

MICROFILMED  
JUN 8 1987

CUY-90-20.35-21.34

FED. ROAD DISTRICT	STATE	FEDERAL AID PROJECT	TYPE
2	OHIO	UI 329 (7)	POST WAR

1  
217

# STATE OF OHIO

## DEPARTMENT OF HIGHWAYS

### CUY-2-(19.51-20.53)

### CUY-283-1.54

## CUYAHOGA COUNTY

### CITY OF CLEVELAND

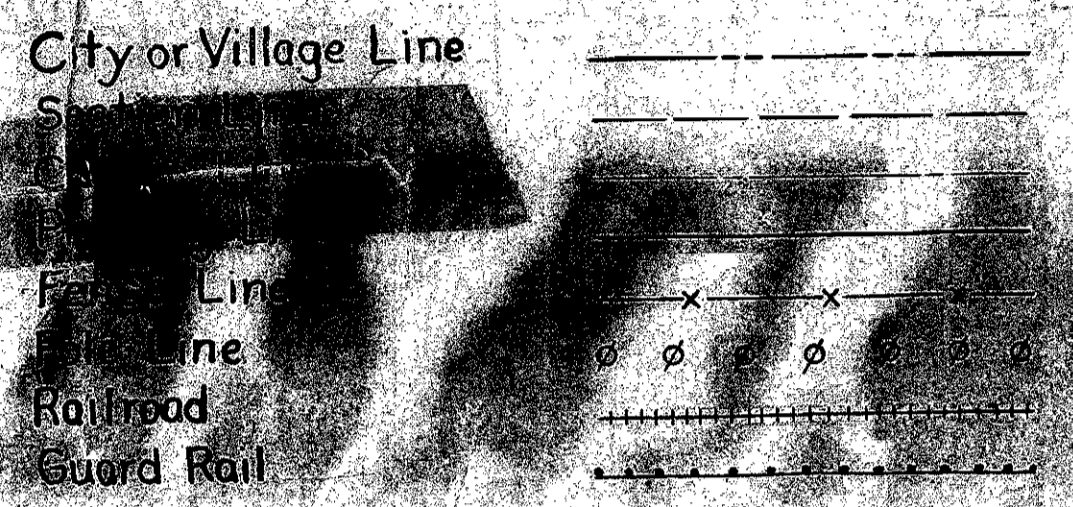
### VILLAGE OF BRATENAHL

**NOTE:**  
U.I. 329(7)PART-2  
U.I. 329(7)PART-3

CUYAHOGA COUNTY  
CUY-2-(19.51-20.53)  
CUY-283-1.54  
FOR PART 4 SEE  
CUY-283-(1.09-1.49)  
U-106-542(7)

All Reference To PART 1 Appearing Elsewhere on These Plans Shall be Considered As PART 3.

#### CONVENTIONAL SIGNS



#### INDEX OF SHEETS

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Length of Work	2
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SCALES	LOCATION PLAN	LEGEND
Plan: 1"=50'	Profile Vertical: 1"=10' & 5'	Profile Horizontal: 1"=50'
Profile Vertical: 1"=10' & 5'	Profile Horizontal: 1"=50'	Cross Sections: 1"=10'

The Standard Specifications of the State of Ohio Department of Highways including changes and supplemental Specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the Highway except as noted on Sheet 11 and that provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

The Right of Way necessary for this improvement will be provided by the State of Ohio.

- Approved: *Louis L. Drasler*  
Date: 7/22/50 Division Deputy Engineer
- Approved: \_\_\_\_\_  
Date: \_\_\_\_\_ Chief Engineer, Bureau of Maintenance
- Approved: *Richard Smith*  
Date: 7/22/50 Chief Engineer, Bureau of Bridges & R.R. Crossings
- Approved: \_\_\_\_\_  
Date: 7/22/50 Chief Engineer, Bureau of Location & Design
- Approved: \_\_\_\_\_  
Date: 7/22/50 First Ass't Director & Chief Engineer
- Approved: \_\_\_\_\_  
Date: 7/22/50 Director of Highways
- Approved: \_\_\_\_\_ For the City of Cleveland  
Date: 7/22/50 Director of Public Service

CONSTRUCTION BUREAU  
MAR 20 1956  
GROUND PHOTOGRAPH

SHEETS 1 & 2 REVISED 12-19-50 - GWS

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL:

DISTRICT ENGINEER

APPROVED

DIVISION ENGINEER

Note: For locations with former Federal project see sheets 10 and 21

STANDARD DRAWING		SUPPLEMENTAL SPECIFICATIONS	
NO.	DATE	NO.	DATE
1	1950	1	1950
2	1950	2	1950
3	1950	3	1950
4	1950	4	1950
5	1950	5	1950
6	1950	6	1950
7	1950	7	1950
8	1950	8	1950
9	1950	9	1950
10	1950	10	1950

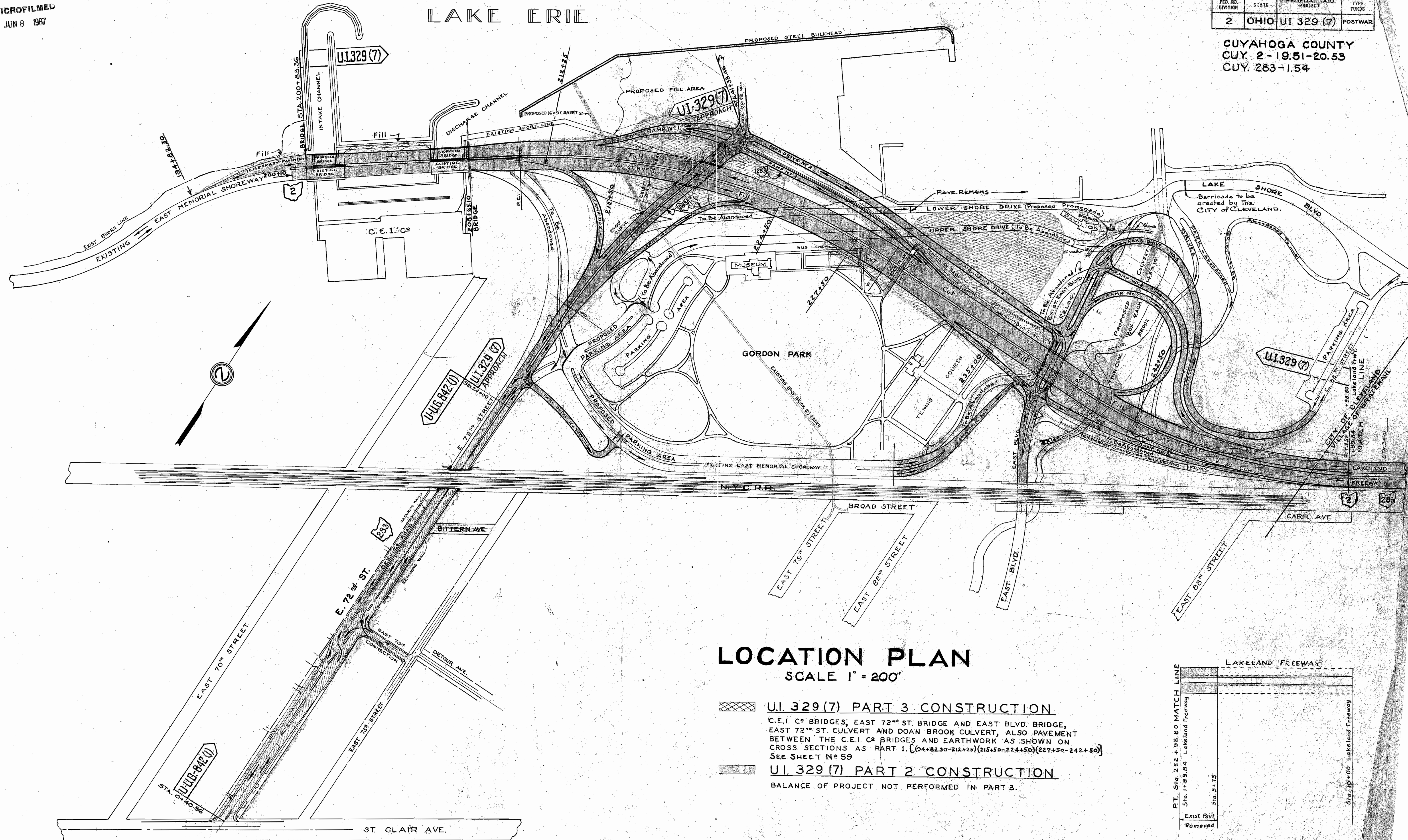
FILE NO. \_\_\_\_\_  
DATE OF LETTING \_\_\_\_\_  
CONTRACT NO. \_\_\_\_\_

MICROFILMED  
JUN 8 1987

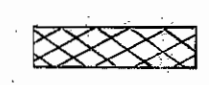

# LAKE ERIE

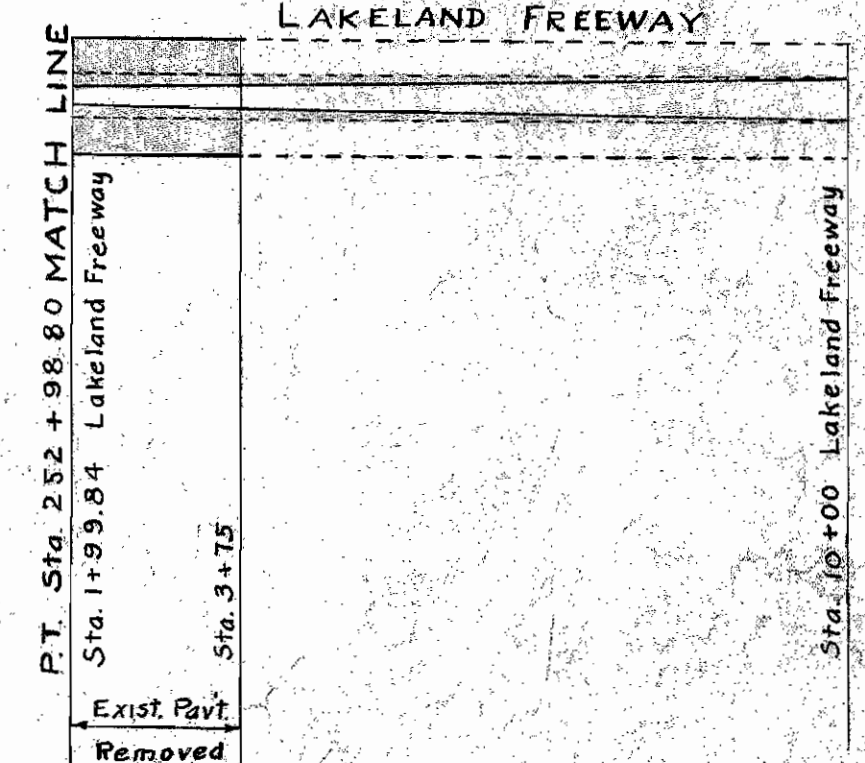
FED. RD. DIVISION	STATE	FEDERAL AID PROJECT	TYPE FUNDS
2	OHIO	UI 329 (7)	POSTWAR

