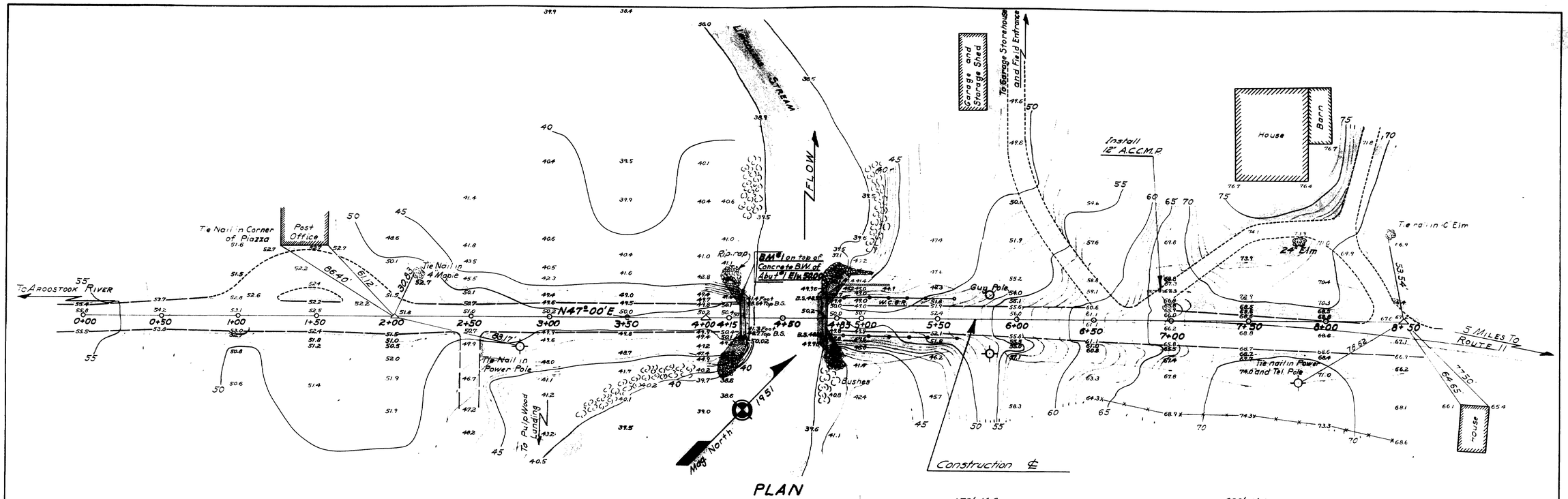
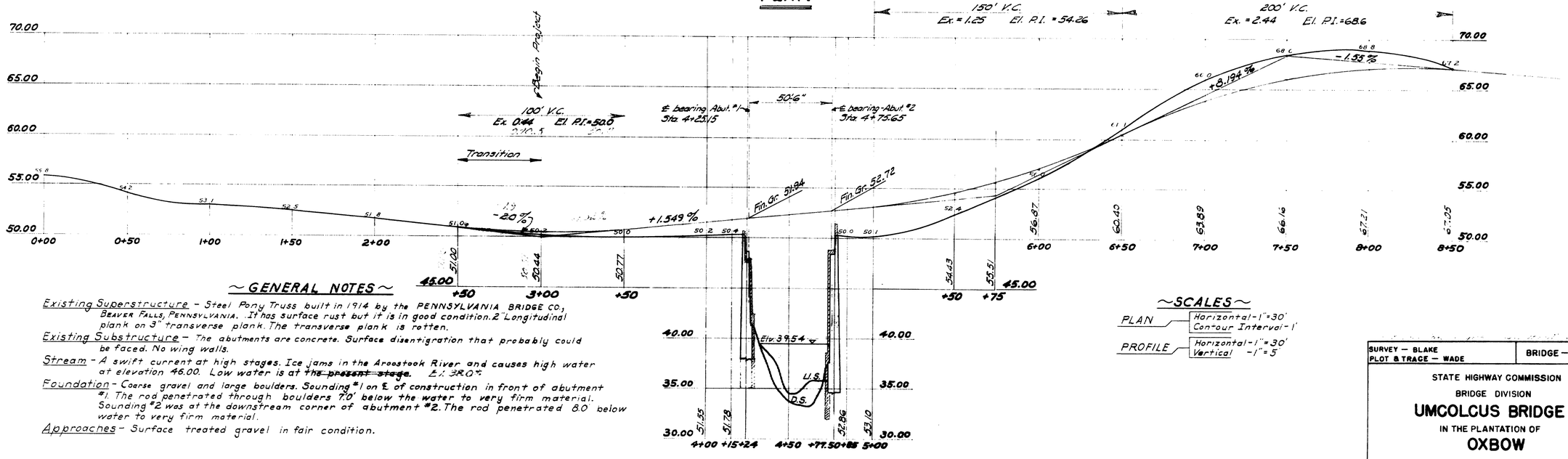




~GENERAL NOTES~

Existing Superstructure - Steel Pony Truss built in 1914 by the PENNSYLVANIA BRIDGE CO., BEAVER FALLS, PENNSYLVANIA. It has surface rust but it is in good condition. 2" Longitudinal plank on 3" transverse plank. The transverse plank is rotten.

Existing Substructure - The abutments are concrete. Surface disentigration that probably could be faced. No wing walls.

Stream - A swift current at high stages. Ice jams in the Aroostook River and causes high water at elevation 46.00. Low water is at ~~the present stage.~~ El. 32.0'.

Foundation - Coarse gravel and large boulders. Sounding #1 on ℄ of construction in front of abutment #1. The rod penetrated through boulders 7.0' below the water to very firm material. Sounding #2 was at the downstream corner of abutment #2. The rod penetrated 8.0 below water to very firm material.

Approaches - Surface treated gravel in fair condition.

~SCALES~

PLAN — Horizontal - 1" = 30' Contour Interval - 1'

PROFILE — Horizontal - 1" = 30' Vertical - 1" = 5'

SURVEY - BLAKE
PLOT & TRACE - WADE

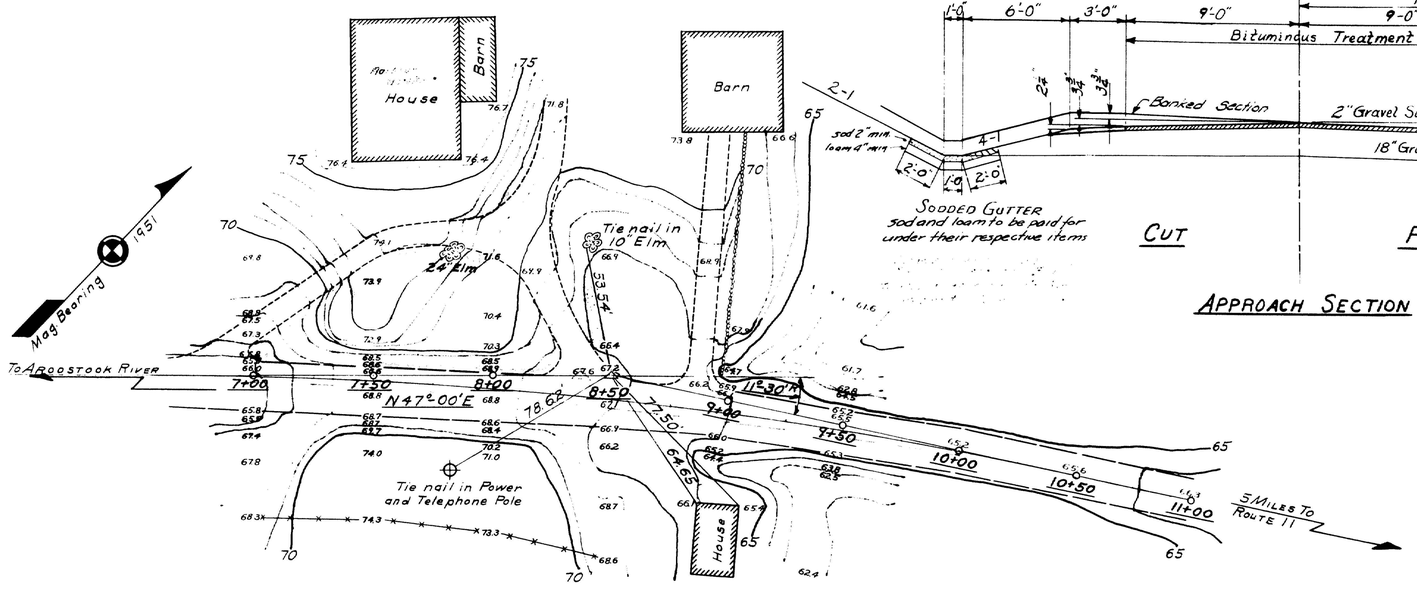
BRIDGE - 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

