, HAVE REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE ASSURED.
12. A CONCRETE PAVED AREA, SUCH AS A TEMPORARY PAV¹, SHALL BE MAINTAINED TO PREVENT POLLUTION AND POLLUTANT TRANSPORT FROM THE PROJECT SITE AS DURING OR AFTER THE PROJECT.
13. WATERSHED SOIL OR DRESS OR STON DRESS.
14. CONCRETE PAVED AREAS AND WASTE BE ALLOWED TO ENTER DRAINAGE SYSTEMS.
15. PROPER APPLICATION, CLEANING AND STORAGE OF POTENTIALLY POLLUTING EQUIPMENT AND MATERIALS SHALL BE ASSURED.
16. TO PREVENT THE DISCHARGE OF POLLUTANTS², SHALL BE MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
17. SHALL BE MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
18. SHALL BE MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
19. SHALL BE MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
20. SHALL BE MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
21. APPROPRIATE VEHICLE STOPS, FUELING, MAINTENANCE AND WASHING OF VEHICLES SHALL BE DESIGNATED AND MAINTAINED TO PREVENT POLLUTION AND POLLUTANT TRANSPORT FROM THE PROJECT.



3 FIBER ROLL DETAIL



DESIGN BY	JAK	PROFESSIONAL ENGINEER  STATE OF FLORIDA	 COUNTY OF SONOMA DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS TONYA E. ZILINSKY, P.E., DIRECTOR	EROSION CONTROL PLAN WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT	RWD NUMBER	100-00960
	DESIGN NUMBER				00175	
DRAWING BY	REL				SHEET NUMBER	10 00-1
CHECKED BY	QMH				TOTAL SHEETS	10



DESIGN BY	JAK	REGISTERED PROFESSIONAL ENGINEER	DATE	05/04/2018	PROJECT NO.	18-001	PROJECT NAME	WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT	TRAFFIC HANDLING AND CONSTRUCTION STAGING PLAN	PROJECT NUMBER	DOC-080
DRAWING BY	BRL	REGISTERED PROFESSIONAL ENGINEER	DATE	05/04/2018	PROJECT NO.	18-001	PROJECT NAME	WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT	TRAFFIC HANDLING AND CONSTRUCTION STAGING PLAN	SHEET NUMBER	13
CHECKED BY	GAH	REGISTERED PROFESSIONAL ENGINEER	DATE	05/04/2018	PROJECT NO.	18-001	PROJECT NAME	WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT	TRAFFIC HANDLING AND CONSTRUCTION STAGING PLAN	TOTAL SHEETS	22

PRELIMINARY

REGISTERED PROFESSIONAL ENGINEER

DATE: 05/04/2018

PROJECT NO.: 18-001

PROJECT NAME: WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT

BKF

BER

COUNTY OF SONOMA

DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

JOAN R. ALLEN, P.E., DIRECTOR

SEAL

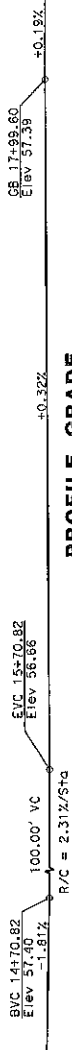
REGISTERED PROFESSIONAL ENGINEER

DATE: 05/04/2018

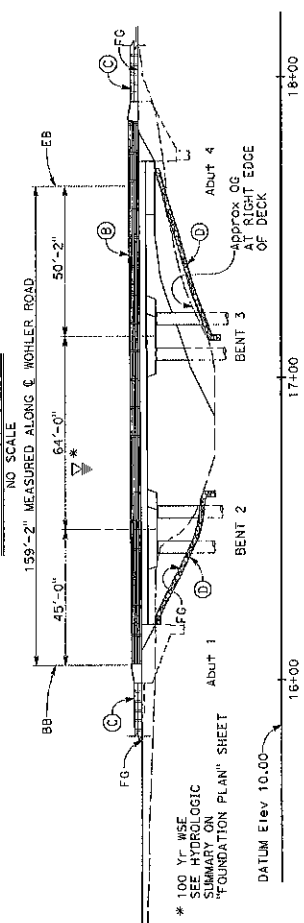
PROJECT NO.: 18-001

PROJECT NAME: WOHLER ROAD BRIDGE AT MARK WEST CREEK REPLACEMENT

FOR ACCURATE RIGHT OF WAY AND
ACCESS DATA, SEE "ROADWAY PLANS"

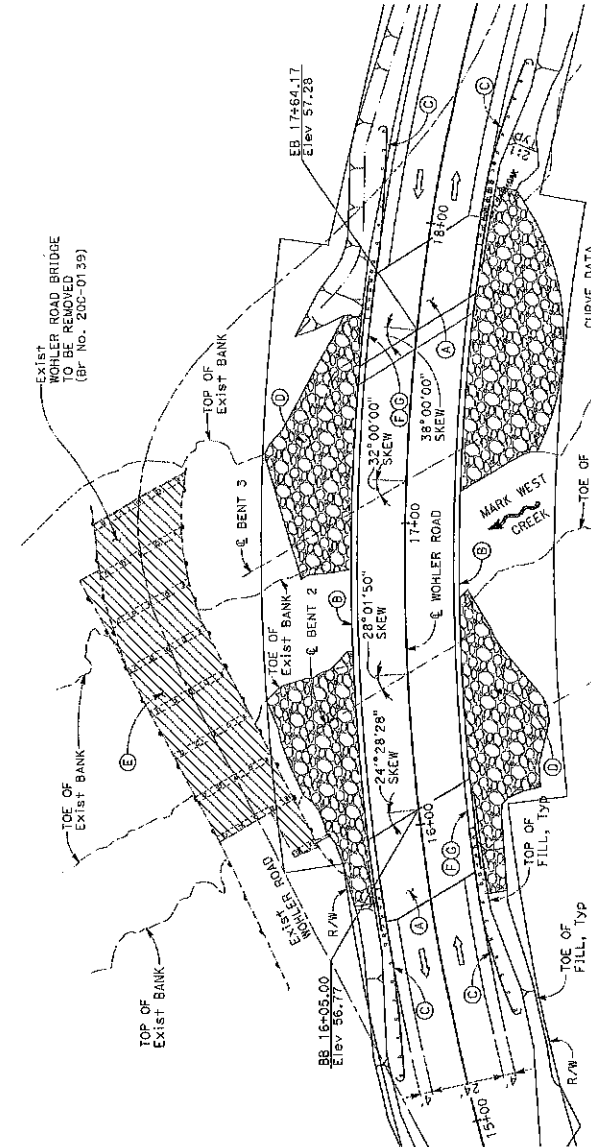


PROFILE GRADE



ELEVATION

1" = 20'



NOTE:
THE CONTRACTOR MUST VERIFY ALL
CONTROLLING FIELD DIMENSIONS BEFORE
ORDERING OR FABRICATING ANY MATERIAL

DESIGN BY	SEN
DRAWING BY	RLG
CHECKED BY	JAA



DATE	8/12/14
DATE	8/12/14
DATE	8/12/14
DATE	8/12/14

CONSTRUCTION COMPLETED
NO. 2013
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14



REGISTERED STRUCTURAL ENGINEER
R. L. G. ENGINEERING, INC.
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14

REGISTERED STRUCTURAL ENGINEER
R. L. G. ENGINEERING, INC.
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14

PROJECT NUMBER	151-002-102
PROJECT YEAR	2013
SHEET NUMBER	13
TOTAL SHEETS	28

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSAN K. KLASSEN, P.E. DIRECTOR

GENERAL PLAN
WOHLER ROAD BRIDGE
AT MARK WEST CREEK REPLACEMENT

REGISTERED STRUCTURAL ENGINEER
R. L. G. ENGINEERING, INC.
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14



REGISTERED STRUCTURAL ENGINEER
R. L. G. ENGINEERING, INC.
DATE 8/12/14
DATE 8/12/14
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R. L. G. ENGINEERING, INC.
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R. L. G. ENGINEERING, INC.
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R. L. G. ENGINEERING, INC.
DATE 8/12/14
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DATE 8/12/14
DATE 8/12/14

REGISTERED STRUCTURAL ENGINEER
R. L. G. ENGINEERING, INC.
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14
DATE 8/12/14

TYPICAL SECTION

1/4" = 1'-0"

- LEGEND:
- Indicates Bridge Removal
 - Indicates Existing Structure
 - Indicates Traffic Direction
 - Indicates Direction of Creek Flow

NOTES:

- Approach Slab Type N (30S) (Mod)
- Railing Type ST-40 (Mod)
- Midwest Guard Rail (MGS), see "Roadway Plans"
- Rack Slope Protection, see "Roadway Plans"
- Remove Existing Bridge, Bridge No. 200-0139
- Paint "WOHLER ROAD BRIDGE AT MARK WEST CREEK"
- Paint "BRIDGE No. 200-0590"
- For Index to Bridge Plans and General Notes, see "INDEX TO BRIDGE PLANS"
- For Bench Mark and Datum, File Data Table and Hydrologic Summary, see "FOUNDATION PLAN"
- See "Roadway Plans" for grading

INDEX TO BRIDGE PLANS

DRAWING NO.	TITLE
S1	GENERAL PLAN
S2	INDEX TO BRIDGE PLANS
S3	DECK CONTOURS
S4	FOUNDATION PLAN
S5	ABUTMENT 1 LAYOUT
S6	ABUTMENT 2 LAYOUT
S7	ABUTMENT DETAILS No. 1
S8	ABUTMENT DETAILS No. 2
S9	BENT LAYOUT
S10	BENT DETAILS No. 1
S11	BENT DETAILS No. 2
S12	TYPICAL SECTION No. 1
S13	TYPICAL SECTION No. 2
S14	SLAB DETAILS No. 1
S15	SLAB DETAILS No. 2
S16	STRUCTURE APPROACH DETAILS
S17	LOG OF TEST BORINGS No. 1 OF 2
S18	LOG OF TEST BORINGS No. 2 OF 2
S19	LOG OF TEST BORINGS No. 2 OF 2

GENERAL NOTES

LOAD & RESISTANCE FACTOR DESIGN

DESIGN: AASHTO LRFD Bridge Design Specifications, 6th Edition and Caltrans Amendments, preface dated Nov. 2014

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.7 dated April 2013

DEAD LOAD: Includes 35 psf for future wearing surface and 95 psf for future utility allowance

LIVE LOAD: HL93 with Low-Boy and permit design load

CONCRETE: $f'_c = 60,000$ psi at 28 days (except as shown on "DECK CONTOURS" sheet)

PRESTRESSED CONCRETE: See "Prestressing Notes" on "TYPICAL SECTION No. 2" sheet

SEISMIC LOAD: Caltrans ARS Online (2012) and ARS Curve by 2008 USGS Deaggregation (Beta) Load Effects of $f_{pg} = 230$ m/s

PEAK GROUND ACCELERATION = 0.55g with the following modifications:

- No change of S_a for structural periods ≤ 0.5 seconds
- 20% increase of S_a for structural periods > 1 second
- Linear interpolation for structural periods between 0.5 and 1 second

2015 STANDARD PLANS

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - ROCK (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B0-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B0-26	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B11-57	CALIFORNIA ST-40 BRIDGE RAIL (SHEET 1 OF 2)
B11-57	CALIFORNIA ST-40 BRIDGE RAIL (SHEET 2 OF 2)

ABBREVIATIONS:

EQ EQUAL
WSE WATER SURFACE ELEVATION

LEGEND:

- BT-10 Indicates Caltrans Standard Plan sheet No.
- U-1 Indicates Detail No.
- CS Indicates Section No.
- CS Indicates sheet No. shown on
- CS Indicates Detail No.
- CS Indicates sheet No. shown on

CONSTRUCTION STAGING NOTES:

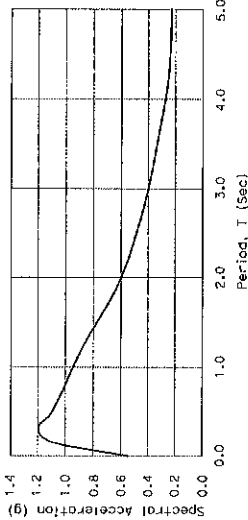
The existing bridge is subject to regular overtopping by flood waters, and it is anticipated that the project site may be flooded more than once during the construction period. Because of this, the construction shall be completed to protect the approach embankments and the partially constructed bridge structure during the wet season.

