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AS A BASIS FOR
PREPARATION OF DETAILED PLANS

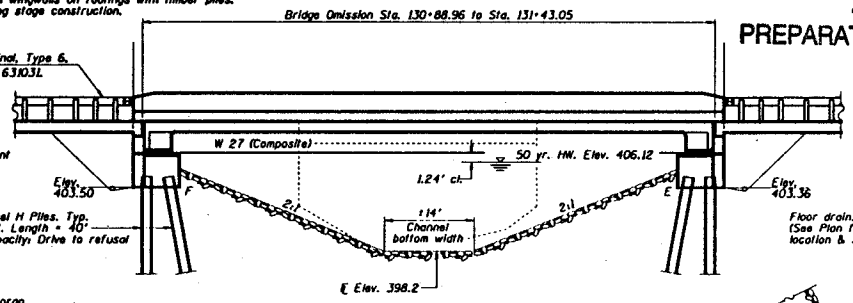
FAS 2881	308-1	SALINE			SHEET NO. 1 OF 2 SHEETS

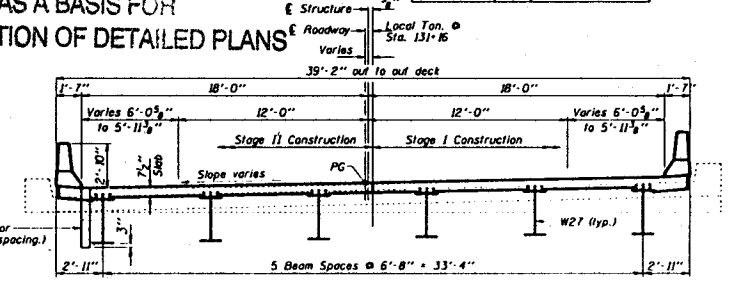
Benchmark: #28. Chiseled "□" in top of SE wingwall, Str. #083-0028, 22.5' right of Sta. 131+27.27, Elev. 411.82

Existing Structure: #083-0028 Built in 1934 as SA 10 @ Sta. 131+15 of Raleigh Road. It measures 26'-0" bt.-bt. abutments by 40'-0" fa.-fa. curbs. The structure is a single span RC slab bridge. The substructure consists of closed concrete abutments with wingwalls on footings with timber piles. Traffic shall be maintained utilizing stage construction.

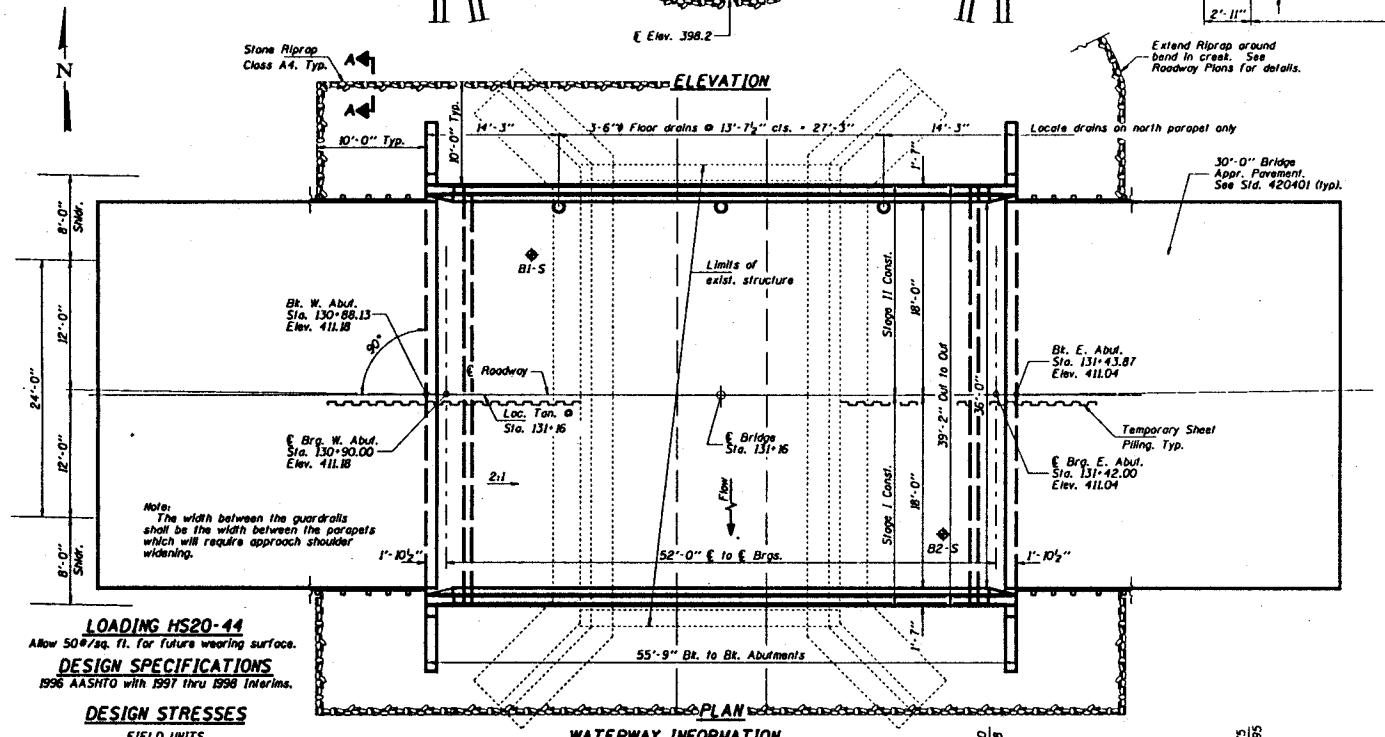
No Salvage.