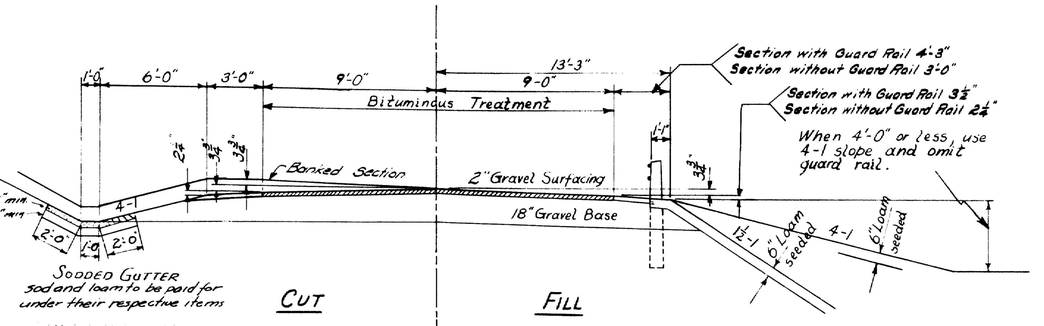
UMCOLCUS BRIDGE
IN THE PLANTATION OF
OXBOW
AROOSTOOK COUNTY
SURVEY

SHEET 1 OF 6 AUGUSTA, MAINE NOVEMBER 1951

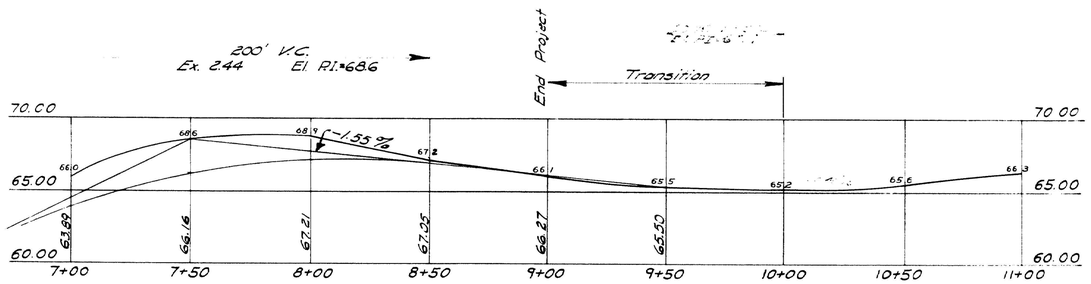
55-89



PLAN



APPROACH SECTION



PROFILE - & ROADWAY

~ SCALES ~

PLAN — Horizontal 1"=30' Contour Interval =1'

PROFILE — Horizontal 1"=30' Vertical 1"=5'

SURVEY – BLAKE
PLOT & TRACE – WADE

BRIDGE – 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

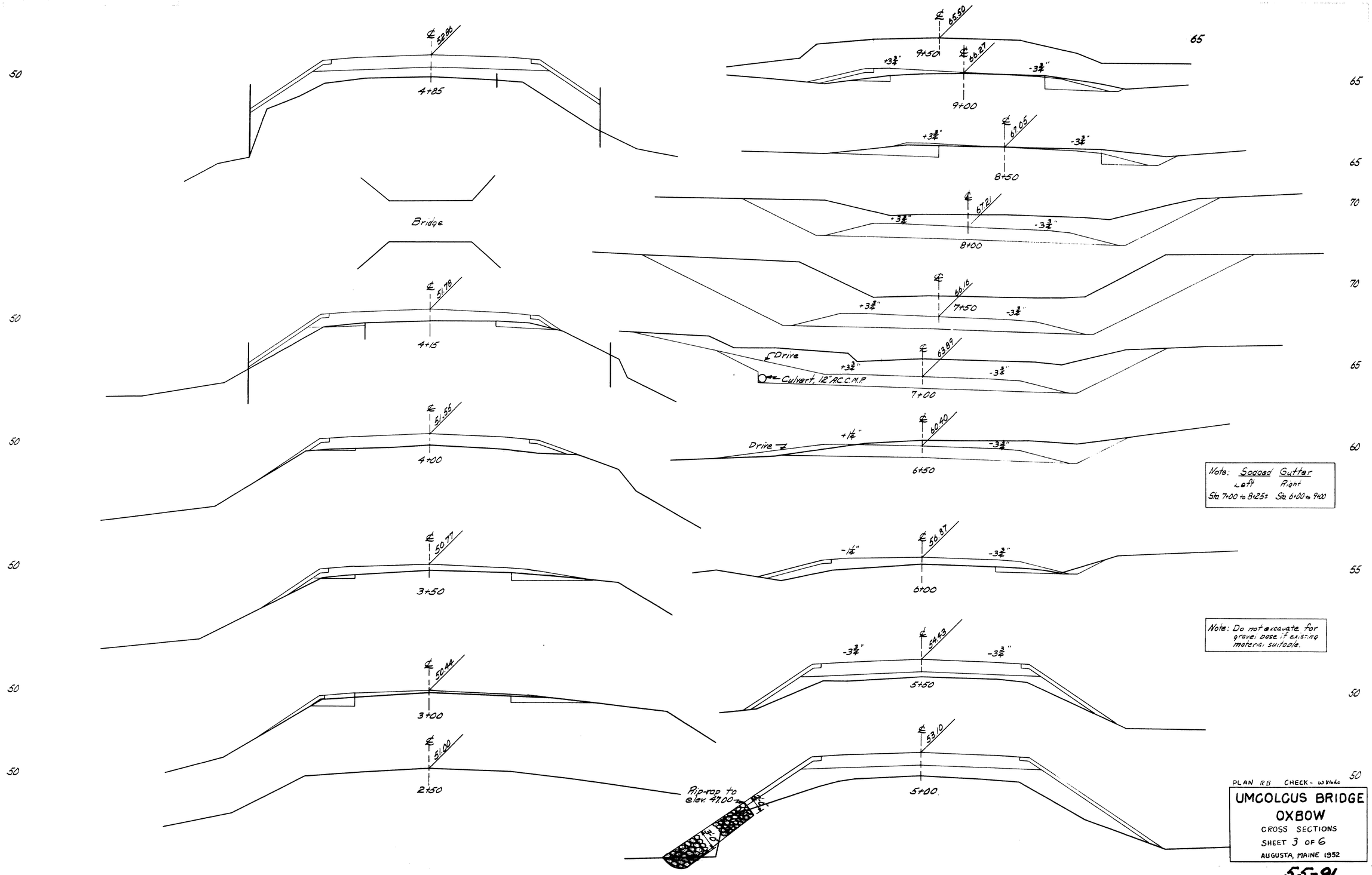
OXBOW

AROOSTOOK COUNTY

SURVEY

SHEET 2 OF 6 AUGUSTA, MAINE NOVEMBER 1951

55-90



Note: Sogged Gutter
Left Right
Sta. 7+00 to 8+25± Sta. 6+00 to 9+00

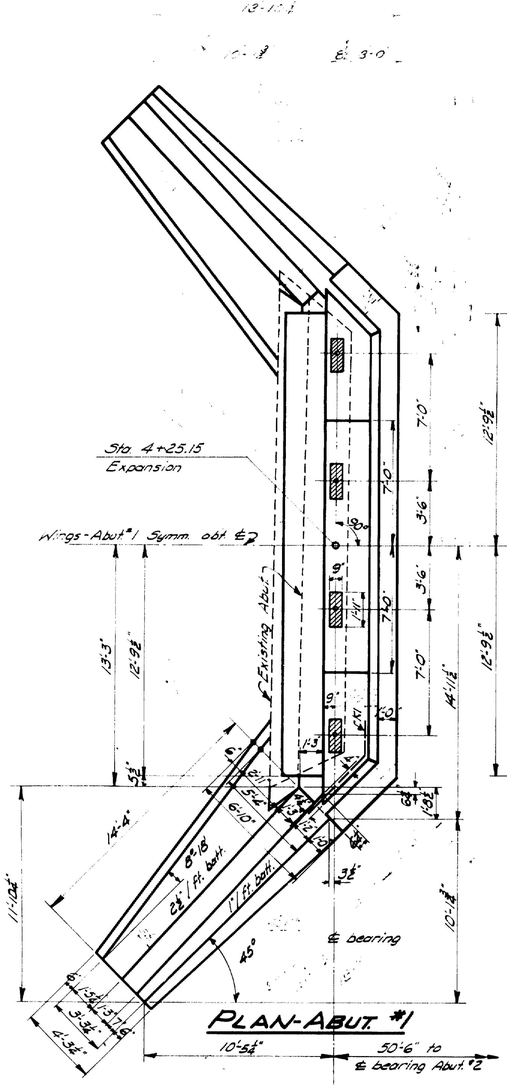
Note: Do not excavate for gravel base if existing material suitable.

