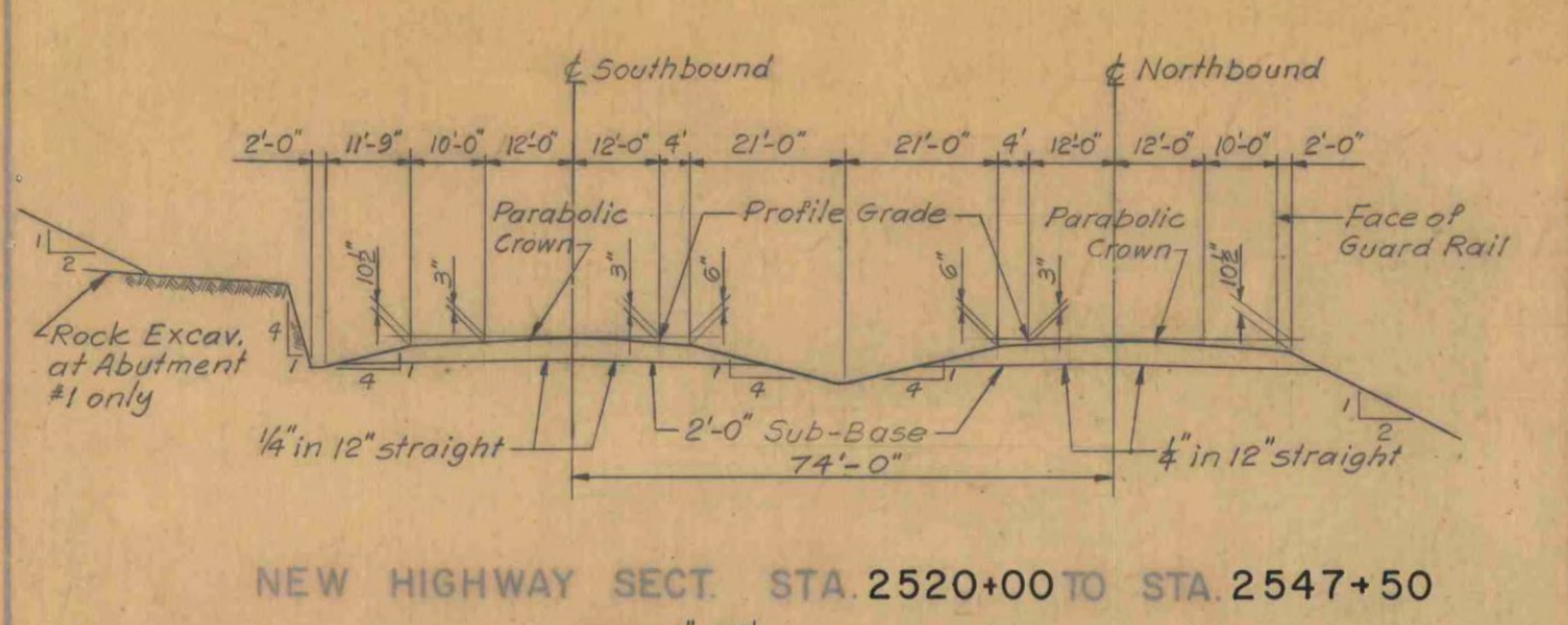
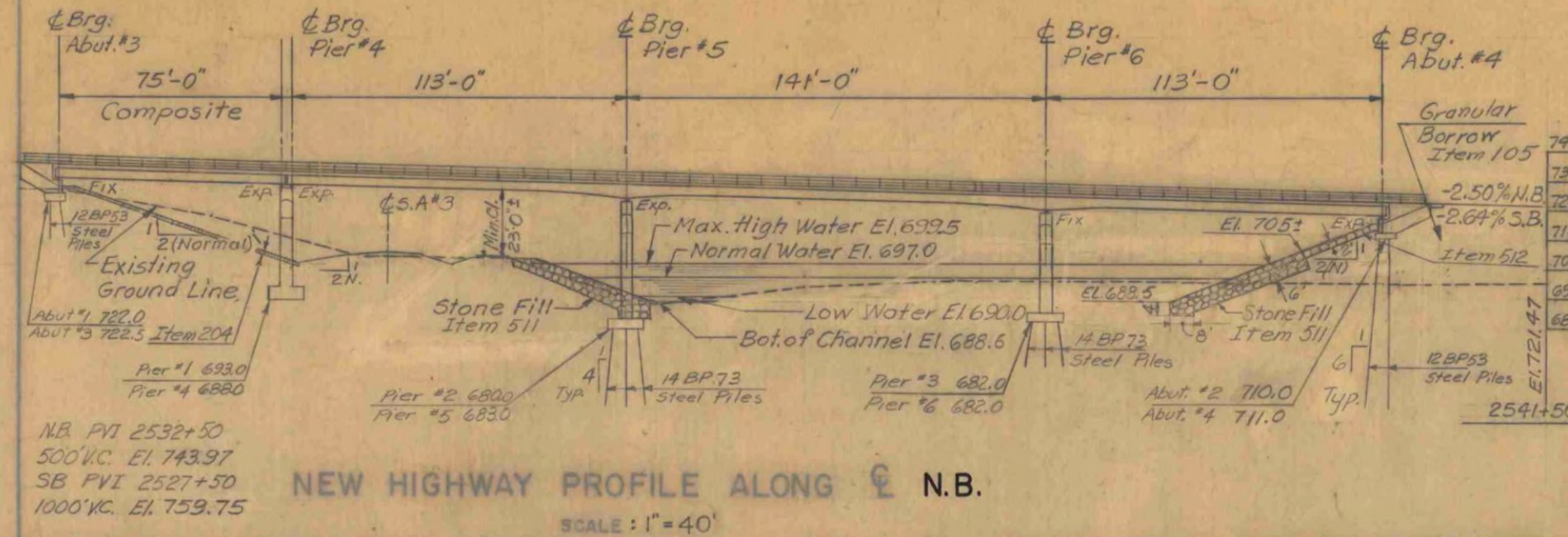