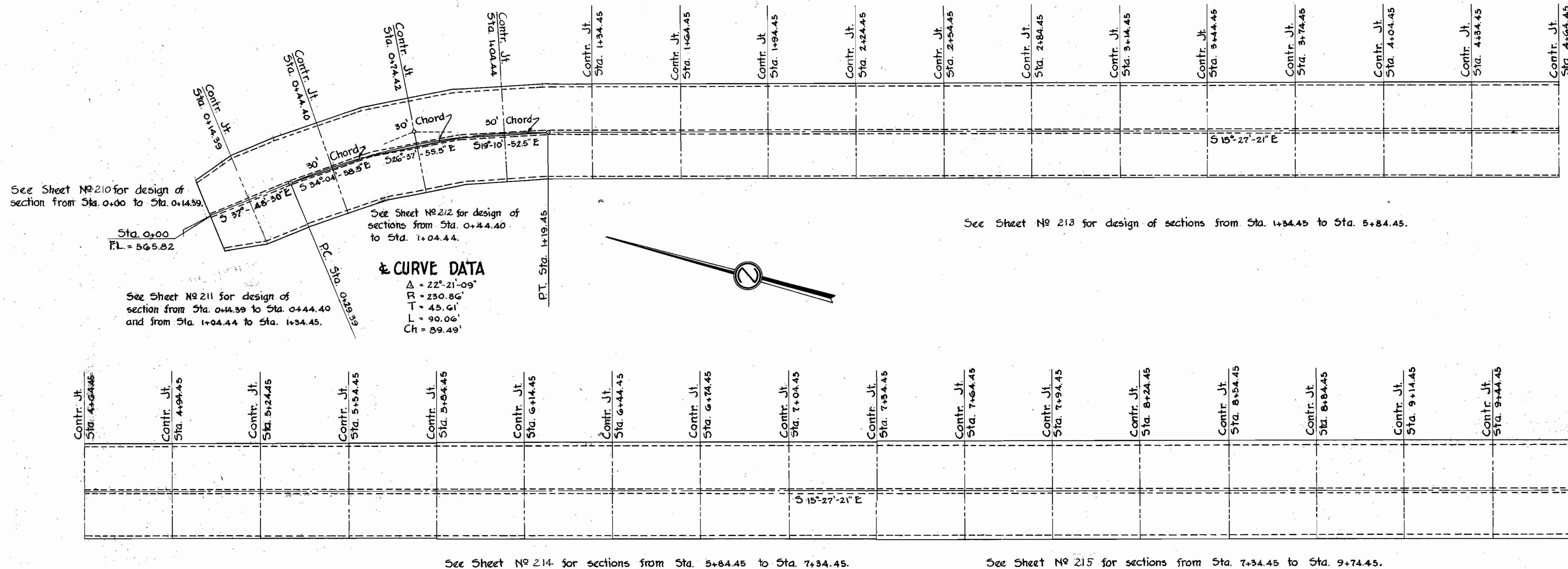
CUYAHOGA COUNTY  
CUY. 2-19.51-20.53  
CUY. 283-1.54



## LOCATION PLAN SCALE 1" = 200'

-  **UI. 329 (7) PART 3 CONSTRUCTION**  
C.E.I. CO BRIDGES, EAST 72<sup>ND</sup> ST. BRIDGE AND EAST BLVD. BRIDGE, EAST 72<sup>ND</sup> ST. CULVERT AND DOAN BROOK CULVERT, ALSO PAVEMENT BETWEEN THE C.E.I. CO BRIDGES AND EARTHWORK AS SHOWN ON CROSS SECTIONS AS PART 1. [(94+82.30-212+25)(215+50-224+50)(227+50-242+50)]  
SEE SHEET NO 59
-  **UI. 329 (7) PART 2 CONSTRUCTION**  
BALANCE OF PROJECT NOT PERFORMED IN PART 3.





### ESTIMATED QUANTITIES

ITEM NO.	TO BE PAID BY CLEVELAND	TO BE PAID BY STATE OF OHIO	TOTAL	UNIT	DESCRIPTION
E-2	1000	11,500	12,500	Cu. Yds.	Excavation for Structures, Unclassified
S-1	470	4,812	5,282	Cu. Yds.	Concrete for Structures, Class "C"
S-2		1,900	1,900	Sq. Ft.	Patching Concrete Structures (Arch)
S-2		500	500	Sq. Ft.	Patching Concrete Structures (Footings)
S-4	58,880	622,527	681,413	Lbs.	Reinforcing Steel
S-9	52	216	268	Sq. Ft.	1/4" Premolded Expansion Joint Filler
SS-30	3,153	25,801	28,954	Sq. Ft.	1/4" Vitrifified Clay Liner Plates
S-22		Lump Sum	Lump	Sum	Removal of Portions of Existing Structures
E-2	107	907	Lump Sum	Lump Sum	Cofferdams Cribs and Sheeting
I-1	2	8	2	Lin. Ft.	12" Standard strength plain cement concrete pipe, Sec. M-6.5 (a) for storm sewers.
I-2		2	2	Lin. Ft.	21" Standard strength plain cement concrete pipe, Sec. M-6.5 (a) for storm sewers.
I-2		2	2	Lin. Ft.	30" Standard reinforced concrete culvert pipe, Sec. M-6.6 (a) for storm sewers.

Note: Cost of northernmost 150 feet of Doan Brook Culvert to be paid entirely by the City of Cleveland. Quantities in above table in column headed "To Be Paid by Cleveland" are for this portion of the Project. Federal aid does not participate on this portion but does participate on the portion headed "To Be Paid For by State of Ohio."

### CULVERT DATA

Type: Double-barreled reinforced concrete box culvert with vitrifified clay liner plates set in bottom.

Size: 2 @ 14 1/2' x 14' x 992.05' (Distance along Shoreway centerline between inside faces of outer walls = 30.25')

Work Required: Remove railing and corner posts above bridge deck of bridge at southerly end of proposed culvert. Remove concrete retaining wall extending northerly from said bridge. Cost of these operations to be included in lump sum bid for Item "S-22 Removal of Portions of Existing Structures."

Repair west span only of the three span arch bridge at southerly end of proposed culvert as follows:  
Item Repair disintegrated areas on exposed portions of arch barrel. Repair disintegrated areas of stream side faces and north ends of footings of the above arch span both above and below water. At the junction of the proposed culvert and the end of the arch span the area of the side of the arch corresponding to the cross-section of the end of the culvert shall be built up to a plane vertical surface by the methods provided for in Item S-2. All of the above to be included in Item "S-2 Patching Concrete Structures."

Place one layer of 1/4" premolded expansion joint filler at both ends of proposed culvert over area in contact with existing structures. Galvanized ed nails at approximate 1 foot centers each direction shall be driven through premolded expansion joint filler with points of nails cast in proposed culvert. Cost to be included in Item S-9 for payment.

Connect above arch to opening under bridge on Lake Shore Boulevard with Doan Brook Culvert, as per Plan.

### NOTES

Foundation material of approximately uniform bearing capacity is contemplated. Spots of soft earth shall be removed and be replaced with thoroughly compacted granular material. Cost of this operation to be included in unit price bid for Item "E-2 Excavation for Structures."

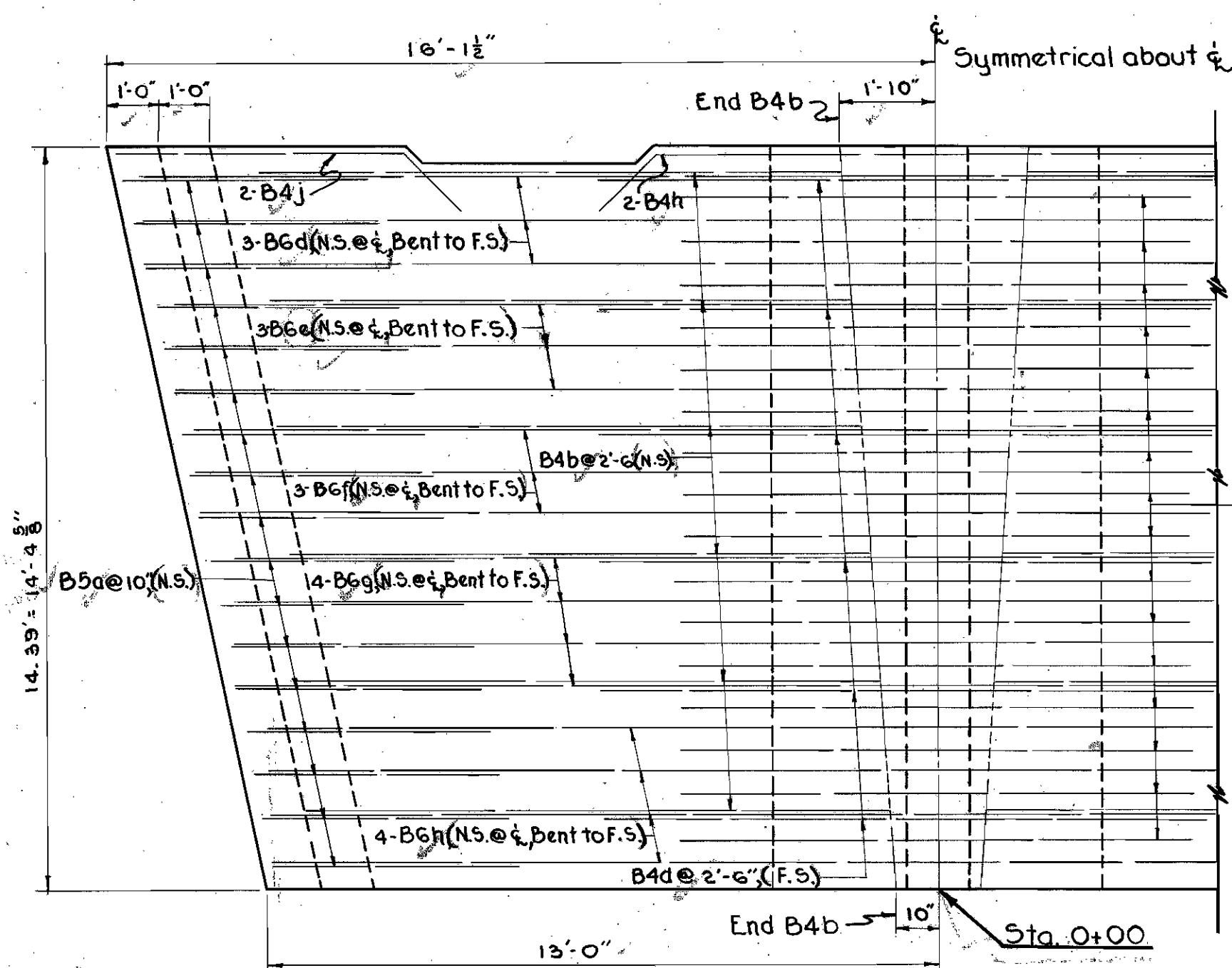
Embankment shall be placed symmetrically on both sides of the culvert after the top slab is in place. Embankment over the barrel shall be placed in horizontal layers simultaneously with that on each side of the culvert.