PLAN RB CHECK - W Blake

UMCOLCUS BRIDGE
OXBOW
CROSS SECTIONS
SHEET 3 OF 6
AUGUSTA, MAINE 1952

55-91

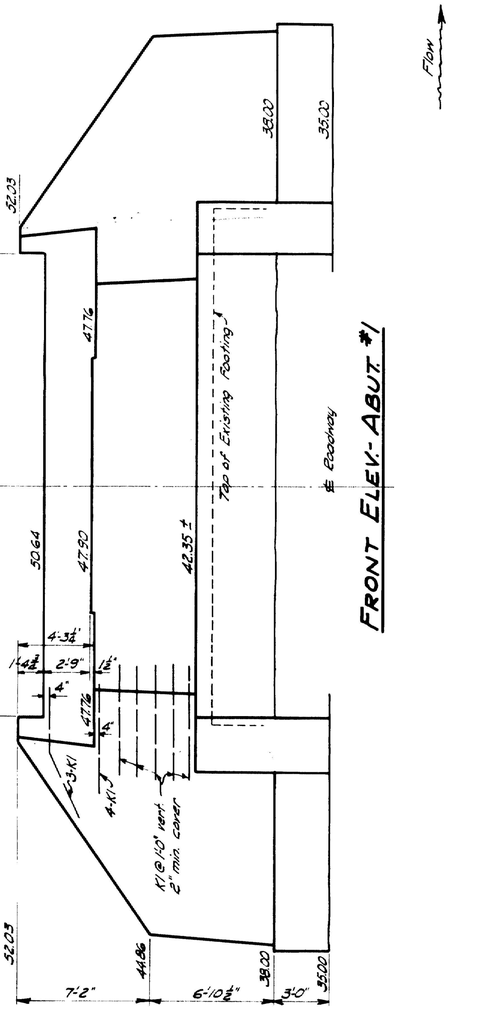
0 1 2 3 4 5 INCHES



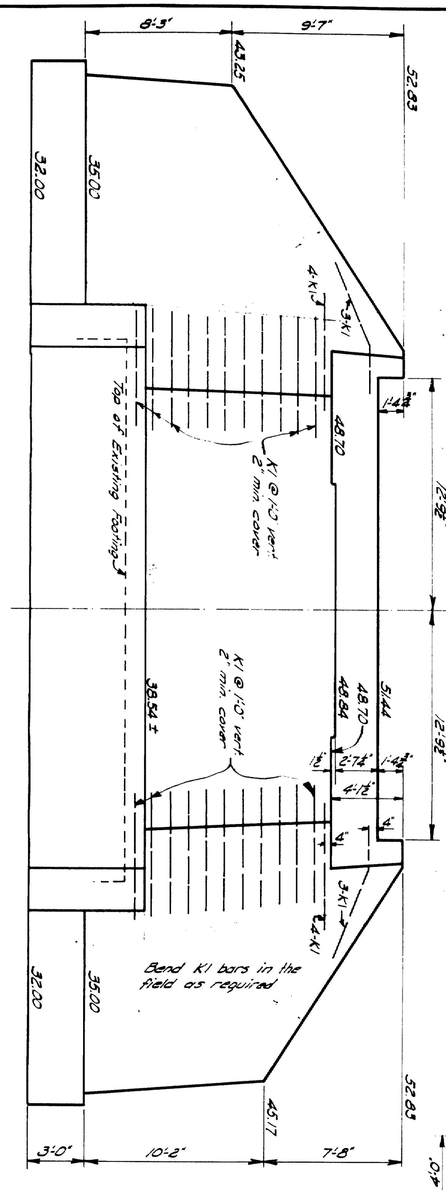
PLAN-ABUT. #1

SECTION AT ℄

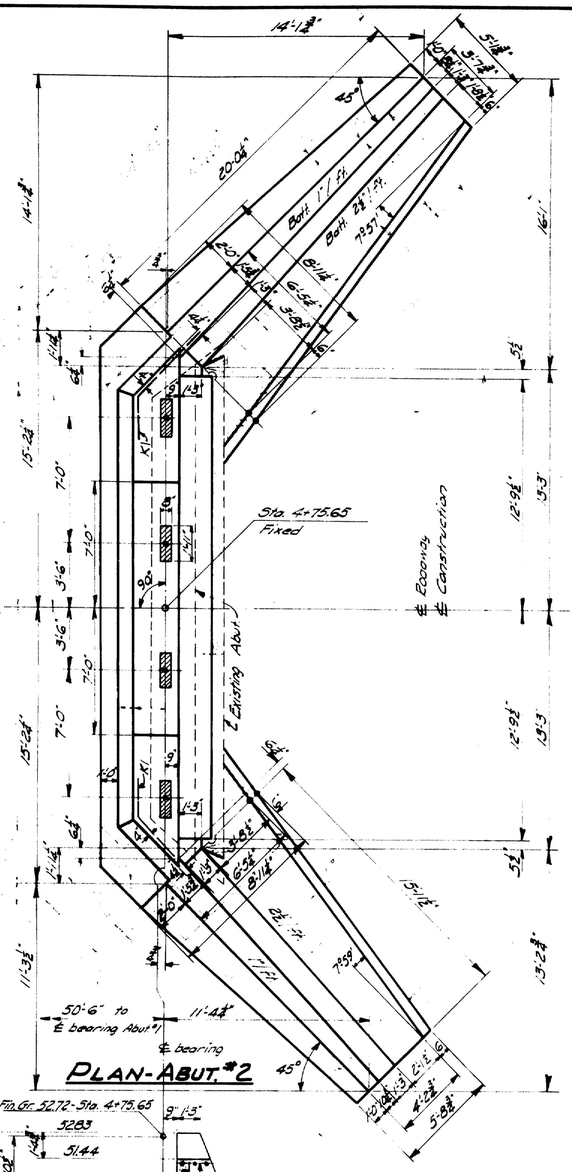
NOTE: Payment for drilling for and grouting D1, to be included under item #70.



FRONT ELEV.- ABUT. #1



FRONT ELEV.- ABUT. #2



SECTION AT ℄

CONCRETE CLASSIFICATION

Abuts. & Wing walls	B
Slab	A
Wearing Surface	AA
Rail	Y

Cover the ½" slots between superstructe and parapets with two layers of heavy roofing 10" wide. Coat the surface of the concrete and the contact surfaces of roofing with a suitable of roofing cement. Recess the area to be covered ½".

NOTE:

Order steel to extend and splice A1 & A7, from the field as required.

Reinforcing steel in new facing to have a min. cover of 2". Place steel in bridge seats to clear anchor bolts.

Dress shaded bearing areas on bridge seats to exact elevations and sizes shown.

Remove existing concrete wherever necessary to permit new construction as indicated.

Backfill behind breast walls and wings with gravel base to a thickness of 2' and a depth of about 5'.

DESIGN – E. A. M.
TRACE – CLARK
CHECK – [illegible]

