

STATE OF MAINE
STATE HIGHWAY COMMISSION

PLAN AND PROFILE
OVER THE TRACKS OF
BANGOR & AROOSTOOK RAILROAD
IN THE TOWN OF
LAGRANGE - PENOBSCOT COUNTY
MAINE FEDERAL AID SECONDARY
PROJECT NO. S.G. 78 (I)

TOTAL LENGTH 0.175 MILES

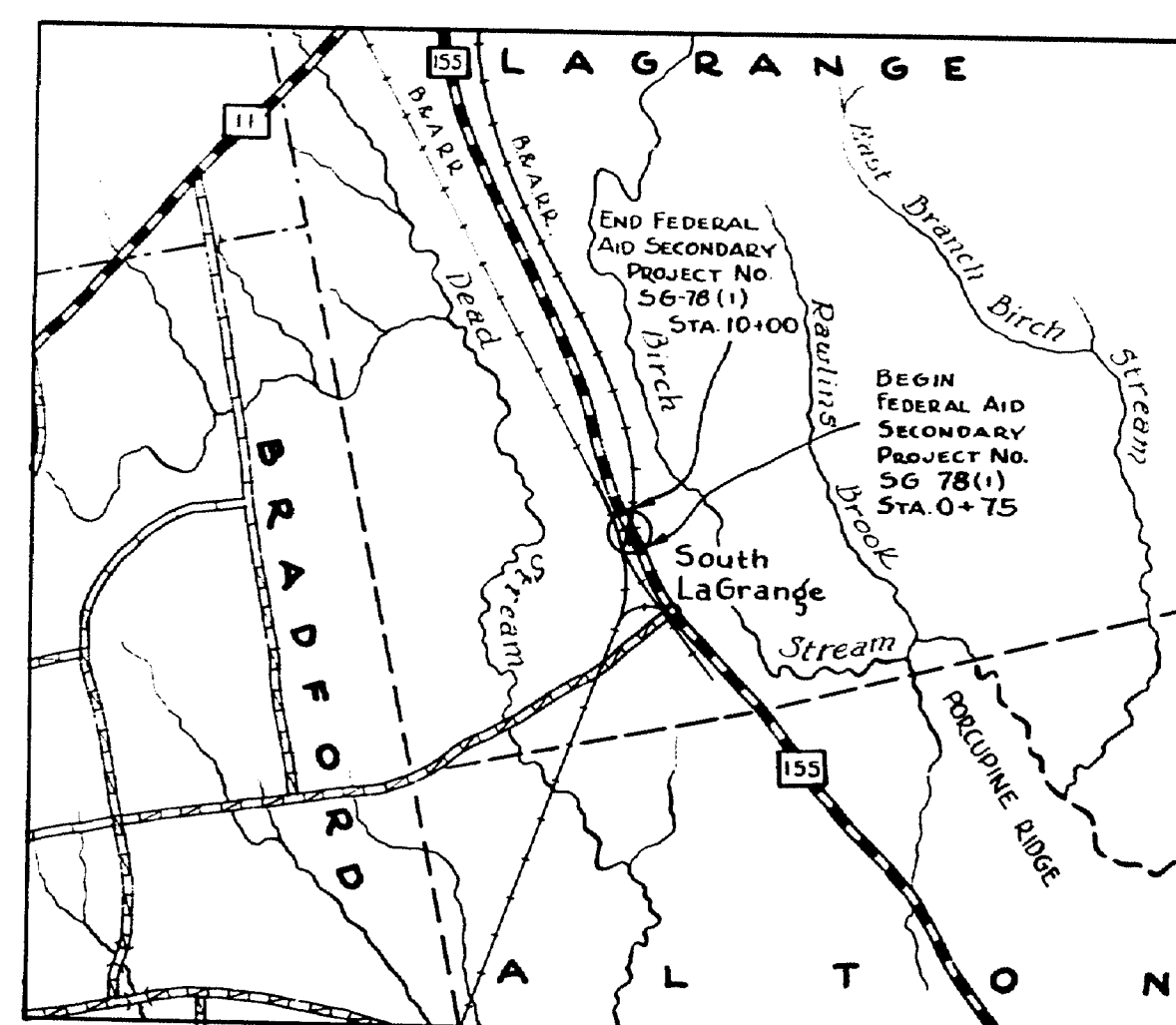
SCALES: PLAN 1 IN. = 20 FT.
PROFILE HOR. 1 IN. = 20 FT.
VER. 1 IN. = 5 FT.
CROSS SECTIONS 1 IN. = 5 FT.

CONVENTIONAL SIGNS	
STATE OR NATIONAL LINE	SURVEY LINE
COUNTY LINE	CULVERT
TOWN LINE	DROP INLET
UNFENCED PROPERTY	TROLLEY POLE
FENCE	POWER POLE
RIGHT OF WAY LINE	TEL. POLE
TRAVELED WAY	MARSH
RAILROAD	TREES
RETAINING WALL	STONE WALL

INDEX OF SHEETS	
SHEET No. 1-3	TITLE PAGE - STANDARD SURVEY
SHEET No. 4-5	CROSS SECTIONS
SHEET No. 6-7	SECTIONS PARALLEL TO CONSTRUCTION
SHEET No. 8	GENERAL PLAN
SHEET No. 9	RETAINING WALLS
SHEET No. 10	ABUTMENTS AND BENT No. 1
SHEET No. 11	BENTS 2 & 3
SHEET No. 12	SLAB DETAILS
SHEET No. 13	REINFORCING STEEL AND CONCRETE RAIL
SHEET No. 14	STRUCTURAL STEEL

CONCRETE CLASSIFICATION
CLASS A: BENTS 1 & 3 COMPLETE
BENT 2 ABOVE EL. 81.17
SUPERSTRUCTURE SLABS
CLASS B: ABUTMENTS
BENT 2 BELOW EL. 81.17
RETAINING WALLS
CLASS Y: RAIL

DESIGN
LOADING: H-15-44
UNIT STRESSES: $f_s = 18,000$
 $f_c = 1,000$
 $n = 10$



LOCATION MAP
TRACED FROM S.W.H.P.S.
SCALE = 1/62,500

APPROVED:
MAINE STATE HIGHWAY COMMISSION

Lucius D. Sanborn
CHIEF ENGINEER

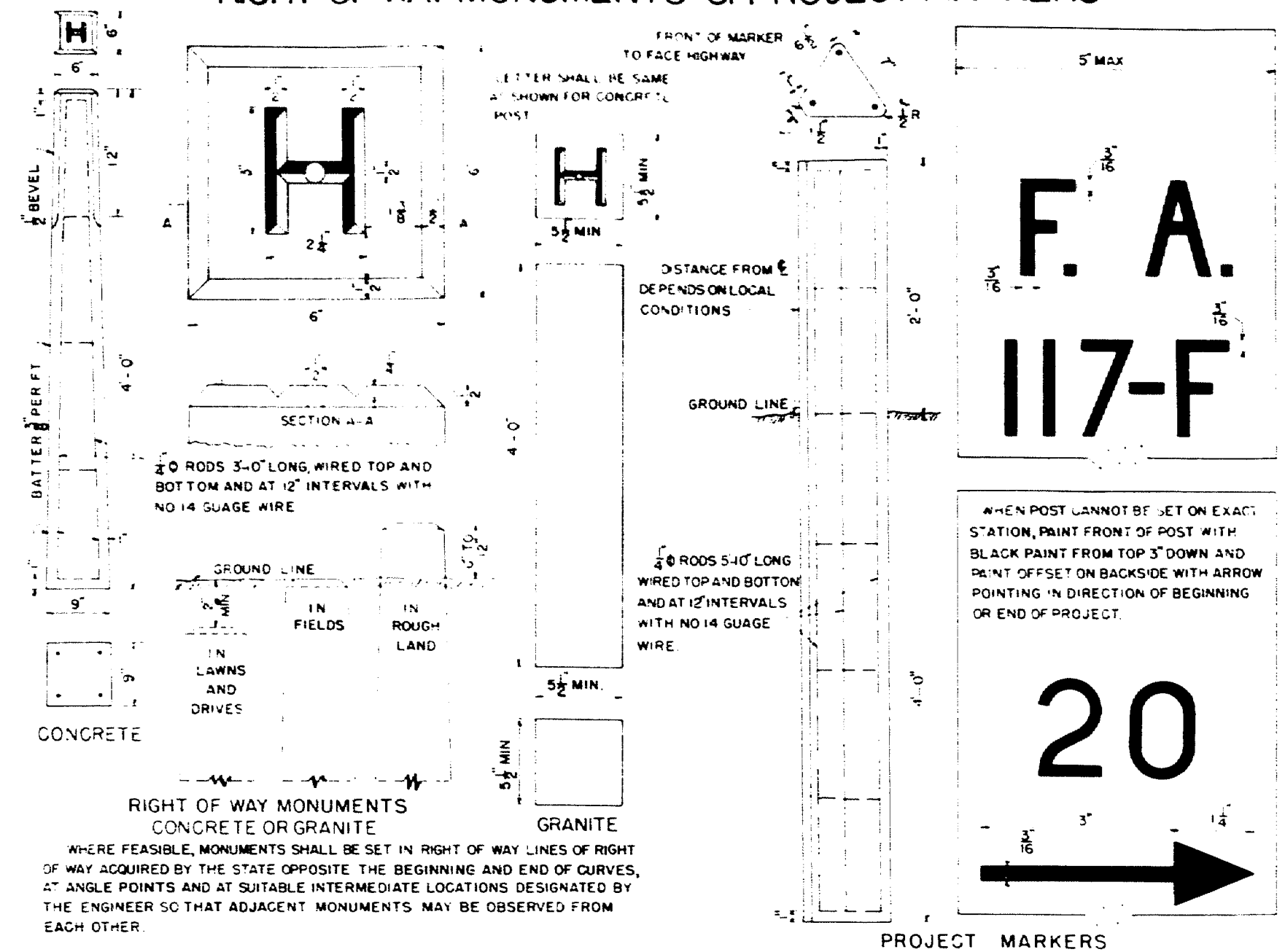
RECOMMENDED FOR
APPROVAL DATE

DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

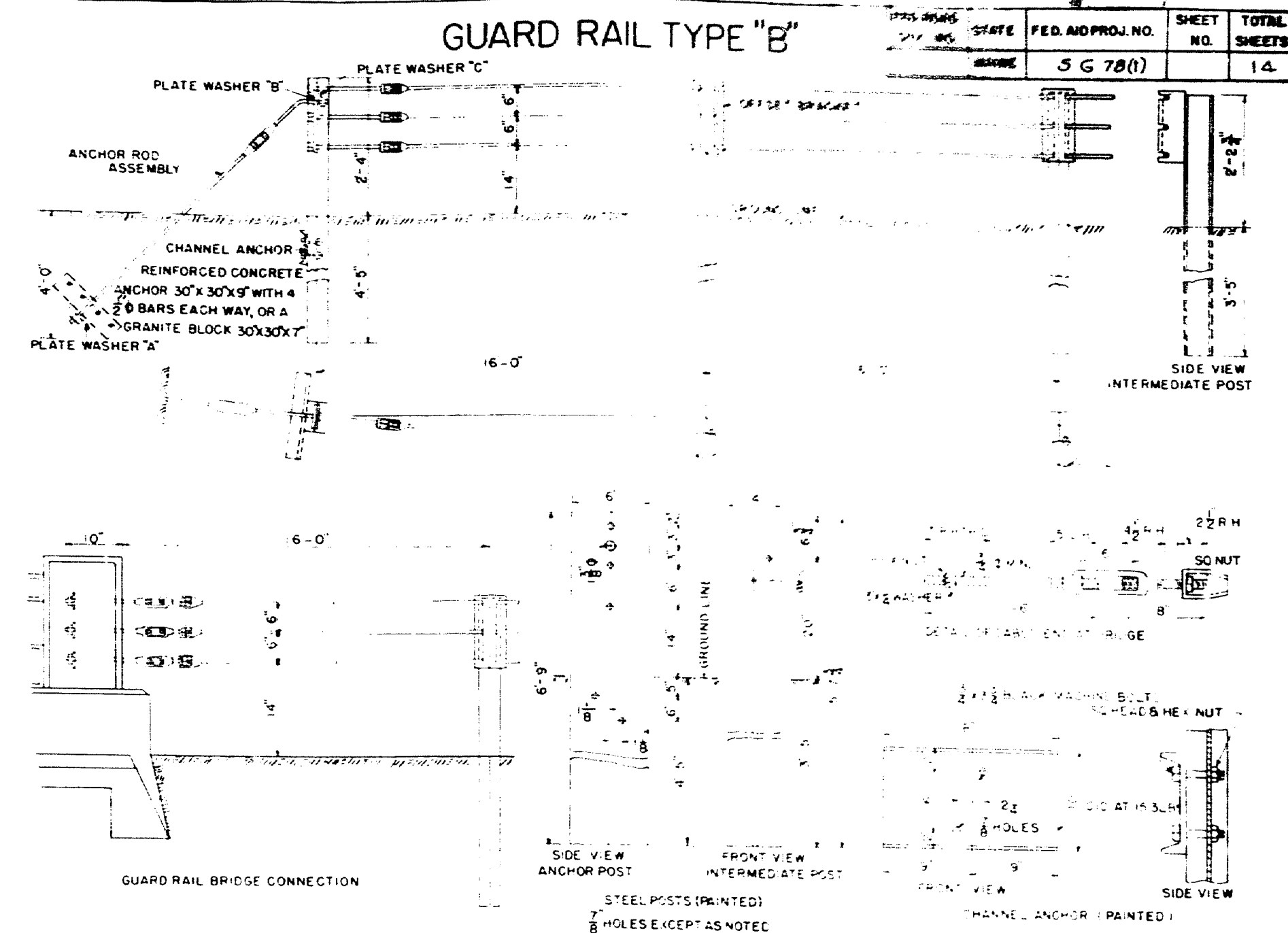
APPROVED DATE

DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
DEPARTMENT OF COMMERCE

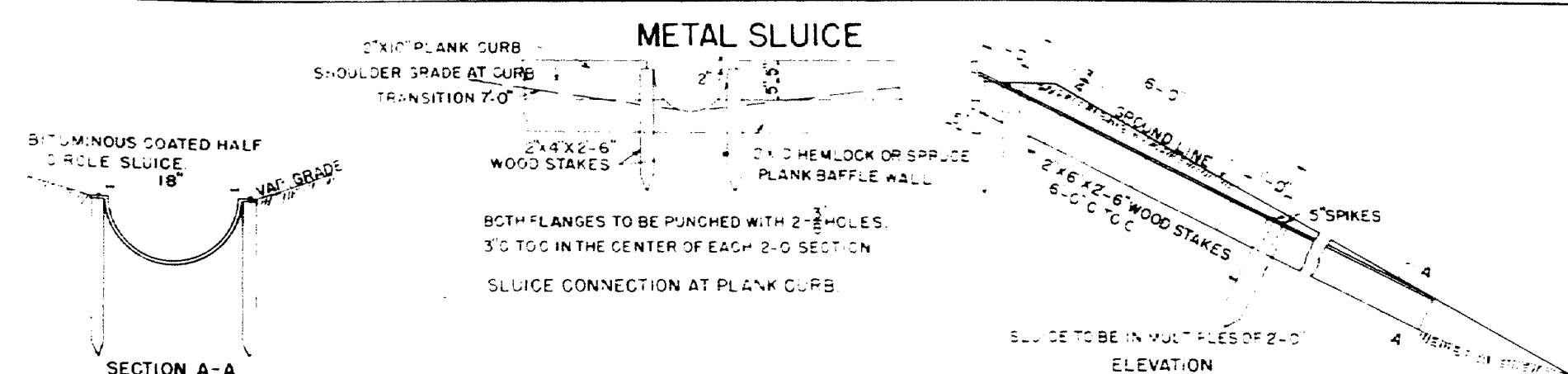
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



