

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.
3	COLO.	149-B-2	1

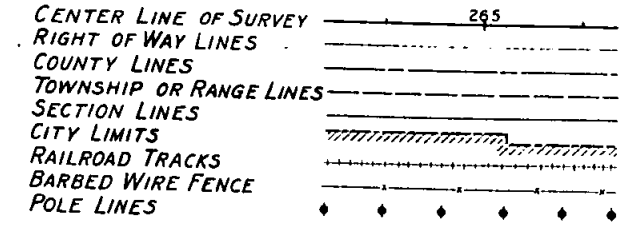
UNIT 1, 2, 3, 4 & 5

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. 149-B-(2)-1 STATE HIGHWAY NO. 8 ADAMS AND ARAPAHOE COUNTIES

CONVENTIONAL SIGNS



INDEX OF SHEETS

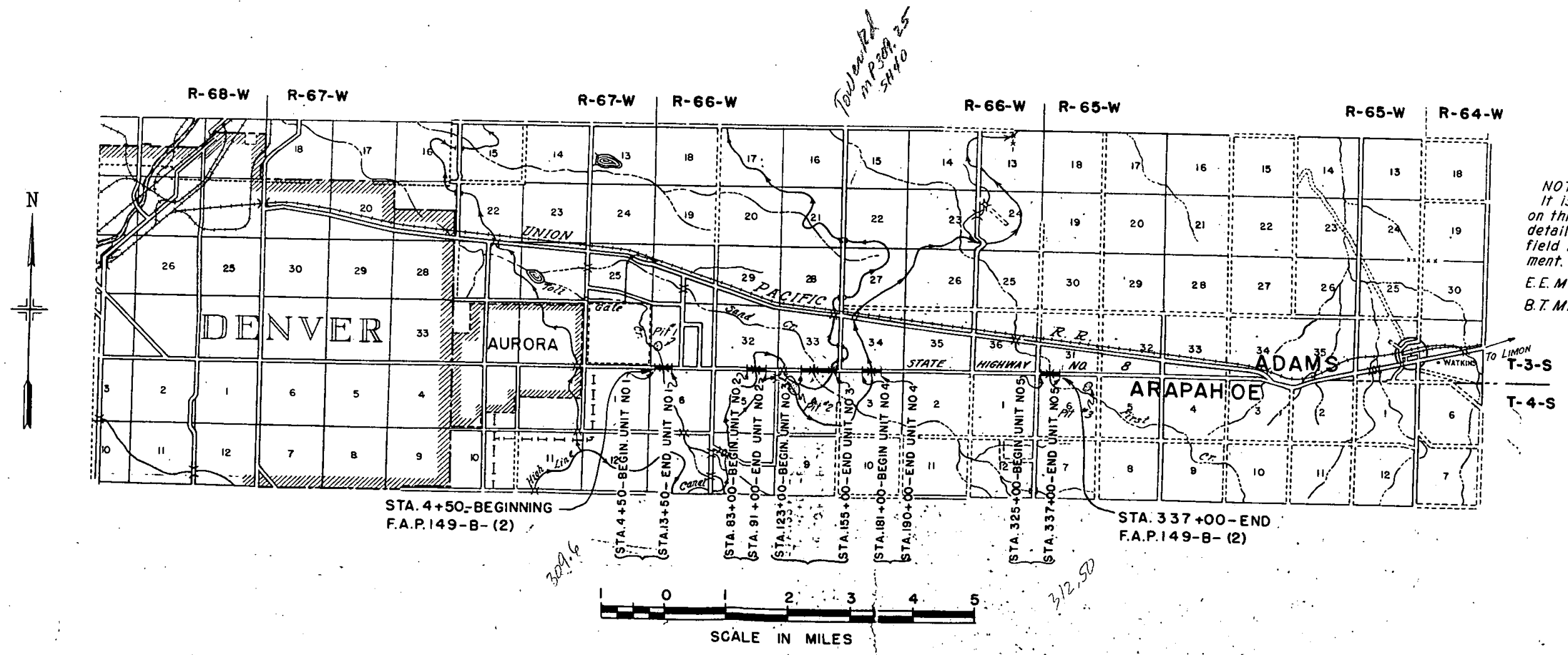
SHEET NO.	1.	TITLE PAGE
"	2.	TYPICAL SECTION AND SUMMARY OF QUANTITIES
"	3.	LIST OF STRUCTURES, JOINT DETAIL, AND EMBANK. PLAN
"	4-8.	DETAILS OF BRIDGE, STA. 8+, UNIT #1 (TOLL GATE CREEK)
"	9-11.	DETAILS OF BRIDGE, STA. 86+, UNIT #2 (HIGH LINE CANAL)
"	12-18.	DETAILS OF BRIDGE, STA. 133+, UNIT #3 (SAND CREEK)
"	19-21.	DETAILS OF BRIDGE, STA. 152+, UNIT #3 (HIGH LINE CANAL)
"	22-23.	DETAILS OF BRIDGE, STA. 330+, UNIT #5 (FIRST CREEK)
"	24.	STANDARD HEADWALLS FOR C.M.P. CULVERTS M-102-E
"	25.	CONCRETE BOX CULVERTS M-103-D
"	26.	STANDARD TIMBER GUARD POSTS M-19-A
"	27.	STANDARD WIRE FENCES (Tr. Wd. Posts) & MRKR. Posts M-24-F
"	28.	STANDARD STRUCTURE NUMBER LETTERING M-10-A
"	29.	TYPICAL SIDE APPROACH ROADS / ROADWAY CONSTRUCTION TRAFFIC SIGNS M-2-B
"	30.	PLAN AND PROFILE, UNIT #1 (TOLL GATE CREEK)
"	31.	PLAN AND PROFILE, UNIT #2 (HIGH LINE CANAL)
"	32-33.	PLAN AND PROFILE, UNIT #3 (SAND CREEK & HIGH LINE CANAL)
"	34.	PLAN AND PROFILE, UNIT #4 (HIGH LINE CANAL)
"	35.	PLAN AND PROFILE, UNIT #5 (FIRST CREEK)
"	36-42.	CROSS SECTIONS, UNIT #1 (TOLL GATE CREEK)
"	43-45.	CROSS SECTIONS, UNIT #2 (HIGH LINE CANAL)
"	46-61.	CROSS SECTIONS, UNIT #3 (SAND CREEK & HIGH LINE CANAL)
"	62-66.	CROSS SECTIONS, UNIT #4 (HIGH LINE CANAL)
"	67-70.	CROSS SECTIONS, UNIT #5 (FIRST CREEK)