SECTION 1 Construction:

- At a minimum, construction of the following items must be completed:
 - Approach Embankments
 - Abutment Backwall
 - Abutment Wingwalls
- If either or both of the abutments are to be constructed in Season 1, the following elements of the abutment(s) must be completed, if it is not feasible to complete each of these elements of the abutment(s) being constructed, the abutment(s) should not be started in Season 1, and should instead be completed in Season 2.
 - Abutment Backwall
 - Abutment Wingwalls
 - Abutment Wingwalls

Site Preparation for Wet Season:

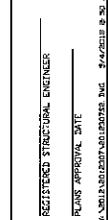
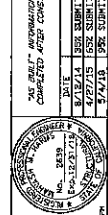
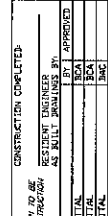
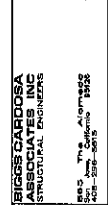
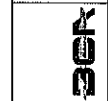
- Any exposed bridge rebar, bolts or other steel elements that are not galvanized must be painted thoroughly with 2 coats of AASHTO M300 Type 1 inorganic zinc rich primer.
- Benchmarks in creek banks for construction cranes, as well as any access paths to benches, must be re-graded and protected from flood waters per the Road Plans, the Project Permits, and the Project Special Provisions.
- Embankment fill must be paved over with a temporary layer of AC - see Roadway Plans and Project Special Provisions for requirements.



ARS DESIGN CURVE

NO SCALE

DESIGN BY	SEN	CONSTRUCTION COMPLETED	DATE	5/4/18
DRAWING BY	SMH	20% SUBMITTAL	DATE	5/4/18
CHECKED BY	JAA	100% SUBMITTAL	DATE	5/4/18
REGISTERED STRUCTURAL ENGINEER		COUNTY OF SONOMA		
PLANS APPROVAL DATE		DEPARTMENT OF PUBLIC WORKS		
V. VERMILION/VERMILION INC. 5/4/2018 9:50 PM		JONAS CARSON, A.E. REGISTERED		
INDEX TO BRIDGE PLANS		WOHLER ROAD BRIDGE		
AT MARK WEST CREEK REPLACEMENT		BUDGET NUMBER		
		FISCAL YEAR		
		SHEET NUMBER		
		TOTAL SHEETS		



(PROVIDED BY AVILA ASSOCIATES)

55

	DESIGN FLOOD	BASE FLOOD	OVERTOPPING
Frequency (years)	50	100	2
Discharge (cfs)	46,481	52,700	20,400
Water surface Elevation at Bridge (ft)	75.5	76.5	60.0

Flood Plain Data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the County and interested or affected parties should make their own investigations.

NOTES:

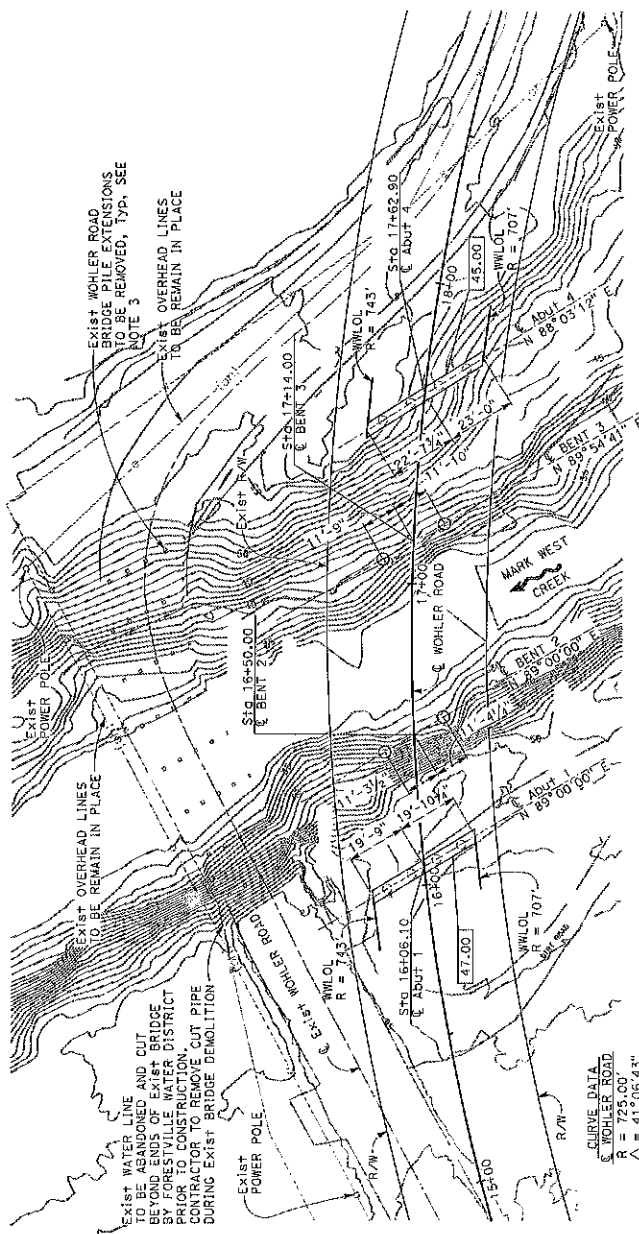
1. Utilities shown are for illustrative purposes only. Verify utility locations and whether they are to be relocated, abandoned, etc, with Roadway Plans.
2. For property delineations and descriptions, see Roadway Plans.
3. Existing driven concrete & steel H-Piles to be removed to 5' below existing grade.
4. Existing abutments to be removed to bottom of abutment wall.

LEGEND:

Indicates Bottom of Abutment Neighborhood Elevation

0108 **66+00:00**

- **or** = Indicates Existing Pile to be removed



FOUNDATION PLAN

 $1'' = 20'$

BENCH MARK AND DATUM

Monument	Coordinates		Elev (NAVD 88)	Description/Location
	Northing	Easting		
90001	1942029.21	6308821.92	59.24	D.O.T. DISK IN ASPHALT OF WOHLER ROAD
2	1942445.58	6308808.99	55.47	D.O.T. DISK IN CONCRETE (OLD BRIDGE DECK) AT THE NORTH END OF WOHLER ROAD BRIDGE

PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Cut-off Elevation (ft)	Estimated Top of Rock Socket	Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension				
Abut 1	36" Dia CDH	480	45	-	-	-30.0 (g); -30.0 (b); -23.0 (d)	-30.0
Bent 2	60" Dia CDH	1700	N/A	33	-36	-62.0 (g); -47.0 (b); -39.0 (d)	-62.0
Bent 3	60" Dia CDH	1770	N/A	36	-41	-70.0 (g); -55.0 (b); -44.0 (c); -44.0 (d)	-70.0
Abut 4	36" Dia CDH	580	N/A	-	-41	-45.0 (g); -50.0 (b); -55.0 (c); -20.0 (d)	-55.0

NOTES:

1. Design tip elevations for Abutments and Berms are controlled by: (a) Compression (Strength Limit); (b) Compression (Extreme Event); (c) Downdrag Load; (d) Lateral Load.
2. Tip Elevation shall not be raised above the Specified Tip Elevation.

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

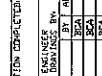


COUNTY OF SONOMA

DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSAN R. KLASSEN, P.E. DIRECTOR



**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS



	DATE		CONTRACT
"AS BUILT" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	8/19/14	35% SUBMITTAL	RESIDENT AS BUILT
	4/27/15	65% SUBMITTAL	
	10/12/15	CLOSE OUT SUBMITTAL	

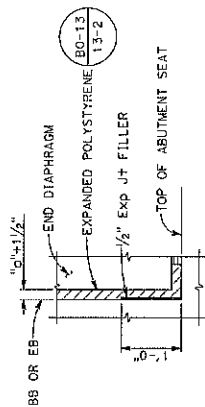
ENGINEER

APPROVAL DATE

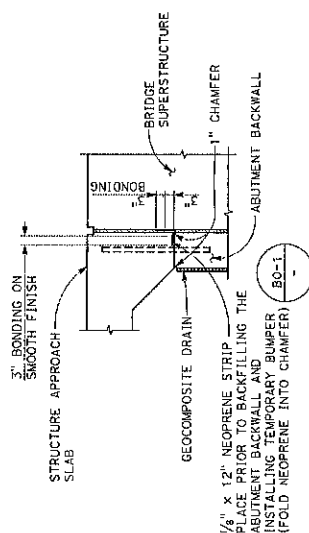
SEX	REG:ST	PLANS
MALE	1	1
FEMALE	1	1

DESIGN BY	DRAWING BY	CHECKED BY
-----------	------------	------------

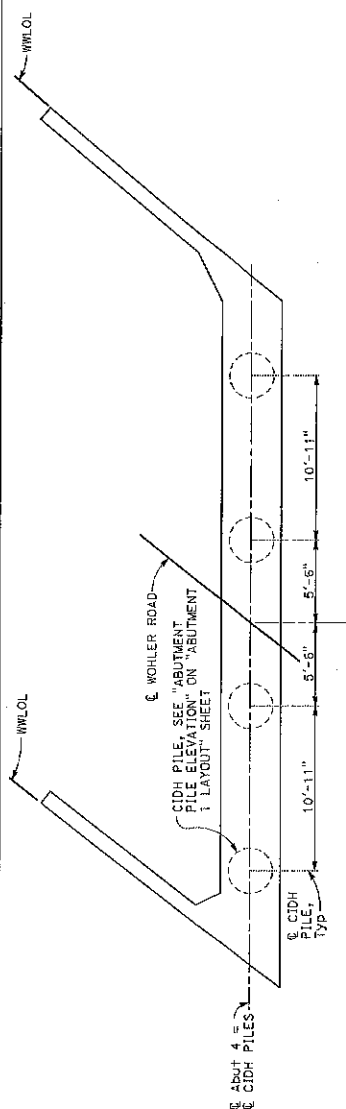
- NOTES:
1. Barrier and approach slab not shown for clarity
 2. See "TYPICAL WINGWALL ELEVATION" on "ABUTMENT DETAILS No. 1" sheet for wingwall details.
 3. For "ABUTMENT PILE ELEVATION", see "ABUTMENT 1 LAYOUT" sheet.



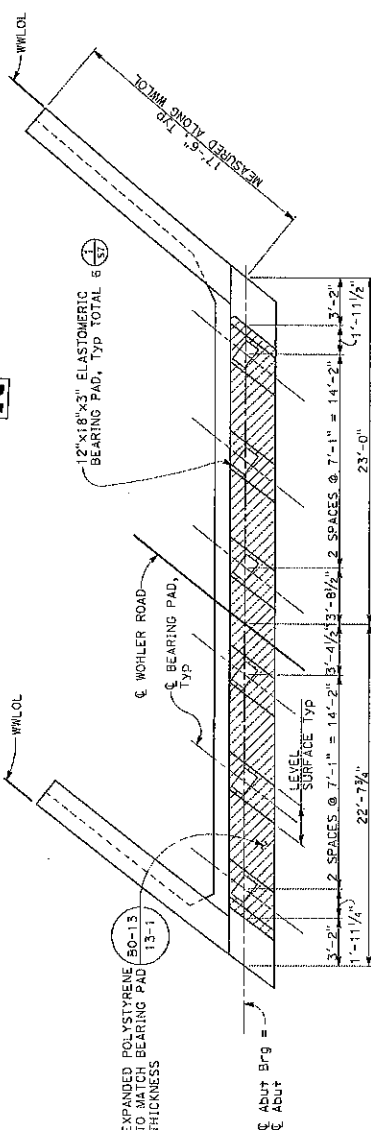
NOTE: See B6-21 for dimension "d".