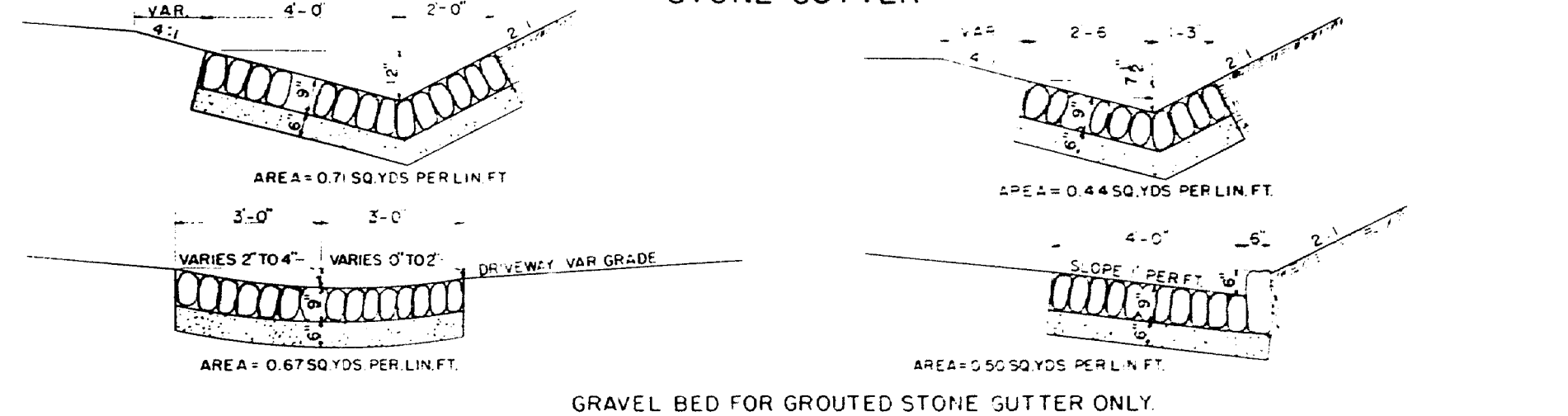
GUARD RAIL TYPE "B"