SCALES ON ORIGINAL TRACINGS

ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT - 33,250 FT. = 6.297 MI.
NET LENGTH OF PROJECT -

UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	TOTAL
900 FT.	800 FT.	3200 FT.	900 FT.	1200 FT.	7000 FT.
0.170 MI.	0.152 MI.	0.606 MI.	0.170 MI.	0.227 MI.	1.325 MI.



NOTE:
It is recommended that bidder on this project go over the plan details with one of the following field representatives of this department.
E.E. Montgomery Div. Eng. Denve
B.T. Miller Res. Eng. Denve

RECOMMENDED FOR APPROVAL
J.H. Young, D.E.
ASSISTANT ENGINEER

APPROVED
Charles Sailer
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

DIST. ENG. BUREAU PUBLIC ROADS

RECOMMENDED FOR APPROVAL

CHIEF ENG. BUREAU PUBLIC ROADS

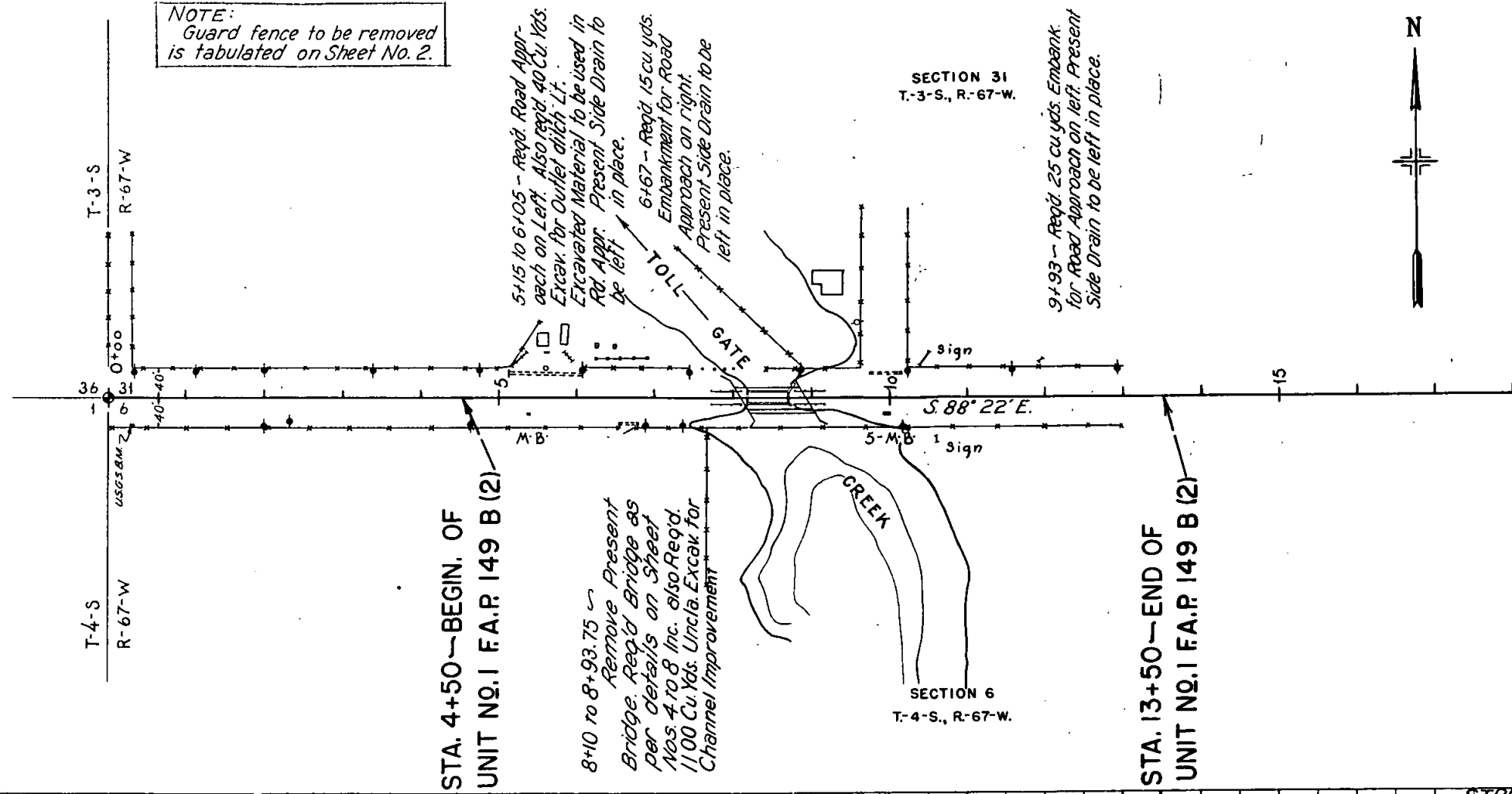
APPROVED

*Township
in P. 308, 25
5440*

309.6

312.50

NOTE:
Guard fence to be removed
is tabulated on Sheet No. 2.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	149-B-(2)	30	