All existing pipes, culverts or drains encountered are to be connected to this culvert. Cost of this operation to be included in unit price bid for Item "S-1 Concrete for Structures."

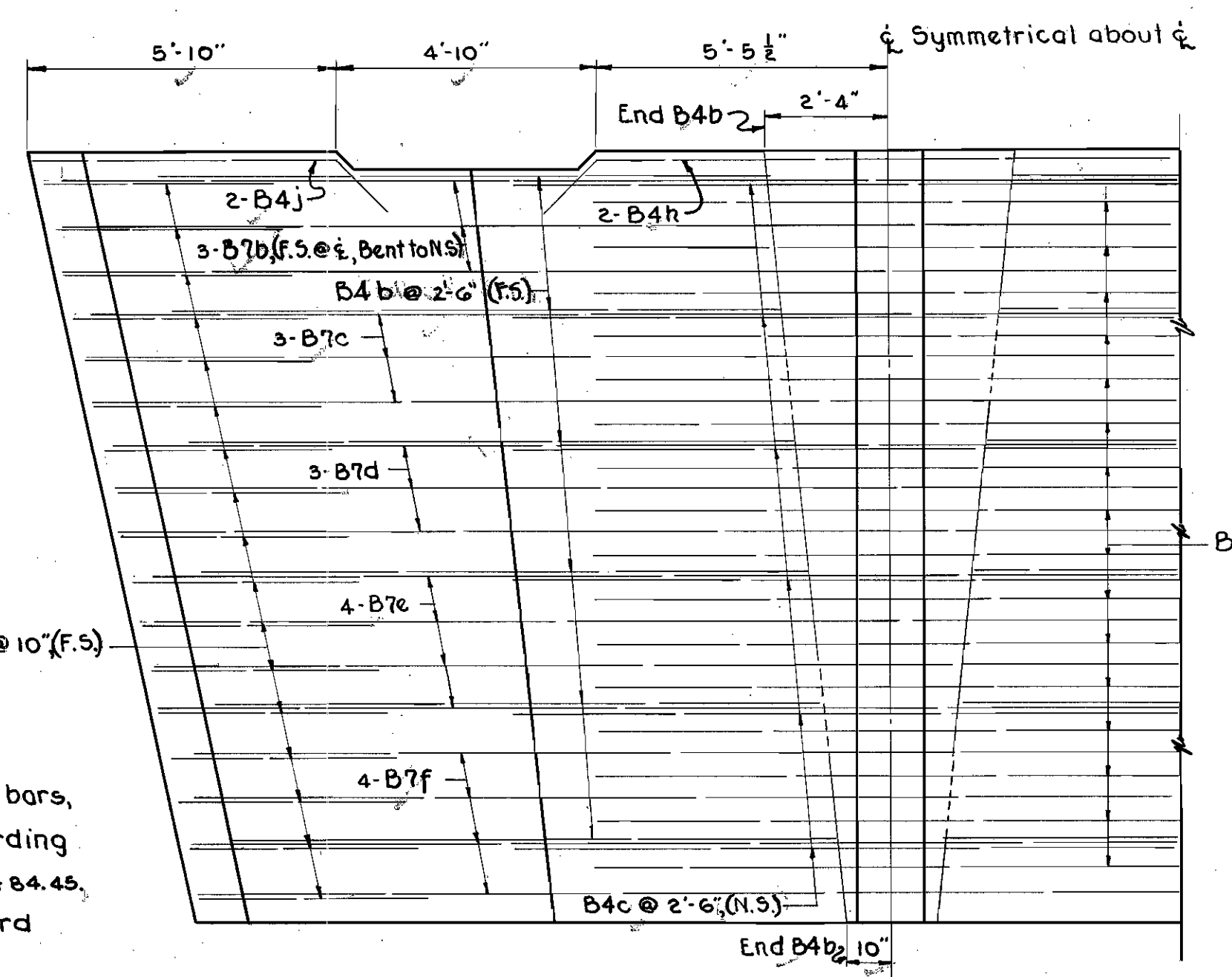
Reference shall be made to Supplemental Specification No. 30, dated May 26, 1948.

For details of Vitrifified Clay liner plates, See Sheet No. 158.

STATE OF OHIO DEPARTMENT OF HIGHWAYS					
GENERAL PLAN REINFORCED CONCRETE BOX CULVERT BRIDGE NO CU-2-203 SECTION CUY. 2-19.51-20.55 DOAN BROOK CULVERT					
SCALE: 1"=20'			CUYAHOGA COUNTY		
Designed:	Drawn:	Traced:	Checked:	Reviewed:	Date:
D.F.	D.F.			WPK	9-20-50



**PART PLAN-TOP**  
STA. 0+00 TO STA. 0+14.39



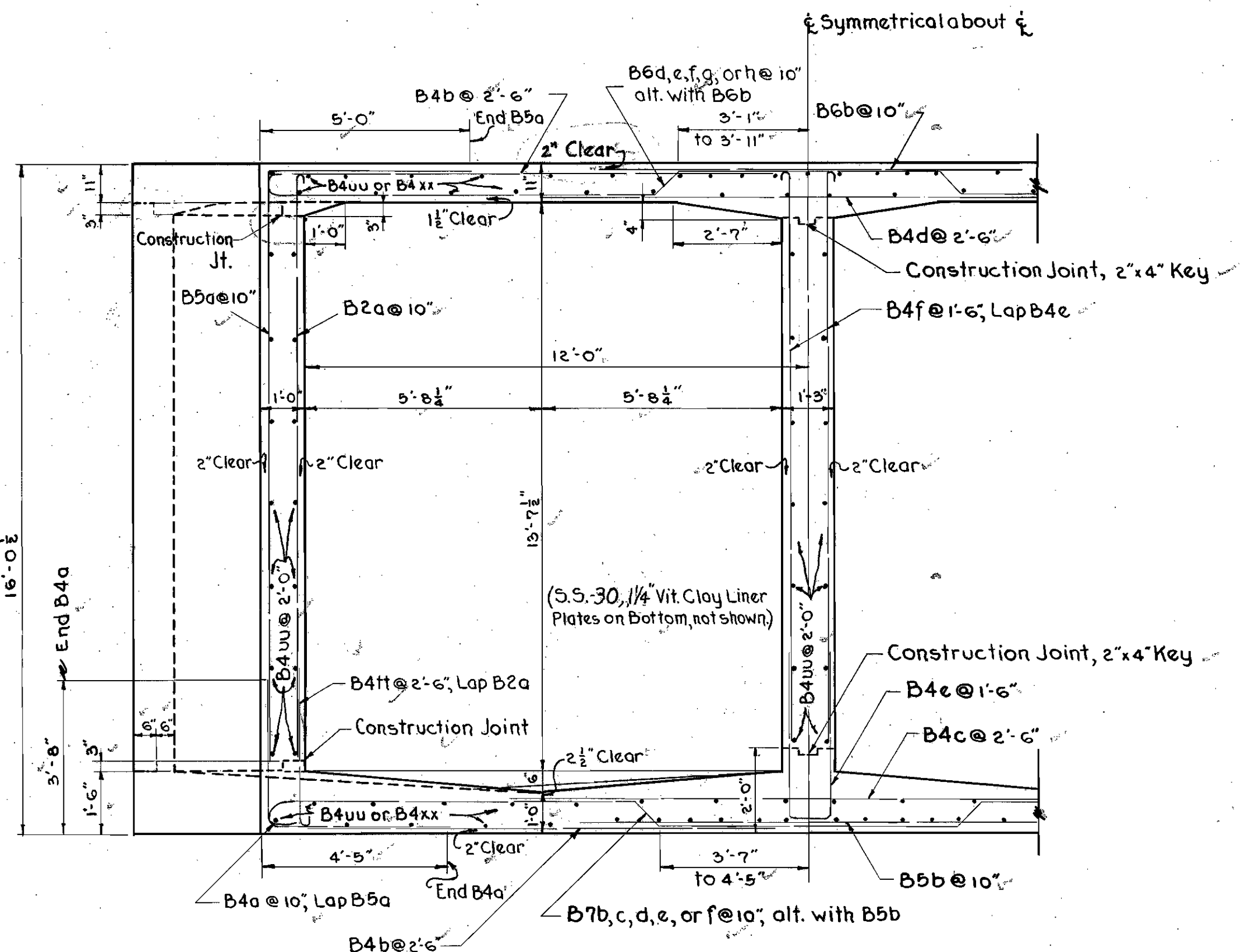
**PART PLAN-BOTTOM**

Note: Longitudinal reinforcement bars, B4uu, placed and spaced according to B4g for Sta. 1+34.45 to Sta. 5+84.45, Sheet N 213, and tapered toward narrow end.  
Use 10-B4xx (4\" shorter) in Top and 10-B4xx in Bottom in place of B4uu, to permit placing of longitudinal bars at contraction joint keyway.