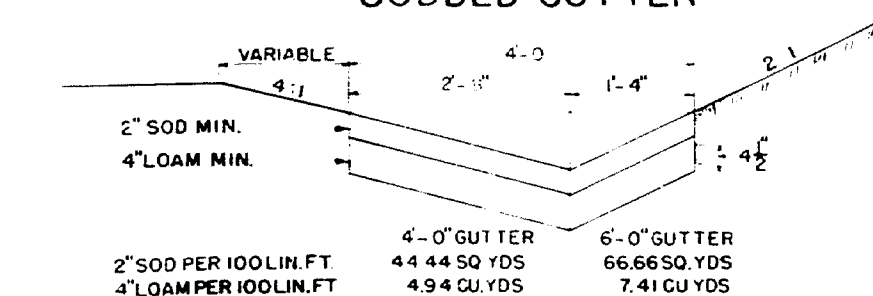
METAL SLUICE



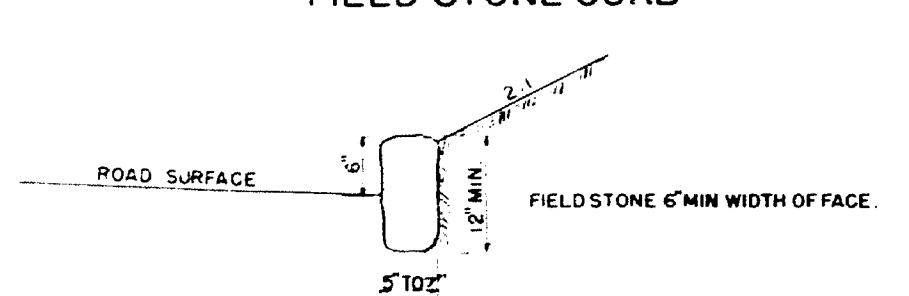
STONE GUTTER



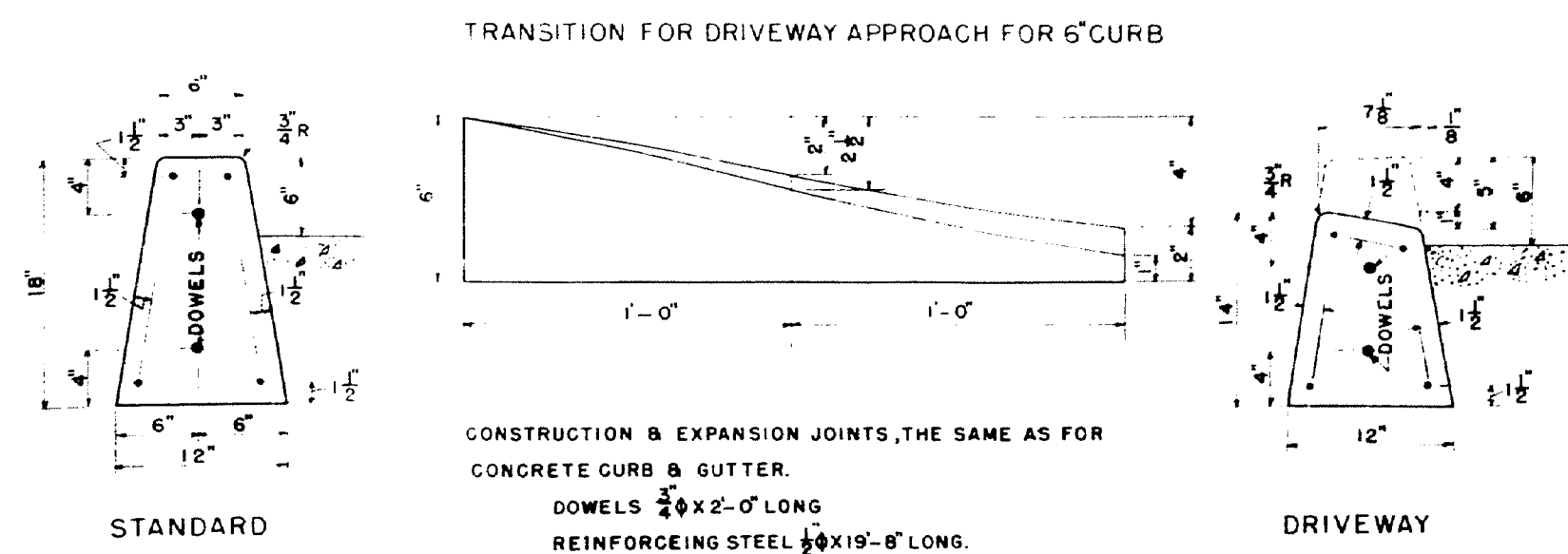
SODDED GUTTER



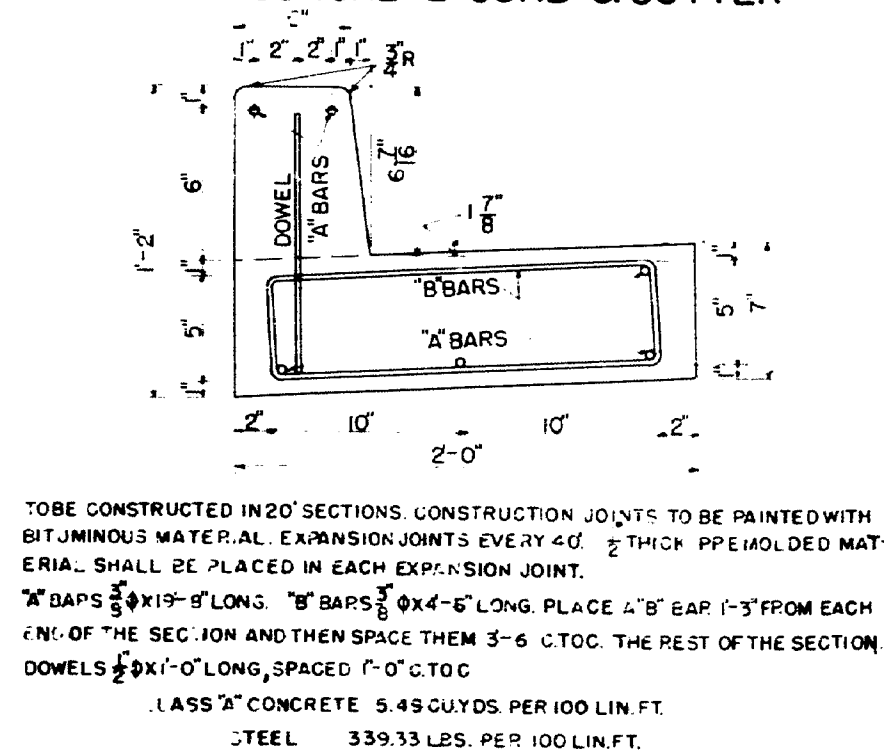
FIELD STONE CURB



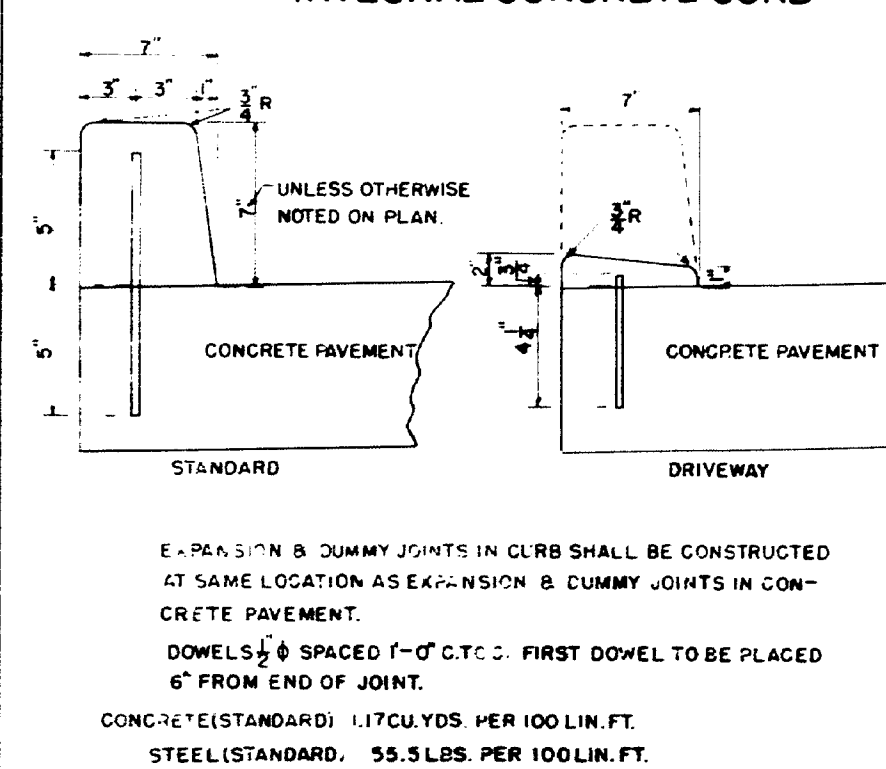
CONCRETE CURB



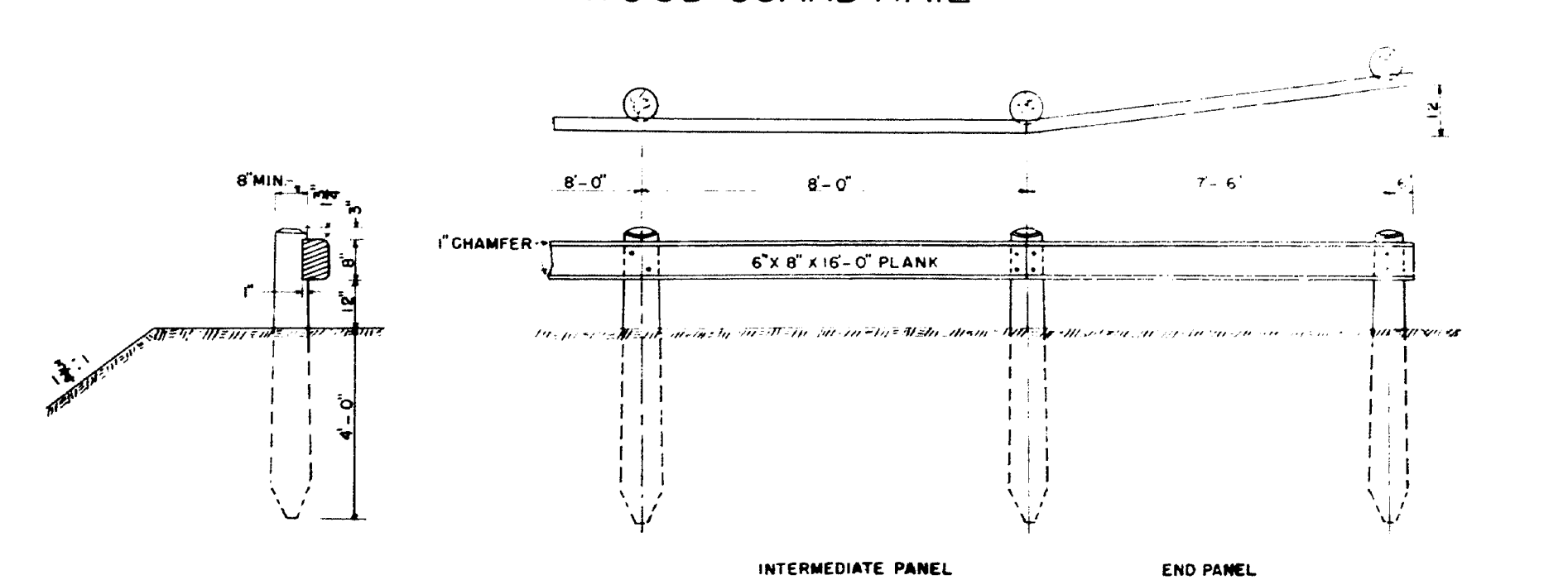
CONCRETE CURB & GUTTER



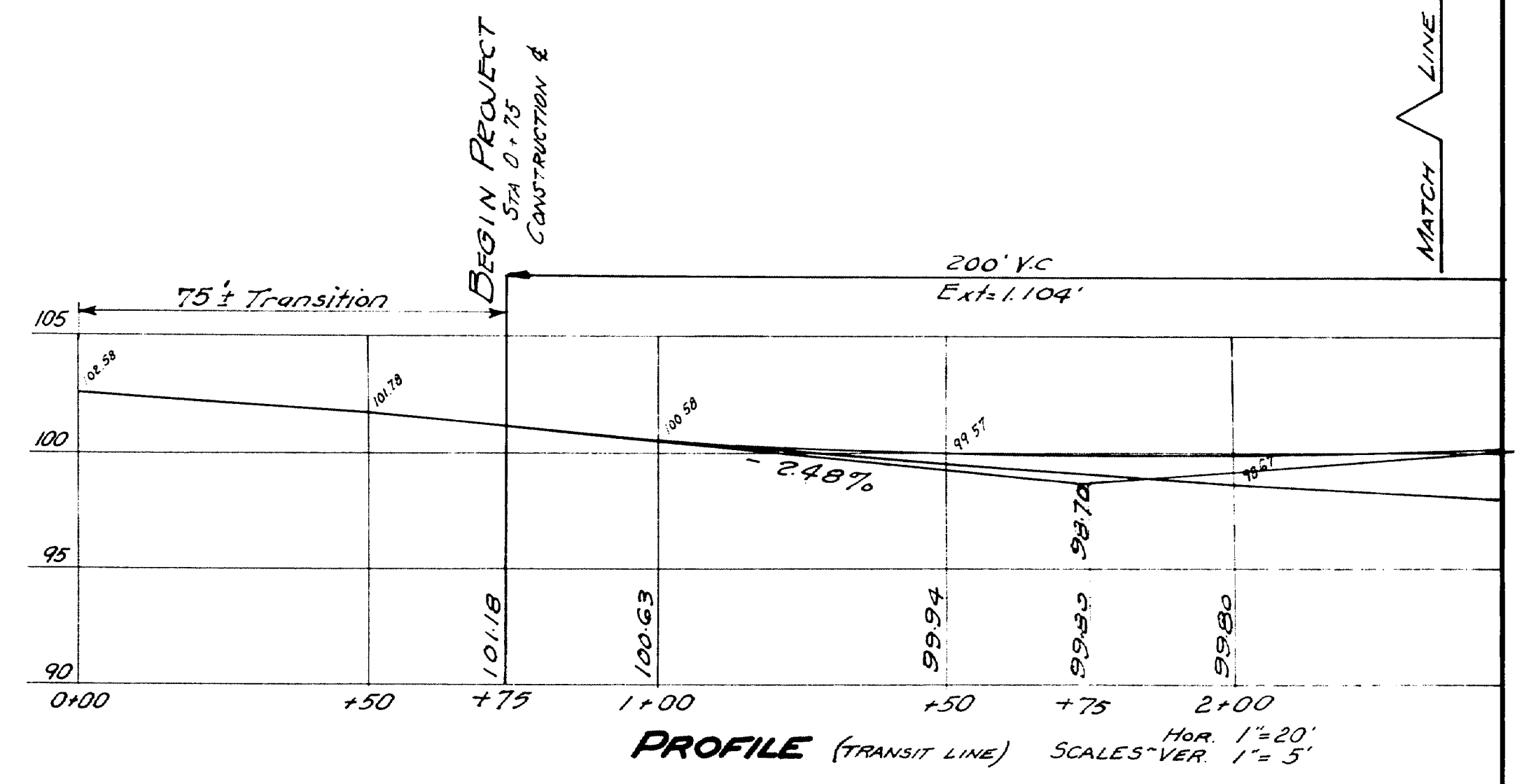
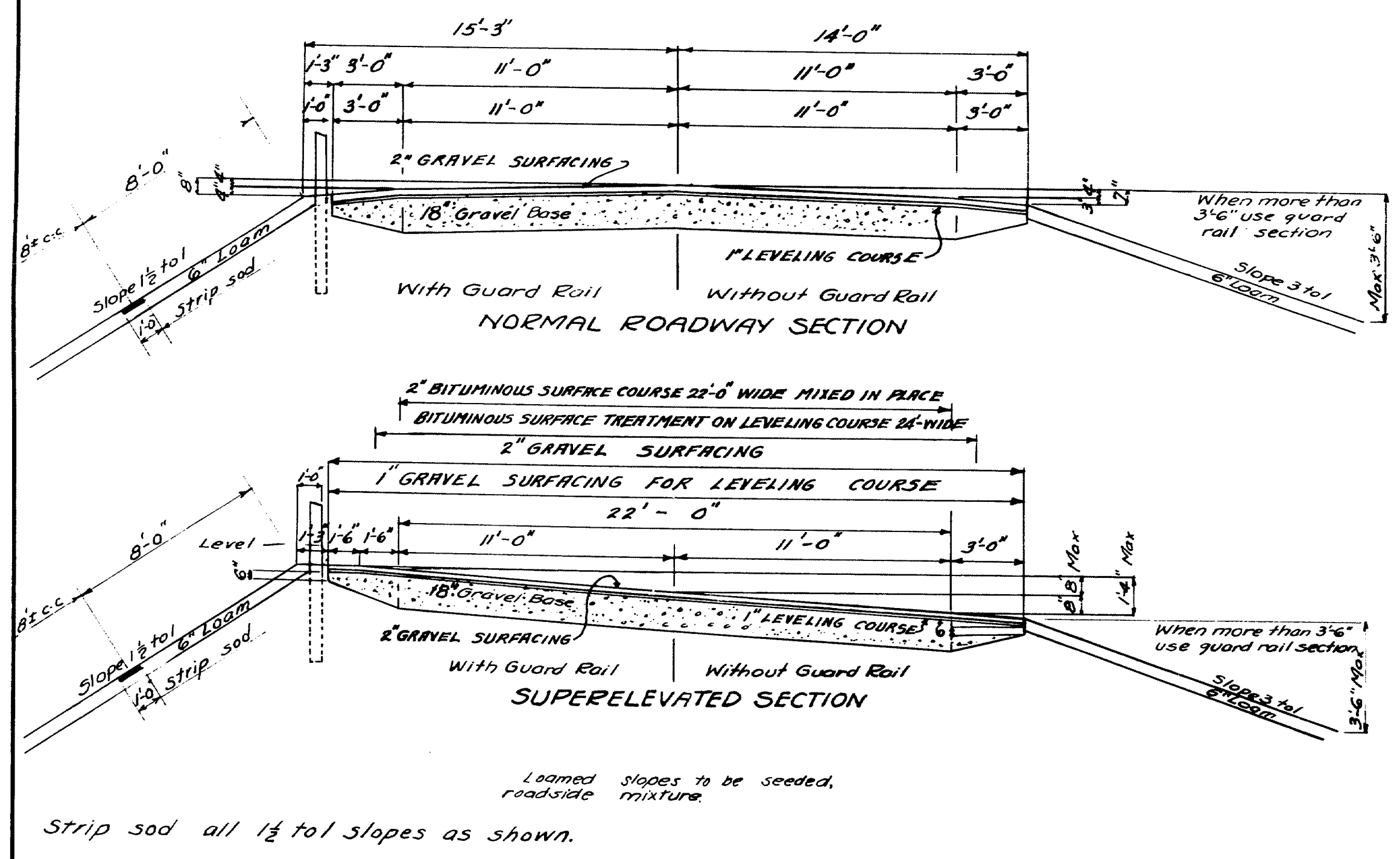
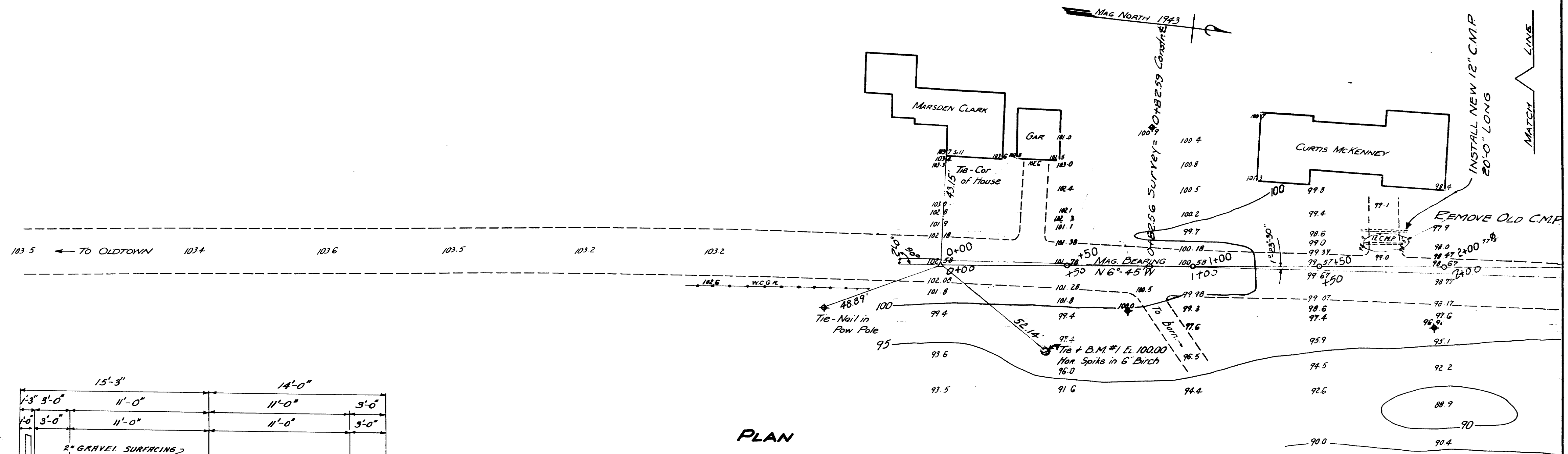
INTEGRAL CONCRETE CURB



WOOD GUARD RAIL



DATE	BY	NO.	SHEET	TOTAL
5-6-78	1	1	14	

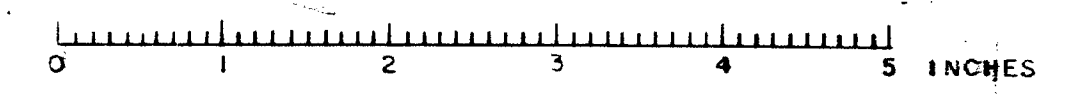


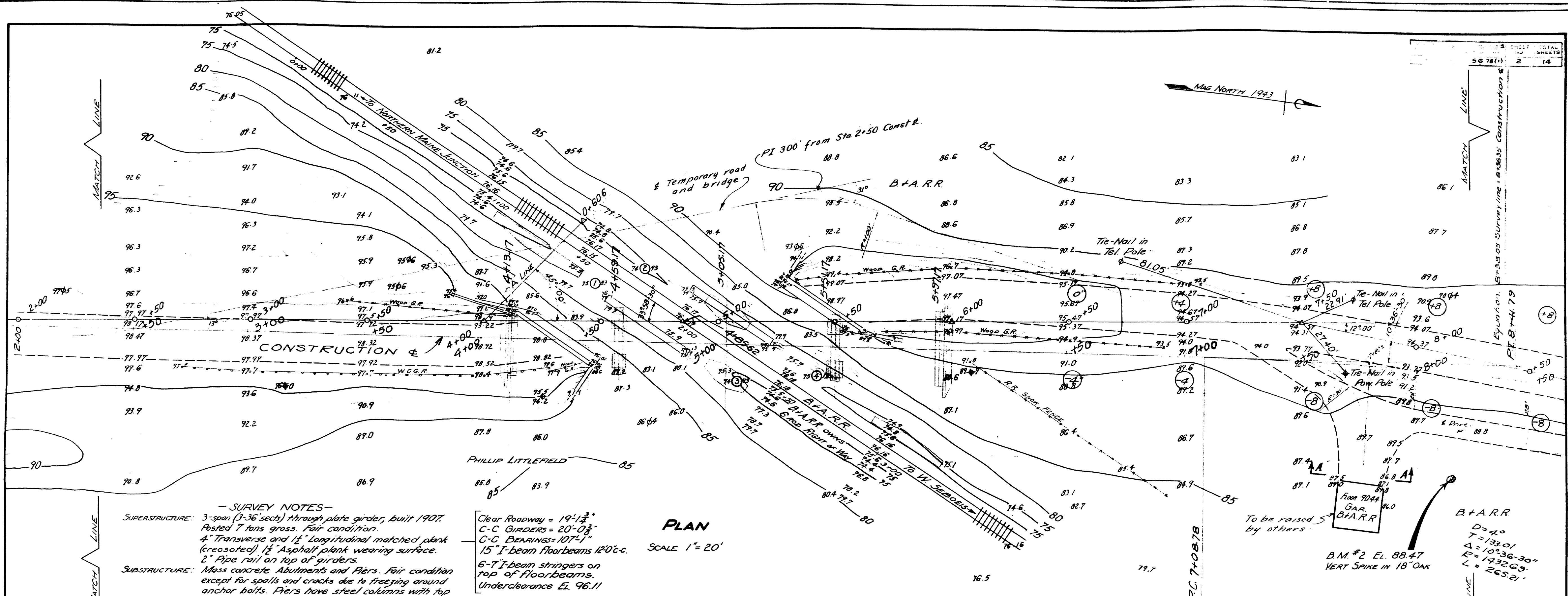
SURVEY BY: G. Welch TOWN 10-37
 PLAN BY: Hamlin BRIDGE 3867

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

OVERHEAD BRIDGE
 OVER THE TRACKS OF
 BANGOR AND AROOSTOOK R.R.
 IN THE TOWN OF
 LAGRANGE-PENOBSCOT CO.

SURVEY
 Sheet 1 of 12 Augusta, Maine Sept. 1978





- SURVEY NOTES -

SUPERSTRUCTURE: 3-span (3-36 sects) through plate girder, built 1907. Posted 7 tons gross. Fair condition.
 4" Transverse and 1 1/2" Longitudinal matched plank (creosoted) 1 1/2" Asphalt plank wearing surface.
 2" Pipe rail on top of girders.

SUBSTRUCTURE: Mass concrete Abutments and Piers. Fair condition except for spalls and cracks due to freezing around anchor bolts. Piers have steel columns with top and bottom ties and cross bracing.

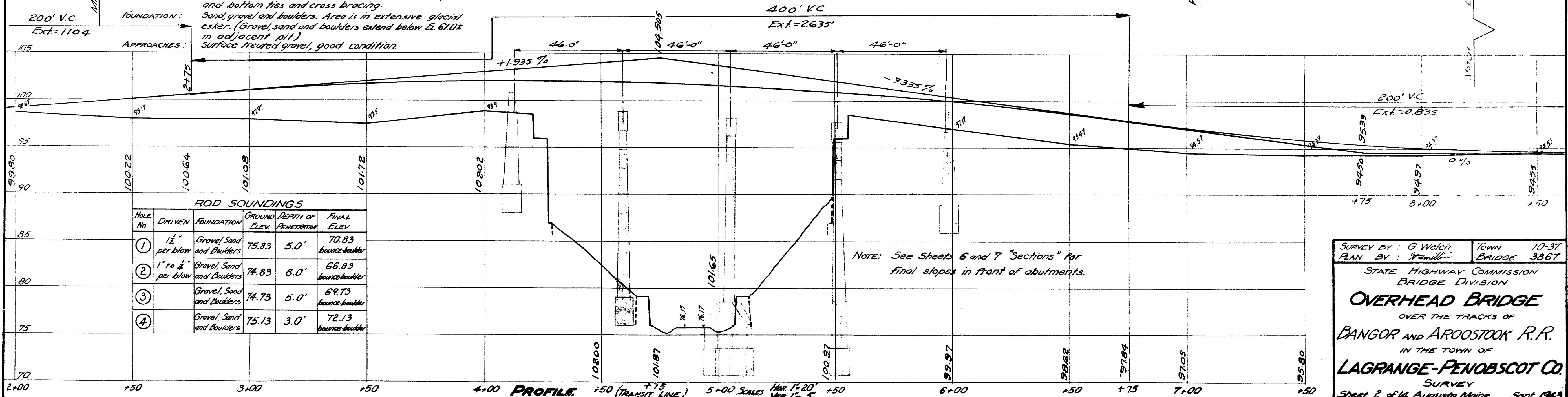
FOUNDATION: Sand, gravel and boulders. Area is in extensive glacial esker. (Gravel, sand and boulders extend below EL. 61.05 in adjacent pit.)

APPROACHES: Surface treated gravel, good condition

PLAN

Clear Roadway = 19'-1 1/2"
 C-C GIRDERS = 20'-0 3/4"
 C-C BEARINGS = 107'-1"
 15" I-beam floorbeams 120'-6"
 6-T I-beam stringers on top of floorbeams.
 Underclearance EL. 96.11

SCALE 1" = 20'



ROD SOUNDINGS

HOLE No.	DRIVEN	FOUNDATION	GROUND DEPTH OF ELEV. PENETRATION	FINAL ELEV.
85	①	1 1/2" per blow	Gravel, Sand and Boulders	75.83 5.0' 70.83 bounce boulder
80	②	1' to 1 1/2" per blow	Gravel, Sand and Boulders	74.83 8.0' 66.83 bounce boulder
75	③		Gravel, Sand and Boulders	74.73 5.0' 69.73 bounce boulder
70	④		Gravel, Sand and Boulders	75.13 3.0' 72.13 bounce boulder

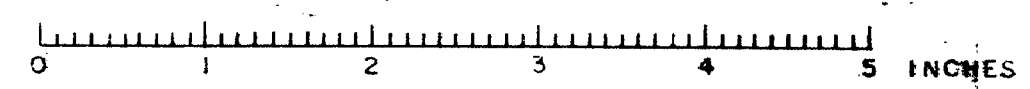
Note: See Sheets 6 and 7 "Sections" for final slopes in front of abutments.