UNIT #1
Rev. 3-27-39 JWS

STA. 4+50 - BEGIN. OF
UNIT NO. 1 F.A.P. 149 B (2)

STA. 13+50 - END OF
UNIT NO. 1 F.A.P. 149 B (2)

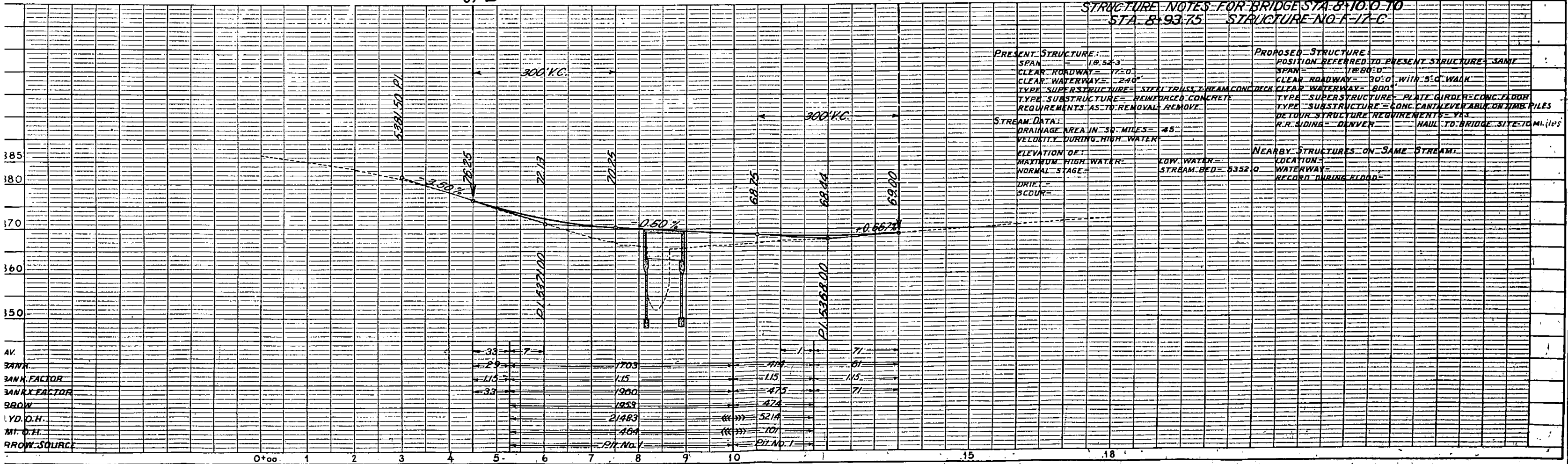
STRUCTURE NOTES FOR BRIDGE STA. 8+10.0 TO
STA. 8+93.75 STRUCTURE NO. F-17-C

PRESENT STRUCTURE:
SPAN = 18.52-3
CLEAR ROADWAY = 77-0
CLEAR WATERWAY = 2-40
TYPE SUPERSTRUCTURE = STEEL TRUSS, T-BYAM CONC DECK
TYPE SUBSTRUCTURE = REINFORCED CONCRETE
REQUIREMENTS AS TO REMOVAL REMOVE.

STREAM DATA:
DRAINAGE AREA IN SQ. MILES = 45
VELOCITY DURING HIGH WATER
ELEVATION OF:
MAXIMUM HIGH WATER
NORMAL STAGE
DRIE =
SCOUR =

PROPOSED STRUCTURE:
POSITION REFERRED TO PRESENT STRUCTURE - SAME
SPAN = 18-00
CLEAR ROADWAY = 30-0 WITH 5-C WALK
CLEAR WATERWAY = 600
TYPE SUPERSTRUCTURE = PLATE GIRDER CONC FLOOR
TYPE SUBSTRUCTURE = CONC. CANTILEVER ABUT. ON HMB PILES
DETOUR STRUCTURE REQUIREMENTS = YES
R.R. SIDING = DENVER HAUL TO BRIDGE SITE 10 Miles

NEARBY STRUCTURES ON SAME STREAM:
LOCATION =
WATERWAY =
RECORD DURING FLOOD =



SECTION 32
R-66-W, T-3-S.