NEW HIGHWAY SECT. STA. 2520+00 TO STA. 2547+50

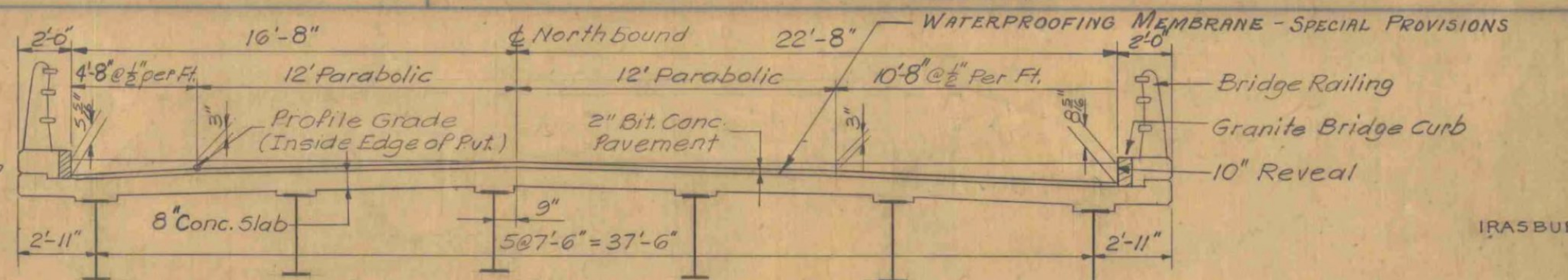
SCALE: 1" = 20'



NEW HIGHWAY PROFILE ALONG ℄ N.B.

