

CLOVER CREEK BRIDGE REPLACEMENT AT FIRST STREET (14C-0015)

PROJECT DESCRIPTION

The project consists of the replacement of an existing single span reinforced concrete haunched T-girder (Bridge No. 14C-0015) over Clover Creek. The existing bridge is located on First Street approximately 0.1 miles east of Main Street, near the community of Upper Lake.

The concrete structure is too narrow for the roadway's Functional Classification and is considered Functionally Obsolete. The existing bridge does not have adequate shoulders and has limited vertical sight distance. The concrete bridge barriers do not meet current safety standards and there are no approach railings.

The project need is to provide a safe permanent crossing over Clover Creek on First Street since the existing structure is considered Functionally Obsolete.

The primary objective is to replace the existing bridge with a new structure that meets current design and safety standards, improves public safety, and provides long term value for the County.

The entire existing roadway is within County right-of-way which has a minimum width of 50'. Any additional need for right-of-way acquisition, rights of entry, or temporary construction easements will be minimized by maintaining the existing roadway alignment.

It is assumed that the roadway will be closed for one block for construction and equipment staging, and traffic will be redirected onto other local streets.

It is anticipated that excavators, dozers, cranes, dump trucks, concrete trucks, concrete pumps, and pile driving or drilling equipment may be required to construct the new bridge. Construction is anticipated to be completed within one construction season.

The existing structure is approximately 39 feet long. The proposed replacement structure is a three 12' X 8' cell cast-in-place reinforced concrete box culvert. The continuous mat foundation of the box culvert is well suited for the weak liquefiable soils at the site. The culvert will be designed to pass the 50-year and 100-year design storms without freeboard. An allowance for freeboard is not included because the highwater elevation during the flood events is governed by backwater effects downstream of the bridge and floating debris is not anticipated to be an issue that would hinder flow in a backwater condition.

Road work will include reconstructing the approaches along First Street conforming at the intersection with Washington Street to the west, and approximately 200' past the bridge to the east. The approach road width will be constructed to current County

standards, with 10' lanes, 5' shoulders and 5' sidewalks. Parking along First Street will be replaced as necessary. Driveways will be reconstructed to conform to the new roadway profile.

Right of way and temporary construction easements will be purchased from portions of the four parcels at each corner of the bridge to accommodate construction of the culvert and roadway approaches.

Utility relocation is anticipated for conflicts with overhead lines. Underground water line relocation may also be required. Adjustments to underground sewer and water manholes, valve boxes and cleanouts will be performed as needed to match the proposed grades.

The existing bridge crosses Clover Creek upstream of its confluence with Middle Creek and the flow is primarily controlled by the upstream Clover Creek Diversion structure and seasonal runoff. The flows were reduced by the diversion structure from the historical 8500 cfs. Currently Clover Creek flows are limited to a maximum 500 cfs, and are manually controlled with gates at the diversion structure. The channel appears to have a good alignment with the current bridge configuration.

This project may involve permanent modification or alteration of the streambed by adding rock slope protection, minor regrading, and the placement of a concrete bottom box culvert. The bottom of the box will be buried with a natural stream bed backfill. It is anticipated that the flowline of the creek through the project limits will be restored to the current grades. Access to the creek will be required to construct the new structure. Depending on flows during construction, temporary stream diversion may be required. Water Quality will be managed through implementation of BMPs as part of the Water Pollution Control Plan (WPCP) or Storm Water Pollution Prevention Plan (SWPPP).

The project will comply with all required regulatory permits, including:

- Central Valley Regional Water Quality Control Board – Section 401 Water Quality Certification
- California Department of Fish and Game – Section 1602 Streambed Alteration Agreement
- Army Corps of Engineers – Section 404 Nationwide Permit
- Lake County NPDES MS4 Permit

The project is not within an EPA designated or proposed sole-source aquifer. This project is not in an area regulated by the State Coastal Zone Management Agency. The project is not in the general vicinity of a Wild and Scenic River System. No agricultural resources will be affected. No wetland features were observed within the Project boundary. There are 0.08 acres of Other Waters within the project limits. Impacts to Other Waters will be minimized through limiting the project footprint, and construction BMPs implemented as part of the WPCP or SWPPP. The project is consistent with the plans and goals of the community.