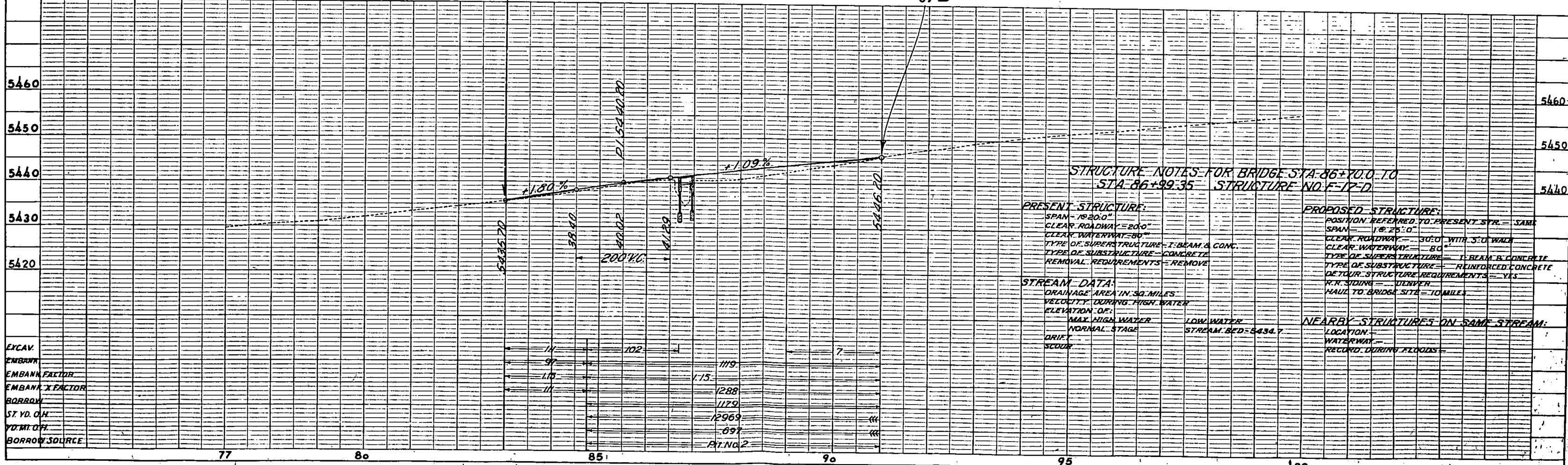
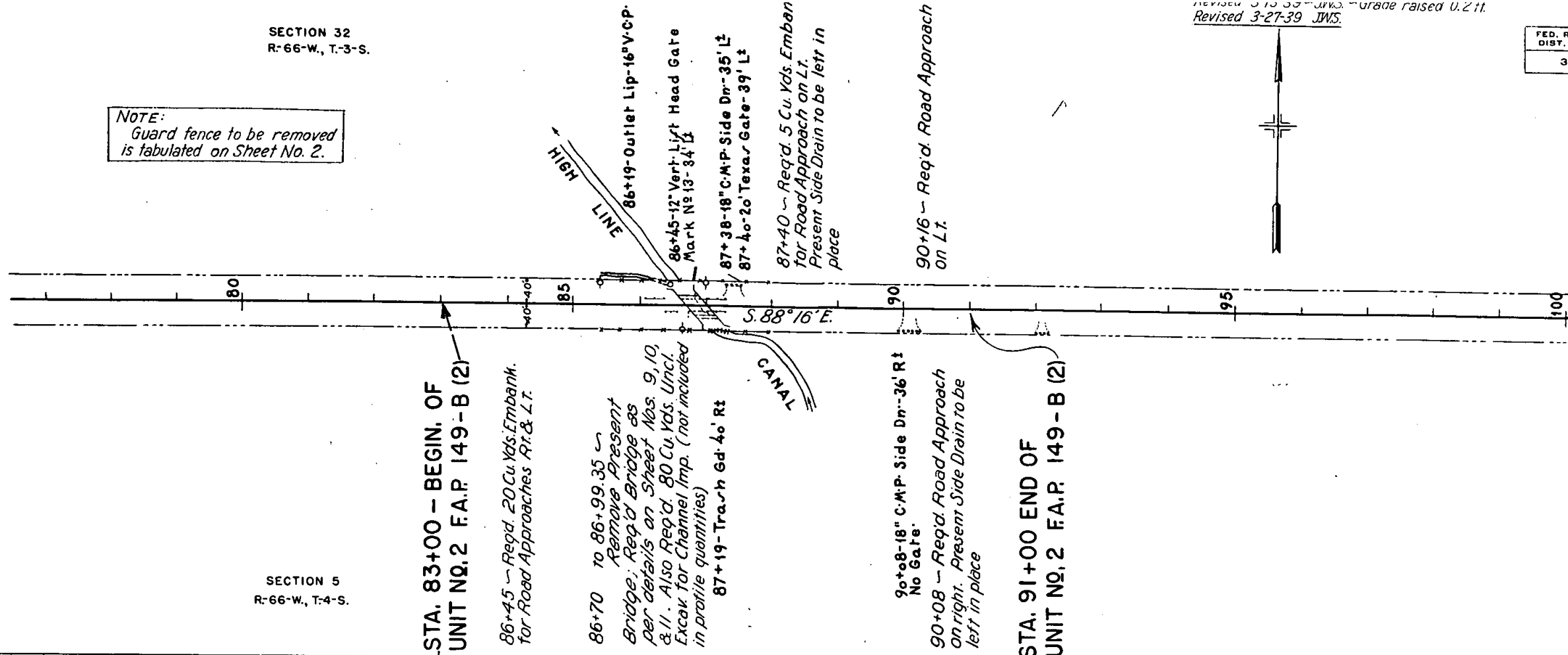
NOTE:
Guard fence to be removed
is tabulated on Sheet No. 2.

SECTION 5
R-66-W, T-4-S.