SURVEY BY: G. Welch
 PLAN BY: H. Miller

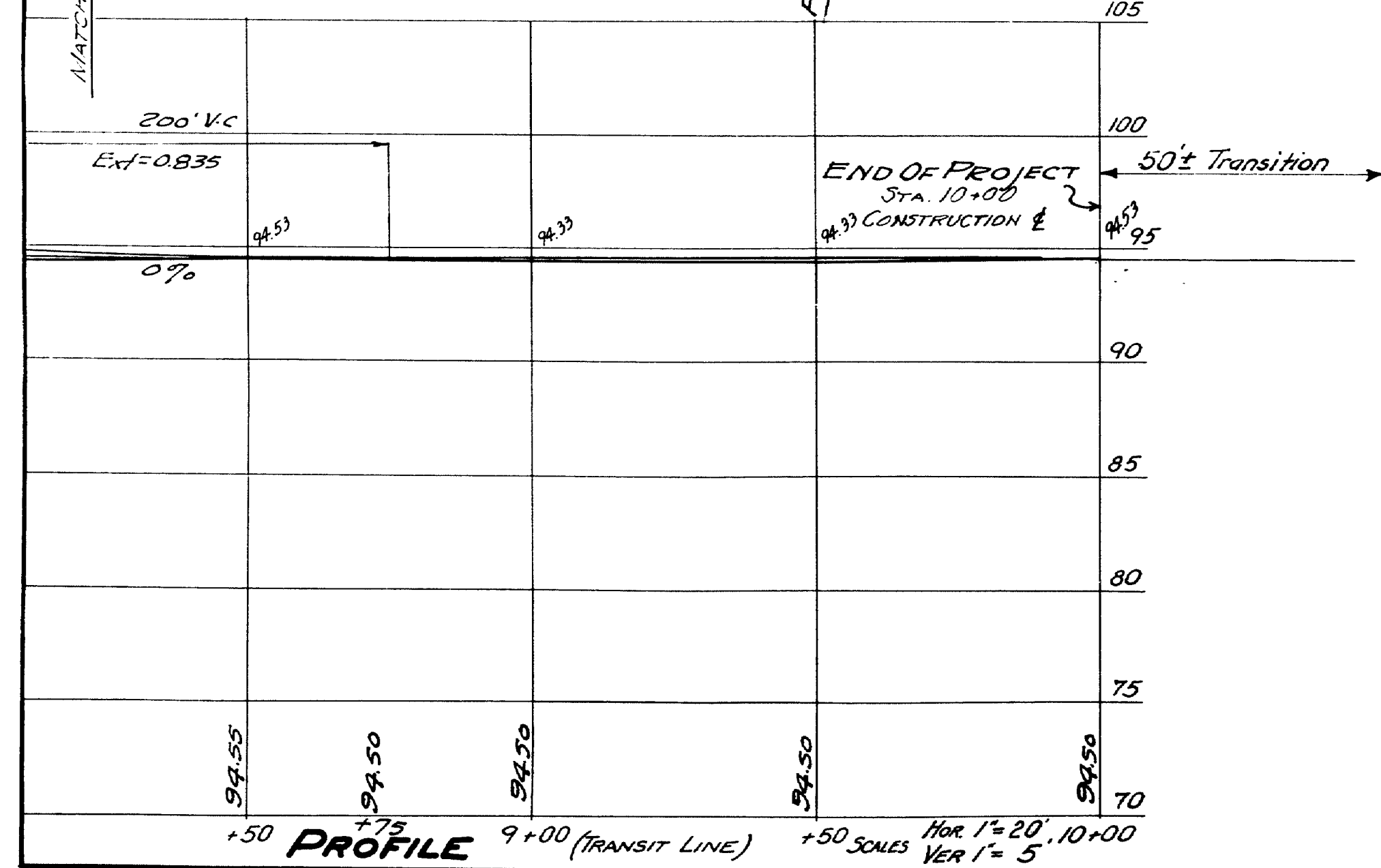
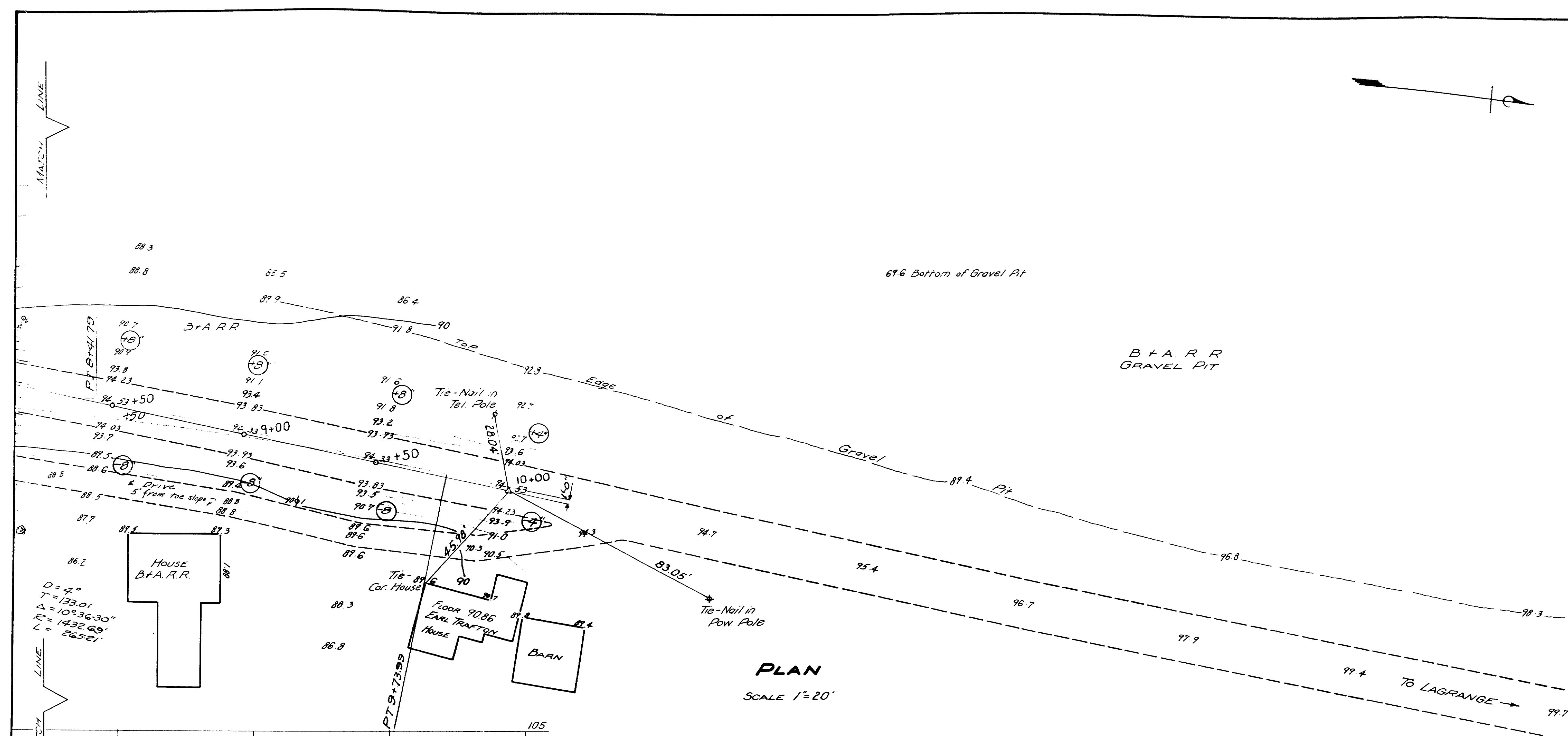
TOWN 10-37
 BRIDGE 3867

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

OVERHEAD BRIDGE
 OVER THE TRACKS OF
 BANGOR AND AROOSTOOK R.R.
 IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
 SURVEY
 Sheet 2 of 14 Augusta, Maine Sept. 1943



DATE	BY	SHEET NO.	TOTAL SHEETS
10-37	10-37	3	14



SURVEY BY: G. Welch
PLAN BY: J. Hamilton
TOWN: 10-37
BRIDGE: 3867
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
OVERHEAD BRIDGE
OVER THE TRACKS OF
BANGOR AND AROOSTOOK R.R.
IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
SURVEY
Sheet 3 of 14, Augusta, Maine Sept. 1943

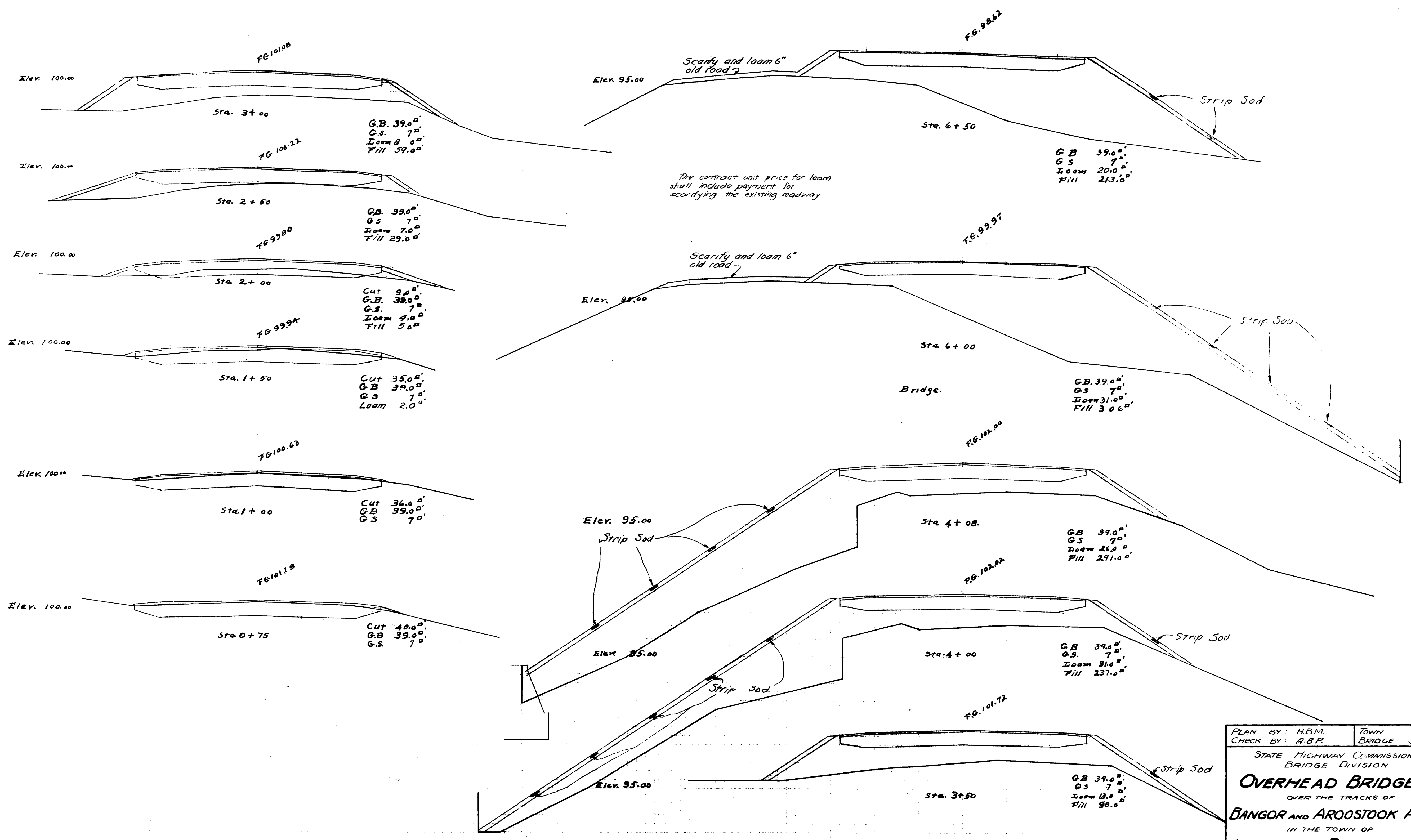


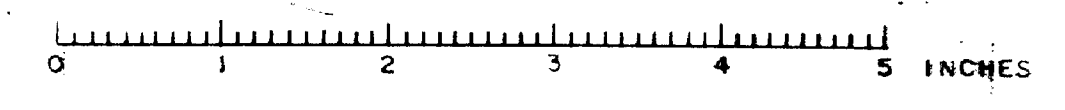
PLATE 3 CROSS SECTION B.P.R. STANDARD
BURNS & MCDONALD CO. CHICAGO, ILL.

BR sections widened 3" each side

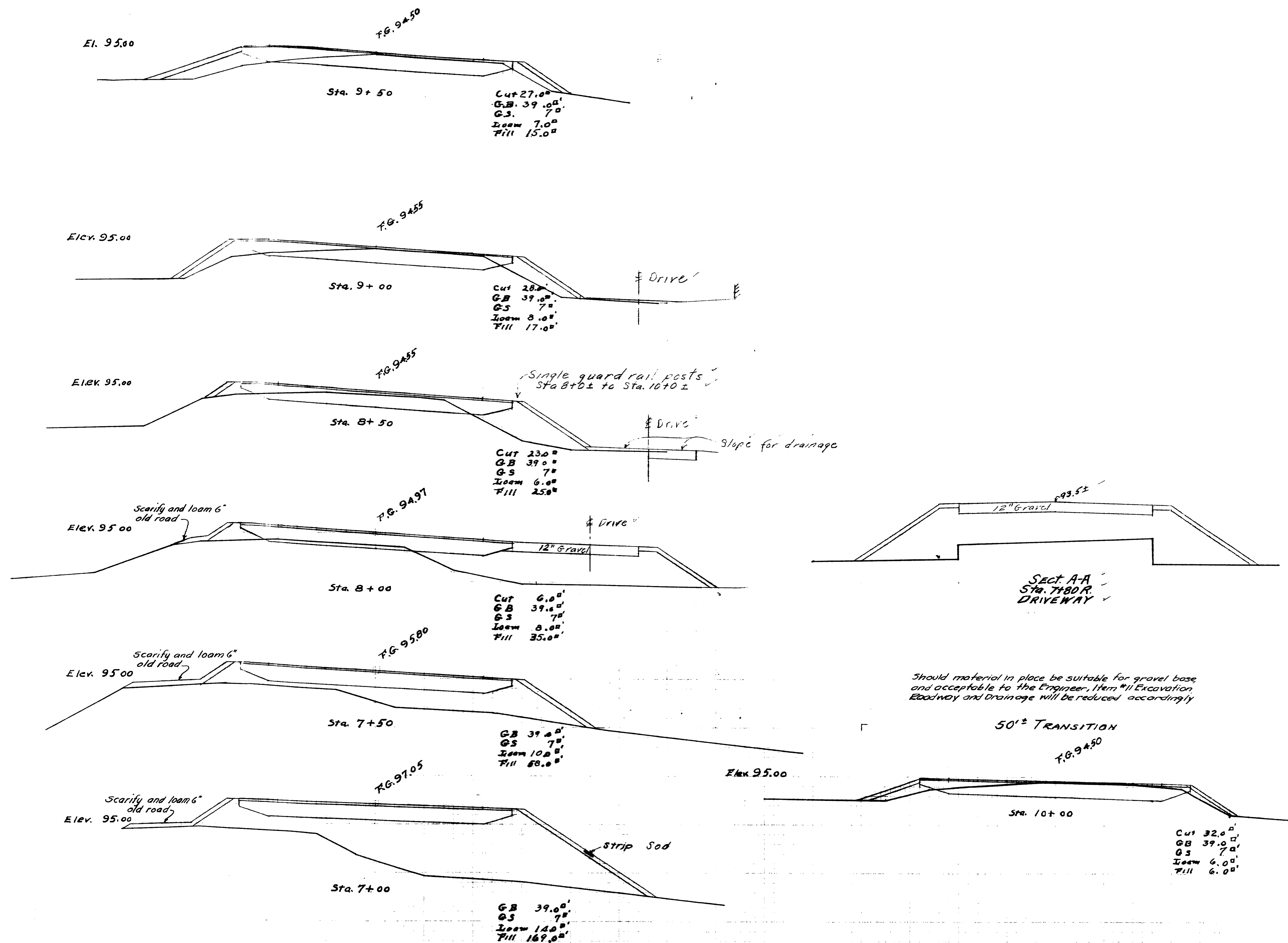
PLAN BY: H.B.M.	TOWN: 10-37
CHECK BY: A.B.P.	BRIDGE: 3867

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

OVERHEAD BRIDGE
OVER THE TRACKS OF
BANGOR AND AROOSTOOK R.R.
IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
X-SECTIONS
Sheet 4 of 12, Augusta, Maine, MAR. 1944