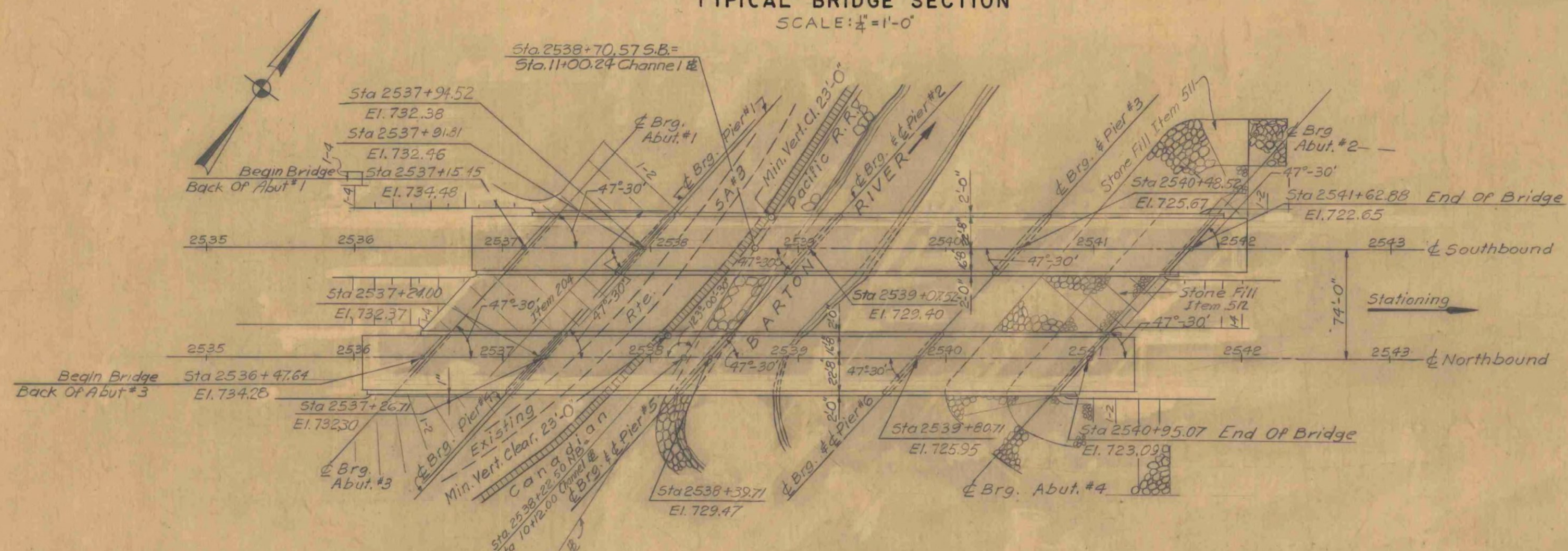
SCALE: 1" = 40'

Note: For Details of Deck Construction see BR 109
For Railing Details see SB-R1-64 and SB-R2-65
For Curb Details see SCB-D6-67



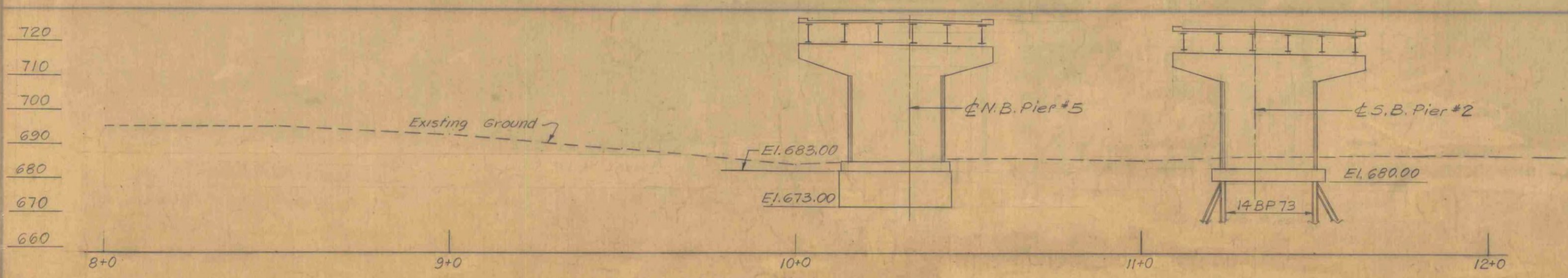
TYPICAL BRIDGE SECTION

SCALE: 1/4" = 1'-0"



PLAN

SCALE: 1" = 50'



PROFILE OF PROPOSED STREAM CHANNEL 50' RT. OF CHANNEL ℄

SCALE: 1" = 20'

HIGHWAY NO. I-91 NAME OF HIGHWAY INTERSTATE
STRUCTURE NO. COUNTY ORLEANS TOWN IRASBURG
PROJECT NO. I-91-3(8) LOCATION I91 over BARTON RIVER, C.P.R.R and Irasburg SA #3

EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE N.A.
2 TYPE OF EXISTING STRUCTURE N.A.
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE N.A.
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE? N.A. COST OF REMOVAL N.A.
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE? N.A.
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT? N.A.
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE N.A. WATERWAY TO ORDINARY H.W. N.A.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE N.A.
9 SPAN OF EXISTING BRIDGE UPSTREAM N.A. WATERWAY TO EXTREME H.W. N.A.
SPAN OF EXISTING BRIDGE DOWNSTREAM 2 Struct.; Total 120' WATERWAY TO EXTREME H.W. 2 Structures; Total 1000 S.F.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS N.A.
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE? N.A.
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED? N.A.
13 ADDITIONAL WATERWAY AREA PROVIDED N.A.

NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE ONE SIMPLE SPAN (COMP.) & 3 SPAN WELDED ℙ GIRDER (CONTINUOUS-COMP.)
2 RECOMMENDED CLEAR SPAN OR SPANS 75.0-113.0-141.0-113.0
MEASURED PARALLEL TO ℄ NEW HIGHWAY 75.0-113.0-141.0-113
MEASURED AT RIGHT ANGLES TO ℄ STREAM 55.0-84.0-104.0-84.0
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM? ANSWER YES OR NO No
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE 697.0
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE 699.5 SOURCE OF INFORMATION COMPUTED
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? Yes
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
8 LOW WATER ELEVATION AT NEW STRUCTURE 690.0
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE 93,312 CHARACTER OF TERRAIN ROLLING
10 IS STREAM EVER DRY No
11 VELOCITY OF STREAM AT HIGH WATER STAGE 6.9± F.P.S. ESTIMATED DISCHARGE 7000 C.F.S.
12 AREA FULL OPENING 1,280 S.F. AREA BELOW ORDINARY H.W. 1,000 S.F.
13 CHARACTER OF SCOUR NONE DRIFT NONE ICE MEDIUM
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE 135.8 SQ. MI.
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION 18 FT.
16 ARE SIDEWALKS REQUIRED? IF SO ON WHAT SIDE? No BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 2" BITUMINOUS CONCRETE, 8" CONCRETE
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. N.A. ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE $1000.
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS * SHOULD PILES BE USED? * EST. LGTH. *
* See Below

FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

Pier No. 4 & 5 - 5 Tons/S.F.
Abutment No. 2 - 12 BP 53 110' Long
Abutment No. 1 & 3 - 12 BP 53 20' Long
Abutment No. 4 - 12 BP 53 100' Long
} 58 Tons/Pile Max.
Pier No. 1 - 14 BP 73 20' Long
Pier No. 2 - 14 BP 73 30' Long
Pier No. 3 - 14 BP 73 55' Long
Pier No. 6 - 14 BP 73 45' Long
} 80 Tons/Pile Max.

Design Stresses:
Concrete f'_c = 3000 p.s.i. f_c = 1200 p.s.i.
Structural Steel f_s = 20,000 p.s.i. (A-36) others per AASHO Specs
Reinforcing Steel f_s = 20,000 p.s.i. Tension
f_s = 16,000 p.s.i. Compression
Welding per A.W.S. Spec's.

Design Loading: HS 20-44

LYNDON-IRASBURG
IM MEMB(29)
SHEET 50 OF 55
BRIDGE NO. 107S
FOR REFERENCE ONLY

Stage 2 Construction

Br. 103 Of 129

RECOMMENDED FOR APPROVAL	(signature) 9-15-69 CONSTRUCTION ENGINEER	DATE
RECOMMENDED FOR APPROVAL	(signature) BRIDGE ENGINEER	9-15-69 DATE
RECOMMENDED FOR APPROVAL	(signature) ASST. CHIEF ENGINEER	9-15-69 DATE
APPROVED BY	(signature) CHIEF ENGINEER	9/15/69 DATE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

I-91 BR #107
PROJECT BARTON -DERBY
ROUTE NO. I-91 STA. 2539±
I-91 OVER BARTON RIVER, C.P.R.R. & IRASBURG SA #3

PRELIMINARY INFORMATION SHEET

SURVEYED BY / DRAWN BY AKN. CHECKED BY / IN CHARGE A.C.C. / C.W.T. SCALE AS SHOWN DATE 12/3/65

PROJECT EMPI 91-3(20) SHEET 118 OF 175

Changed Roadway width from 38'-0" to 39'-4",
Changed Curb width from 2'-8" to 2'-0"
R. Testa 4/23/69