027-195-090
GERARD
154.3'

113.8'

027-197-050
LUGGER

027-197-060
GLENN

10' (Max)

16.6'

20.4'

23'

8' Max

25'

12

13

14

15

16

9' Max

104.6'

12.6'

15.5'

21.6'

18.8'

7'

16.5'

027-196-010
AUGUST

027-221-110
SALCIDO

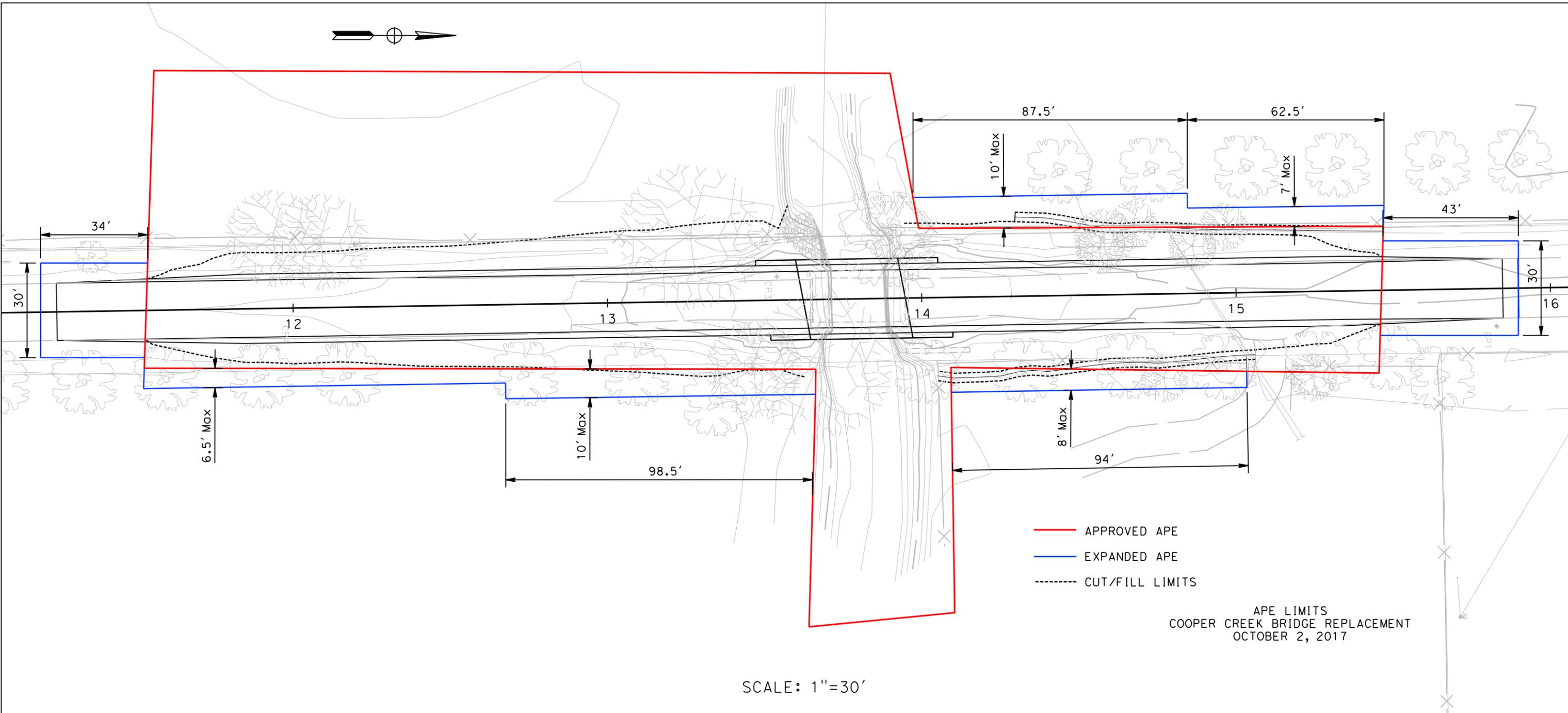
027-221-120
DANCER

027-221-100
ANDERSON

- APPROVED APE
- EXPANDED APE
- - - CUT/FILL LIMITS

SCALE: 1"=30'

APE LIMITS
FIRST STREET BRIDGE REPLACEMENT
AUGUST 31, 2017



- APPROVED APE
- EXPANDED APE
- - - CUT/FILL LIMITS

APE LIMITS
COOPER CREEK BRIDGE REPLACEMENT
OCTOBER 2, 2017

SCALE: 1"=30'