BRIDGE – 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

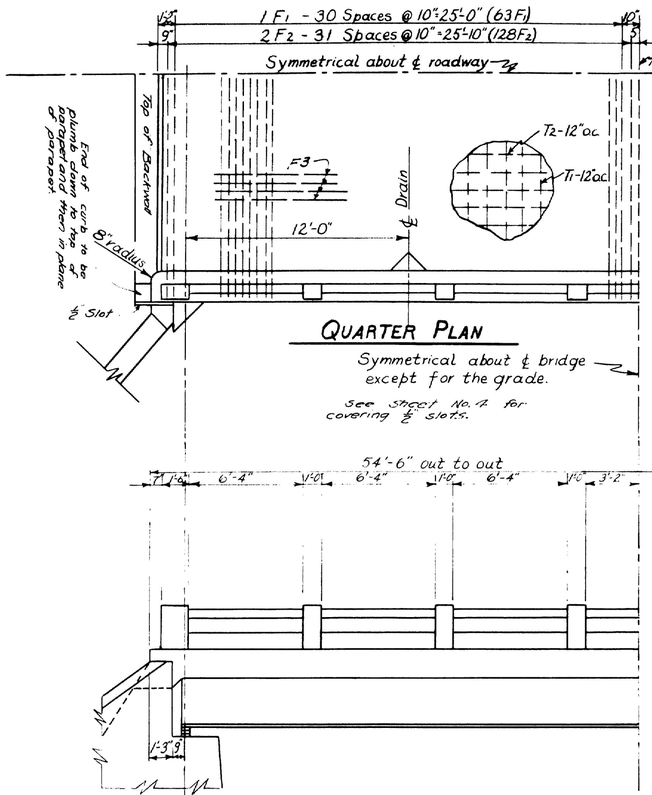
OXBOW

AROOSTOOK COUNTY

SUBSTRUCTURE

SHEET 4 OF 6 AUGUSTA, MAINE AUG. 1952

55-92

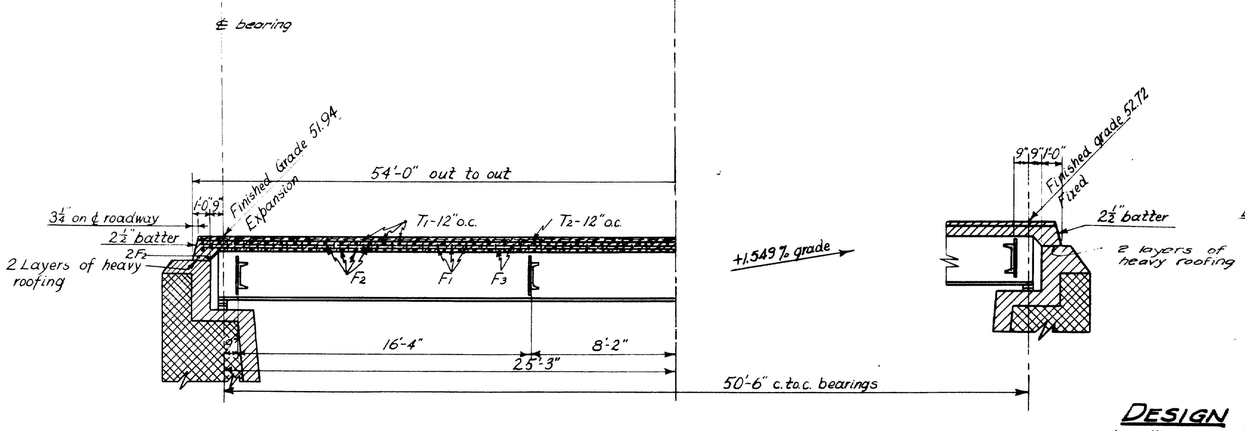


QUARTER PLAN

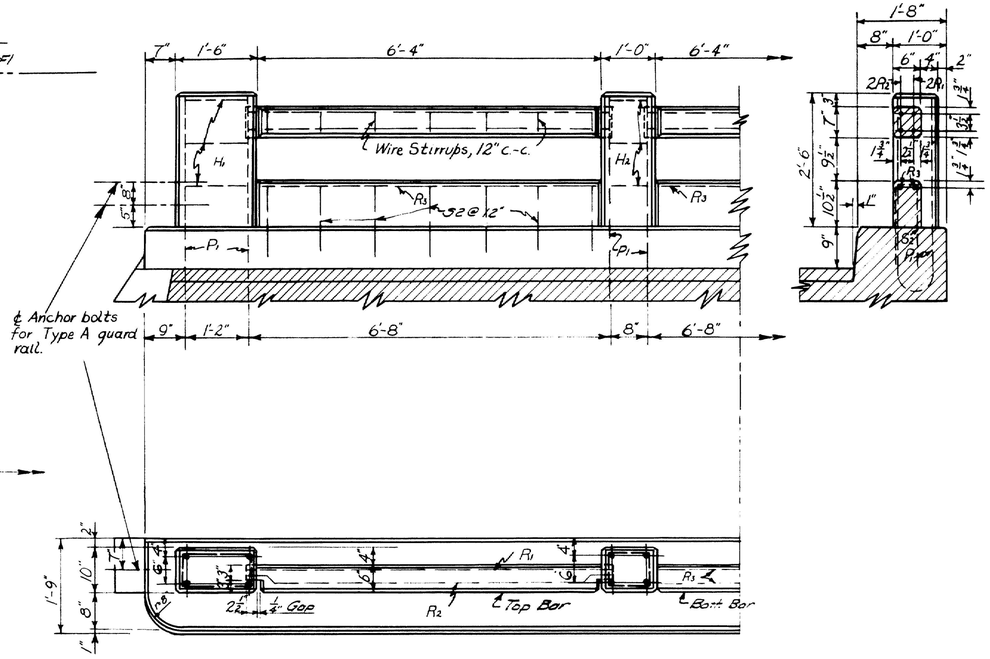
Symmetrical about ℄ bridge except for the grade.

See Sheet No. 4 for covering ℄ slots.

ELEVATION



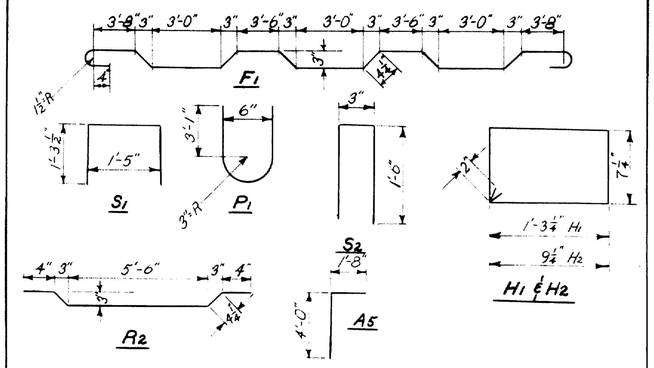
LONGITUDINAL SECTION



RAIL DETAILS

Curbs to be cast with slab. P1 & S2 bars to be in position before curb is cast. The bottom rail bar is to be cast in place. The top rail bar is to be precast and set into position so that the ends project into the posts 2½". Wrap the tongue ends with two layers of heavy roofing. All exposed edges of concrete to be chamfered ½". Wire stirrups for the top rail bar shall be constructed in the field from a single strand of #9 annealed wire. In forming the stirrup, make a complete turn around each reinforcing bar.

STEEL SCHEDULE

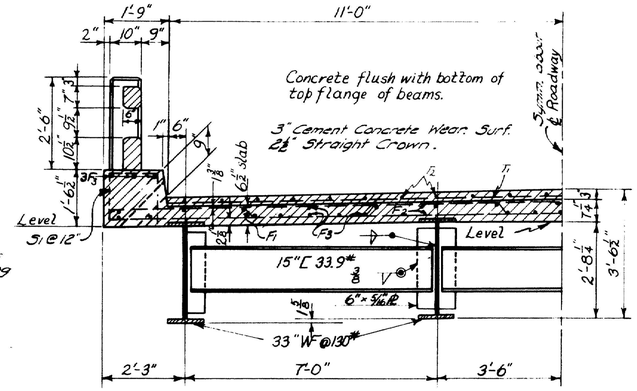


STRAIGHT BARS					BENT BARS				
MARK	SIZE	NO.	LENGTH	LOCATION	MARK	SIZE	NO.	LENGTH	LOCATION
F2	#5	132	25'-3"	Slab	F1	#5	63	26'-11"	Slab
F3	#4	80	27'-6"	Slab	S1	#4	110	4'-0"	Curb
T1	#3	54	21'-9"	Wearing Surface	S2	#3	98	3'-3"	Bottom Rail
T2	#3	44	27'-0"	Wearing Surface	A	#6	32	6'-11½"	Posts
R1	#4	28	6'-8"	Top Rail	H1	#4	12	4'-1"	End Posts
R3	#4	28	6'-3"	Bottom Rail	H2	#4	36	3'-1"	Intermediate Posts
A1	#5	30	11'-0"	Abutment #2	R2	#4	28	6'-10½"	Top Rail
A2	#5	19	24'-0"	Abutments #1&#2	A5	#5	48	5'-8"	Abutment #1&#2
A3	#5	16	26'-0"	"					
A4	#4	144	3'-0"	"					
A6	#5	16	15'-0"	"					
A7	#5	30	6'-3"	Abutment #1					
D1	#6	246	1'-6"	Abutment #1&#2					
K1	#5	60	8'-0"	"					

NOTE:
Dimensions are to center line of bars.
All reinforcing steel bars shall conform to A.S.T.M. Specifications A305-49.

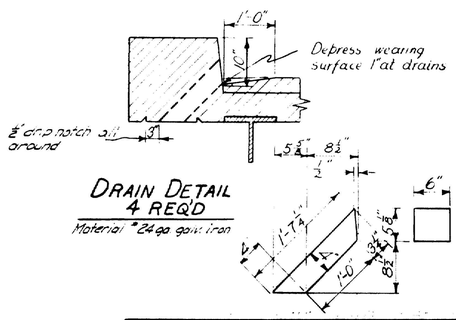
DESIGN

Loading H15-44
fs = 18000 psi
fc = 1200 psi
n = 10



Minimum cover of 1" for reinforcement

HALF CROSS SECTION



DRAIN DETAIL 4 REQ'D

Material #24 ga galv. iron

DESIGN - E.A.M.
TRACE - POCHEBIT
CHECK - V.C.