REVISED 3-13-33 J.W.S. - grade raised U. 2 ft.
Revised 3-27-39 J.W.S.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	149-B-(2)	31	

UNIT #2



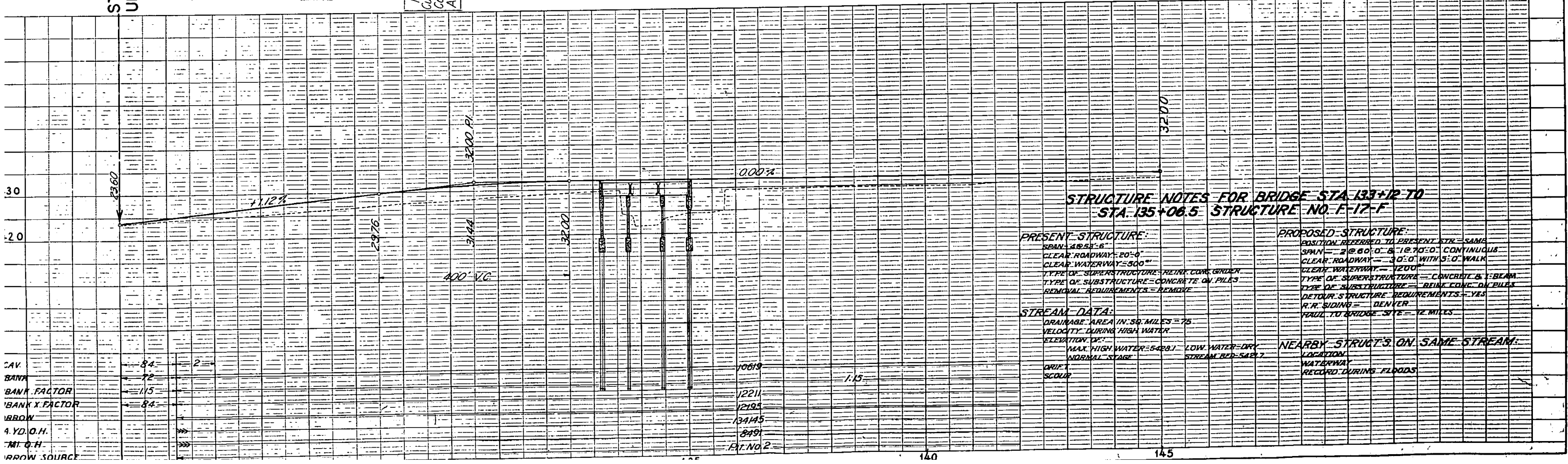
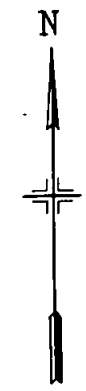
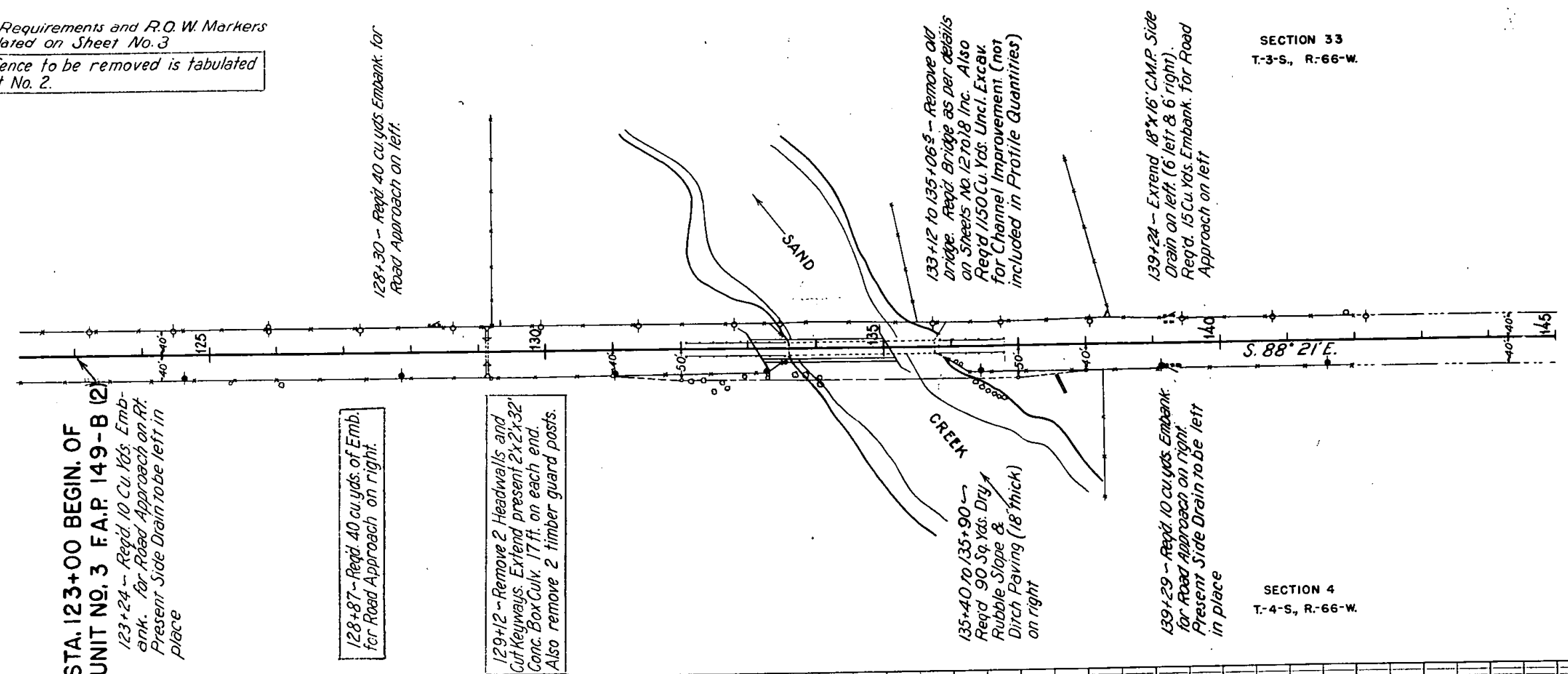
EXCAV.	
EMBANK.	
EMBANK FACTOR	
EMBANK X FACTOR	
BORROW	
ST. YD. ON	
YD. MI. OFF	
BORROW SOURCE	