Note: Outside dimensions same as top.

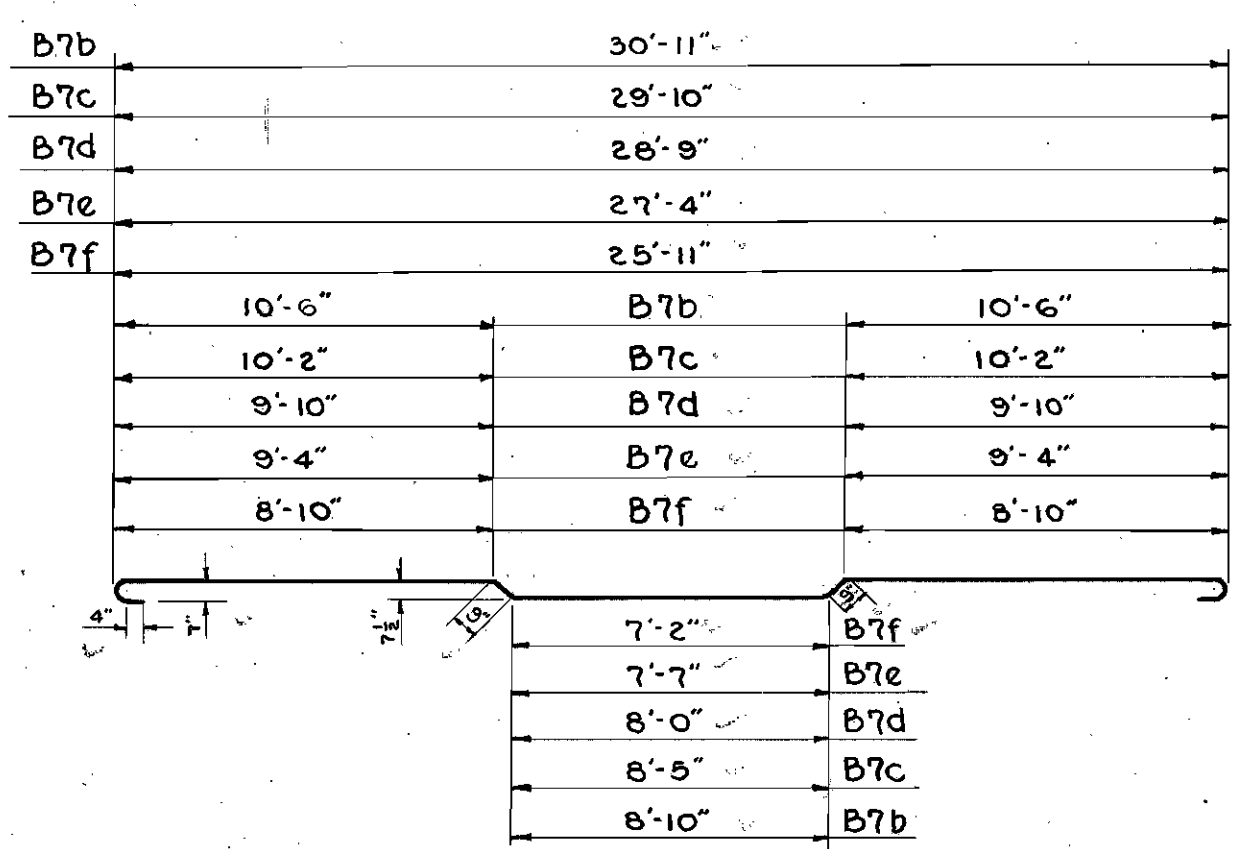
**BAR SCHEDULE**

MARK	SIZE	TYPE	N <sup>o</sup>	LENGTH	WEIGHT
B7b	1"	Bt.	3	33'-0"	264
B7c	1"	Bt.	3	31'-11"	256
B7d	1"	Bt.	3	30'-10"	247
B7e	1"	Bt.	4	29'-5"	314
B7f	1"	Bt.	4	28'-0"	299
B6d	3/4"	Bt.	3	33'-0"	202
B6e	3/4"	Bt.	3	31'-11"	196
B6f	3/4"	Bt.	3	30'-10"	189
B6g	3/4"	Bt.	4	29'-5"	241
B6h	3/4"	Bt.	4	28'-0"	229
B6b	3/4"	Str.	16	10'-0"	327
B5a	3/4"	Bt.	34	18'-11 1/2"	968
B5b	3/4"	Str.	16	11'-0"	264
B4f	3/4"	Bt.	20	14'-3 1/2"	298
B4c	3/4"	Str.	6	14'-3"	89
B4uu	3/4"	Str.	99	14'-1"	1454
B4h	3/4"	Bt.	4	13'-11"	58
B4xx	3/4"	Str.	20	13'-9"	287
B4d	3/4"	Str.	6	13'-1"	82
B4b	3/4"	Str.	24	11'-4 1/2"	285
B4e	3/4"	Bt.	10	8'-11"	93
B4a	3/4"	Bt.	34	7'-8"	272
B4j	3/4"	Bt.	8	7'-2"	60
B4m	3/4"	Bt.	6	7'-0 1/2"	44
B4n	3/4"	Bt.	6	6'-11 1/2"	43
B4tt	3/4"	Bt.	12	4'-5"	55
B2a	1/2"	Bt.	34	14'-5 1/2"	328

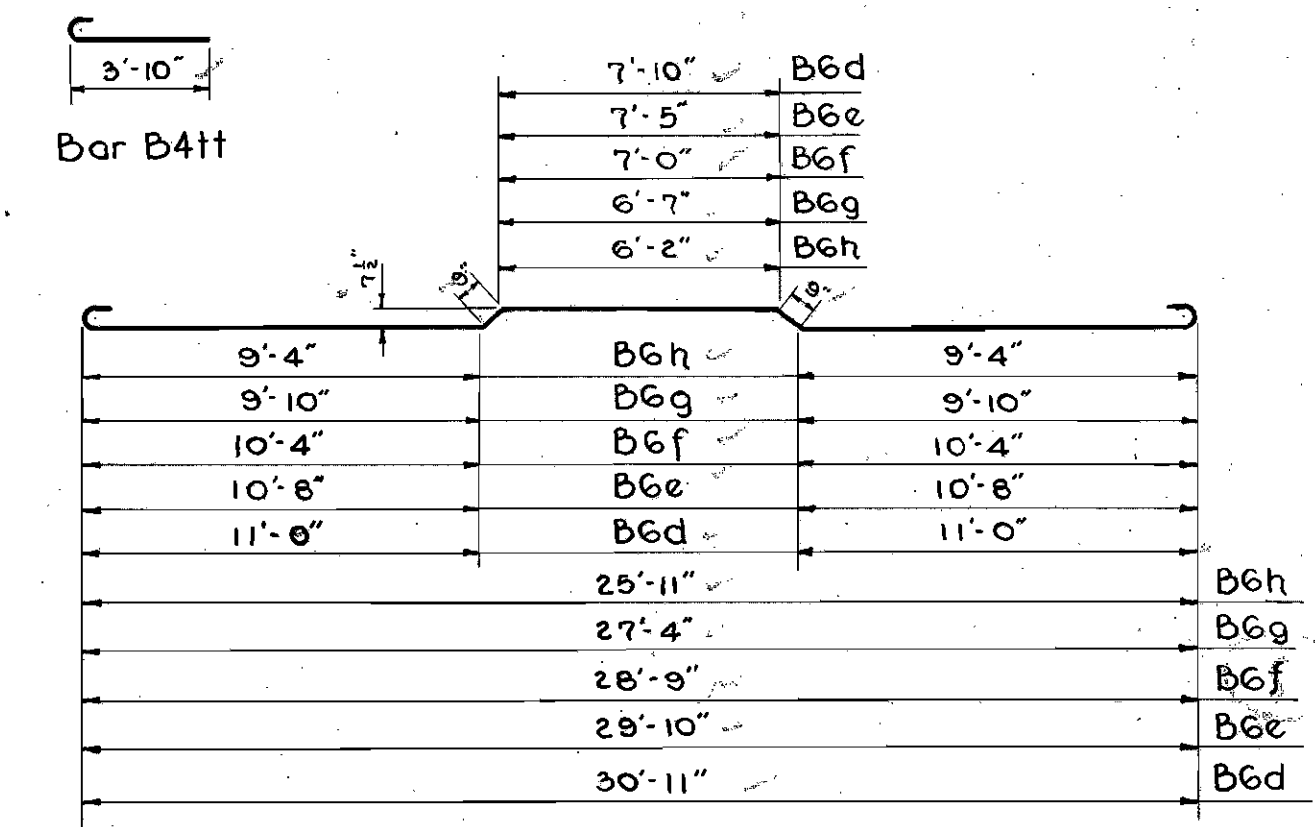


**ELEVATION AT OUTLET**

Contraction Joint Keyway at Sta. 0+14.39 same as shown for sections from Sta. 0+14.39 to Sta. 5+84.45 (Sheet N 213).