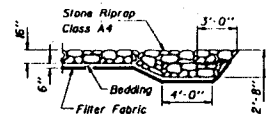
Note: Removal of the slab on the existing bridge creates an unstable situation for the existing abutment walls. The primary verticle reinforcement is in the face of the wall closest to the stream. Therefore, the abutment walls will need to be temporarily braced or soil excavated behind the abutment wall.



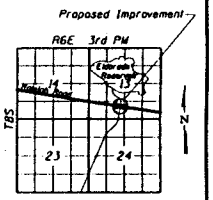


CROSS SECTION
Looking East





SECTION A-A



LOCATION SKETCH

HIGHWAY CLASSIFICATION
FAS Rte. 2881 - Raleigh Road
Functional Class: Major Collector
ADT: 3400 (1998); 4150 (2018)
DHV: 210 (1998)
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.

CURVE DATA
PI Sta. = 129+55.12
Δ = 6°-41'-51"
D = 1°-38'-13"
R = 3499.95'
T = 204.80'
L = 409.13'
E = 5.99"
S.E. = 4.5%
PC = 127+50.32
PT = 131+59.42

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
1996 AASHTO with 1997 thru 1998 Interims.

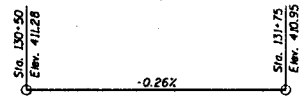
DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (structural steel) (M270 Gr. 50)

SEISMIC DATA
Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = .12g
Site Coefficient (S) = 1.2

WATERWAY INFORMATION

Drainage Area = 1.8 Sq. mi. Low Grade Elev. 409.8 @ Sta. 134+00

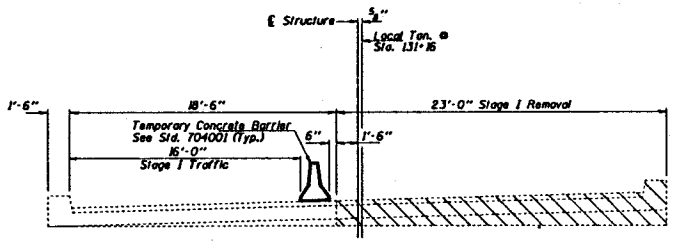
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	870	185.30	258.76	406.12	0.85	0.68	406.97	406.80
Base	100	990	187.70	263.71	406.22	1.09	0.83	407.31	407.05
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	1270	192.74	274.11	406.43	1.69	1.31	408.12	407.74



PROFILE GRADE
(Along ℄ Rdwy.)