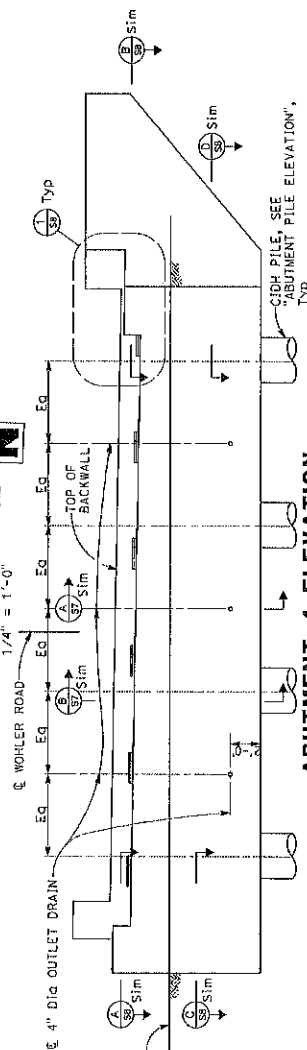
JOINT PROTECTION DETAIL 2
NO SCALE 56



ABUTMENT 4 PILE LAYOUT



ABUTMENT 4 PLAN



ABUTMENT 4 ELEVATION

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSAN R. KLASSEN, P.E. DIRECTOR



100

**RIGGS CARDOSA
ASSOCIATES INC**

888 The Alameda
San Jose, California 95126

INSTRUCTION COMPLETED:

BY	AP
BCA	
BCA	

"AS BUILT" INFORMATION: 7

DATE	35% SUBMITTAL	65% SUBMITTAL
03/12/14		
03/17/14		

PROFESSOR

EXP. 12/31/2009

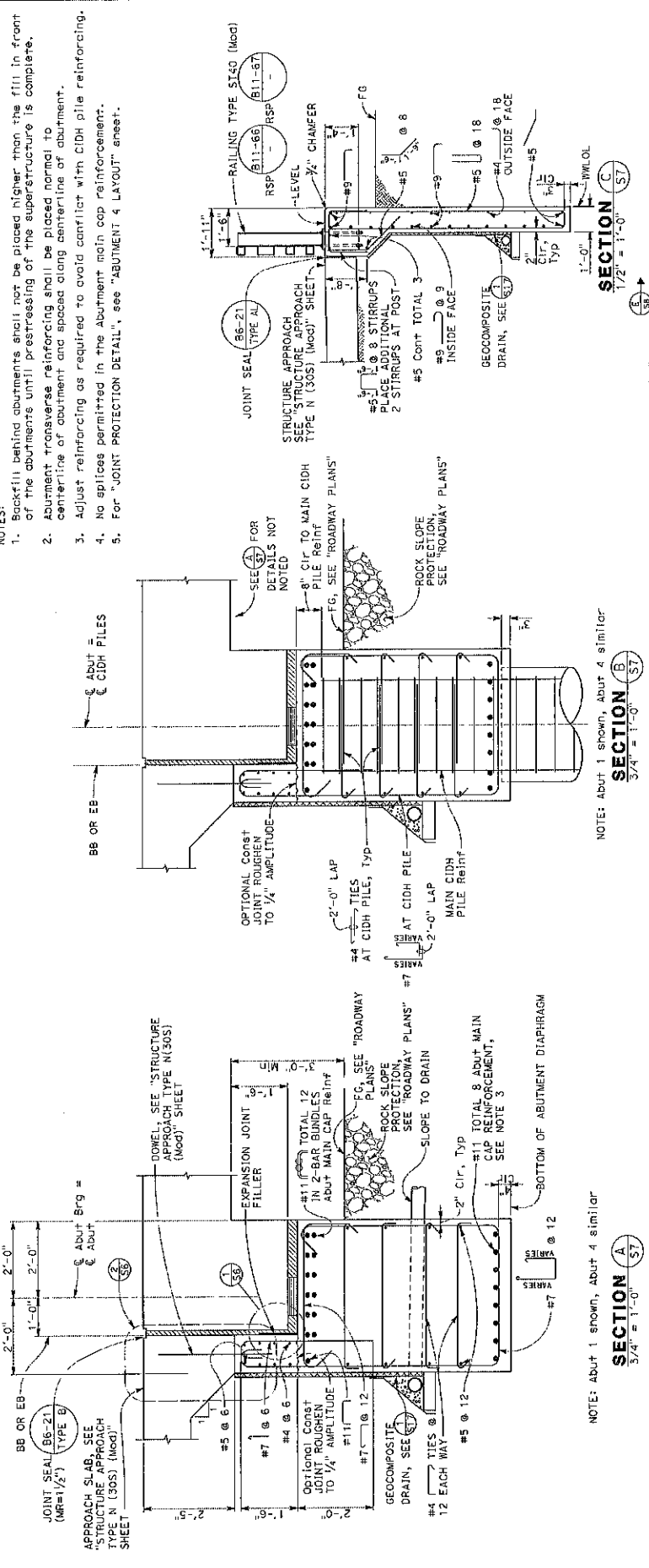
PLANS APPROVAL DATE

DESIGN BY	SEAL

191	181
181	171
171	161
161	151
151	141
141	131
131	121
121	111
111	101
101	91
91	81
81	71
71	61
61	51
51	41
41	31
31	21
21	11
11	01
01	00

NOTES:

1. Backfill behind abutments shall not be placed higher than the fill in front of the abutments until prestressing of the superstructure is complete.
2. Abutment transverse reinforcing shall be placed normal to centerline of abutment and spaced along centerline of abutment.
3. Adjust reinforcing as required to avoid conflict with CIDH pile reinforcing.
4. No splices permitted in the abutment main cap reinforcement.
5. For "JOINT PROTECTION DETAIL", see "ABUTMENT 4 LAYOUT" sheet.



PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

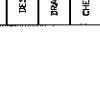
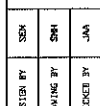
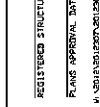
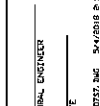
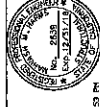
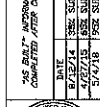
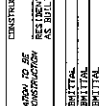
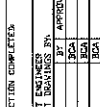
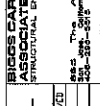
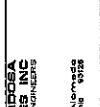
DESIGN BY	SEN	REGISTERED STRUCTURAL ENGINEER	DATE	5/4/2018 8:53 PM
DRAWING BY	SH	REGISTERED STRUCTURAL ENGINEER	DATE	5/4/2018 8:53 PM
CHECKER BY	JAN	REGISTERED STRUCTURAL ENGINEER	DATE	5/4/2018 8:53 PM
CONSTRUCTION COMPLETES	YES	NO	DATE	5/4/2018 8:53 PM
AS BUILT INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	YES	NO	DATE	5/4/2018 8:53 PM
REVISIONS	NO	YES	DATE	5/4/2018 8:53 PM
BY	SEN	DATE	5/4/2018 8:53 PM	
BY	SH	DATE	5/4/2018 8:53 PM	
BY	JAN	DATE	5/4/2018 8:53 PM	

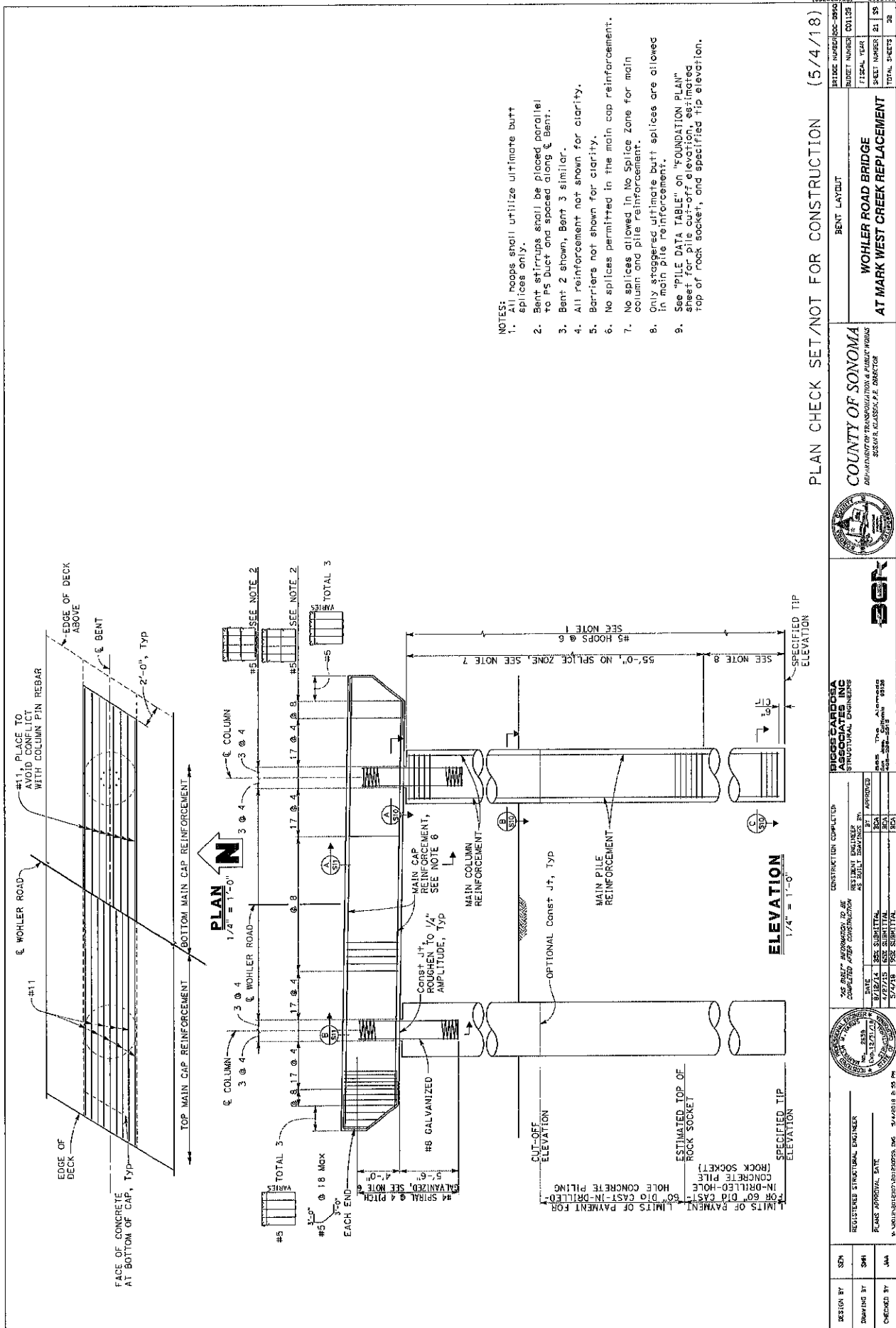
COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSANA KLASSEN, P.E. DIRECTOR

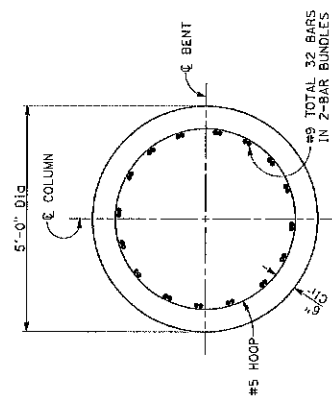
WOHLER ROAD BRIDGE
AT MARK WEST CREEK REPLACEMENT

ABUTMENT DETAILS No. 1

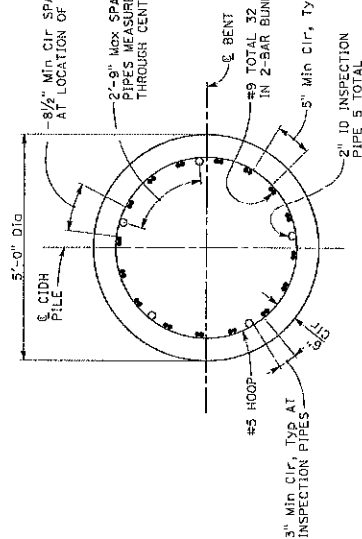
PROJECT NUMBER: 2018-0000-0000
FISCAL YEAR: 2018
SHEET NUMBER: 19
TOTAL SHEETS: 38





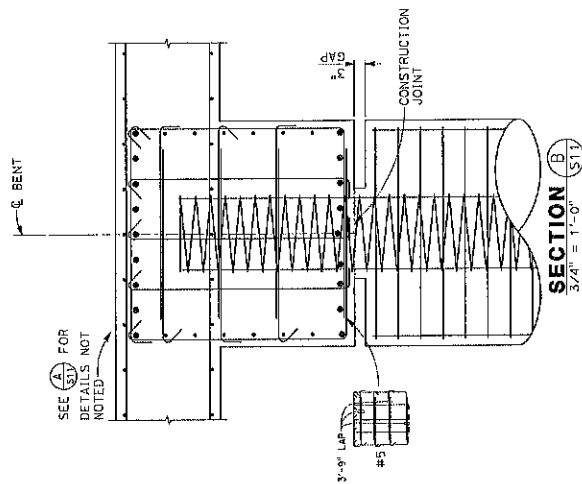


SECTION
 $\frac{3}{4}" = 1'-0"$ B S10



PLAN CHECK SET/NOT FOR CONSTRUCTION	(5/4/18)