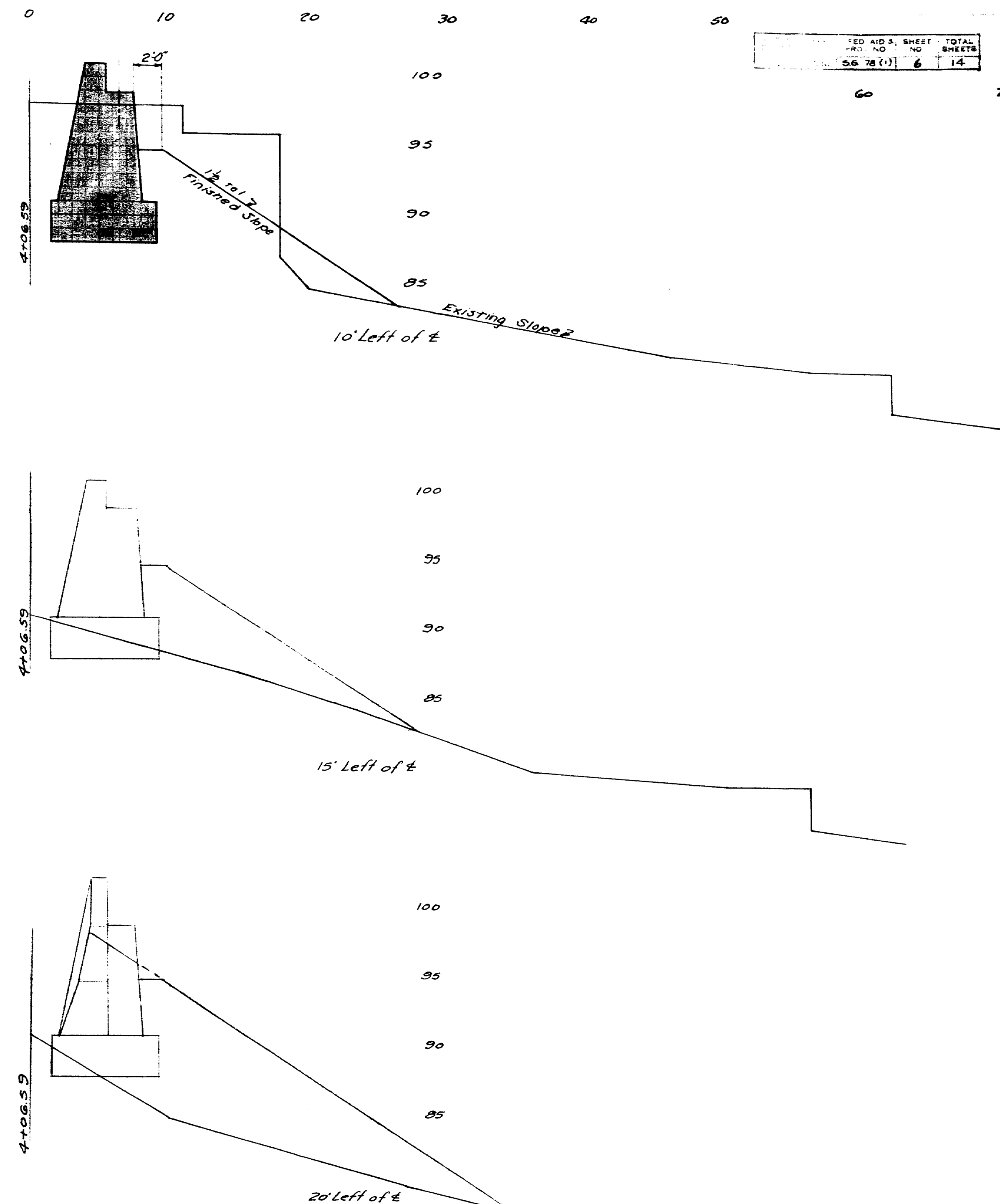
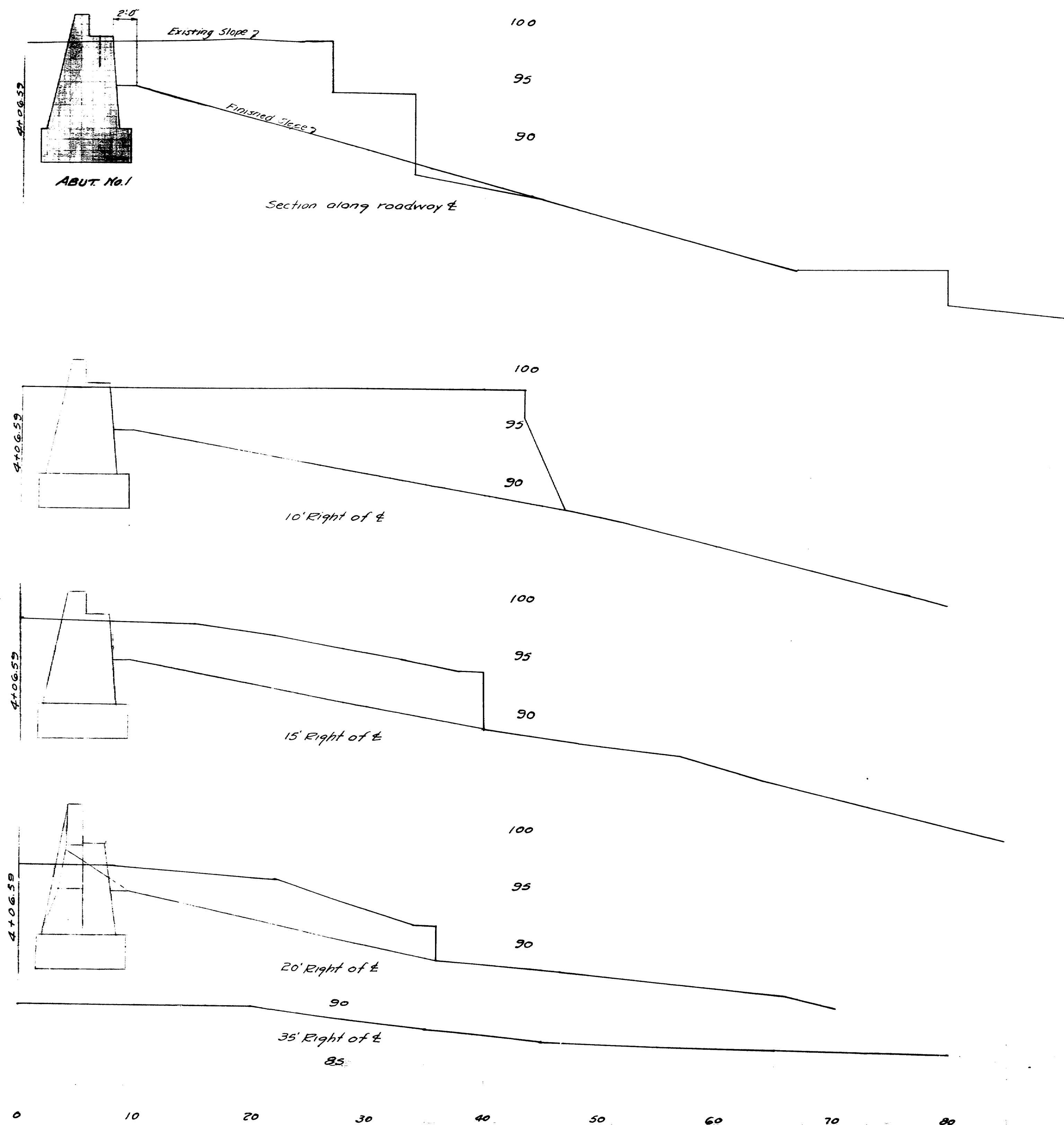


DATE	REV.	BY	CHK.	DATE	REV.	BY	CHK.	TOTAL SHEETS	TOTAL PAGES
1				5.6.78	(1)			5	14



PLAN BY: H.B.M.	TOWN: 10-37
CHECK BY: A.B.P.	BRIDGE: 3867
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
OVERHEAD BRIDGE	
OVER THE TRACKS OF	
BANGOR AND AROOSTOOK R.R.	
IN THE TOWN OF	
LAGRANGE-PENOBSCOT CO.	
X-SECTIONS	
Sheet 5 of 16, Augusta, Maine, May 1978	

0 1 2 3 4 5 INCHES



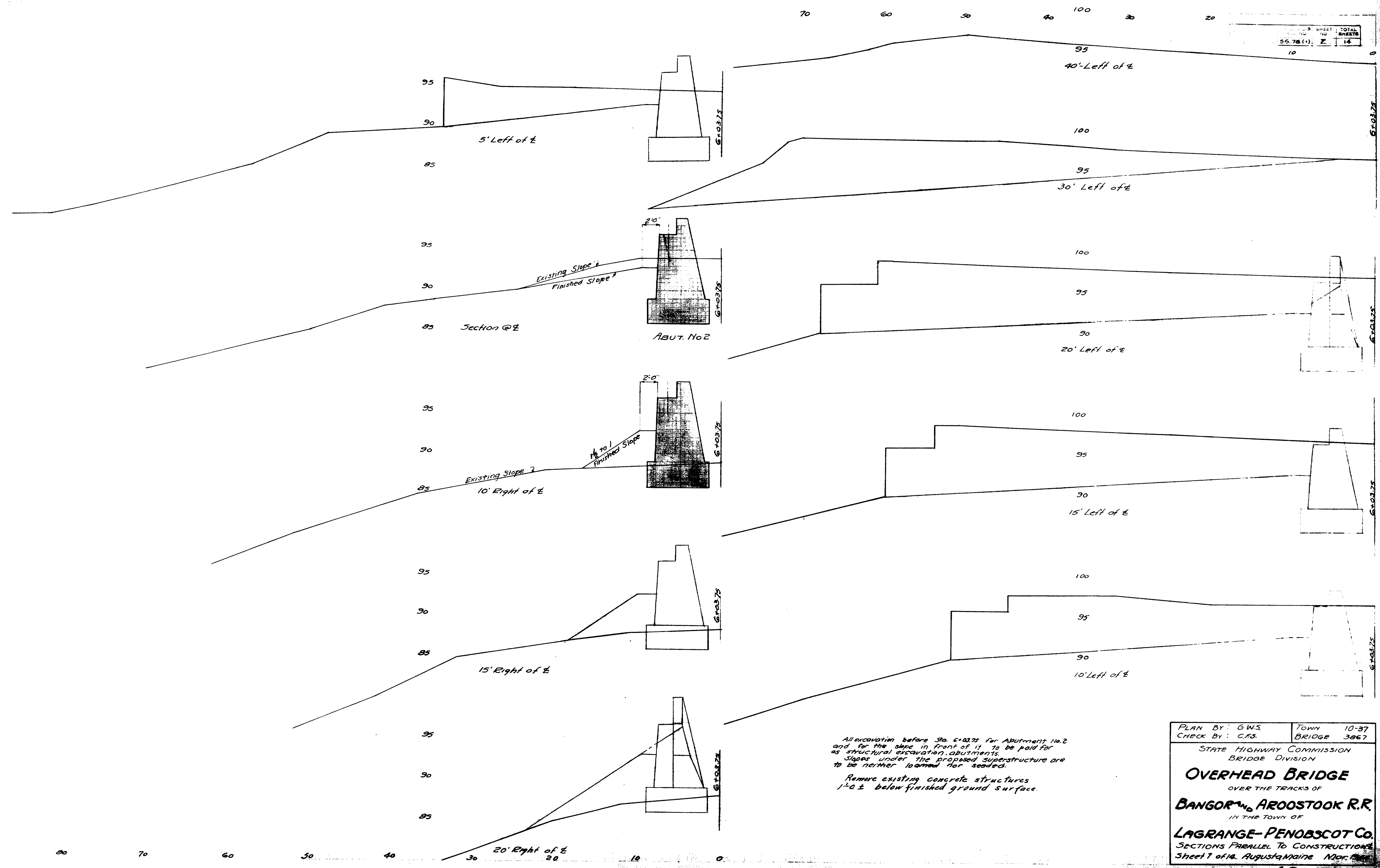
All excavation beyond Sta. 4+06.59 for Abutment No. 1 and for the slope in front of it to be paid for as structural excavation abutments.
Slopes under the proposed superstructure are to be neither loamed nor seeded.
Remove existing concrete structures 1'-0" below finished ground surface.

PLAN BY: G.W.S.	TOWN	10-37
CHECK BY: C.F.S.	BRIDGE	3867

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

OVERHEAD BRIDGE
OVER THE TRACKS OF
DANFORTH, AROOSTOOK R.R.
IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
SECTIONS PARALLEL TO CONSTRUCTION &
Sheet 6 of 14 August, Maine Mar 1924

0 1 2 3 4 5 INCHES



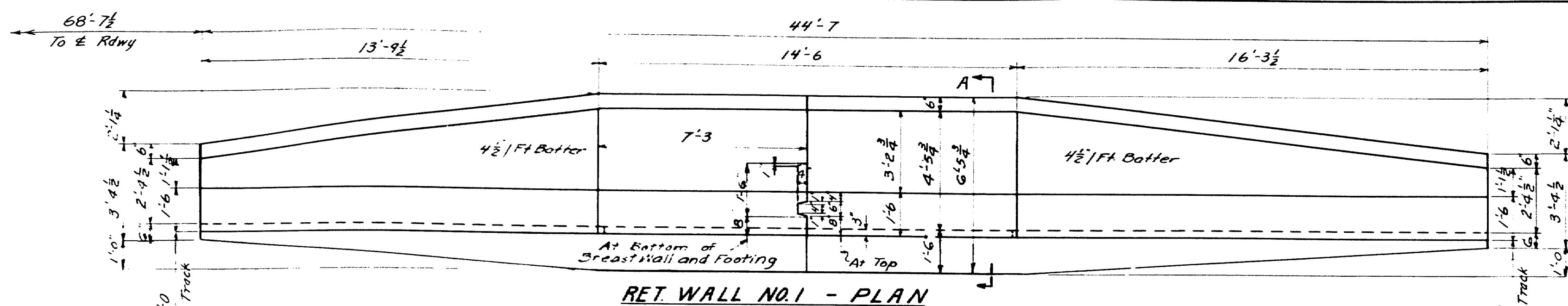
Excavation before Sta. 6+03.75 for Abutment No. 2 and for the slope in front of it to be paid for as structural excavation abutments. Slopes under the proposed superstructure are to be neither loamed nor seeded.

Remove existing concrete structures 1'-0" ± below finished ground surface.

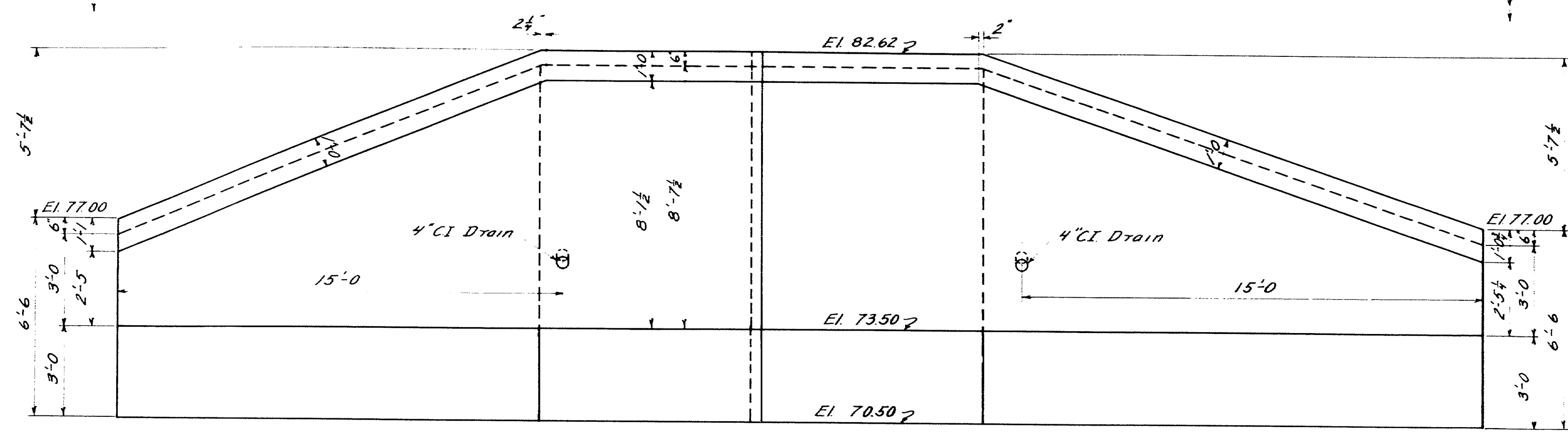
PLAN BY: GWS.	TOWN: 10-37
CHECK BY: C.F.S.	BRIDGE: 3867

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

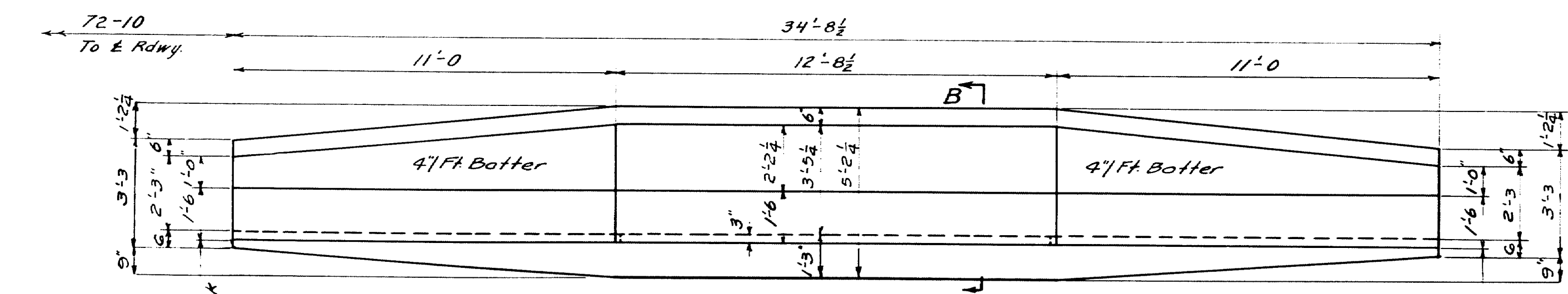
OVERHEAD BRIDGE
OVER THE TRACKS OF
BANGOR AND AROOSTOOK R.R.
IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
SECTIONS PARALLEL TO CONSTRUCTION
Sheet 7 of 16, Augusta, Maine, Mar. 1908