NOTE:
Fencing Requirements and R.O.W. Markers
are tabulated on Sheet No. 3

Guard fence to be removed is tabulated
on Sheet No. 2.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	149-B-(2)	32	

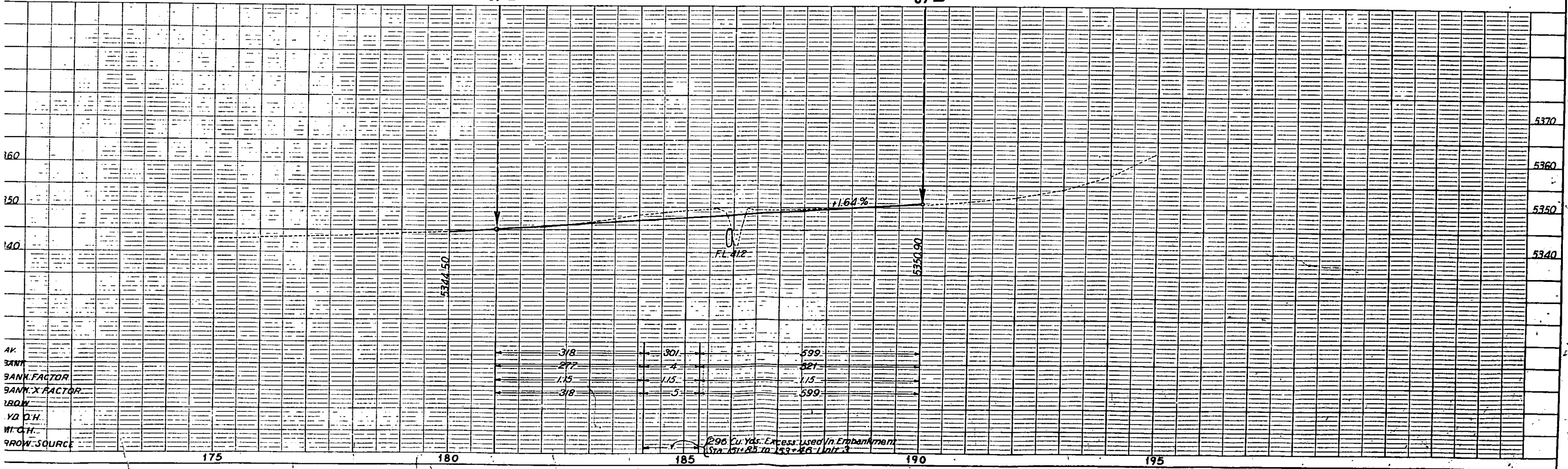
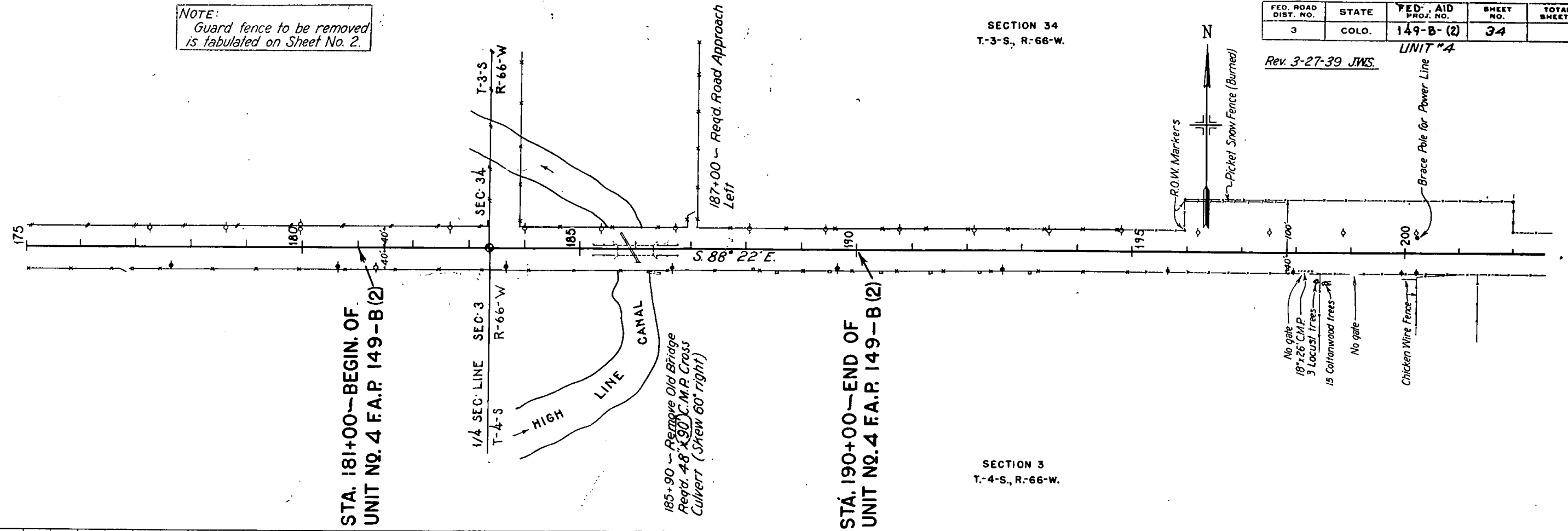
UNIT #3
Rev. 3-27-39 JWS.