DESIGN BY	SDM	DAVID M. WILLIAMS REGISTERED PROFESSIONAL ENGINEER NO. 1535 EXPIRES 12/31/16 CIVIL ENGINEERING STATE OF CALIFORNIA PLANS APPROVAL DATE: 4/27/15 1ST SUBMITTAL ERM 5/4/15 2ND SUBMITTAL ERM 5/4/15 3RD SUBMITTAL ERM W. WILLIAMS/ENGINEERING/2015.DWG 5/4/2015 @ 2:30 PM	YES BUILD INFORMATION TO BE CONVERTED AFTER CONSTRUCTION		YES BUILD DRAWING IN:		RESIDENT ENGINEER		CONSTRUCTION COMPLETED		Seal of the County of Sonoma COUNTY OF SONOMA DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS JONAS N. JOHNSON, P.E., DIRECTOR 409-299-6676 Seal of the County of Sonoma Seal of the County of Sonoma Seal of the County of Sonoma Seal of the County of Sonoma Seal of the County of Sonoma Seal of the County of Sonoma BIGGS CARROLLA ASSOCIATES INC STRUCTURAL ENGINEERS	BENT DETAILS No. 1		BRIDGE NUMBER: 00115		BRIDGE NAME: 00115		FISCAL YEAR		SHEET YEAR		SHEET NUMBER: 10		TOTAL SHEETS: 30	
DRAWING BY	SDM		DATE: 8/12/14	3RD SUBMITTAL	ERM	APPROVED: ERM	FISCAL YEAR		SHEET YEAR			SHEET NUMBER: 10		TOTAL SHEETS: 30											
CHECKED BY	JMA		PLANS APPROVAL DATE: 4/27/15	1ST SUBMITTAL	ERM	ERM	FISCAL YEAR		SHEET YEAR			SHEET NUMBER: 10		TOTAL SHEETS: 30											
			5/4/15	2ND SUBMITTAL	ERM	ERM	FISCAL YEAR		SHEET YEAR			SHEET NUMBER: 10		TOTAL SHEETS: 30											
			5/4/15	3RD SUBMITTAL	ERM	ERM	FISCAL YEAR		SHEET YEAR			SHEET NUMBER: 10		TOTAL SHEETS: 30											



SECTION
 $\frac{3}{4}" = 1'-0"$ A 511

SECTION
 $3/4" = 1'-0"$

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

[illegible]

**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

885 The Alameda
San Jose, California 95126
408-298-0318

DATE	BY	APPROVED
8/18/14	35% SUBMITTAL	BOA
8/27/15	65% SUBMITTAL	BOA
8/28/15	95% SUBMITTAL	BOA



REGISTERED STRUCTURAL ENGINEER

PLANS APPROVAL DATE

DESIGN BY	SEM
DRAWING BY	SEM
CHECKED BY	JAA

270 ksi Low Relaxation Strand:

$$\begin{aligned} P_{\text{Jack}} &= 6850 \text{ kips} \\ \text{Anchor set} &= \frac{3}{8} \text{ in} \end{aligned}$$

Concrete: $f'_c = 4.5$ ksi @ 28 days
 $f'_ci = 3.5$ ksi @ time of stressing

Contractor must submit elongation calculations based on initial stress at $\sigma = 0.875$ times lacking stress

☒ Denotes theoretical point of no movement:

One end stressing must be performed from about 1:

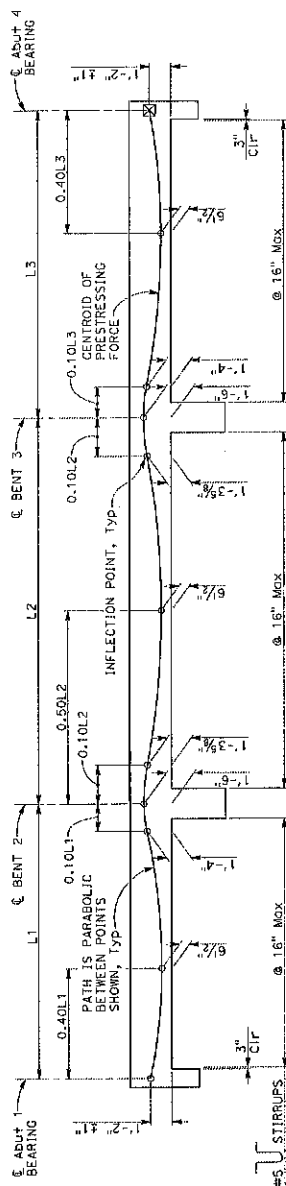
prestress force design is based on friction coefficient $\mu = 0.15$ and friction wobble coefficient $k = 0.0002/\text{ft}$.

Distribution of Prestress Force (P/ack): The prestressing force, P/ack, must be uniformly distributed across the slab. From no time during the prestressing operations will more than 7/16 of the prestressing force, P/ack, be applied eccentrically about the centreline of the structure. Bar reinforcement interfering with the prestressing duct alignment must be indicated, as approved by the Engineer.

The Contractor must submit working drawings to the Engineer for approval. The working drawings must include any additions or rearrangement of reinforcing steel from those shown on the Plans. Sufficient points must be shown on the working drawings to place ducts accurately.

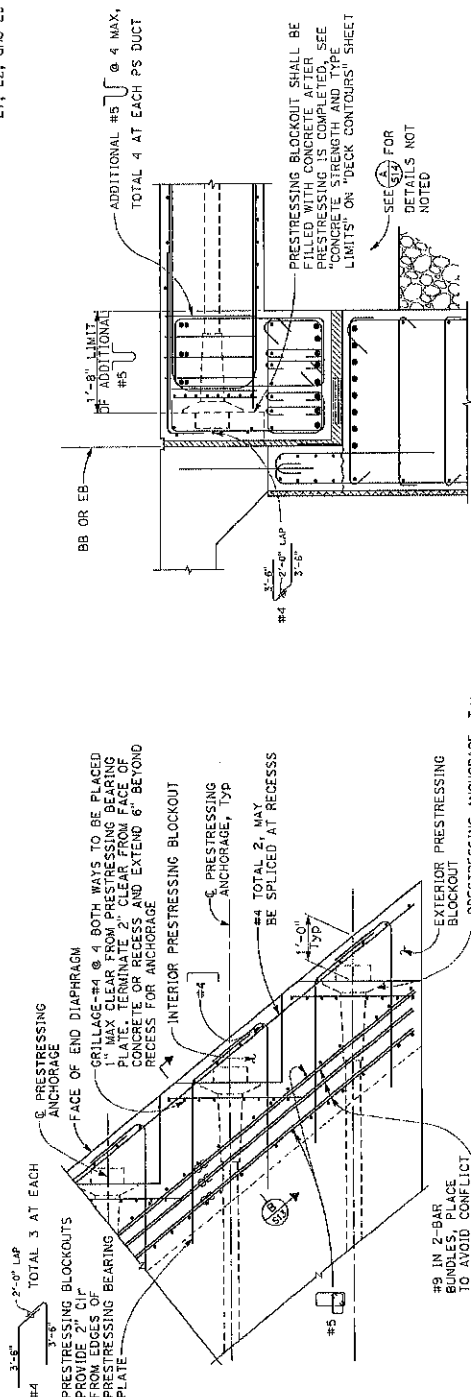
For grillage details, see $\frac{A}{512}$ and $\frac{6}{512}$.

L1, L2, and L3 are measured along the $\bar{c}$ of each PS duct.



LONGITUDINAL SECTION

NO SCALE



SECTION
3/4" = 1'-0"

SECTION 3/4" = 1'-0" B

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

COUNTY OF SONOMA

TYPICAL SECTION No. 2

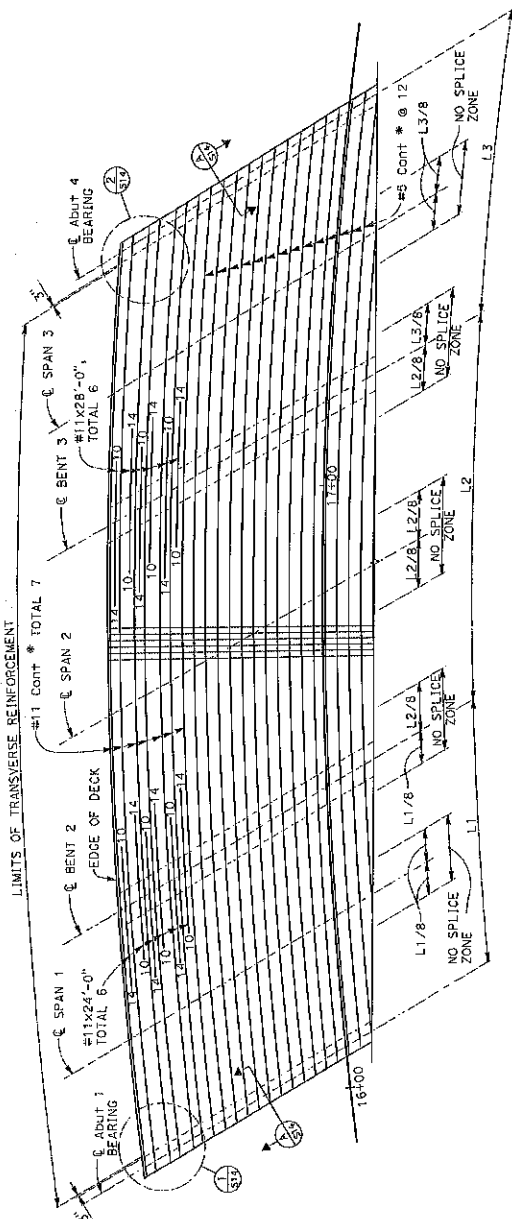
**WOHLER ROAD BRIDGE
OVER WEST CREEK REPLACEMENT**

012307	26	S13	
	SHEET NUMBER		
32	TOTAL SHEETS		
	FISCAL YEAR		
01135	BUDGET NUMBER		
0590	BRIEFING NUMBER		
201230			

DESIGN BY	SEA		CONSTRUCTION COMPLETED	BOGGS CARPDBA ASSOCIATES INC STRUCTURAL ENGINEERS 2605 The Alhambra 1400 S.W. 30th Avenue Miami, FL 33135
DRAWING BY	ENH		THE SHEET INFORMATION TO BE RELIANT AFTER CONSTRUCTION AS NOTED OTHERWISE BY _____ No. 7539	
CHECKED BY	JAA		REGISTERED STRUCTURAL ENGINEER PLANS APPROVAL DATE 4/27/15 06/17/2017	
DATE	JAA		DATE 4/27/15 06/17/2017	

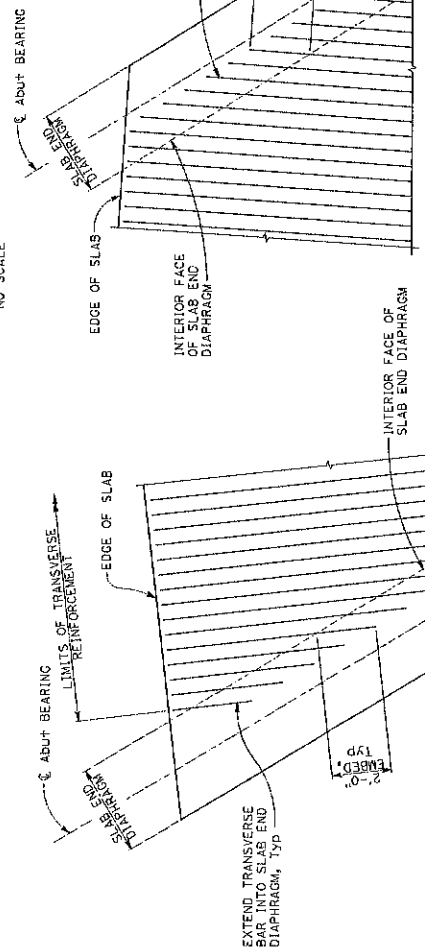
1. Number at ends of bar indicates distance in feet from C bent.

2. Reinforcement must be adjusted to avoid conflicts with prestressing ducts. Reinforcement may be bundled adjacent to prestressing ducts as required.
3. Cont reinforcement identified by * must be spliced with service splices outside the No Splice Zones. Lap splices shall be no more than 12" and the standard lap length may be used for reinforcement splices.
4. Reinforcement identified by # that are within 6'-6" of the Wöhler Road.
5. Embed transverse reinforcement 2 ft into slab and diaphragm, see $\frac{1}{4}$ and $\frac{1}{2}$.
6. Slab longitudinal reinforcement must be placed concentric to the Wöhler Road. Extend longitudinal reinforcement into the slab to the centerline of the road. Clear from the front face of diaphragm and 1" max air from prestressing blackout where occurs.
7. For "CAMBER DIAGRAM" and "CONCRETE STRENGTH AND TYPE LIMITS", see "DECK CONTOURS" sheet.
8. L1, L2, and L3 are measured along the line of each longitudinal reinforcement.