BRIDGE - 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

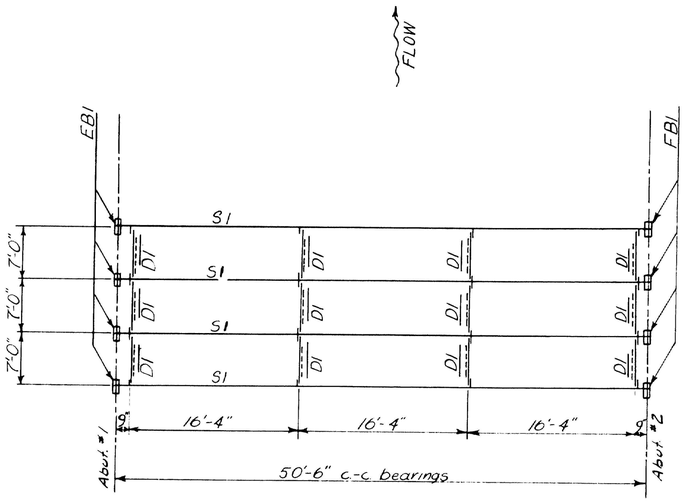
OXBOW

AROOSTOOK COUNTY

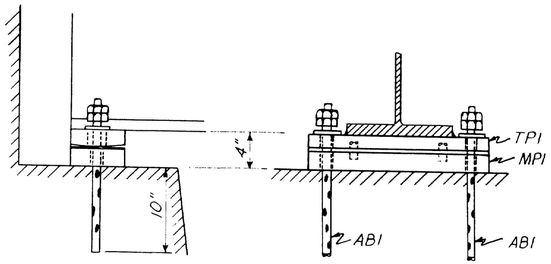
SUPERSTRUCTURE

SHEET 5 OF 6 AUGUSTA, MAINE AUG. 1952

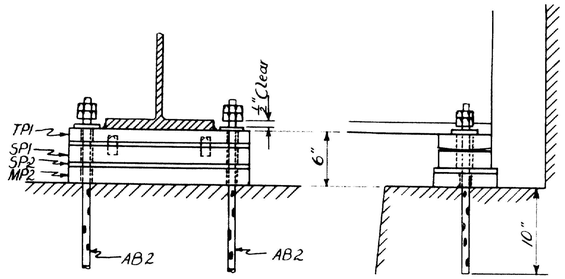
55-93



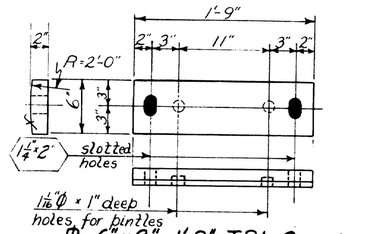
ERECTION DIAGRAM



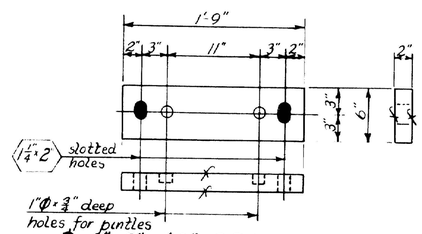
FIXED BEARING FB1 - 4 REQ'D



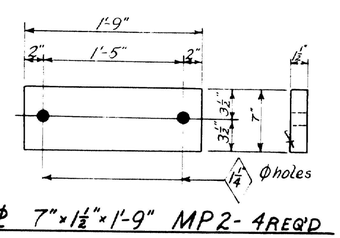
EXPANSION BEARING EB1 - 4 REQ'D



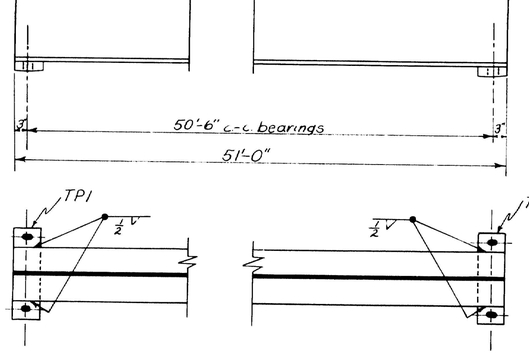
PL 6"x2"x1'-9" TP1 - 8 REQ'D



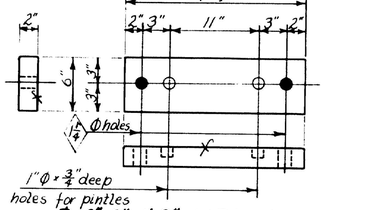
PL 6"x2"x1'-9" SP1 - 4 REQ'D



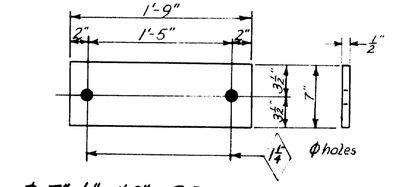
PL 7"x1½"x1'-9" MP2 - 4 REQ'D



S1 - 33"WF 130# x 51'-0" 4 REQ'D - 1¾" CAMBER



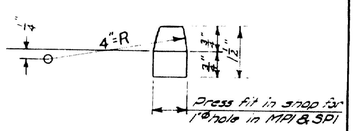
PL 6"x2"x1'-9" MP1 - 4 REQ'D



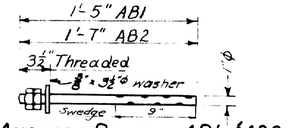
PL 7"x½"x1'-9" SP2 - 4 REQ'D

Lubrite or equivalent
Base metal Class B Bronze

Payment for erection of bronze plates to be made under Item "A7, Erection, Structural Steel."

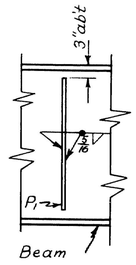


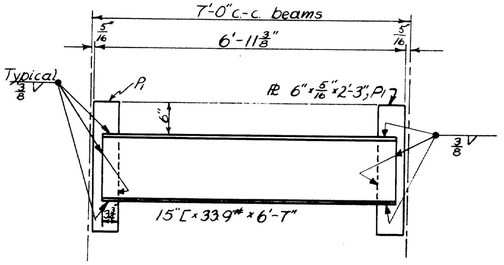
PINTLE DETAILS - 16 REQ'D



ANCHOR BOLTS AB1 & AB2

8 AB1 REQ'D
8 AB2 REQ'D





DIAPHRAGM D1 - 12 REQ'D

SPECIFICATIONS

State of Maine, State Highway Commission
Bridge Division, Steel Highway Bridges, Nov. 1945
Loading - H 15-44

DESIGN - E.A.M.
TRACE - POCHEBIT
CHECK - VE

BRIDGE - 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

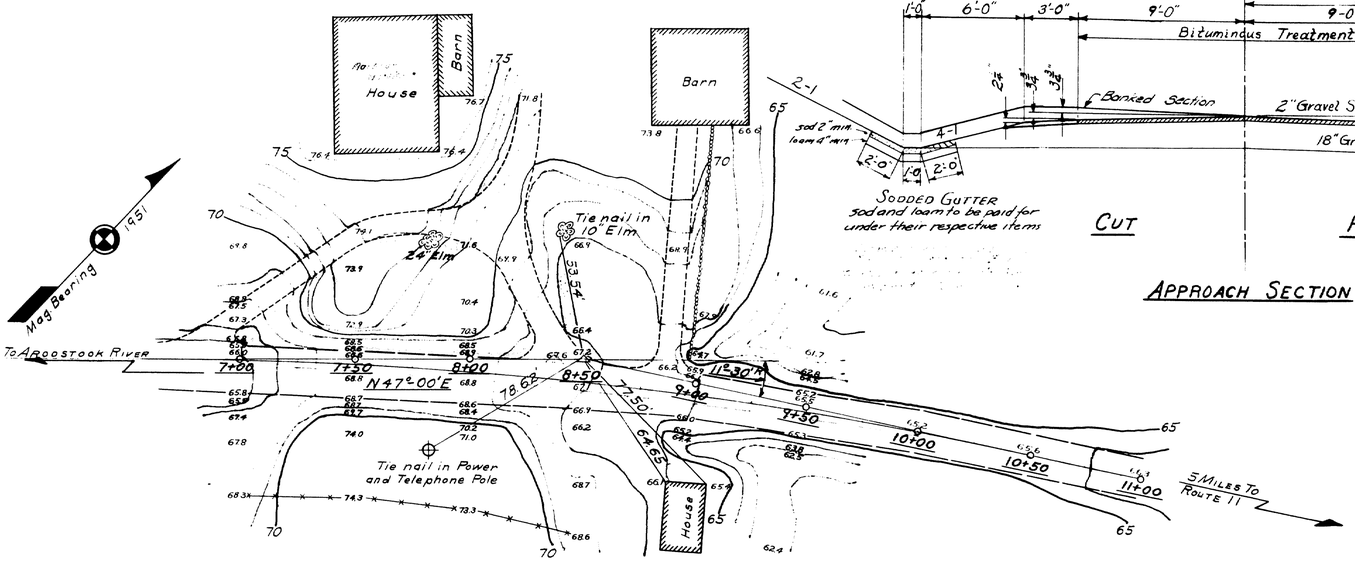
OXBOW

AROOSTOOK COUNTY

STRUCTURAL STEEL

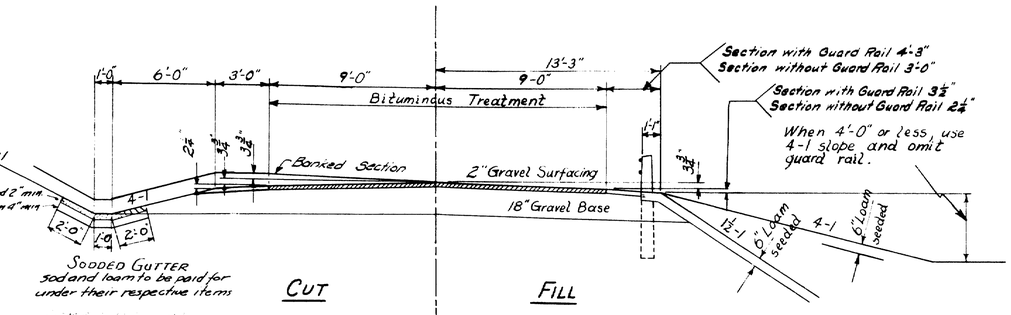
SHEET 6 OF 6 AUGUSTA, MAINE AUG. 1952

55-94

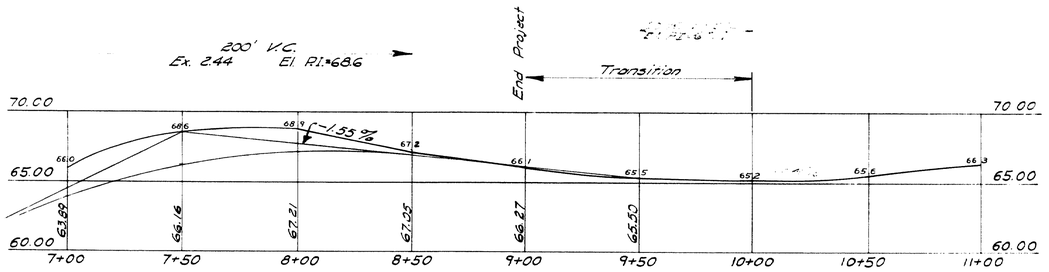


PLAN

I = 11°-30'
D = 3°-00'
T = 192.3'
L = 383.3'



APPROACH SECTION



PROFILE - & ROADWAY

~ SCALES ~

PLAN — Horizontal 1"=30'
Contour Interval = 1'

PROFILE — Horizontal 1"=30'
Vertical 1"=5'