NOTE:
Guard fence to be removed
is tabulated on Sheet No. 2.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	149-B-(2)	34	

Rev. 3-27-39 JWS. UNIT #4



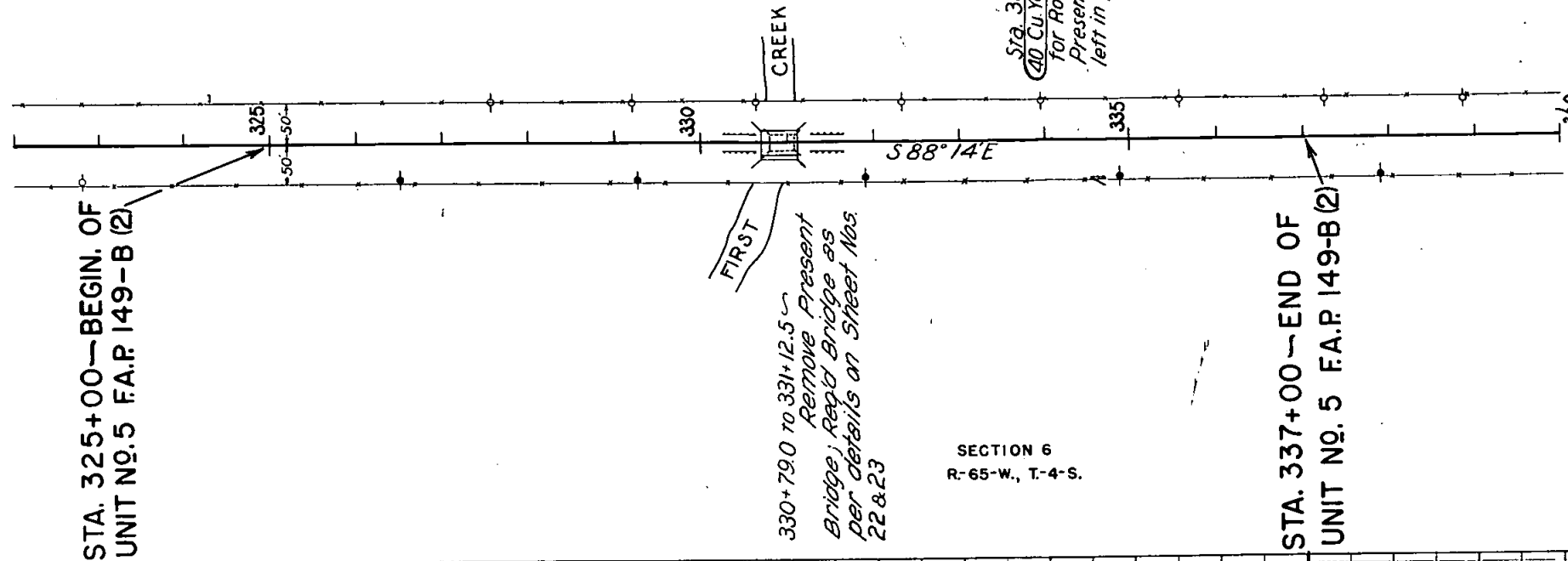
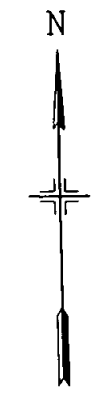
AK	3/8	301	599
BANK	277	4	321
BANK FACTOR	1.15	1.15	1.15
BANK X FACTOR	3/8	5	599
180 W			
1/2 O.H.			
WT. C.H.			
ROW SOURCE			

Note:-
Guard fence to be removed is
tabulated on Sheet No. 2.

SECTION 31
R-65-W, T-3-S.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	149-B-(2)	35	

Revised 3-27-39 GRS & JWS UNIT # 5



STA. 325+00—BEGIN. OF
UNIT NO. 5 F.A.P. 149-B (2)

330+79.0 to 331+12.5 ~
Remove Present
Bridge, Reqd. Bridge as
per details on Sheet Nos.
22 & 23