Bars B7b, B7c, B7d, B7e, and B7f



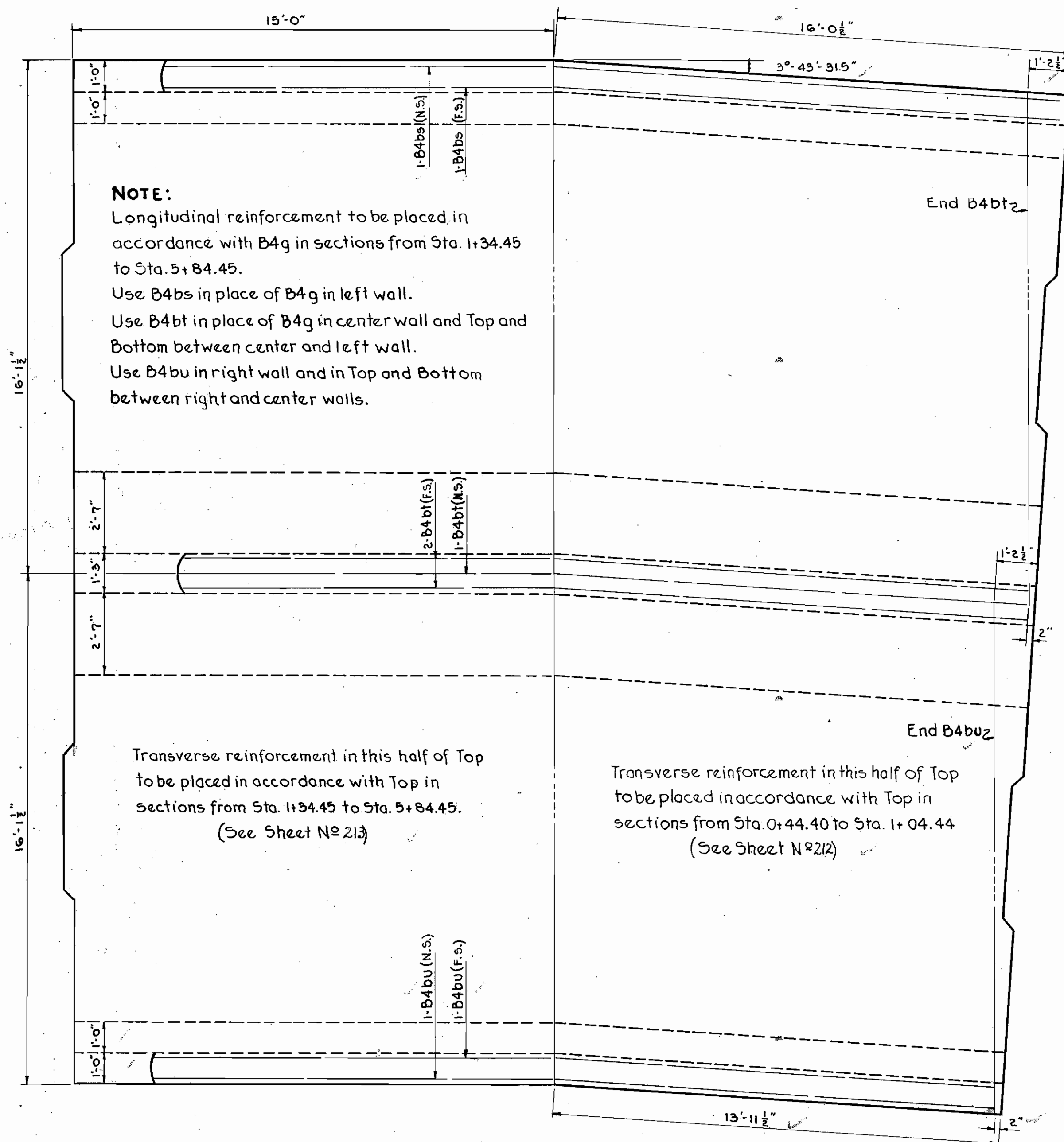
Bars B6d, B6e, B6f, B6g, and B6h

**BAR DETAILS**

Scale 3/16" = 1'-0"  
All dimensions are out to out  
Additional details on Sheet N 213.

STATE OF OHIO DEPARTMENT OF HIGHWAYS						
<b>REINFORCING STEEL LAYOUT</b>						
REINFORCED CONCRETE BOX CULVERT						
BRIDGE NO. CU-2-203						
SECTION CUY. 2-(19.51-20.53)						
DOAN BROOK CULVERT						
SCALE: 3/8" = 1'-0" CUYAHOGA COUNTY						
Designed:	Drawn:	Traced:	Checked:	Reviewed:	Date:	Revised:
D.W.P.	D.F.	S.E.W.	D.F.	M.H.R.	9-20-50	

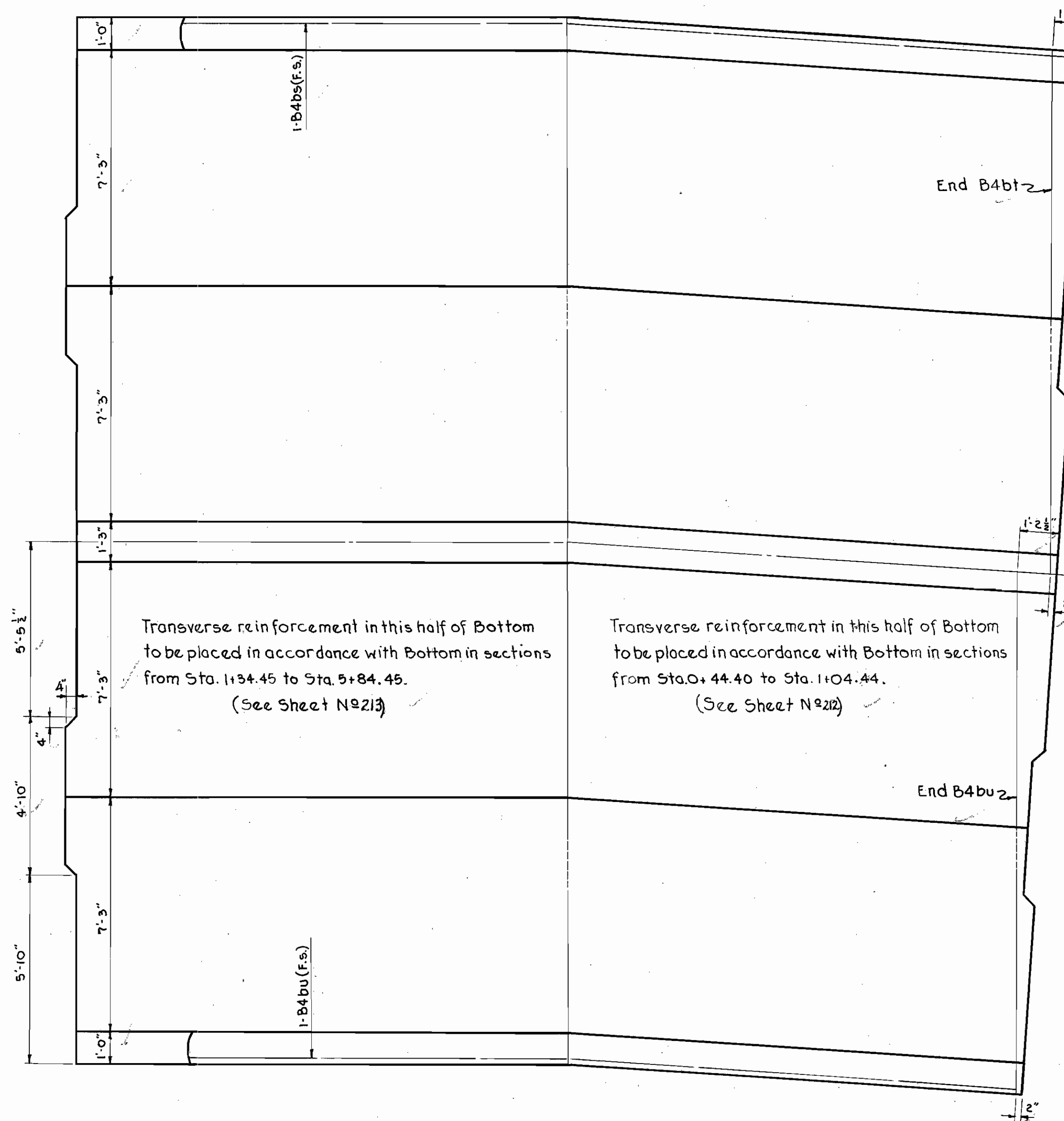
CUYAHOGA COUNTY  
CUY. 2-(19.51-20.53)  
CUY. 283-1.54



**PLAN - TOP**  
**STA. 0+14.39 TO STA. 0+44.40**  
AND  
**STA. 1+04.44 TO STA. 1+34.45**

Note: Section from Sta. 1+04.44 to Sta. 1+34.45 is reverse longitudinally of section shown above, with rectangular half following the half which is on the 30' chord. (See Sheets No 209 and 212).

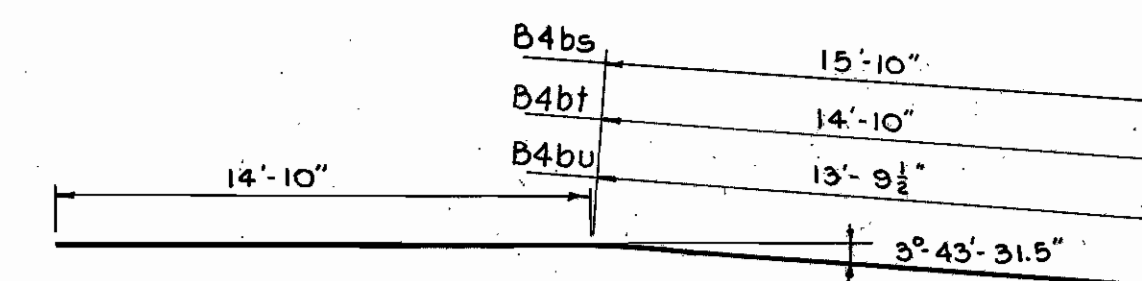
Typical Section on Sheet No 213.



**PLAN - BOTTOM**  
Outside dimensions same as Top.

**BAR SCHEDULE FOR 30' SECTION**

MARK	SIZE	TYPE	NO	LENGTH	WEIGHT
B7a	1" Ø	Bt.	36	35'-5 1/2"	3408
B6a	7/8" Ø	Bt.	36	34'-0"	2502
B6b	1/2" Ø	Str.	35	10'-0"	715
B5a	3/4" Ø	Bt.	72	18'-11 1/2"	2050
B5b	3/4" Ø	Str.	35	11'-0"	578
B4bs	5/8" Ø	Bt.	18	30'-8"	576
B4bt	5/8" Ø	Bt.	50	29'-8"	1547
B4bu	5/8" Ø	Bt.	51	28'-7 1/2"	1523
B4f	5/8" Ø	Bt.	40	14'-3 1/2"	596
B4c	5/8" Ø	Bt.	12	14'-3"	178
B4h	5/8" Ø	Bt.	4	13'-11"	58
B4d	5/8" Ø	Str.	12	13'-1"	164
B4b	5/8" Ø	Str.	48	11'-4 1/2"	570
B4e	5/8" Ø	Bt.	20	8'-11"	186
B4a	5/8" Ø	Bt.	72	7'-8"	576
B4k	5/8" Ø	Bt.	8	7'-2"	60
B4j	5/8" Ø	Bt.	8	7'-2"	60
B4p	5/8" Ø	Bt.	6	7'-0 1/2"	44
B4m	5/8" Ø	Bt.	6	7'-0 1/2"	44
B4n	5/8" Ø	Bt.	6	6'-11 1/2"	43
B2q	1/2" Ø	Bt.	72	14'-5 1/2"	695