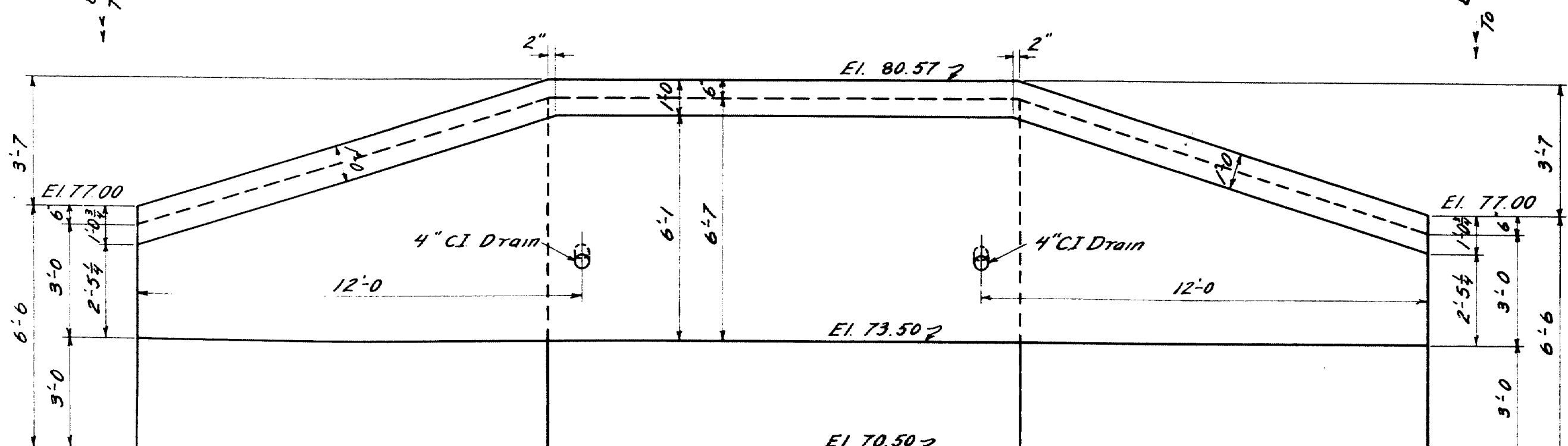
RET. WALL NO.1 - PLAN



RET. WALL NO.1 - FRONT ELEVATION



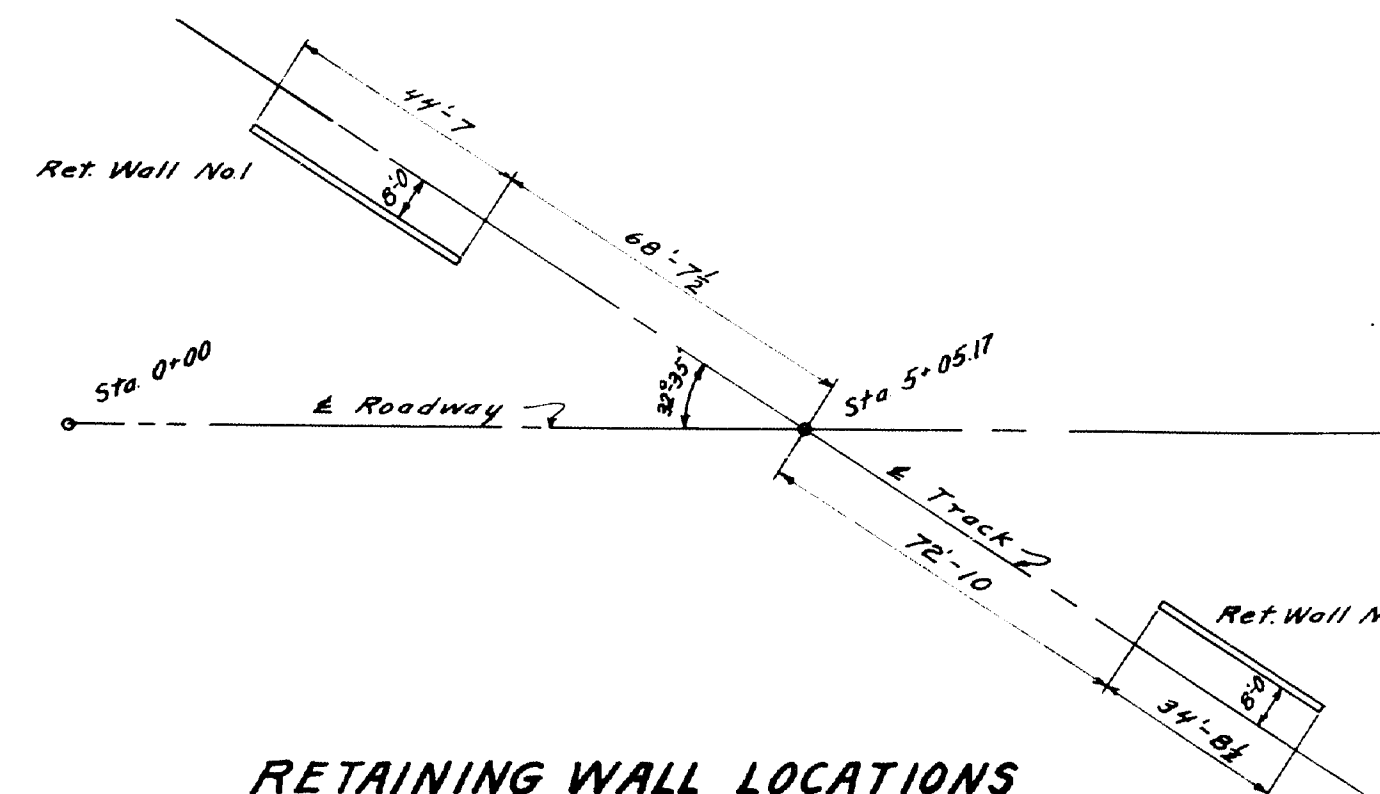
RET. WALL NO.2 - PLAN



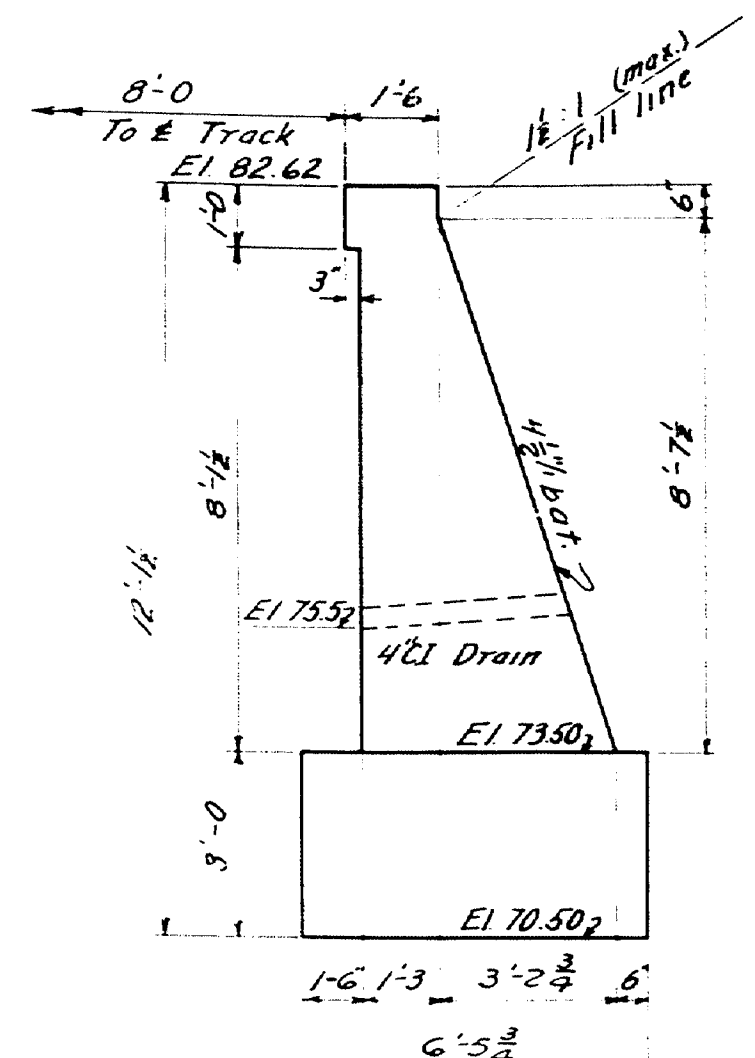
RET. WALL NO.2 - FRONT ELEVATION

Construction Joints
Make 1" V-groove front side
Coat one side of joint with
hot tar or asphalt. Cover
the back side with two
layers of heavy roofing
10" wide. Cover the
concrete and the back
of each layer as applied
with hot tar or asphalt.
Recess the area to be
covered 4" by nailing thin
strips to the forms
before concrete is
placed.

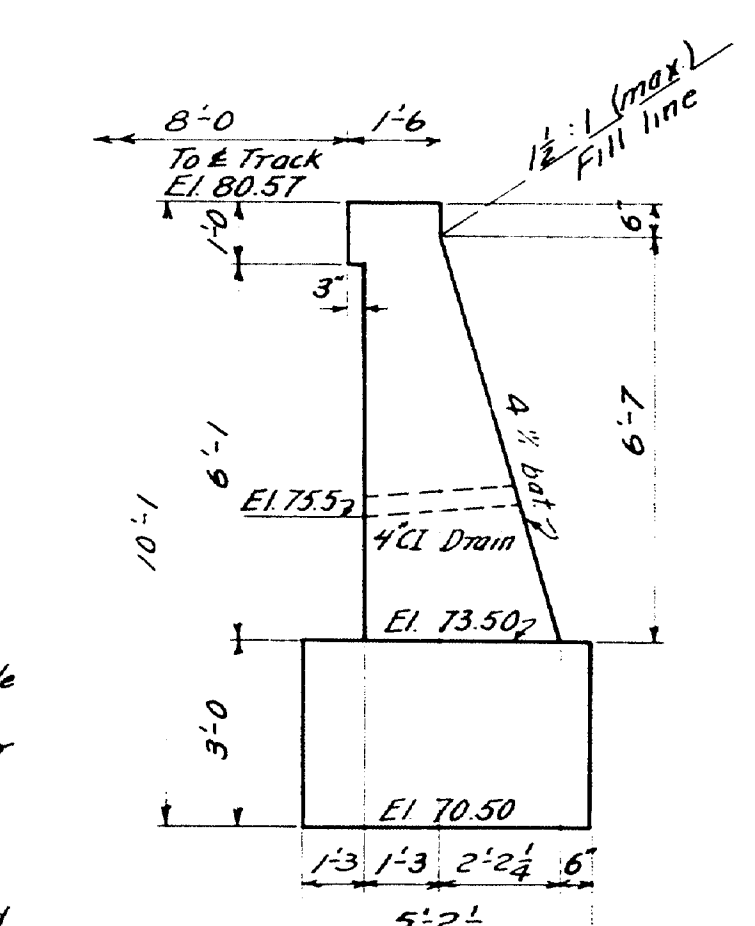
Payment for 4" Cast Iron
Drains to be included in
the unit price for concrete