SURVEY — BLAKE
PLOT & TRACE — WADE

BRIDGE — 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

OXBOW

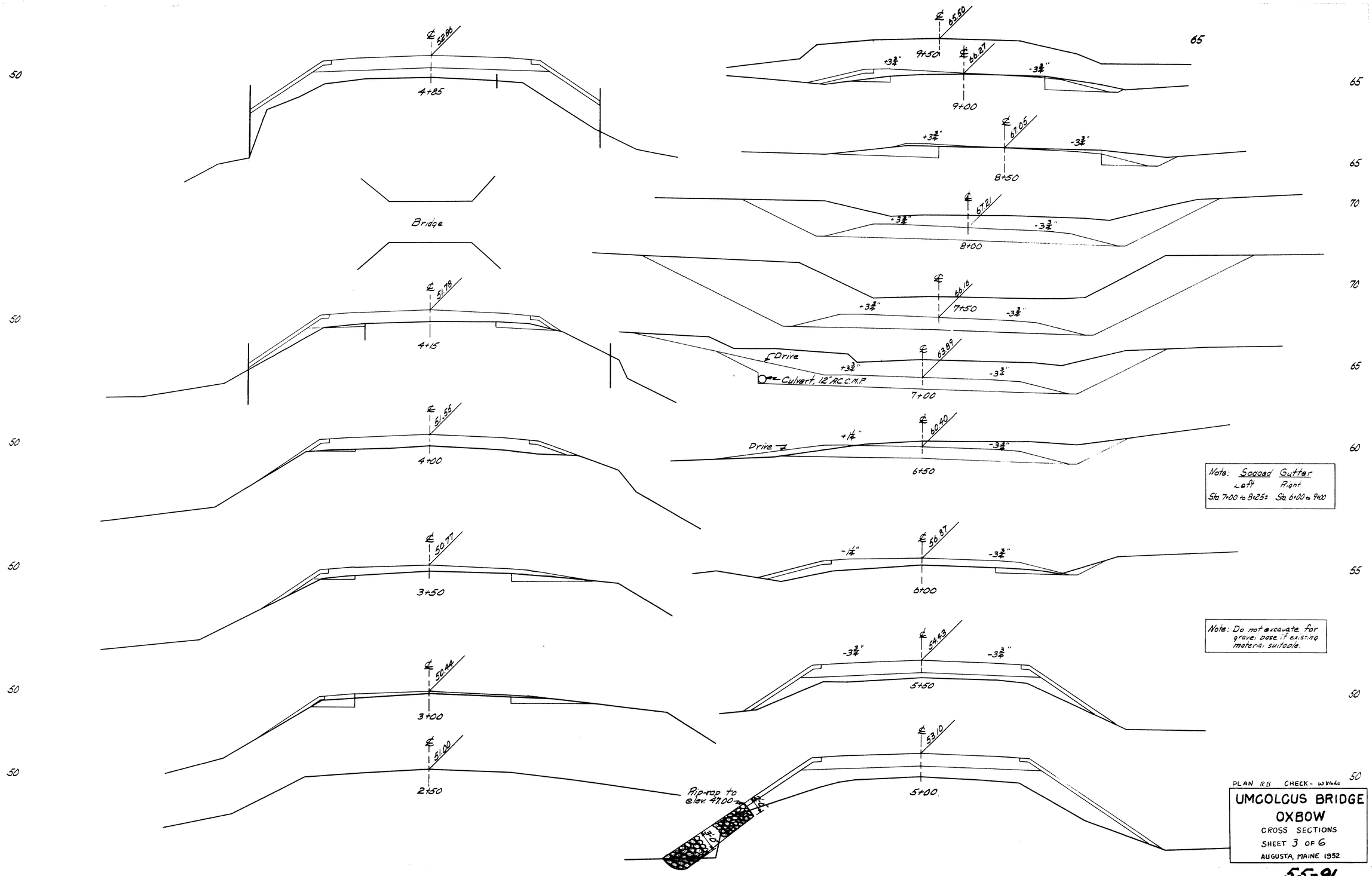
AROOSTOOK COUNTY

SURVEY

SHEET 2 OF 6 AUGUSTA, MAINE NOVEMBER 1951

55-90

0 1 2 3 4 5 INCHES



Note: Sogged Gutter
Left Right
Sta. 7+00 to 8+25± Sta. 6+00 to 9+00

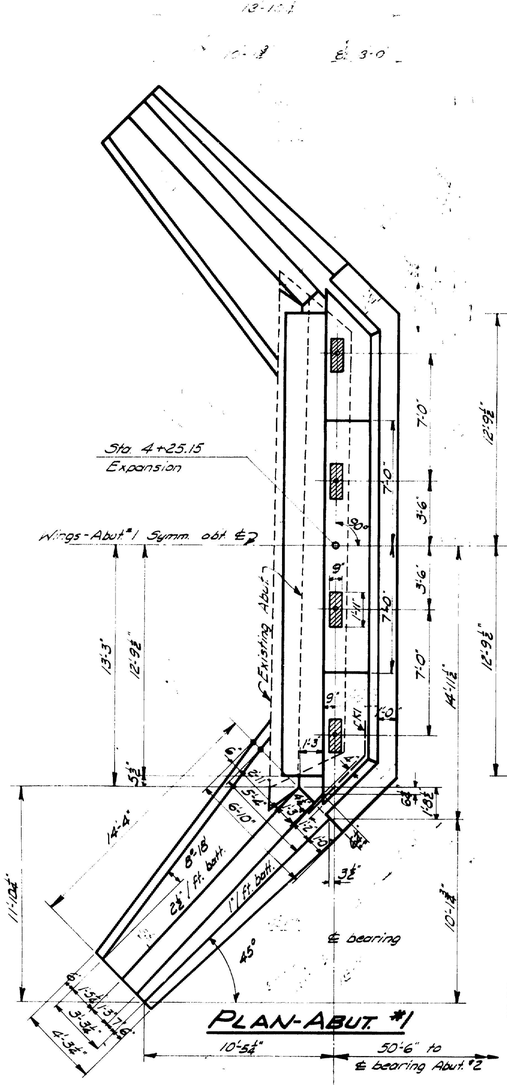
Note: Do not excavate for gravel base if existing material suitable.