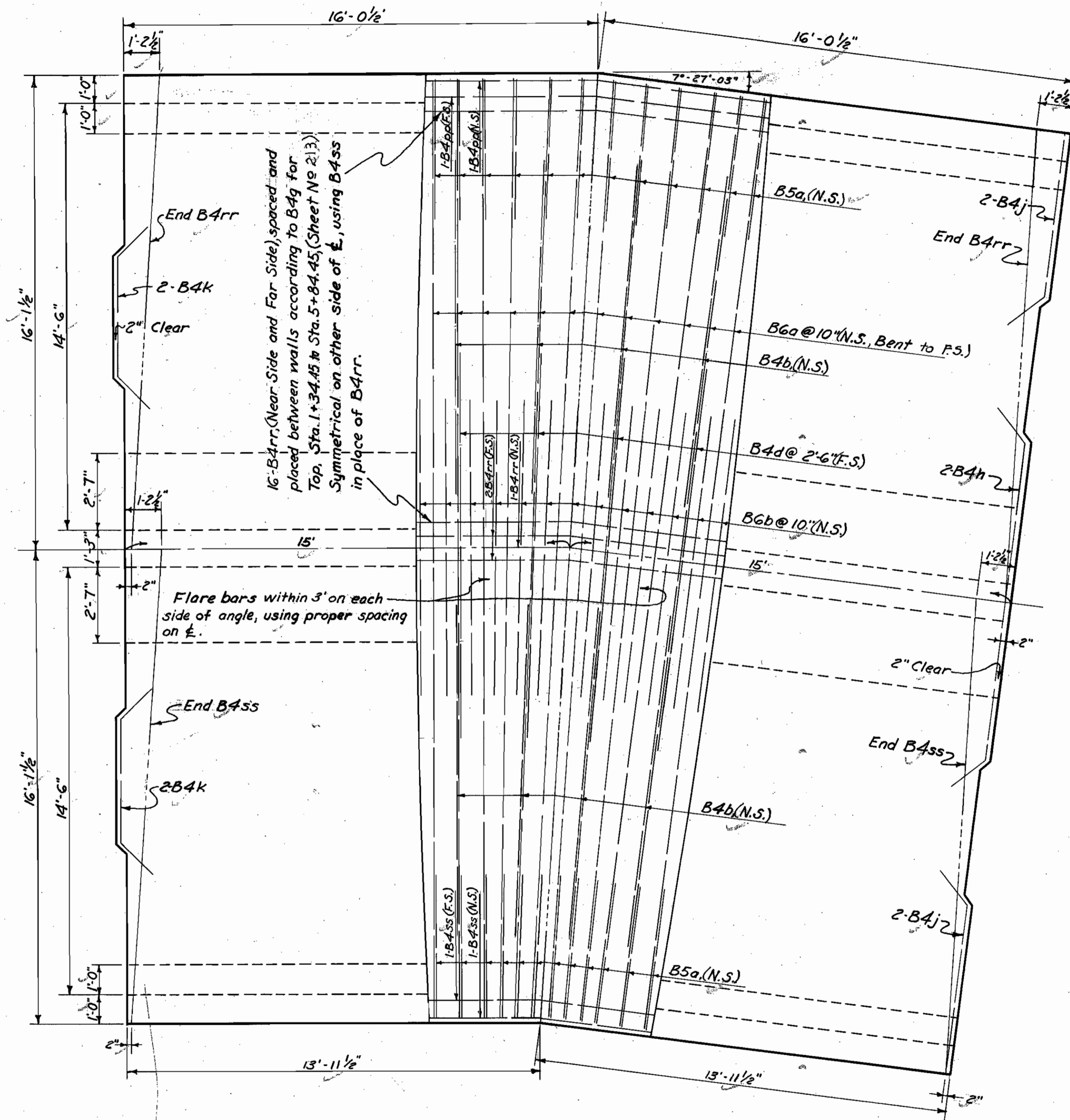
Detail Bars B4bs, B4bt, & B4bu  
Scale 3/8" = 1'-0"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

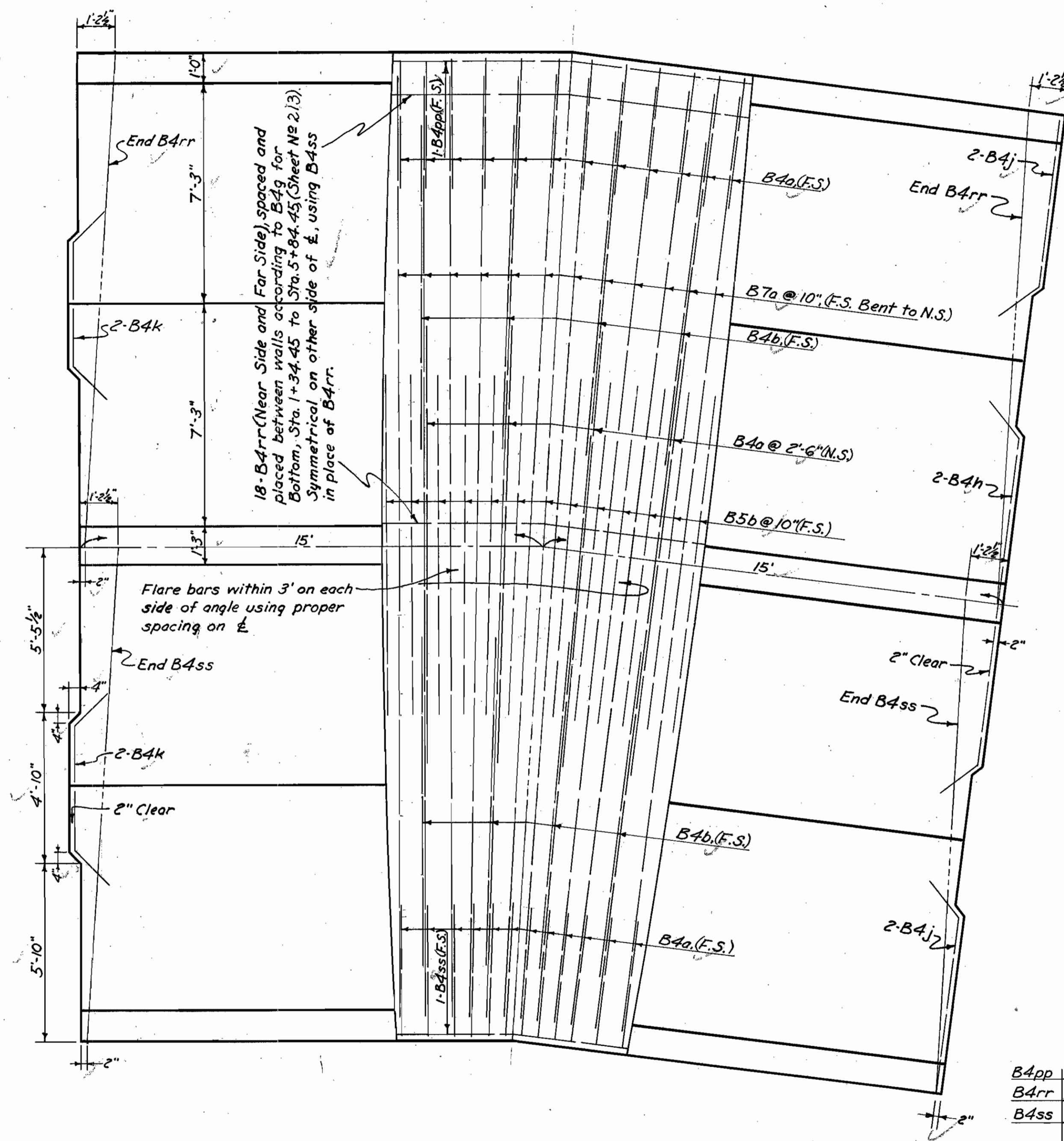
**REINFORCING STEEL LAYOUT**  
REINFORCED CONCRETE BOX CULVERT  
BRIDGE No CU-2-203  
SECTION CUY. 2-(19.51-20.53)  
DOAN BROOK CULVERT

SCALE: 3/8" = 1'-0" CUYAHOGA COUNTY

Designed:	Drawn:	Traced:	Checked:	Reviewed:	Date:	Revised:
D.W.P.	D.F.	S.E.W.	D.F.	W.H.C.	9-20-50	



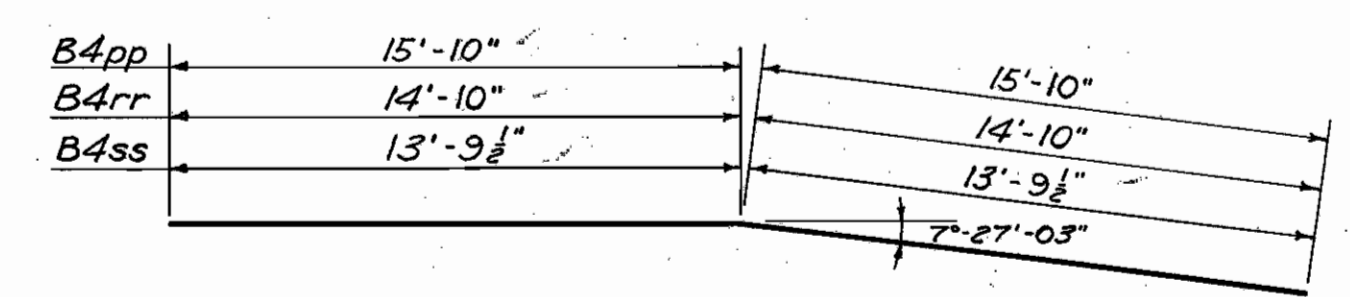
**PLAN-TOP**  
**STA. 0+44.40 TO STA. 1+04.44**  
Note-Typical section same as for Sta. 1+34.45 to Sta. 5+84.45 (Sheet No 213).