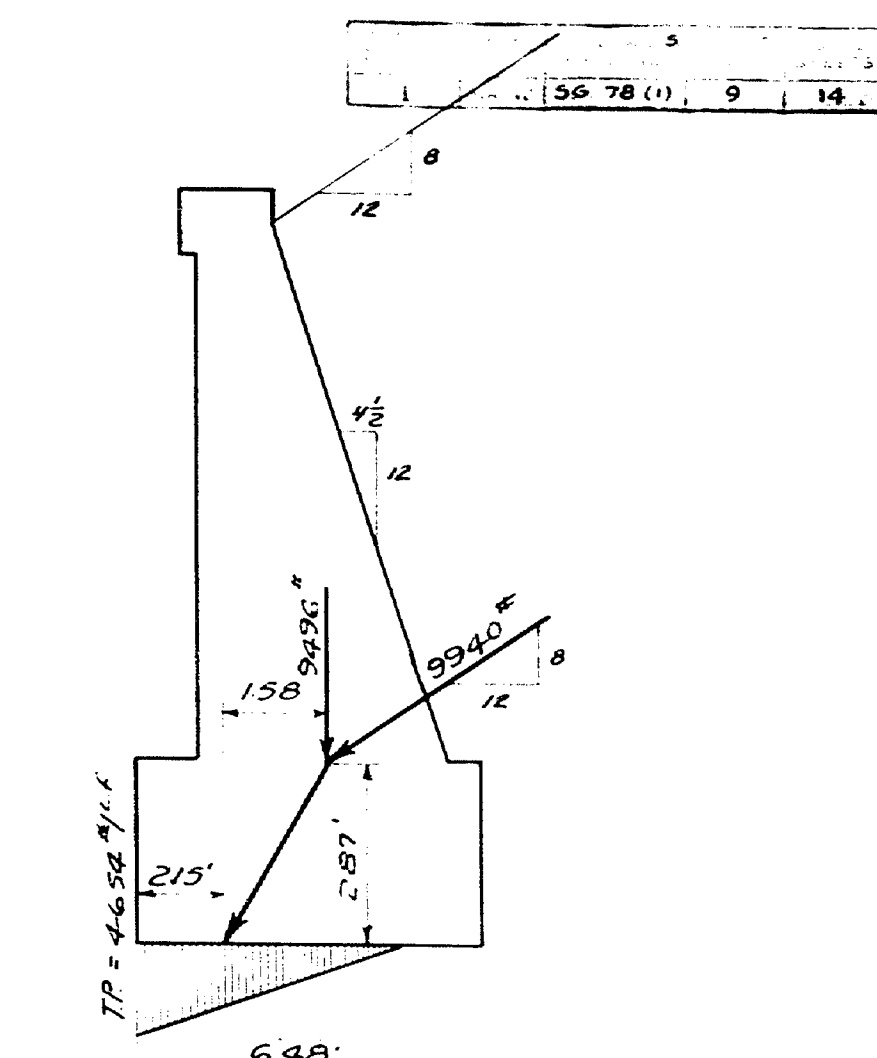
RETAINING WALL LOCATIONS



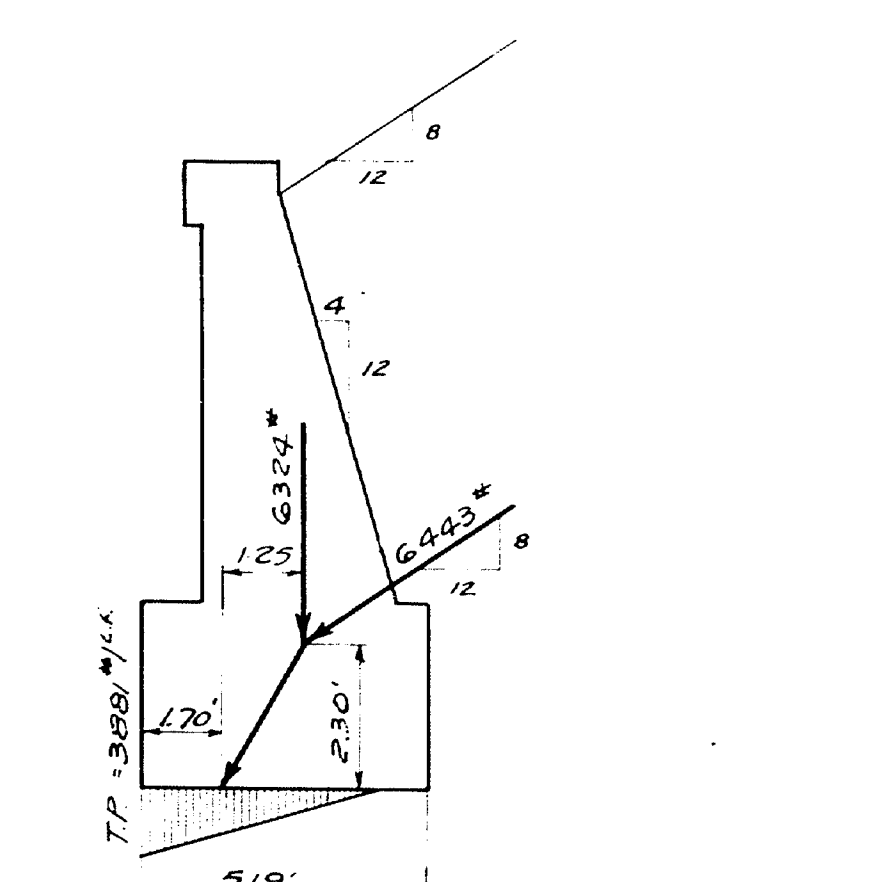
SECTION A-A



SECTION B-B

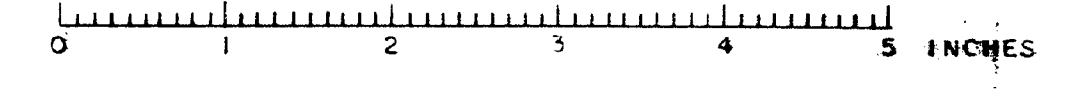


ANALYSIS - RET. WALL NO.1



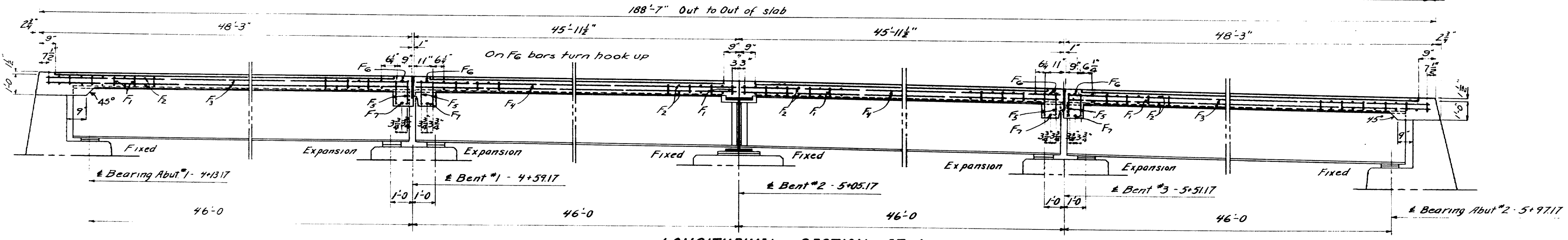
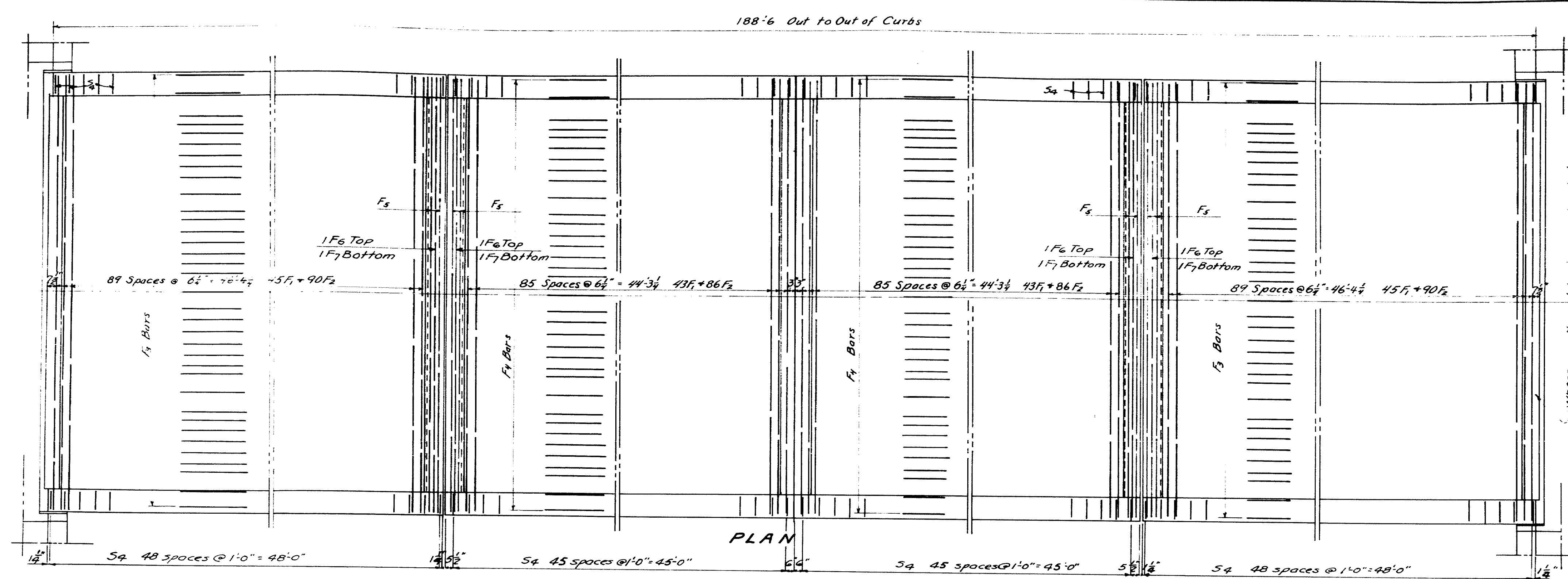
ANALYSIS - RET. WALL NO.2

PLAN BY: NWT-GWS	TOWN: 10-37
CHECK BY: A.B.P.	BRIDGE: 3867
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
OVERHEAD BRIDGE	
OVER THE TRACKS OF	
BANGOR AND AROOSTOOK R.R.	
IN THE TOWN OF	
LAGRANGE-PENOBSCOT CO.	
RETAINING WALLS	
Sheet 9 of 14 Augusta, Maine Mar. 1944	

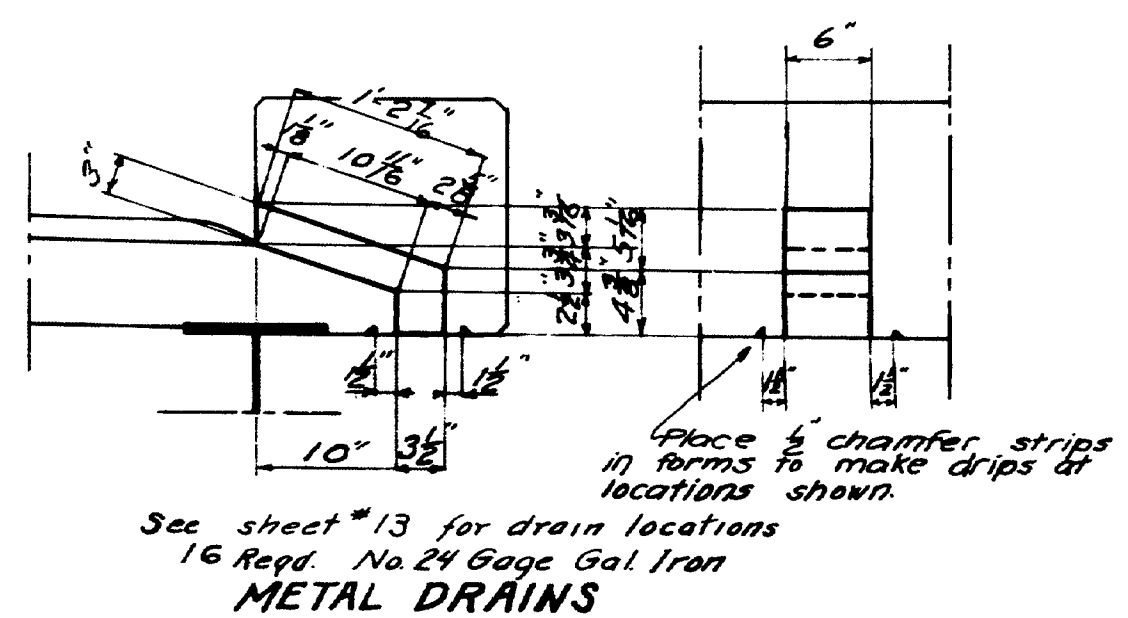
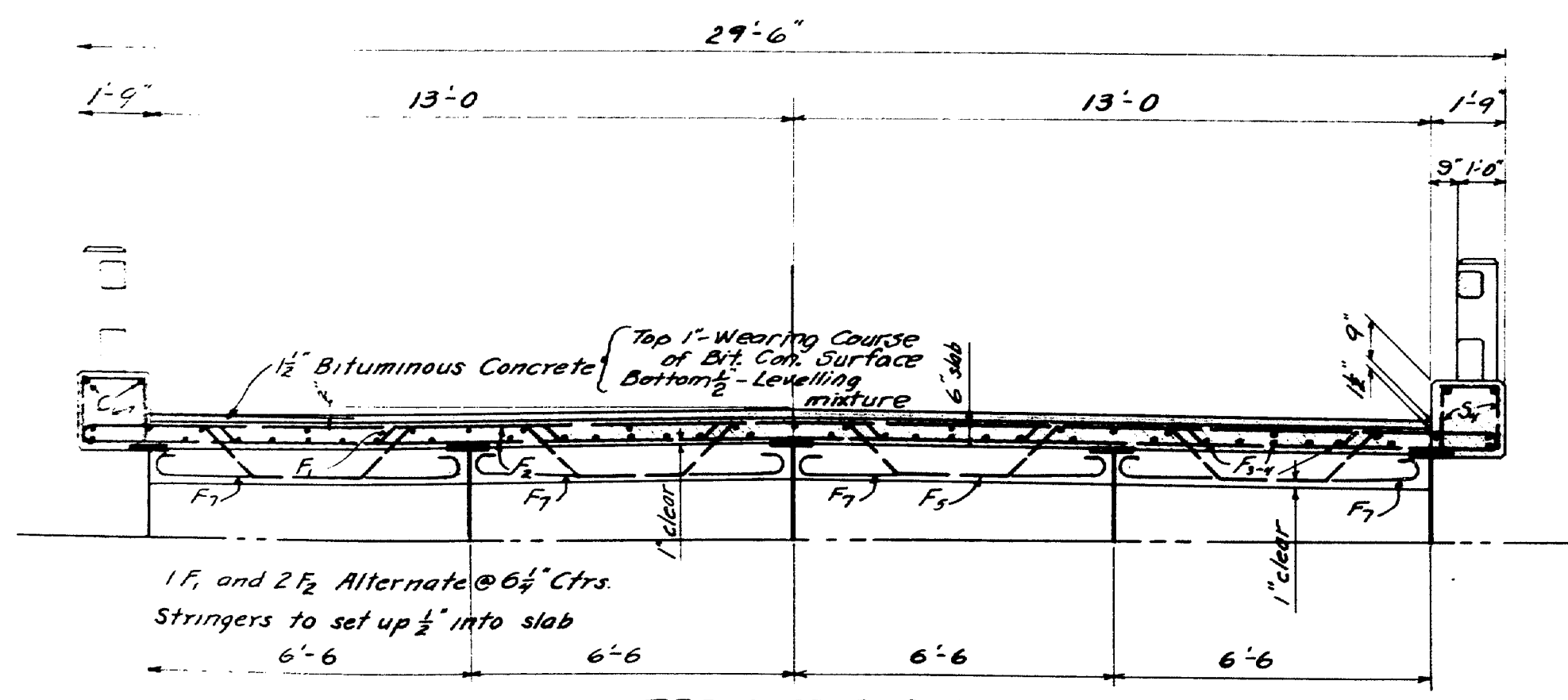
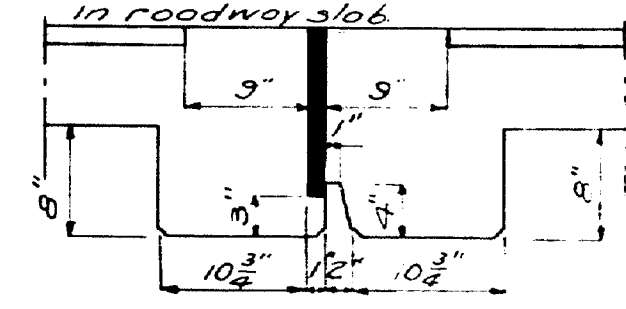


± FINISHED GRADES ON BRIDGE		
4+10.88	102.04	End of slab
+13.17	102.05	± Bearing Abut #1
+24.67	102.05	
+36.17	102.04	
+47.67	102.02	
+59.17	101.97	± Bent #1
+70.67	101.90	
+82.17	101.81	
+93.67	101.71	
5+05.17	101.60	± Bent #2
+16.67	101.46	
+28.17	101.31	
+39.67	101.14	
+51.17	100.95	± Bent #3
+62.67	100.75	
+74.17	100.53	
+85.67	100.28	
+97.17	100.03	± Bearing Abut #2
+99.46	99.97	End of slab

Wherever the slab is constructed on roadway grade, it shall have wearing surface finish.