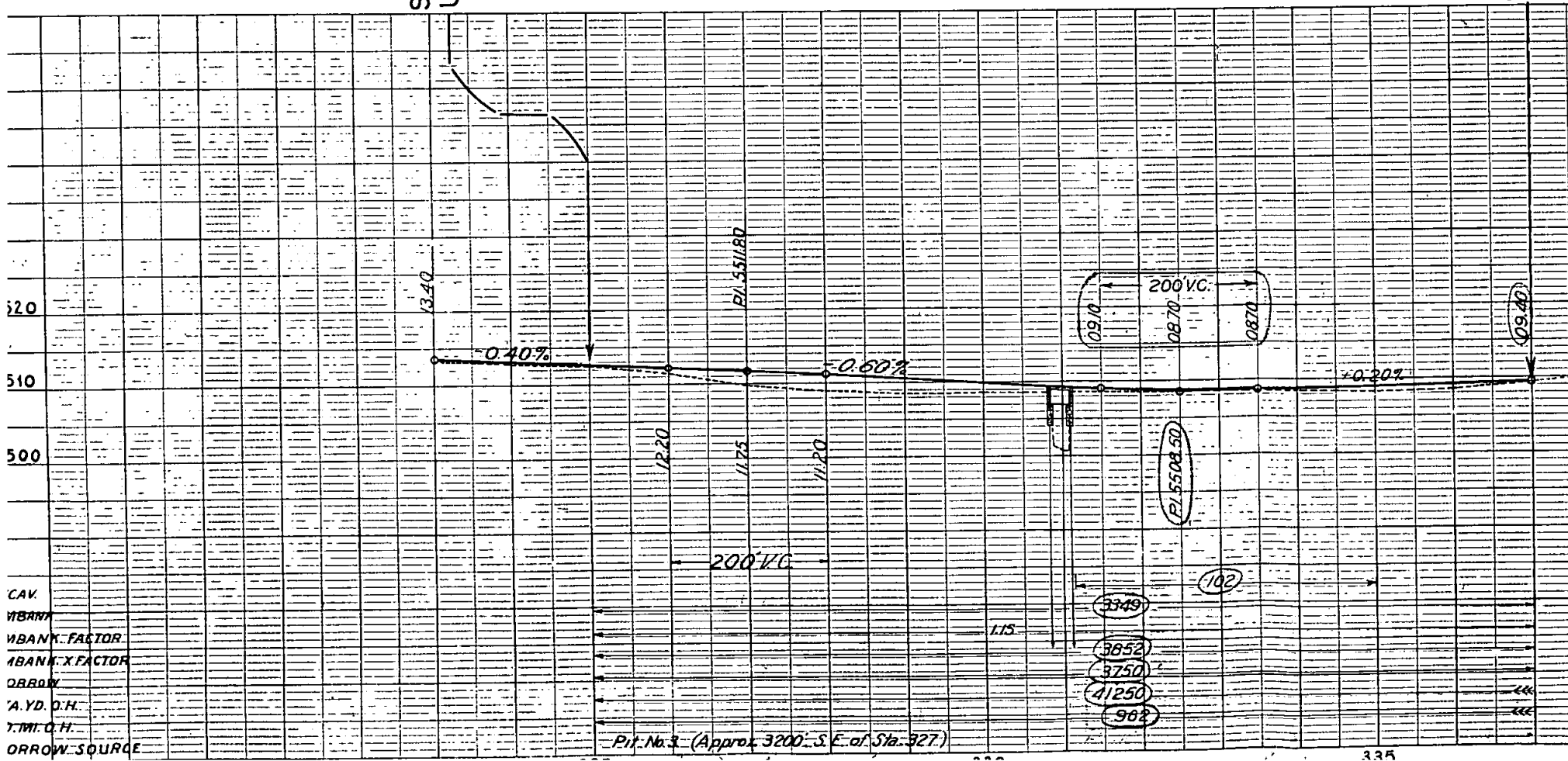
SECTION 6
R-65-W, T-4-S.

STA. 337+00—END OF
UNIT NO. 5 F.A.P. 149-B (2)

Sta. 334+58 ~ Reqd
(40 Cu. Yds) Embankment
for Road Approach, right
Present Side Drain to be
left in place

STRUCTURE NOTES FOR BRIDGE STA. 330+79.0 TO STA. 331+12.5
STRUCTURE NO. F-18-D

PRESENT STRUCTURE: SPAN = 1 @ 30'-0"	PROPOSED STRUCTURE: POSITION REFERRED TO PRESENT STRUCTURE = SAME SPAN = 1 @ 30'-0"
CLEAR ROADWAY = 20'-0"	CLEAR ROADWAY = 30'-0" WITH 5'-0" WALK
CLEAR WATERWAY = 200'	CLEAR WATERWAY = 180'
TYPE SUPERSTRUCTURE = TREATED TIMBER	TYPE SUPERSTRUCTURE = CONCRETE B.T. BEAM
TYPE SUBSTRUCTURE = TREATED TIMBER	TYPE SUBSTRUCTURE = CONC. CAP ON TMB. PILES WITH RT. TIMB. WINGS
REQUIREMENTS AS TO REMOVAL = REMOVE	DETOUR STRUCTURE REQUIREMENTS = YES
STREAM DATA: DRAINAGE AREA IN SQ. MILES = 8	R.R. SIDING = DENVER HAUL TO BRIDGE SITE = 16 MILES
VELOCITY DURING HIGH WATER =	NEARBY STRUCTURES ON SAME STREAM: LOCATION =
ELEVATION OF: MAXIMUM HIGH WATER =	WATERWAY =
NORMAL STAGE =	RECORD DURING FLOODS =
DRIFT =	LOW WATER = 5500.8
SCOUR =	STREAM BED = 5500.8



CAV.
WBANK FACTOR
NBANK FACTOR
QBRD BY
A.Y.D. D.H.
T.M. D.H.
DROW SOURCE

335

340