**PLAN-BOTTOM**  
Note-Outside dimensions same as Top

**BAR SCHEDULE FOR 30' SECTION**

MARK	SIZE	TYPE	NO	LENGTH	WEIGHT
B7a	1" φ	Bt.	36	35'-5 1/2"	3408
B6a	7/8" φ	Bt.	36	34'-0"	2502
B6b	7/8" φ	Str.	35	10'-0"	715
B5a	3/4" φ	Bt.	72	18'-11 1/2"	2050
B5b	3/4" φ	Str.	35	11'-0"	578
B4pp	5/8" φ	Bt.	18	31'-8"	595
B4rr	5/8" φ	Bt.	50	29'-8"	1547
B4ss	5/8" φ	Bt.	51	27'-7"	1467
B4f	5/8" φ	Bt.	40	14'-3 1/2"	596
B4c	5/8" φ	Bt.	12	14'-3"	178
B4h	5/8" φ	Bt.	4	13'-11"	58
B4d	5/8" φ	Str.	12	13'-1"	164
B4b	5/8" φ	Str.	48	11'-4 1/2"	570
B4e	5/8" φ	Bt.	20	8'-11"	186
B4g	5/8" φ	Bt.	72	7'-8"	576
B4k	5/8" φ	Bt.	8	7'-2"	60
B4j	5/8" φ	Bt.	8	7'-2"	60
B4p	5/8" φ	Bt.	6	7'-0 1/2"	44
B4m	5/8" φ	Bt.	6	7'-0 1/2"	44
B4n	5/8" φ	Bt.	6	6'-11 1/2"	43
B2a	1/2" φ	Bt.	72	14'-5 1/2"	695

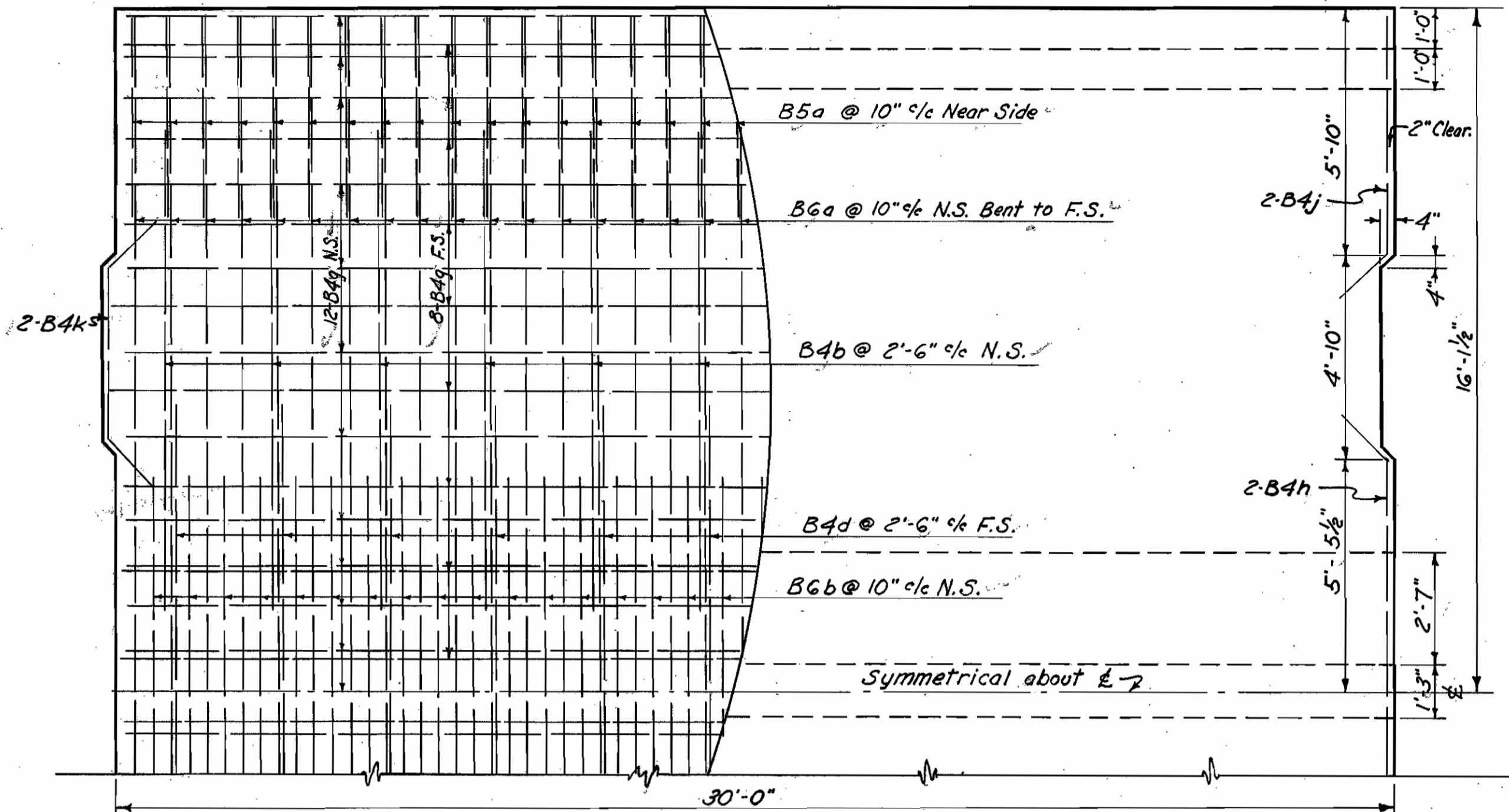


Detail Bars B4pp, B4rr & B4ss

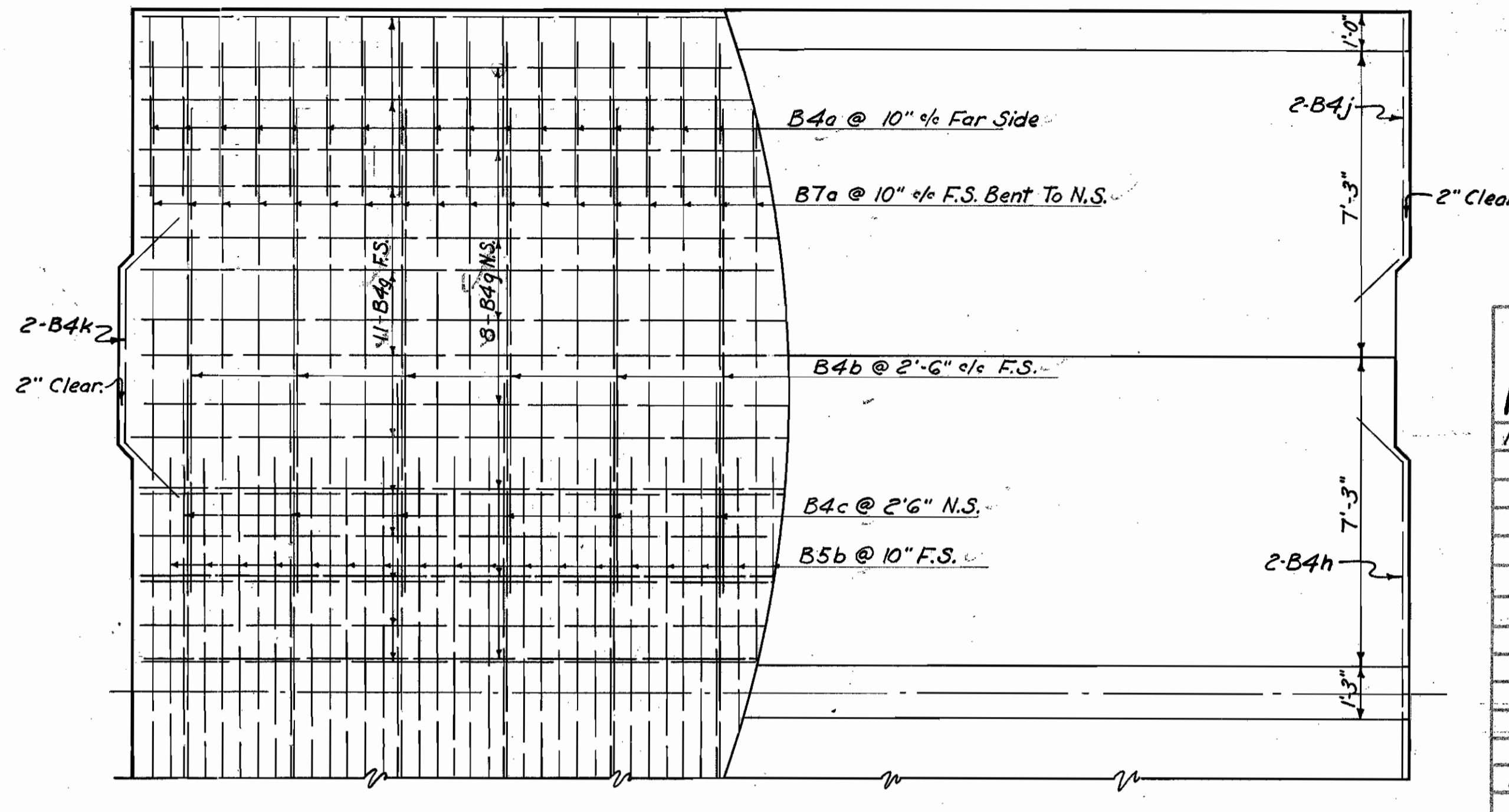
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

**REINFORCING STEEL LAYOUT**  
REINFORCED CONCRETE BOX CULVERT  
BRIDGE NO CU-2-203  
SECTION CUY. 2-(19.51-20.53)  
DOAN BROOK CULVERT  
SCALE: 3/8" = 1'-0" CUYAHOGA COUNTY

Designed:	Drawn:	Traced:	Checked:	Reviewed:	Date:	Revised:
DWR	DF	C.W.	DF	WPK	4-20-50	