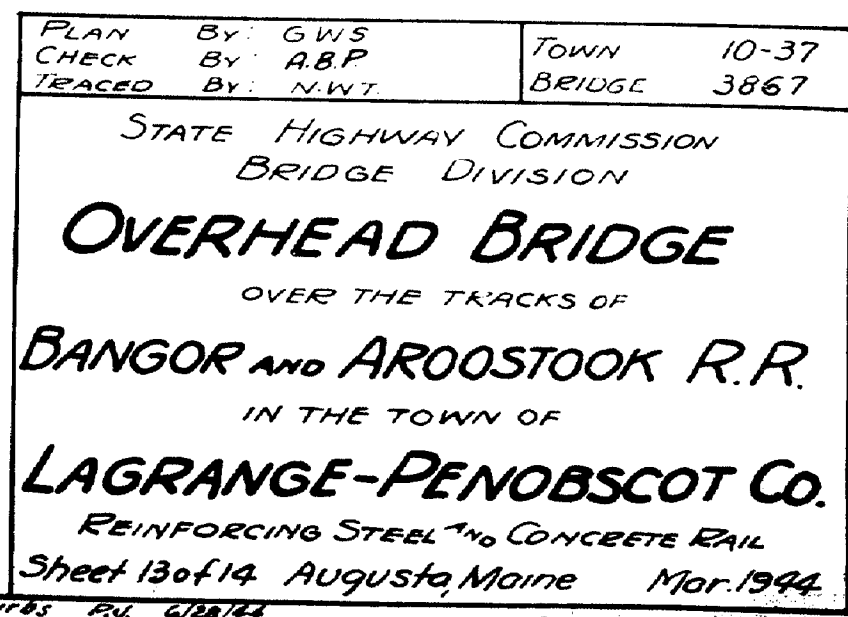
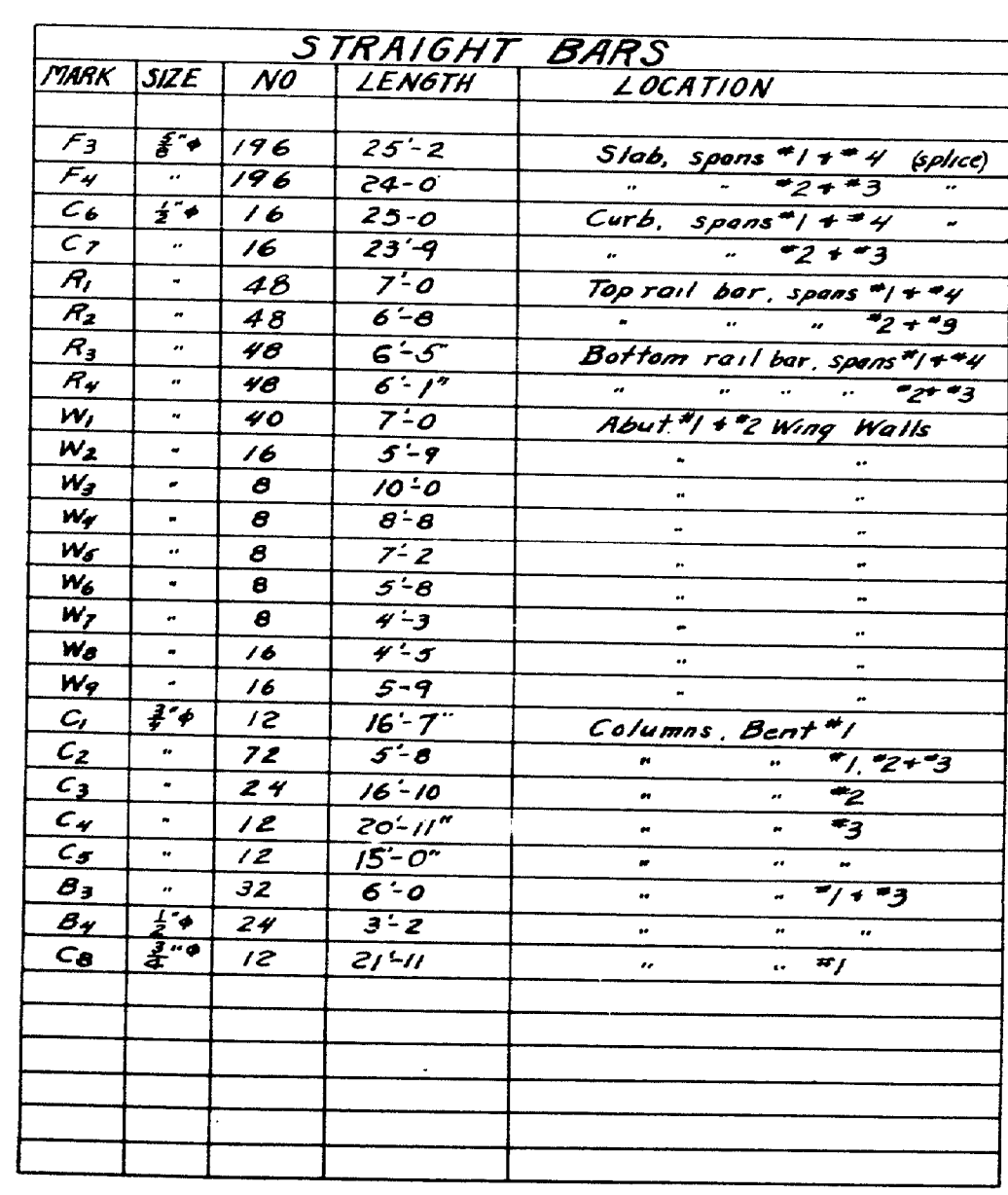
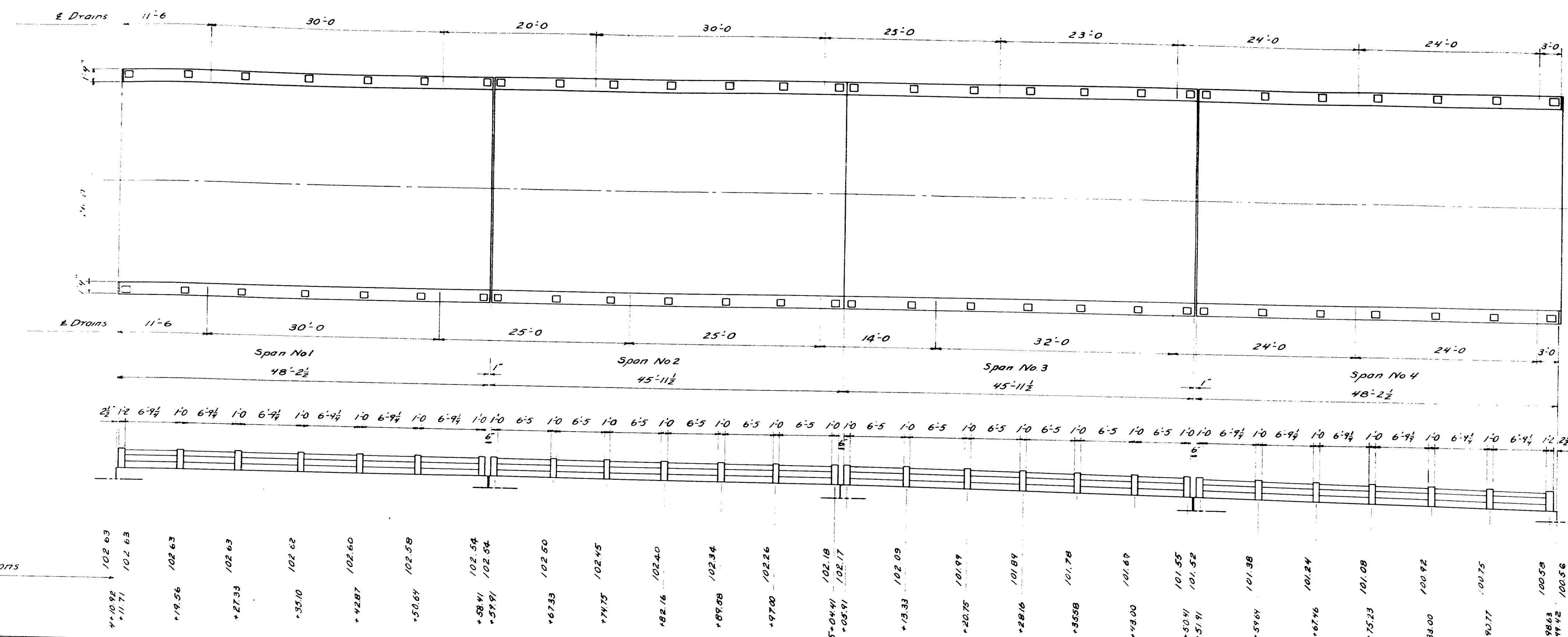


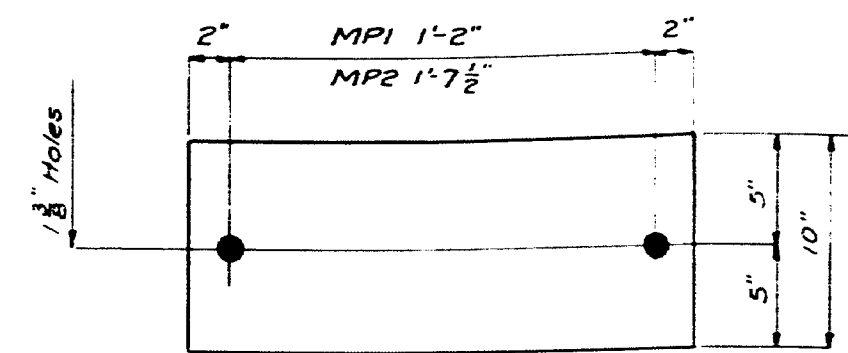
Fill the 1" opening with preformed expansion material flush with top of slab and face of curb 2" from top and outside of curb. Hold in place with 10d nails countersunk 1/2". Payment to be included in price of concrete in roadway slab.



Top of concrete slab to be finished so that no portion shows more than 1/4\"/>

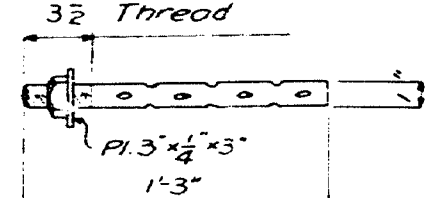
PLAN	BY: GWS	TOWN	10-37
CHECK	BY: A.B.P.	BRIDGE	3867
TRACED	BY: H.W.T.		
STATE HIGHWAY COMMISSION BRIDGE DIVISION			
OVERHEAD BRIDGE			
OVER THE TRACKS OF BANGOR AND AROOSTOOK R.R.			
IN THE TOWN OF LAGRANGE-PENOBSCOT CO.			
SLAB DETAILS			
Sheet 12 of 14 Augusta, Maine Nov. 1944			





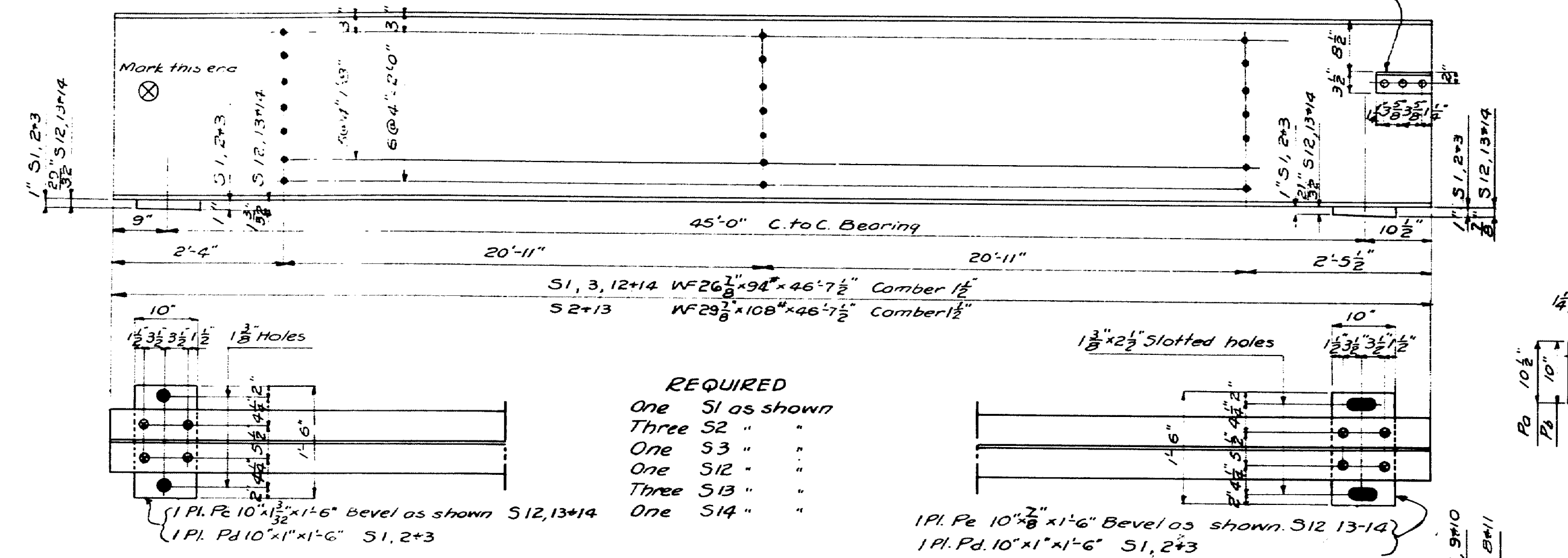
MASONRY PLATES

REQD
30 MPI 10"x11"x1'-6"
2 MP2 10"x11"x1'-11 1/2"



SWEDGE BOLTS ABI

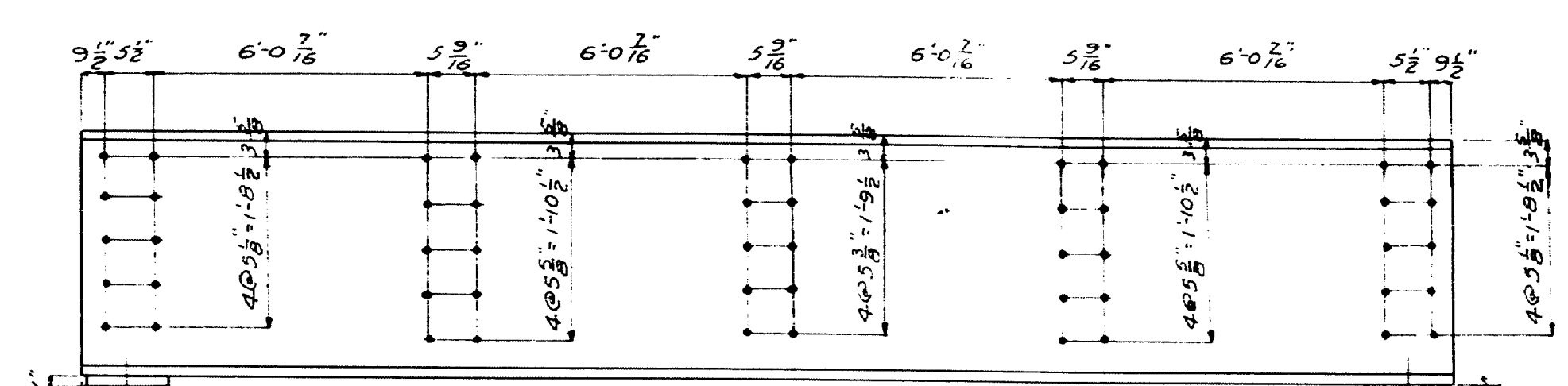
64 Req'd
S1, 3, 12+14
S2+13



REQUIRED
One S1 as shown
Three S2 "
One S3 "
One S12 "
Three S13 "
One S14 "

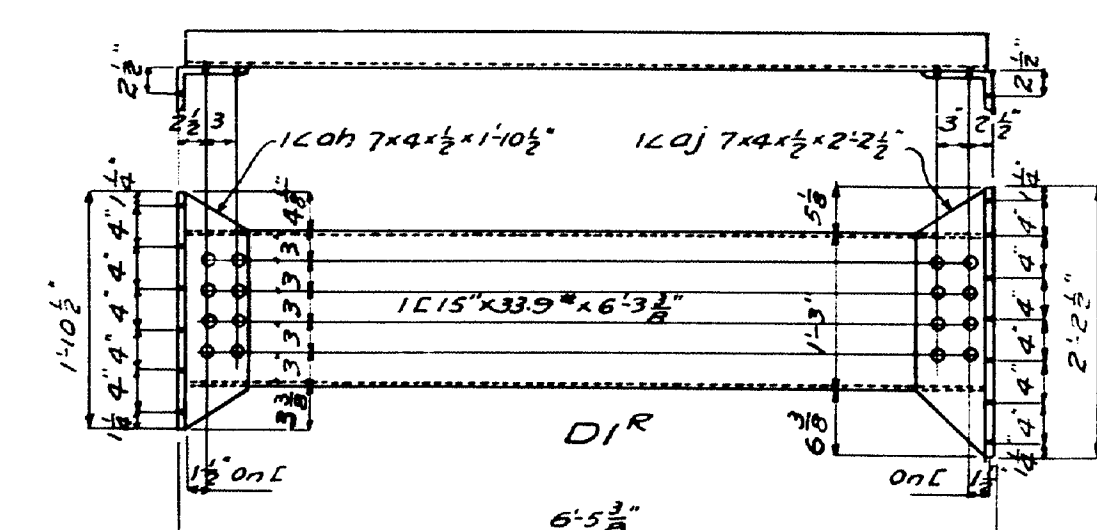
1 PL. Fe 10"x11"x1'-6" Bevel as shown S12, 13+14
1 PL. Pd. 10"x11"x1'-6" S1, 2+3

ERECTION DIAGRAM

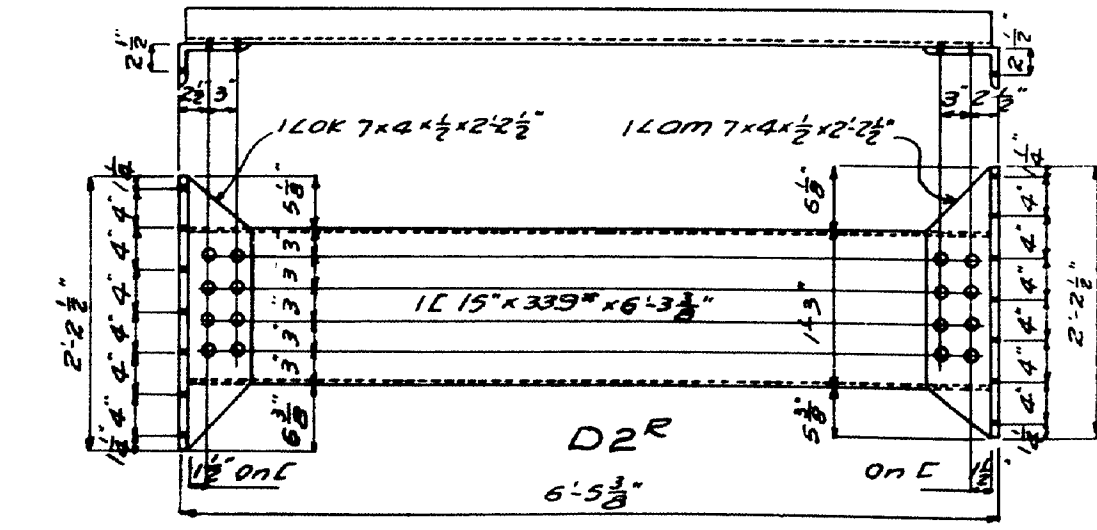


REQUIRED
One FBI as shown

1 PL. 10"x11"x1'-11 1/2"



REQUIRED
10 D1R as shown
10 D1L Opp. hand



REQUIRED
10 D2R as shown
10 D2L Opp. hand

H15-44 Loading
Maine State Highway Commission specifications for
steel highway bridges, Nov. 1945
3" Bevels, 3" holes unless noted
Snap paint one coat red lead and oil

PLAN BY: GWS TOWN 10-37
CHECK BY: A.B.P. BRIDGE 3867
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
OVERHEAD BRIDGE
OVER THE TRACKS OF
BANGOR AND AROOSTOOK R.R.
IN THE TOWN OF
LAGRANGE-PENOBSCOT CO.
STRUCTURAL STEEL
Sheet 14 of 14, Augusta, Maine Mar. 1944