TOP SLAB REINFORCEMENT

NO SCALE

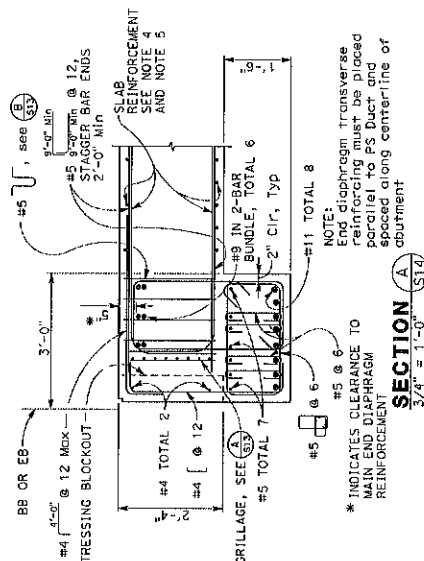


SECTION

NO SCALE

SECTION 2

NO SCALE



* INDICATES CLEARANCE TO MAIN END DIAPHRAGM REINFORCEMENT

SECTION A

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

**BIGGS CARPOSA
ASSOCIATES INC
STRUCTURAL ENGINEERS**

605 The Alameda
San Jose, California 95126
408-288-5375

DATE	BY	APPROVED BY
12/12/14	50% SUBMITTAL	PCA
1/27/15	65% SUBMITTAL	PCA
02/12/15	80% SUBMITTAL	PCA

DATE	35% SUBMITTAL	65% SUBMITTAL
3/12/14		
4/27/15		

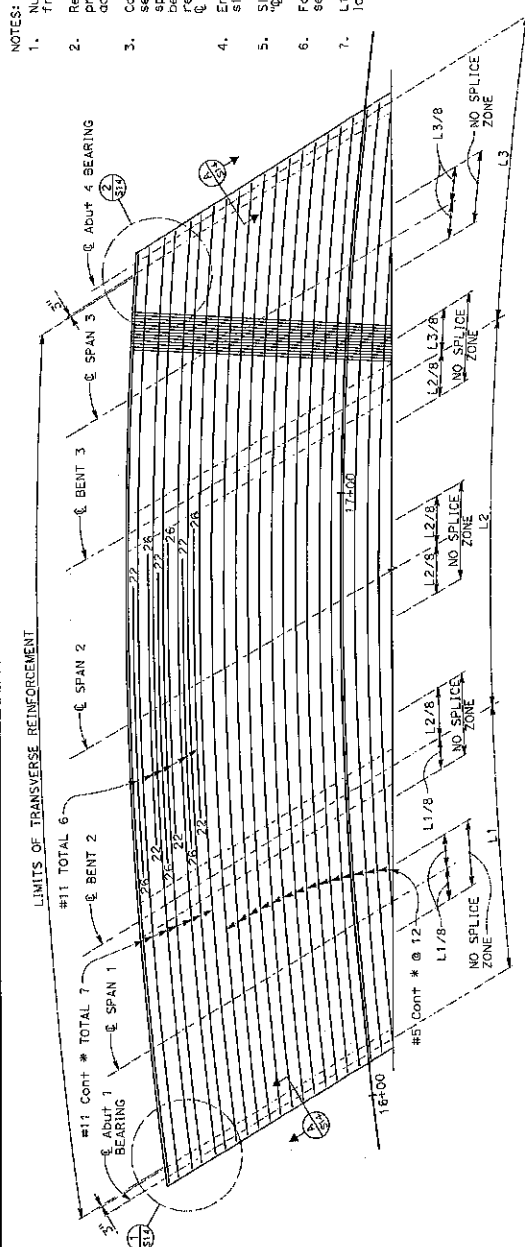


REGISTERED STRUCTURAL ENGINEER

PLANS APPROVAL DATE

DESIGN BY	SEM
DRAWING BY	SMH
CHECKED BY	JAA

DRAWING BY	SMH
CHECKED BY	JAA



BOTTOM SLAB REINFORCEMENT
NO SCALE

- NOTES:**
1. Number at ends of bars indicates distance in feet from ϕ span.
 2. Reinforcement may be adjusted to avoid conflicts with prestressing ducts. Reinforcement may be bundled adjacent to prestressing ducts as required.
 3. Cont reinforcement identified by * must be spliced with service splices outside the No Splice Zones. Lap splices to no more than 48" and lap length may be substituted for standard lap length for continuous reinforcement identified by * that are within 6'-6" of ϕ Wöhler Road.
 4. Embed transverse reinforcement 2 ft into slab end diaphragm, see (1) & (2).
 5. Slab longitudinal reinforcement must be placed concentric to "WOHLER ROAD".
 6. For "CAMBER DIAGRAM" and "CONCRETE STRENGTH AND TYPE LIMITS", see "DECK CONTOURS" sheet.
 7. L1, L2, and L3 are measured along the line of each longitudinal reinforcement.

DESIGN BY		SDM	PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)		SLAB DETAILS NO. 2		WAGE NUMBER: 000-000	015
DRAWING BY		SDH	COUNTY OF SONOMA		WOHLER ROAD BRIDGE		PROJECT NUMBER: 00112	016
CHECKED BY		JMA	DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS		AT MARK WEST CREEK REPLACEMENT		FISCAL YEAR	017
			RES. IN CHARGE: F.E. DIRECTOR				SHEET NUMBER: 27	018
							TOTAL SHEETS: 32	019

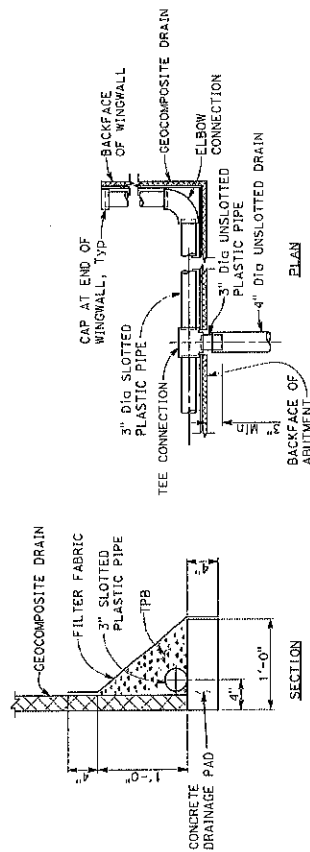


BIGGS CARDONA ASSOCIATES INC.
STRUCTURAL ENGINEERING
1000 S. 1st Avenue
San Jose, CA 95128
408-280-2000

AS BUILT INFORMATION TO BE COMPLETED AFTER CONSTRUCTION		CONSTRUCTION CHECKS	
DATE	RESIDENT ENGINEER'S AS BUILT DRAWING	DATE	RESIDENT ENGINEER'S AS BUILT DRAWING
8/18/18	SEA SUBMITTAL	8/18/18	SEA SUBMITTAL
4/27/18	SEA SUBMITTAL	4/27/18	SEA SUBMITTAL
5/4/18	SEA SUBMITTAL	5/4/18	SEA SUBMITTAL



REGISTERED STRUCTURAL ENGINEER
PLANS APPROVAL DATE
5/4/2018 5:00 PM



NOTE:
Geocomposite drain, treated permeable base, and 3" dia slotted plastic pipe continuous behind abutment and wingwalls. Cap ends of pipe. Provide Tee connection at each 4" dia drain.

DETAIL 1
NO SCALE S17

PLAN CHECK SET/NOT FOR CONSTRUCTION (5/4/18)

2012307	2012307	2012307	2012307
BRIDGE NUMBER	200-0590	BUDGET NUMBER	00135
FISCAL YEAR		SHEET NUMBER	29 317
		TOTAL SHEETS	32



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
SUSAN R. KLASSEN, P.E. DIRECTOR

**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

BOK

BOBBS The Alameda
San Jose, California 95126
408-256-3315

DATE	35X SUBMITTAL	BY	PCA
4/27/15	63X SUBMITTAL	BY	PCA
5/14/15	83X SUBMITTAL	BY	PCA

REGISTERED STRUCTURAL ENGINEER

PLANS APPROVAL DATE

NO. 7839
EXP. 12/31/15

PROFESSIONAL ENGINEER
KANSAS
STATE OF KANSAS

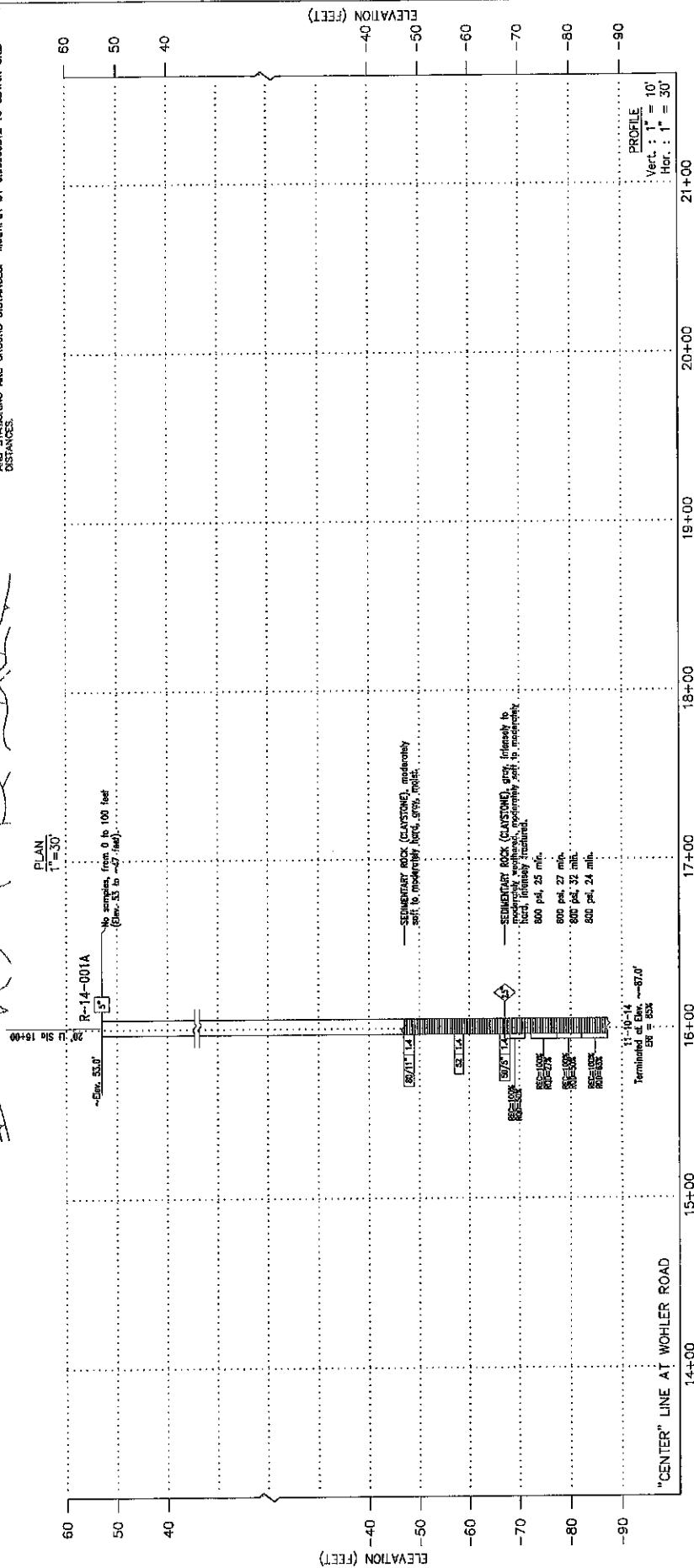
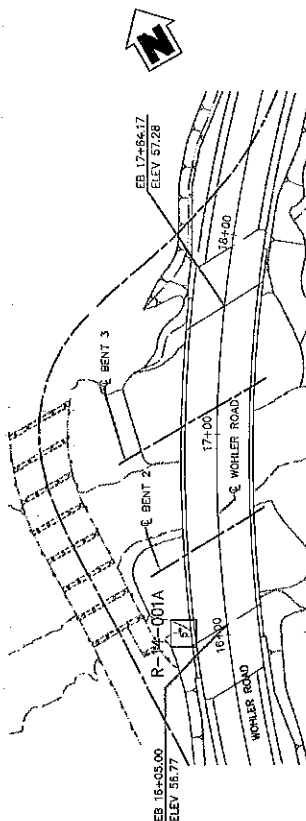
JWA	CHECKED BY
SHH	DRAWING BY
KSS	DESIGN BY

All dimensions are in feet unless otherwise shown.
Base map is provided by Biggs Cardosa Associates
Inc 2015.

MONUMENT	COORDINATES			BENCHMARK AND DATUM		DESCRIPTION, LOCATION
	NORTHING	EASTING	ELV (NAVD 83)			
2	1942444.58	530068.89	55.47			P.O.T. CORN IN CONCRETE (OLD BRIDGE ROAD)
20	1942710.4	530885.32	55.52			IN THE NORTH END OF WALKER ROAD BRIDGE
21	1942730.14	530903.57	55.52			WALKER ROAD AND PINEY ROAD
20	1942730.14	530903.57	55.52			WALKER ROAD AND PINEY ROAD
22	1943027.08	530877.54	51.89			WALKER ROAD
90001	1942028.21	530823.52	59.24			P.O.T. CORN IN SURVANT OF WALKER ROAD

BASIS OF BEARINGS:

CALIFORNIA COORDINATE SYSTEM OF 1963, ZONE 1 (BASED ON CALIFORNIA SURVEYING AND DRAFTING VNM, BASED ON CSRC CORP POSITIONS, EPOCH 2011.00). DISTANCE AND STATIONING ARE GROUND DISTANCES. MULTIPLY BY 0.99996312 TO OBTAIN GRID DISTANCES.