PLAN RB CHECK - W Blake

UMCOLCUS BRIDGE
OXBOW
CROSS SECTIONS
SHEET 3 OF 6
AUGUSTA, MAINE 1952

55-91

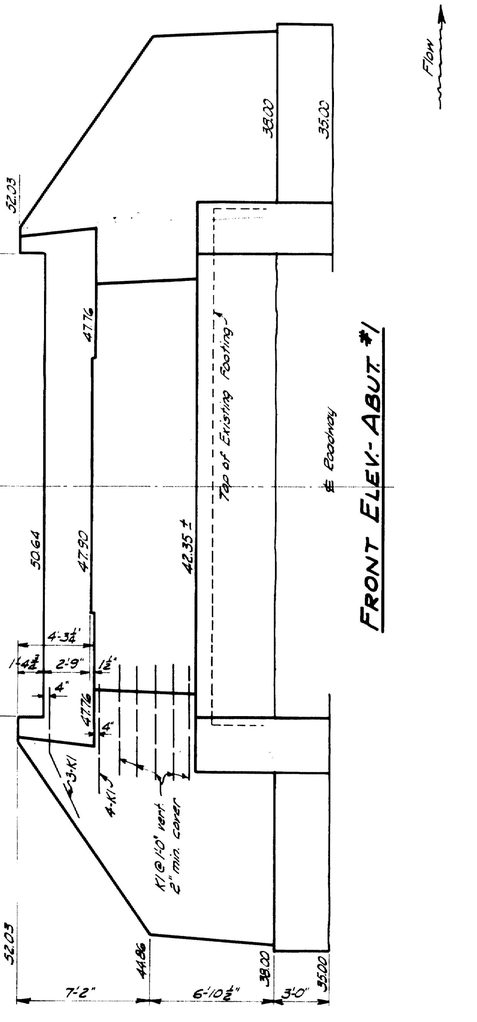
0 1 2 3 4 5 INCHES



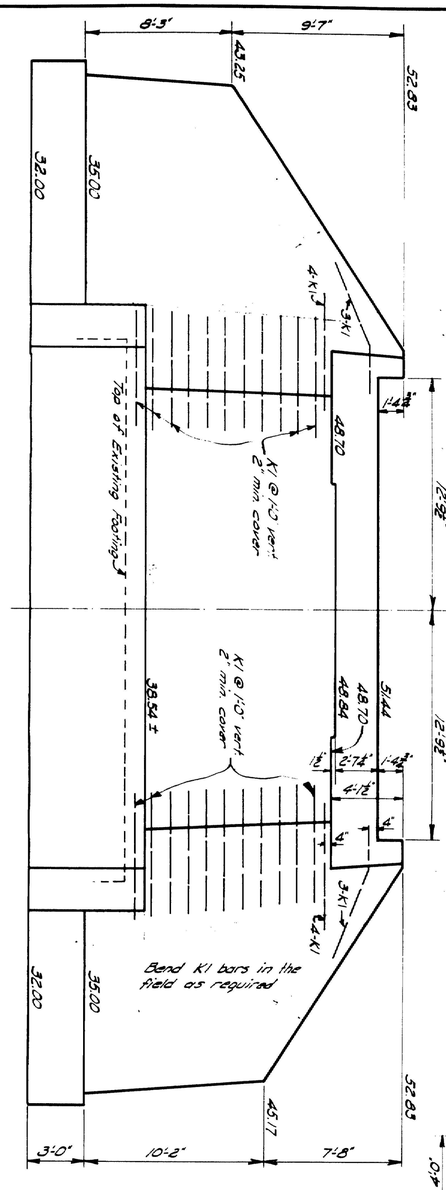
PLAN-ABUT. #1

SECTION AT ℄

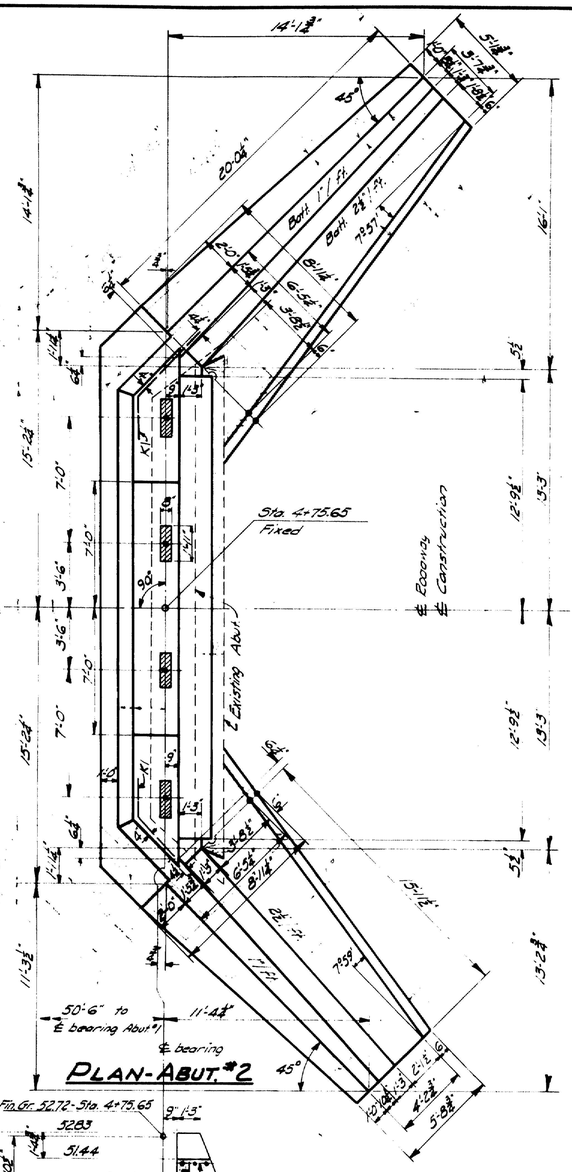
NOTE: Payment for drilling for and grouting D1, to be included under item #70.



FRONT ELEV.- ABUT. #1



FRONT ELEV.- ABUT. #2



SECTION AT ℄

CONCRETE CLASSIFICATION

Abuts. & Wing walls	B
Slab	A
Wearing Surface	AA
Rail	Y

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Reinforcing steel in new facing to have a min. cover of 2". Place steel in bridge seats to clear anchor bolts.

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DESIGN – E. A. M.
TRACE – CLARK
CHECK – [illegible]

BRIDGE – 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

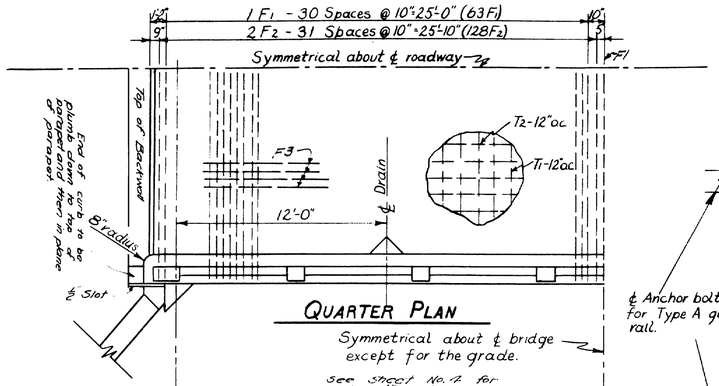
OXBOW

AROOSTOOK COUNTY

SUBSTRUCTURE

SHEET 4 OF 6 AUGUSTA, MAINE AUG. 1952

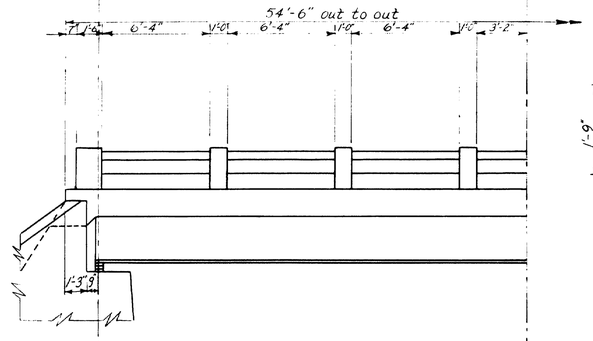
55-92



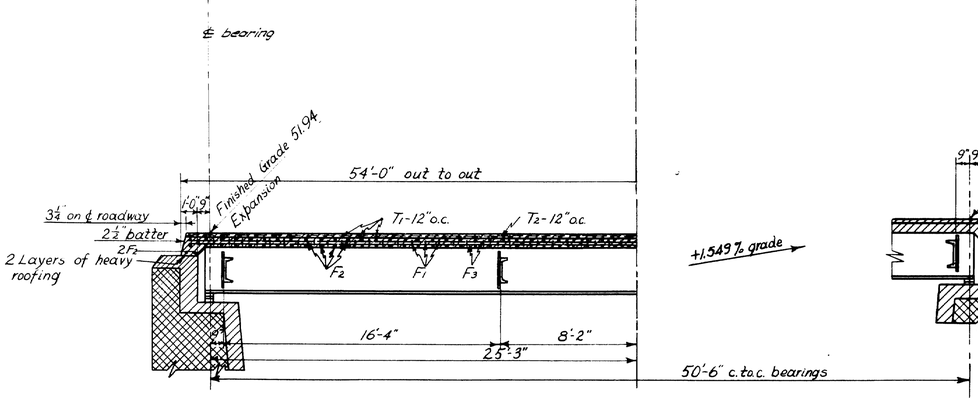
QUARTER PLAN

Symmetrical about ℄ bridge except for the grade.

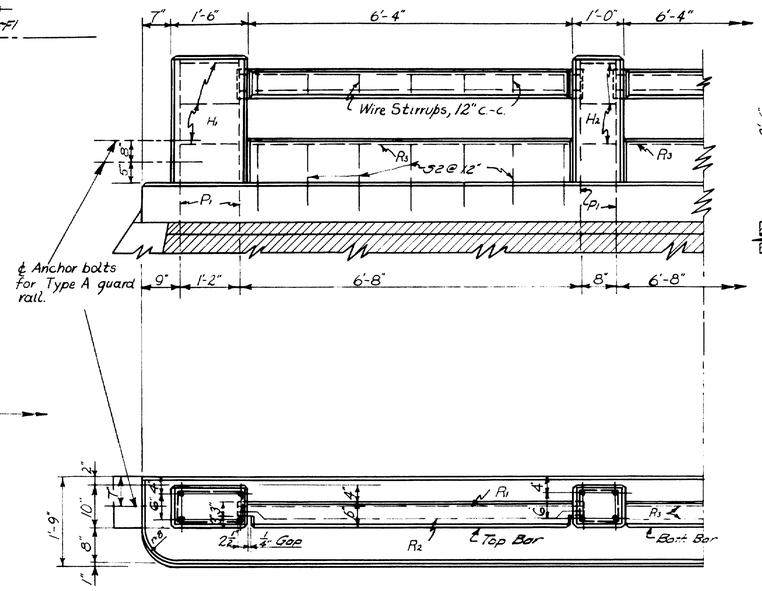
See sheet No. 4 for covering of ℄ slots.



ELEVATION

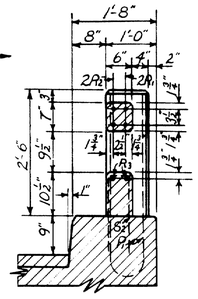


LONGITUDINAL SECTION

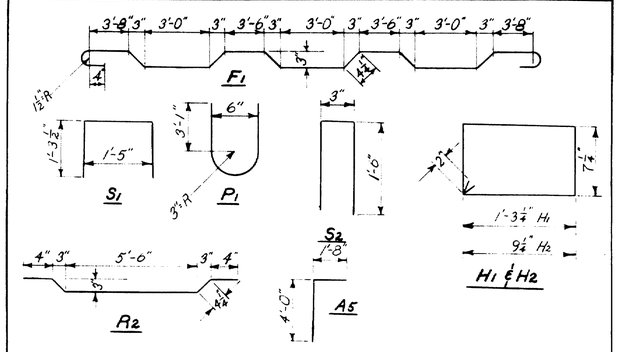


RAIL DETAILS

Curbs to be cast with slab. P1 & S2 bars to be in position before curb is cast. The bottom rail bar is to be cast in place. The top rail bar is to be precast and set into position so that the ends project into the posts 2½". Wrap the tongue ends with two layers of heavy roofing. All exposed edges of concrete to be chamfered ½". Wire stirrups for the top rail bar shall be constructed in the field from a single strand of #9 annealed wire. In forming the stirrup, make a complete turn around each reinforcing bar.