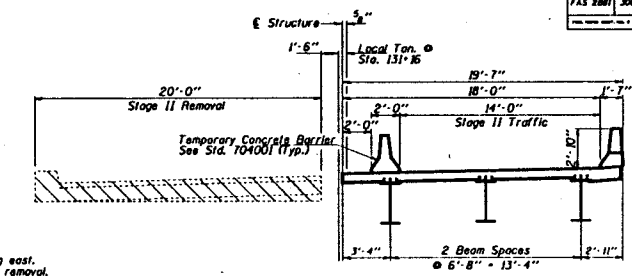
GENERAL PLAN AND ELEVATION
RALEIGH ROAD
OVER ELDORADO RESERVOIR SPILLWAY
FAS 2881 - SECTION 308-1
SALINE COUNTY
STRUCTURE NO. 083-0063 STATION 131+16

FAS 2881	308-1	SALINE			SHEET NO. 2 2 SHEETS

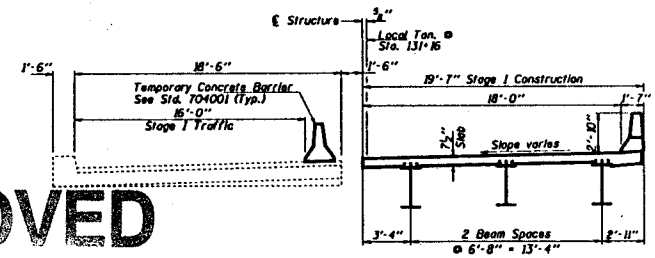


STAGE I REMOVAL

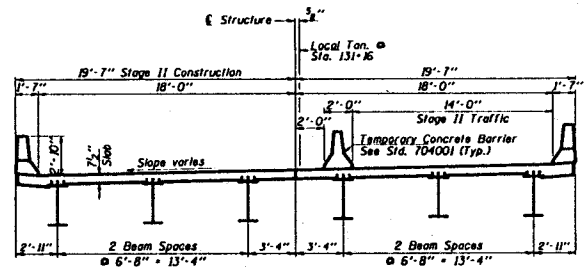
Note: All sections are looking east. Hatched areas indicate removal.



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

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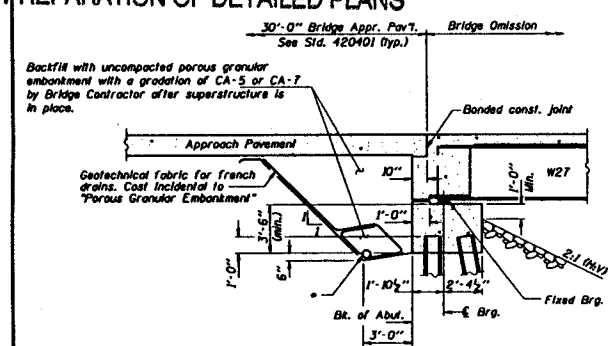
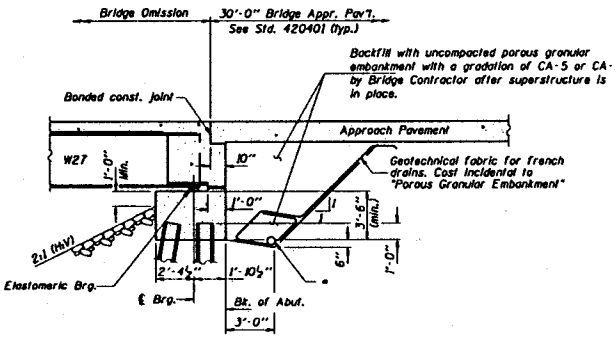
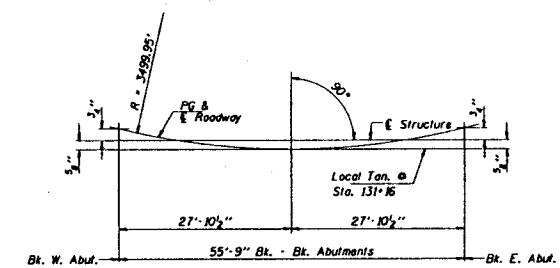
Note: The abutments will need to be designed for adequate clearance between the bottom of diaphragm and top of cap to allow for jacking, due to the potential for future mine subsidence.



SECTION THRU WEST SEMI INTEGRAL ABUTMENT



SECTION THRU EAST SEMI INTEGRAL ABUTMENT



OFFSET SKETCH

STAGING
RALEIGH ROAD
OVER ELDORADO RESERVOIR SPILLWAY
FAS 2881 - SECTION 308-1
SALINE COUNTY
STRUCTURE NO. 083-0063 STATION 131+16