DESIGN BY	PM		CONSTRUCTION COMPLETE			COUNTY OF SONOMA DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS FILE # 14-10-000001, DIRECTOR	LOG OF TEST BORINGS 2 OF 2
DRAWING BY	KO		"AS BUILT" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	3500 BAY BLVD, SUITE A SAN JOSE, CA 95131	WOLLER ROAD BRIDGE AT MARK WEST CREEK (REPLACE)		
DATE	05/04/18		SUBMITTAL 6/17/14 4/27/15 6/17/15	SHIGER CARRUTHERS ASSOCIATES INC 1000 UNIVERSITY AVENUE SUITE 200 SAN JOSE, CA 95128	ROAD NUMBER 200-0131 SHEET NUMBER 001133 TOTAL SHEETS 32 OF 32		
PLANS APPROVAL DATE							

HYDROLOGIC SUMMARY
(PROVIDED BY AVILA ASSOCIATES)

Drainage Area: 254 square miles
Frequency (years): 50
DESIGN FLOOD BASE FLOOD OVERTOPPING

Water surface Elevation at
Frequency (years)
Discharge (cfs)
Flood Plain Data are based
on water surface elevations
were prepared and are shown
for information is not
affected parties should be

NOTES:

- Utilities shown are for
utility locations and with
abandoned, etc., with R
For property delineation

LEGEND:

- Indicates Bottom of Abutment Diaphragm Elevation
- Indicates Existing Pile
- Indicates Direction of Creek Flow

FOUNDATION PLAN

1" = 20'

CONSTRUCTION SEASON ONE:
CONSTRUCT BENT PILES AND
COLUMNS, AND ABUTMENT
PILES AND WALLS

**ESTIMATED LOW FLOW
WATER EXTENTS**

EXIST' POWER POLE
EXIST' WATER LINE
EXIST' OVERHEAD
ELECTRICAL LINE
EXIST' WOHLER ROAD
BRIDGE SUPPORTS
TO BE REMOVED

**VEGETATION
REMOVAL AREA, TYP**

K-RAIL WALL, TYP

CRANE

**CRANES AT TOP OF
SOUTH BANK**

**CRANES AT BENCH
IN NORTH BANK**

ACCESS ROAD

**MARK WEST
CREEK**

CURVE DATA
WOHLER ROAD
R = 41°06'43"
Δ = 271°18'
L = 520.21'

Sta. 16+00.00
Sta. 17+14.00
Sta. 17+62.90
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THIS APPROACH REQUIRES:

1. CUT BENCH IN NORTH CREEK BANK
2. LONGER THAN STANDARD FALSEWORK, HUNG FROM COLUMNS (L = 45' - 64' ±)

1. CONSTRUCT K-RAIL BERMS
2. PUMP WATER FROM PILE AREA, AS NEEDED
3. CUT CREEK BANK BENCH AND SET UP CRANE(S)
4. CONSTRUCT PILE SHAFTS UNDER SLURRY, WITH TEMPORARY CASING
5. TEST AND REAIR PILES AS NEEDED
6. CONSTRUCT COLUMNS AT EACH BENT
7. MOVE CRANES AND CONSTRUCT ABUTMENT PILES, TEST AND REPAIR PILES AS NEEDED.
8. CONSTRUCT ABUTMENT WALLS.
9. IN SEASON TWO, FALSEWORK WOULD BE HUNG FROM THE SUBSTRUCTURE FOR SUPERSTRUCTURE CONSTRUCTION.

Location	Excavate or Fill	Material	Impact Area				Fill Below OHW/TOB
			Temporary/permanent	Square Feet	Acres	Average Depth (FT)	
SEASON 1							
DEWATERING							
Mark West Creek Channel	N/A	N/A	Temporary, 69 LF	720	0.017	N/A	N/A
Dewatering Area	N/A	N/A	Temporary	1,000	0.023	N/A	N/A
NORTH BANK							
Bent Columns (2)	Fill	Concrete	Permanent	40	0.001	21	31
Abutment 4	Excavation	Soils	Temporary	183	0.004	7	85
Abutment 4	Fill	Concrete	Permanent	183	0.004	7	85
Access Road	Excavate	Soils	Temporary	2,500	0.057	3	300
Crate Areas	Excavate	Soils	Temporary	5,200	0.119	5	1,100
Vegetation Removal	N/A	Trees and Shrubs	N/A	7,700	0.177	N/A	N/A
SOUTH BANK							
Bent Columns (2)	Fill	Concrete	Permanent	40	0.001	20	31
Abutment 1	Excavation	Soils	Temporary	159	0.004	4	24
Abutment 1	Fill	Concrete	Permanent	159	0.004	4	24
Access Road	Excavate	Soils	Temporary	3,300	0.076	4	300
Crate Areas	Excavate	Soils	Temporary	4,800	0.110	5	900
Vegetation Removal	N/A	Trees and Shrubs	N/A	9,200	0.211	N/A	N/A

INSTRUCTION (4/27/15)

...	INDEX NUMBER	200-0139
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PLAN	BUDGET NUMBER	C01135
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BRIDGE	FISCAL YEAR	

BOOK (REPLACE)

2		
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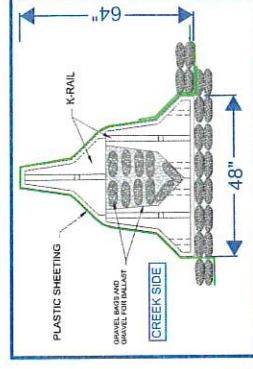
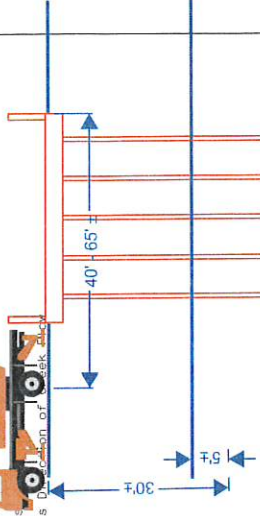
CONSTRUCTION SEASON TWO: HANG FALSEWORK, CONSTRUCT BRIDGE SUPERSTRUCTURE AND ROADWAY APPROACHES AND REMOVE EXISTING BRIDGE.

Drainage Area: _____
Frequency (yrs): _____
Discharge (cfs): _____
Water surface Elevation at Bridge (ft): 75.5 76.5 60.0
Flood Plain Data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the County and interested or affected parties should make their own investigations.

- NOTES:
- Utilities shown are for illustrative purposes only. Verify utility locations and depths. They may be relocated, abandoned, etc., with Road Plans.
 - For property delineations and descriptions, see Road Plans.

LEGEND:

- Indicates Bottom of Present Diaphragm Elevation
- Indicates
- Indicates
- Indicates

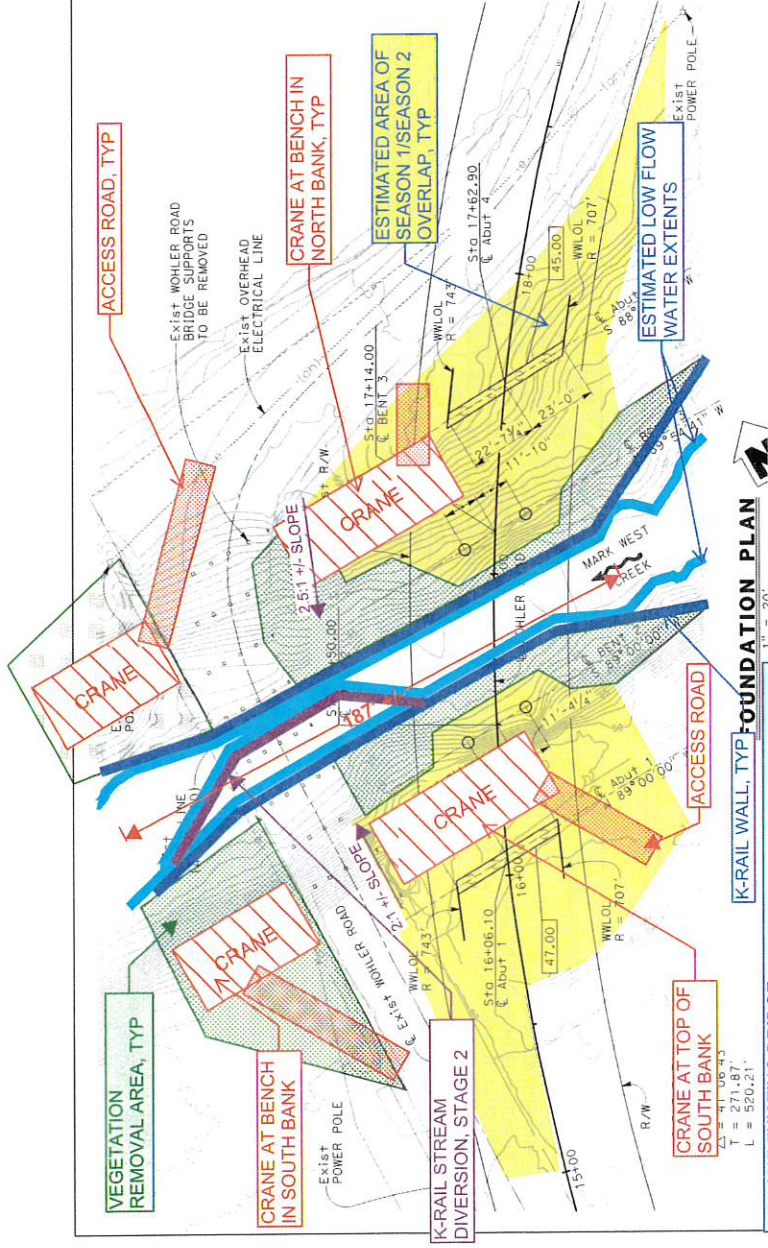


FOR CONSTRUCTION (4/27/15)

FOUNDATION PLAN

WOHLER ROAD BRIDGE
MARK WEST CREEK (REPLACE)

PROJECT NUMBER	001135
FISCAL YEAR	16
SHEET NUMBER	34
TOTAL SHEETS	38



K-RAIL WALL, TYP FOUNDATION PLAN

REMOVE EXISTING BRIDGE
STAGE #2 (2ND CONSTRUCTION SEASON): DEWATER AT
EXISTING BRIDGE PIERS:

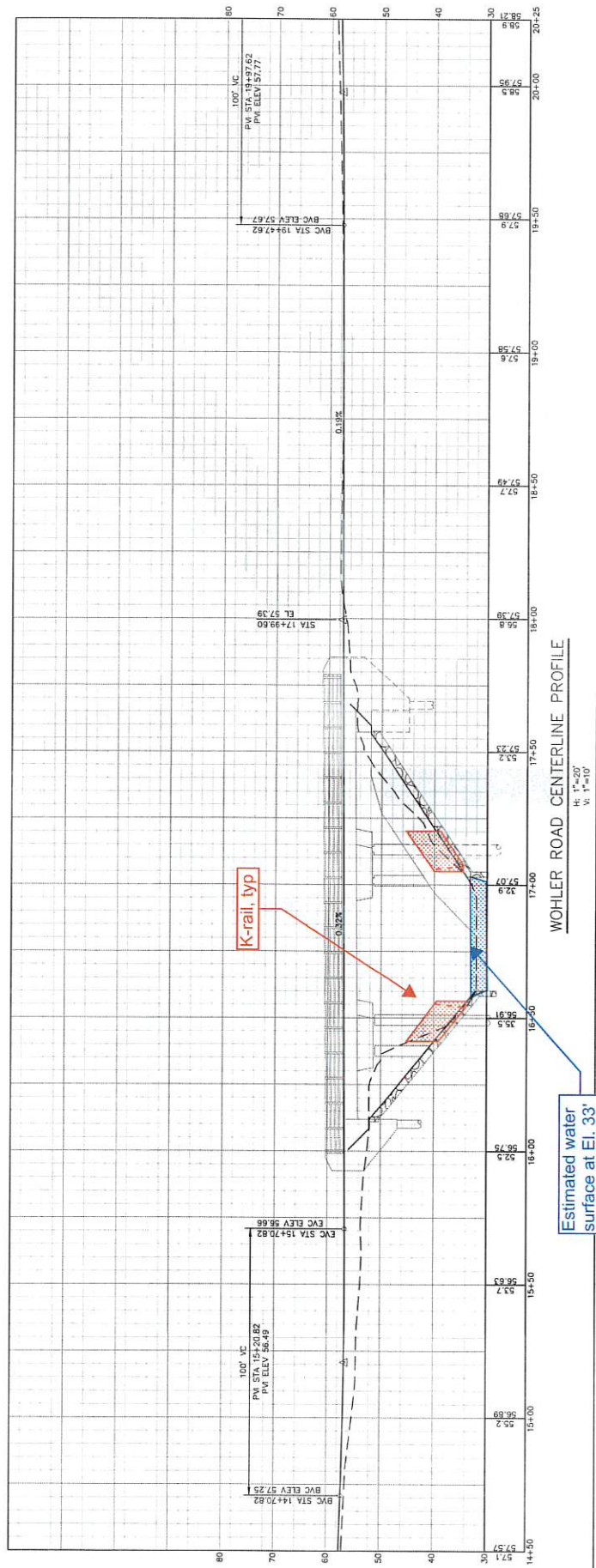
THIS APPROACH REQUIRES:

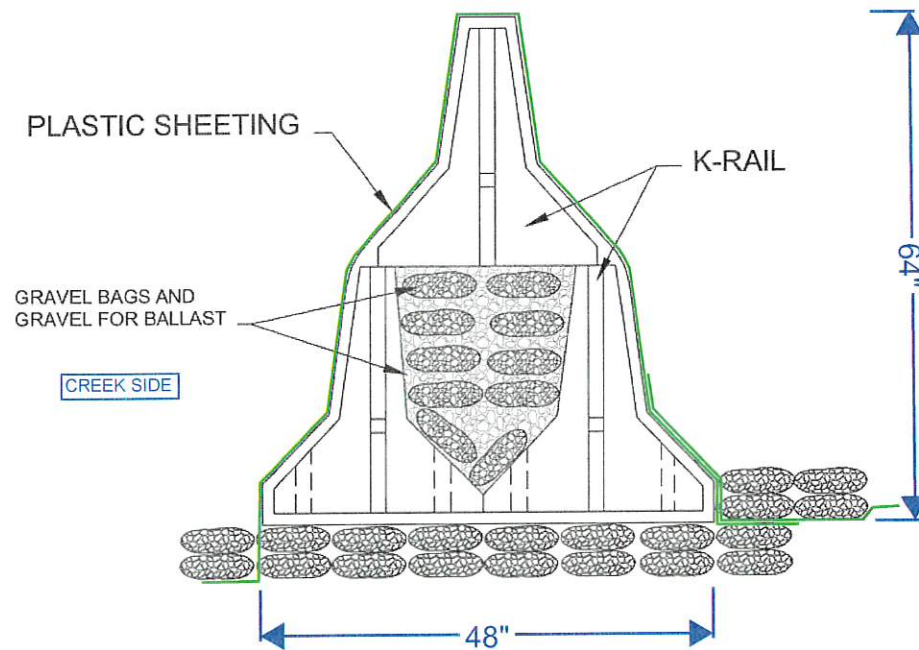
- CUT BENCH IN NORTH CREEK BANK
- MAY REQUIRE ADDITIONAL BENCHES ON WEST SIDE OF EXIST BRIDGE TO REACH ALL PILES

CONSTRUCTION STEPS:

- CONSTRUCT K-RAIL BERMS
- CUT CREEK BANK BENCHES AS NEEDED, SET UP CRANE(S)
- HANG FALSEWORK FROM BRIDGE SUBSTRUCTURE AND CONSTRUCT SUPERSTRUCTURE
- COMPLETE NEW BRIDGE AND ROADWAY APPROACHES
- PLACE ROCK SLOPE PROTECTION
- COVER FLOWING WATER AND CREEK BANKS AT EXISTING BRIDGE TO CAPTURE DEBRIS
- REMOVE EXISTING BRIDGE DECK AND BENT CAPS
- PUMP WATER AT EXISTING PILES, AS NEEDED
- CUT EXISTING PIERS/PILE EXTENSIONS DOWN TO 5' BELOW GRADE (BELOW EST. SCOUR)
- REALIGN END OF K-RAIL TO ISOLATE EXISTING PIER IN CENTER OF CREEK.
- CUT EXISTING CENTER PIER/PILE EXTENSIONS DOWN TO 5' BELOW GRADE.

Location	Excavate or Fill	Material	Impact Area		Fill Below OHW/TOB	
			Temporary/permane	Square Feet	Average Depth (FT)	Volume (CY)
DEWATERING						
Mark West Creek Channel	N/A	N/A	Temporary, 187 LF	3,480	N/A	N/A
K-Rail (Linear Feet)	N/A	N/A	Temporary	7,050	N/A	N/A
Dewatering Area	N/A	N/A				
NORTH BANK						
Rock Slope Protection	Fill	Rock (1/4 Ton)	Permanent	5,750	0.132	320
Access Roads	Excavation	Soils	Temporary	2,700	0.062	5
Crane Areas	Excavation	Soils	Temporary	9,000	0.207	6
Vegetation Removal	N/A	Trees and Shrubs	N/A	5,700	0.131	N/A
Overlap with Season 1	N/A	N/A	N/A	7,700	0.177	N/A
SOUTH BANK						
Rock Slope Protection	Fill	Rock (1/4 Ton)	Permanent	4,500	0.103	250
Access Roads	Excavate	Soils	Temporary	2,500	0.057	4
Crane Areas	N/A	N/A	Temporary	7,300	0.168	6
Vegetation Removal	N/A	Trees and Shrubs	N/A	5,300	0.122	N/A
Overlap with Season 1	N/A	N/A	N/A	9,200	0.211	N/A
EXISTING BRIDGE REMOVAL						
Existing Abutment Removal	Excavation	Soils	Temporary	410	0.009	4
Existing Abutment Removal	Fill	Soils	Permanent	240	0.006	5
Existing Bent Removal	Excavation	Soils	Temporary	2,520	0.058	5
Existing Bent Removal	Fill	Soils	Permanent	24	0.001	5





**K-Rail Isolation
Figure 2**

Attachment 1**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
CALIFORNIA ENDANGERED SPECIES ACT****INCIDENTAL TAKE PERMIT NO. 2081-2018-007-03****PERMITTEE: Sonoma County Department of Transportation and
Public Works****PROJECT: Little Wohler Bridge Replacement Project****PURPOSE OF THE MMRP**

The purpose of the MMRP is to ensure that the impact minimization and mitigation measures required by the California Department of Fish and Wildlife (CDFW) for the above-referenced Project are properly implemented, and thereby to ensure compliance with section 2081(b) of the Fish and Game Code and section 21081.6 of the Public Resources Code. A table summarizing the mitigation measures required by CDFW is attached. This table is a tool for use in monitoring and reporting on implementation of mitigation measures, but the descriptions in the table do not supersede the mitigation measures set forth in the California Incidental Take Permit (ITP) and in attachments to the ITP, and the omission of a permit requirement from the attached table does not relieve the Permittee of the obligation to ensure the requirement is performed.

OBLIGATIONS OF PERMITTEE

Mitigation measures must be implemented within the time periods indicated in the table that appears below. Permittee has the primary responsibility for monitoring compliance with all mitigation measures and for reporting to CDFW on the progress in implementing those measures. These monitoring and reporting requirements are set forth in the ITP itself and are summarized at the front of the attached table.

VERIFICATION OF COMPLIANCE, EFFECTIVENESS

CDFW may, at its sole discretion, verify compliance with any mitigation measure or independently assess the effectiveness of any mitigation measure.

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Source, Implementation Schedule, Responsible Party, and Status/Date/Initials. The Mitigation Measure column summarizes the mitigation requirements of the ITP. The Source column identifies the ITP condition that sets forth the mitigation measure. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure. The Status/Date/Initials column shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report, and must identify the implementation status of each mitigation measure, the date that status was determined, and the initials of the person determining the status.