STEEL SCHEDULE

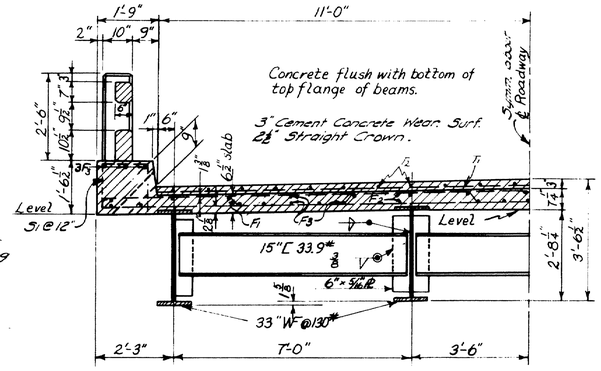


STRAIGHT BARS					BENT BARS				
MARK	SIZE	NO.	LENGTH	LOCATION	MARK	SIZE	NO.	LENGTH	LOCATION
F2	#5	132	25'-3"	Slab	F1	#5	63	26'-11"	Slab
F3	#4	80	27'-6"	Slab	S1	#4	110	4'-0"	Curb
T1	#3	54	21'-9"	Wearing Surface	S2	#3	98	3'-3"	Bottom Rail
T2	#3	44	27'-0"	Wearing Surface	P1	#6	32	6'-11½"	Posts
R1	#4	28	6'-8"	Top Rail	H1	#4	12	4'-1"	End Posts
R3	#4	28	6'-3"	Bottom Rail	H2	#4	36	3'-1"	Intermediate Posts
A1	#5	30	11'-0"	Abutment #2	R2	#4	28	6'-10¾"	Top Rail
A2	#5	19	24'-0"	Abutments #1 & #2	A5	#5	48	5'-8"	Abutment #1 & #2
A3	#5	16	26'-0"	"					
A4	#4	144	3'-0"	"					
A6	#5	16	15'-0"	"					
A7	#5	30	6'-3"	Abutment #1					
D1	#6	246	1'-6"	Abutment #1 & #2					
K1	#5	60	8'-0"	"					
0									

NOTE:
Dimensions are to center line of bars.
All reinforcing steel bars shall conform to A.S.T.M. Specifications A305-49.

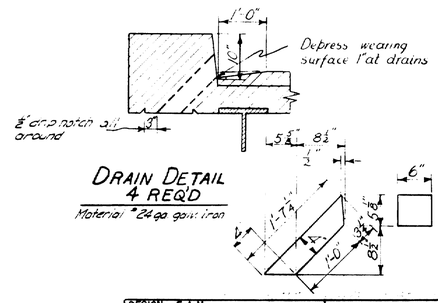
DESIGN

Loading H15-44
f_s = 18000 psi
f_c = 1200 psi
n = 10



Minimum cover of 1" for reinforcement

HALF CROSS SECTION



DRAIN DETAIL 4 REQ'D

Material "24 ga galv. iron

DESIGN - E.A.M.
TRACE - POCHEBIT
CHECK - J.L.

BRIDGE - 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

OXBOW

AROOSTOOK COUNTY

SUPERSTRUCTURE

SHEET 5 OF 6 AUGUSTA, MAINE AUG. 1952

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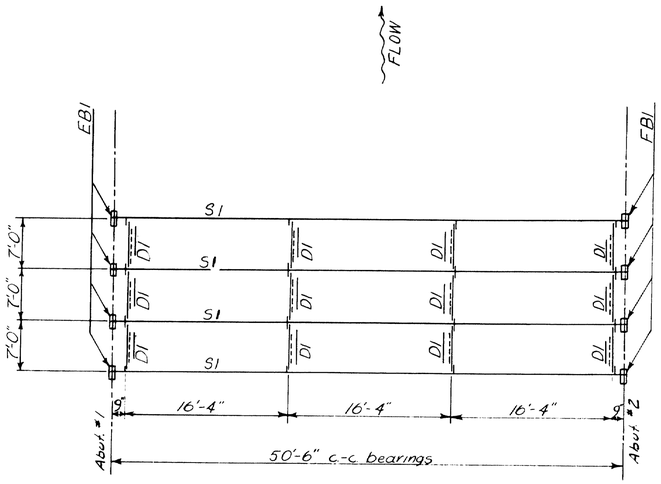
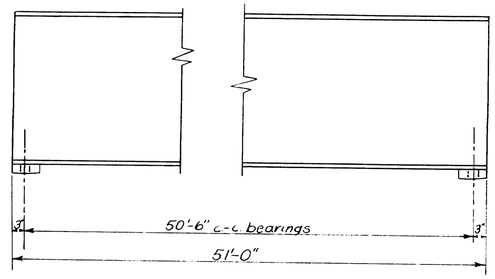
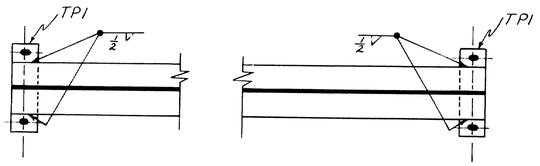
0 1 2 3 4 5 INCHES

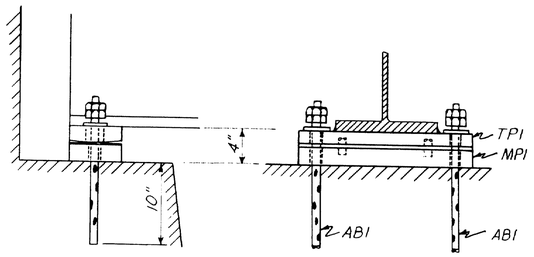


EREC TION DIAGRAM

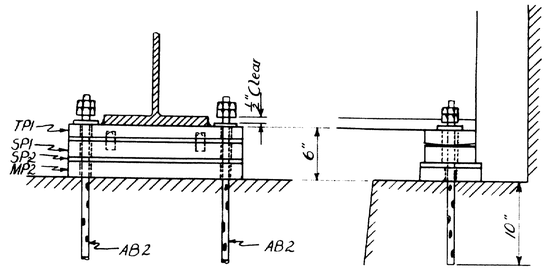




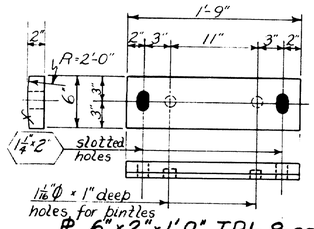
S1-33"WF 130# x 51'-0" 4 REQ'D -1¾" CAMBER



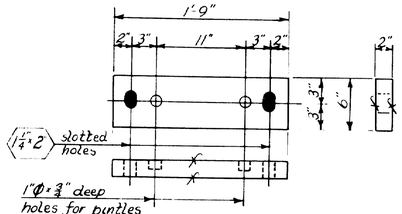
FIXED BEARING FB1 - 4 REQ'D



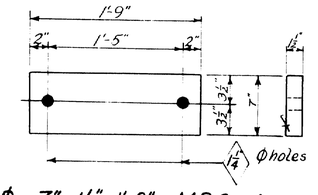
EXPANSION BEARING EB1 - 4 REQ'D



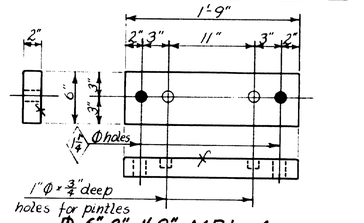
PL 6"x2"x1'-9" TP1 - 8 REQ'D



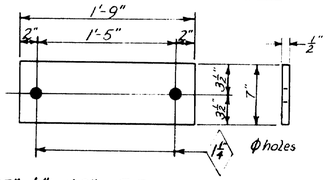
PL 6"x2"x1'-9" SP1 - 4 REQ'D



PL 7"x1½"x1'-9" MP2 - 4 REQ'D



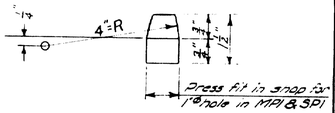
PL 6"x2"x1'-9" MP1 - 4 REQ'D



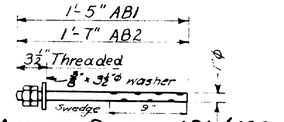
PL 7"x½"x1'-9" SP2 - 4 REQ'D

Lubrite or equivalent
Base metal Class B Bronze

Payment for erection of bronze plates to be made under item "A7, Erection, Structural Steel."

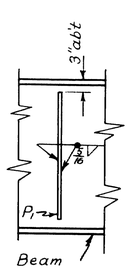


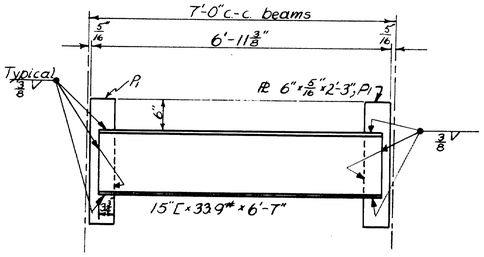
PINTLE DETAILS - 16 REQ'D



ANCHOR BOLTS AB1 & AB2

8 AB1 REQ'D
8 AB2 REQ'D





DIAPHRAGM D1 - 12 REQ'D

SPECIFICATIONS

State of Maine, State Highway Commission
Bridge Division, Steel Highway Bridges, Nov. 1945
Loading - H 15-44

DESIGN - E.A.M. TRACE - POCHEBIT CHECK -	BRIDGE - 2877

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

UMCOLCUS BRIDGE

IN THE PLANTATION OF

OXBOW

AROOSTOOK COUNTY

STRUCTURAL STEEL

SHEET 6 OF 6 AUGUSTA, MAINE AUG. 1952

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