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEFORE DISTURBING SOIL OR VEGETATION					
1	Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP. Permittee shall obtain CDFW approval of the Designated Biologist in writing before starting Covered Activities, and shall also obtain approval in advance in writing if the Designated Biologist must be changed.	ITP Condition # 6.1	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
2	Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a biological monitor (Designated Biologist) at least 30 days before starting Covered Activities. Permittee shall ensure that the Designated Biologist is knowledgeable and experienced in the biology, natural history, including collecting and handling of the Covered Species. The Designated Biologist shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered.	ITP Condition # 6.2	Before commencing ground- or vegetation-disturbing activities	Permittee	
3	Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees that will be conducting work in the Project Area.	ITP Condition # 6.4	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
4	Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at least once a week to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.	ITP Condition # 6.6	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
5	Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.	ITP Condition # 6.7	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
6	Before starting Covered Activities, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities in that area.	ITP Condition # 6.9	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
7	Permittee shall clearly delineate habitat of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.	ITP Condition # 6.10	Before commencing ground- or vegetation-disturbing activities/ Entire Project	Permittee	
8	The Designated Representative shall notify CDFW 14 calendar days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.	ITP Condition # 7.1	Before commencing ground- or vegetation-disturbing activities	Permittee	
9	CDFW has determined that habitat restoration, enhancement and long-term management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result with implementation of the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation. To meet this requirement, the Permittee shall restore approximately 15,000 square feet of temporary riparian habitat disturbance on-site, enhance and restore approximately 22,500 square feet of riparian habitat on-site that is contiguous with other Covered Species habitat adjacent to the Project site, restore 30 square feet of creek channel, and install a Covered Species Rootwad Habitat Feature, and manage the Habitat Management (HM) pursuant to Conditions of Approval 9.1 and 9.2 below. Long-term funding for monitoring and management of created Covered Species habitat must be complete before starting Covered Activities or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 10 below for all uncompleted obligations. 1. <u>Cost Estimates.</u> CDFW has estimated the cost of habitat creation, restoration, enhancement, and interim management of riparian vegetation enhancement and restoration as follows: i) Habitat improvement costs for restoration of 30 square feet of creek channel, estimated at \$55,000. ii) Habitat restoration and enhancement costs for a total of 37,500 square feet of riparian habitat, and habitat creation costs for a large rootwad habitat feature, estimated at \$56,902.50. iii) Long-term management funding as described in Condition of Approval 9.2, estimated at \$144,500. Management funding is estimated initially for the purpose of providing Security to ensure implementation of habitat creation, restoration, monitoring and management.	ITP Condition # 9.1	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
10	The Permittee shall prepare a Habitat Enhancement and Long-Term Management Plan (Plan) for CDFW review and acceptance within 60 days of finalizing this ITP. The Plan shall outline restoration of approximately 15,000 square feet of temporary riparian habitat disturbance, enhancement and restoration of approximately 22,500 square feet of riparian habitat on-site that is contiguous with other Covered Species habitat adjacent to the Project site, restoration of 30 square feet of creek channel and installation of a Covered Species Rootwad Habitat Feature. The Plan shall include detailed specifications for restoring all temporarily disturbed areas and a minimum of ten years monitoring unless otherwise approved by CDFW. The Plan shall include a description of how all future management of the project area shall be conducted to enhance existing habitat: I. Construction level designs for the Covered Species Rootwad Habitat feature to be located along the downstream left bank of the Project Area. The feature will be composed of a single large rootwad keyed into the rock slope protection to establish habitat complexity and refuge for juvenile and migrating salmonids. II. Detailed Riparian Restoration Planting Plan including a map to scale, installation specifications for RSP pole plantings, seed mixes and application methods, species, quantity, size, and spacing. A 10-year Long-Term Management Plan to ensure the long-term viability of the on-site mitigation, which includes a description of how all future management of the riparian enhancement and restoration will be conducted to enhance and maintain habitat for the benefit of the Covered Species. At a minimum, the Plan shall record annually: a) location and alignment of the habitat feature, b) density of plantings, c) dated photographs, d) survival of riparian restoration plantings, e) vegetation viability with success criteria, and g) recommendations for on-going adaptive management of the habitat feature and vegetation.	ITP Condition # 9.2	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
11	The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 9 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows: 1. <u>Security Amount.</u> The Security shall be in the amount of \$256,402.50. This amount is based on the cost estimates identified in Condition of Approval 9.1 above. 2. <u>Security Form.</u> The Security shall be in the form of an irrevocable letter of credit (see Attachment 2) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel. 3. <u>Security Timeline.</u> The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first. 4. <u>Security Holder.</u> The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW. 5. <u>Security Transmittal.</u> If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see Attachment 3) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other. 6. <u>Security Drawing.</u> The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP. 7. <u>Security Release.</u> The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by: Timely submission of all required reports.	ITP Condition # 10	Before commencing ground- or vegetation-disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
	DURING CONSTRUCTION				
12	The Designated Biologist shall be on-site daily when Covered Activities occur. The Designated Biologist shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist shall prepare daily written observation and inspection records summarizing: oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by this ITP. The Designated Biologist shall conduct compliance inspections a minimum of once a week during periods of inactivity and after de-watering and riparian vegetation removal are completed.	ITP Condition # 7.3	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
13	The Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 7.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of this ITP's approval, the CDFW Regional Representative is James Hansen (James.Hansen@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.	ITP Condition # 7.4	Entire Project	Permittee	
14	Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 7.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.	ITP Condition # 7.5	Entire Project	Permittee	
15	The Designated Biologist shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDDB) within 60 calendar days of the observation and the Designated Biologist shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first relative to the observation.	ITP Condition # 7.6	Entire Project	Permittee	
16	The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW within 24 hours.	ITP Condition # 7.2	Entire Project	Permittee	
17	The Designated Biologist shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.	ITP Condition # 6.5	Entire Project	Permittee	
18	Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.	ITP Condition # 6.8	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
19	Project-related personnel shall access the Project Area using existing routes, or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.	ITP Condition # 6.11	Entire Project	Permittee	
20	Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 6.11 of this ITP.	ITP Condition # 6.12	Entire Project	Permittee	
21	Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.	ITP Condition # 6.13	Entire Project	Permittee	
22	Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.	ITP Condition # 6.14	Entire Project	Permittee	
23	Permittee shall conduct Covered Activities between June 15 and October 15 of any year.	ITP Condition # 8.1	Entire Project	Permittee	
24	Work within the Project Area shall be confined to the period of June 15 to October 15. Any extension of the work period will require an amendment to this ITP. The amendment request for a work period extension shall: 1) describe the extent of work already completed; 2) detail the activities that remain to be completed; 3) detail the time required to complete each of the remaining activities; 4) provide photographs of both the current work completed and the proposed site for continued work; and 5) include an assessment of the impacts of the work extension of Covered Species.	ITP Condition # 8.2	Entire Project	Permittee	
25	All in-water work within Mark West Creek shall be conducted inside cofferdams or leak proof K-rails and in isolation from flowing water.	ITP Condition # 8.3	Entire Project	Permittee	
26	All Covered Species habitat enhancement work shall be completed according to 'construction ready' plans, Wohler Road Bridge at Mark West Creek Replacement, prepared by Biggs Cardosa Associates INC., dated May 2018 (Figure 2); Dewatering Plan Figures prepared by Sonoma County DTPW, dated April 2018 (Figure 3); and Environmental Exhibit, prepared by BKF Engineers, dated April 2018 (Figure 4), where further detailed plans shall be reviewed and accepted by CDFW within 60 days of final ITP issuance. The Permittee shall notify CDFW if modifications are made to any Attachment listed in this ITP prior to construction. At the discretion of CDFW, minor plan modifications may require an amendment to this ITP.	ITP Condition # 8.4	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
27	Permittee shall minimize the potential for Covered Species to be entrained during de-watering activities. The Permittee shall implement the use of a screen in accordance with the National Marine Fisheries Service 1996 Juvenile Fish Screen Criteria for Pump Intakes. Screen material may be constructed of any rigid woven, perforated, or slotted material that provides water passage while physically excluding fish. Round openings in the screen shall not exceed 3/32-inch diameter, square openings shall not exceed 3/32-inch measured diagonally, and slotted openings shall not exceed 0.069 inches in width. Approach velocity shall not exceed 0.33 feet per second.	ITP Condition # 8.5	Entire Project	Permittee	
28	The Permittee shall implement a detailed Dewatering and Covered Species Rescue Plan to include, at a minimum, the following measures: a) Only a CDFW-approved biologist with experience in Covered Species capture and handling shall participate in the capture, handling, and monitoring of Covered Species. b) Relocation activities shall be performed during the morning when temperatures are coolest. Hourly air and water temperatures shall be measured and recorded. c) Before removal and relocation of Covered Species, the Designated Biologist shall identify the most appropriate release location(s). Release locations shall provide suitable habitat for Covered Species and shall be selected to minimize the likelihood of reentering the work area. Suitable habitat is defined as creek sections that will remain wet over the summer. d) Following installation of water diversion structures, and prior to Project activities, a CDFW-approved biologist shall perform surveys for Covered Species in the Project Area, collect, and relocate them to the nearest predetermined suitable habitat. During holding and transportation, Covered Species shall be held in stream water collected from the site. e) Prior to fully dewatering the Project Area, remaining Covered Species in the work area shall be rescued. Dewatering efforts shall be monitored by the Designated Biologist at all times. The Designated Biologist shall reduce the rate of diversion if it appears that Covered Species may be stranded. f) Efforts shall be made to reduce collecting and handling stress, minimize the time that Covered Species are held in buckets, and minimize handling stress during processing and release. Covered Species shall not be held in containers with other species. If not immediately released, buckets must be kept in the shade and water temperatures monitored to be consistent with the temperature in the creek. Immediately after collection, Covered Species shall be identified and counted. Capture methods may include dip nets. All nets shall be made of a soft braded nylon material that is non-abrasive. Mesh sizing shall be matched to species and the life stages likely encountered.	ITP Condition # 8.6	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
	g) No employee or contractor shall remove any Covered Species, dead or alive, from the site for personal use. All efforts to reduce the time that live Covered Species are out of the water shall be made to reduce the chances of incidental take during the rescue. All Covered Species are to be promptly returned to the water with the exception of mortality. h) Covered Species shall be processed first and released as soon as possible. Species name and length data will be recorded on data sheets, as well as time, date, location, gear type, water temperature, and any other pertinent observations of the Covered Species. i) Rescue operations may result in Covered Species mortality. If Covered Species suffer mortality, the Permittee shall preserve individuals by freezing or placing in a sealed container with 10 percent formalin solution. Information on time and exact location of any incidental take, method of take, length of time from death to preservation, water temperature, and any other relevant information will be recorded in writing. Permittee shall contact the CDFW regional representative for instructions on transmitting preserved individuals. j) After completing the rescue, a brief documentation report shall be prepared. The report shall include information on the personnel conducting the Covered Species rescue, methods used, numbers of Covered Species collected and relocated, length data, and estimate of the survival of Covered Species immediately after release. Photographs of the site and rescue operations shall be included. Any take of non-Covered Species shall be documented. The report shall be provided by the Permittee to CDFW in the next Quarterly Compliance Report required by Condition of Approval 7.4. k) After the Covered Species rescue effort is completed, if additional Covered Species are observed, Project activities shall cease until those individuals have been relocated. The Designated Biologist shall remain at the site during dewatering to rescue additional Covered Species as necessary. l) Reintroduction of stream flows shall be gradual to the isolated work area, so as to prevent stranding, channel instability, or excessive scour. The Designated Biologist shall monitor upstream and downstream reaches to ensure no Covered Species are stranded or in distress during reintroduction of flows. If conditions causing or contributing to stress and/or injury are observed, the Permittee shall take immediate remedial actions directed at lessening sources of stress. This may include a more gradual reintroduction of flows, to avoid abrupt water surface elevation changes both downstream and upstream of the Project Area.				
29	Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (707) 428-2002. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.	ITP Condition # 7.8	Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
30	To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologist shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species in consultation with CDFW.	ITP Condition # 6.3	Entire Project	CDFW	
POST-CONSTRUCTION					
31	Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.	ITP Condition # 6.15	Post-construction	Permittee	
32	No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.	ITP Condition # 7.7	Post-construction and after completion of mitigation	Permittee	
45	CDFW accepts the Final Mitigation Report as complete.		Post-construction	CDFW	

IRREVOCABLE STANDBY LETTER OF CREDIT
NO. [*Number issued by financial institution*]

Issue Date: [*date*]

Beneficiary:

California Department of Fish and Wildlife
Post Office Box 944209
Sacramento, CA 94244-2090
Attn: HCPB Mitigation Account Coordinator

Amount: U.S. \$[*dollar number*] [(*dollar amount*)]

Expiry: [*Date*] at our counters

Dear Sirs:

1. At the request and on the instruction of our customer, [*name of applicant*] ("Applicant"), we, [*Name of financial institution*] ("Issuer"), hereby establish in favor of the beneficiary, the California Department of Fish and Wildlife ("CDFW"), this irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$[*dollar number*] [(*dollar amount*)] ("Principal Sum").
2. We are informed this Credit is and has been established for the benefit of the CDFW pursuant to the terms of the incidental take permit for the [*name of project*] issued by the CDFW to the Applicant on [*date*] (No. [*number*]) ("Permit").
3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions [*numbers*] in the Permit ("Mitigation Requirements").
4. We are finally informed that this Credit is intended by the CDFW and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
5. The CDFW shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A, which is attached hereto, at our office located at [*name and address of financial institution*].
6. The Certificate shall be completed and signed by an "Authorized Representative" of the CDFW as defined in paragraph 12 below. Presentation by the CDFW of a completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.
7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to the CDFW, or to the account of the CDFW, in immediately available funds, as the CDFW shall specify.

8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give the CDFW prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
9. Upon being notified that the demand for payment was not effected in conformity with the Credit, the CDFW may correct any such non-conforming demand for payment under the terms and conditions stated herein.
10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to the CDFW an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of the CDFW, as defined in paragraph 12 below.
12. An "Authorized Representative" shall mean either the Director of the California Department of Fish and Wildlife, the General Counsel of the California Department of Fish and Wildlife, or a Regional Manager of the California Department of Fish and Wildlife.
13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify the CDFW in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
14. Communications with respect to this Credit shall be in writing and addressed to us at **[name and address of financial institution]**, specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for the CDFW: California Department of Fish and Wildlife, Habitat Conservation Planning Branch, 1416 Ninth Street, 12th Floor, Sacramento, California 95814-2090 Attn: HCPB Mitigation Account Coordinator; and (ii) for the Applicant: **[name and address of applicant]**.
15. This Credit may not be transferred.
16. This Credit is subject to the International Standby Practices 1998 ("ISP 98"). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
17. This Credit shall, if not canceled, expire on **[expiration date]**, or any extended expiration date.

18. We hereby agree with the CDFW that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

[Name of financial institution]

By: _____
Name: _____
Title: _____

ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. **[Number issued by financial institution]**
CERTIFICATE FOR DRAWING

To:

[Name and address of financial institution]

Re: Incidental Take Permit No. **[permit number]**

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. **[Insert one of the following statements:** "In the opinion of the CDFW, the Applicant has failed to complete the Mitigation Requirements referenced in paragraph 3 of the Credit." **or** "As set forth in paragraph 13, the Issuer has informed the CDFW that the Credit will not be extended and the Applicant has not provided the CDFW with an equivalent security approved by the CDFW to replace the Credit."]
2. The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
3. The CDFW is therefore making a drawing under the Credit in amount of U.S. \$_____.
4. The amount demanded does not exceed the Principal Sum of the Credit.

Therefore, the CDFW has executed and delivered this Certificate as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"

ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. [*Number issued by financial institution*]
CERTIFICATE FOR CANCELLATION

To:

[Name of financial institution and address]

Re: Incidental Take Permit No. [*permit number*]

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. **[Insert one of the following statements:** "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." **or** "The natural expiration of this Credit has occurred."]
2. The CDFW therefore requests the cancellation of the Credit.

Therefore, the CDFW has executed and delivered this Certificate for Cancellation as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"

State of California - Department of Fish and Wildlife
MITIGATION PAYMENT TRANSMITTAL FORM
DFW 1057 (NEW 07/28/17)

Project Applicant Instructions: Please fill out and attach this form to payment. For conservation banks, also attach the Bill(s) of Sale for credits sold. One form may be used for multiple transactions, **BUT YOU MUST USE A SEPARATE FORM FOR EACH CHECK YOU TRANSMIT.** Make sure to include Project Name, Project Tracking Number, and ASB Mitigation Tracking Number (if available) on the attached payment type.

1. DATE: _____ TO: _____ Regional Manager _____ Region Office Address	2. FROM: _____ Name _____ Mailing Address _____ City, State, Zip _____ Telephone Number/FAX Number
3. RE: _____ Project Name as appears on permit/agreement	

4. AGREEMENT/ACCOUNT INFORMATION: (check the applicable type)

☐ 2081 Permit ☐ Conservation Bank ☐ 2835 NCCP ☐ 1802 Agreement ☐ 1600 Agreement ☐ Other _____

Project Tracking Number

5. PAYMENT TYPE (One check per form only): The following funds are being remitted in connection with the above referenced project:

Check information:

Total \$ _____ Check No. _____

Account No. _____ Bank Routing No. _____

a. Endowment: for Long-Term Management Subtotal \$ _____

b. Habitat Enhancement Subtotal \$ _____

c. Security:

1. Cash Refundable Security Deposit Subtotal \$ _____

2. Letter of Credit Subtotal \$ _____

1. Financial Institution: _____

2. Letter of Credit Number: _____

3. Date of Expiration: _____

ACCOUNTING OFFICE USE ONLY	
Description	FISCal Coding
Speedchart (Project, Program, Reference, Fund)	
Reporting Structure	
Category	
Date Established: _____ By: _____	