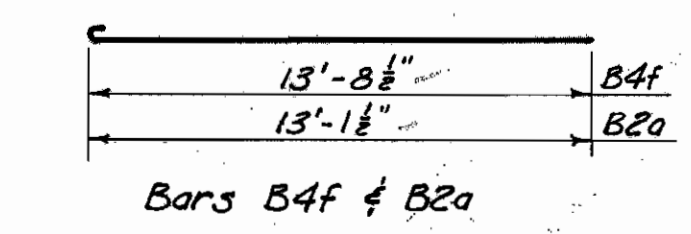
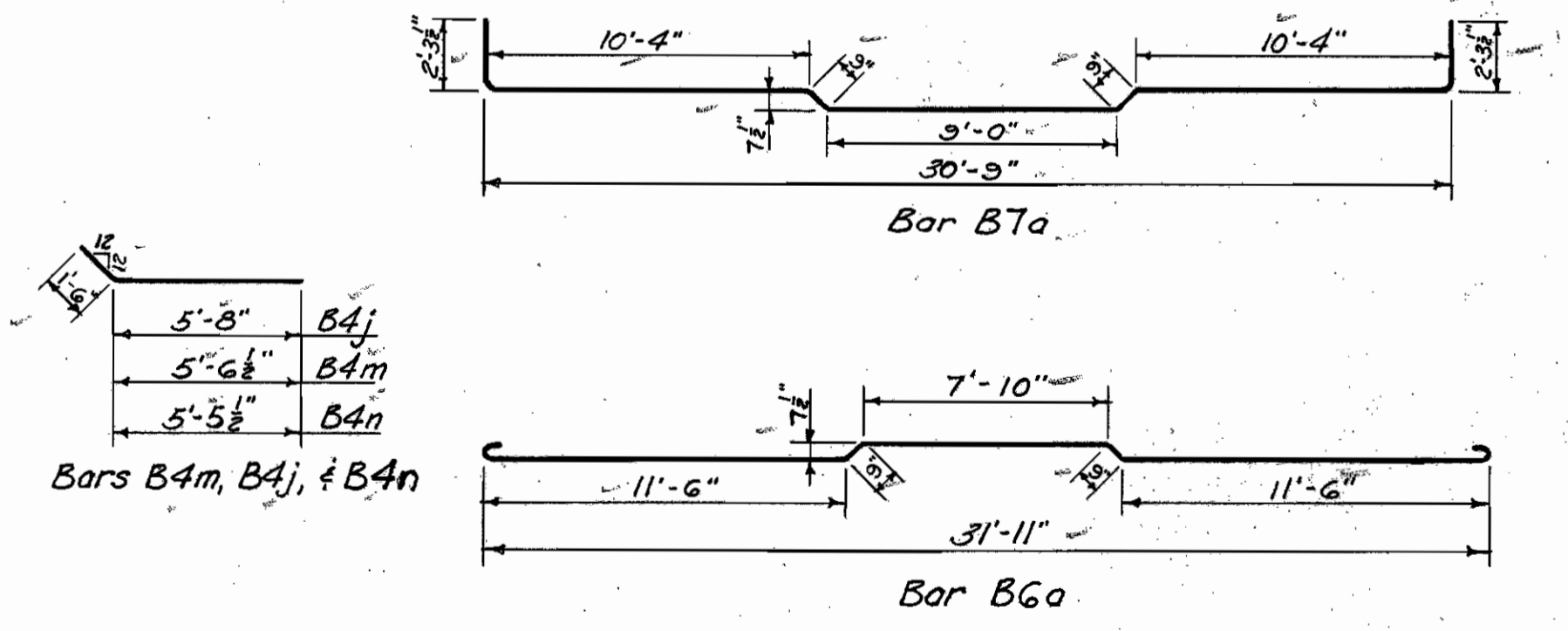
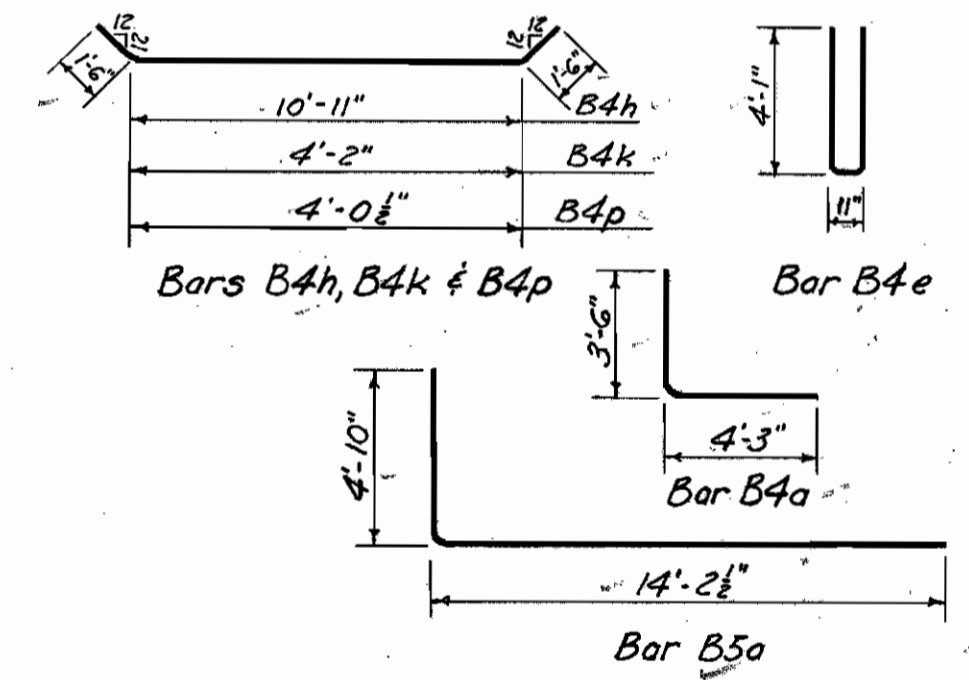
PART PLAN - TOP  
Sta. 1+34.45 to Sta. 5+84.45



PART PLAN - BOTTOM  
Sta. 1+34.45 to Sta. 5+84.45

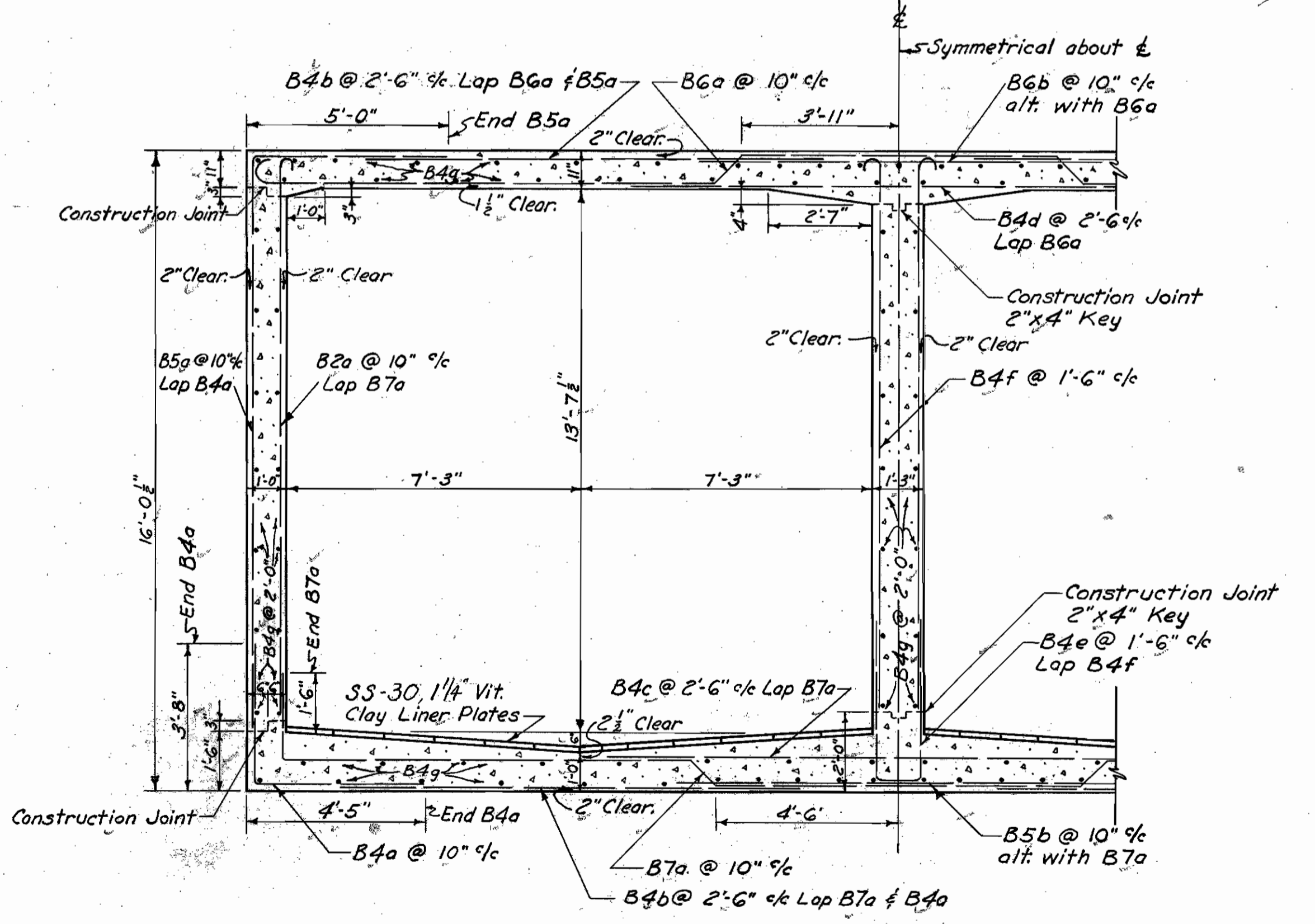
**BAR SCHEDULE FOR 30' SECTION**

MARK	SIZE	TYPE	Nº	LENGTH	WEIGHT
B7a	1" φ	Bt.	36	35'-5 1/2"	3408
B6a	3/8" φ	Bt.	36	34'-0"	2502
B6b	7/8" φ	Str.	35	10'-0"	715
B5a	3/4" φ	Bt.	72	18'-11 1/2"	2050
B5b	3/4" φ	Str.	35	11'-0"	578
B4g	3/8" φ	Str.	119	29'-8"	3682
B4f	3/8" φ	Bt.	40	14'-3 1/2"	596
B4c	3/8" φ	Str.	12	14'-3"	178
B4h	3/8" φ	Bt.	4	13'-11"	58
B4d	3/8" φ	Str.	12	13'-1"	164
B4b	3/8" φ	Str.	48	11'-4 1/2"	570
B4e	3/8" φ	Bt.	20	8'-11"	186
B4a	3/8" φ	Bt.	72	7'-8"	576
B4j	3/8" φ	Bt.	8	7'-2"	60
B4k	3/8" φ	Bt.	8	7'-2"	60
B4m	3/8" φ	Bt.	6	7'-0 1/2"	44
B4p	3/8" φ	Bt.	6	7'-0 1/2"	44
B4n	3/8" φ	Bt.	6	6'-11 1/2"	43
B2a	1/2" φ	Bt.	72	14'-5 1/2"	695

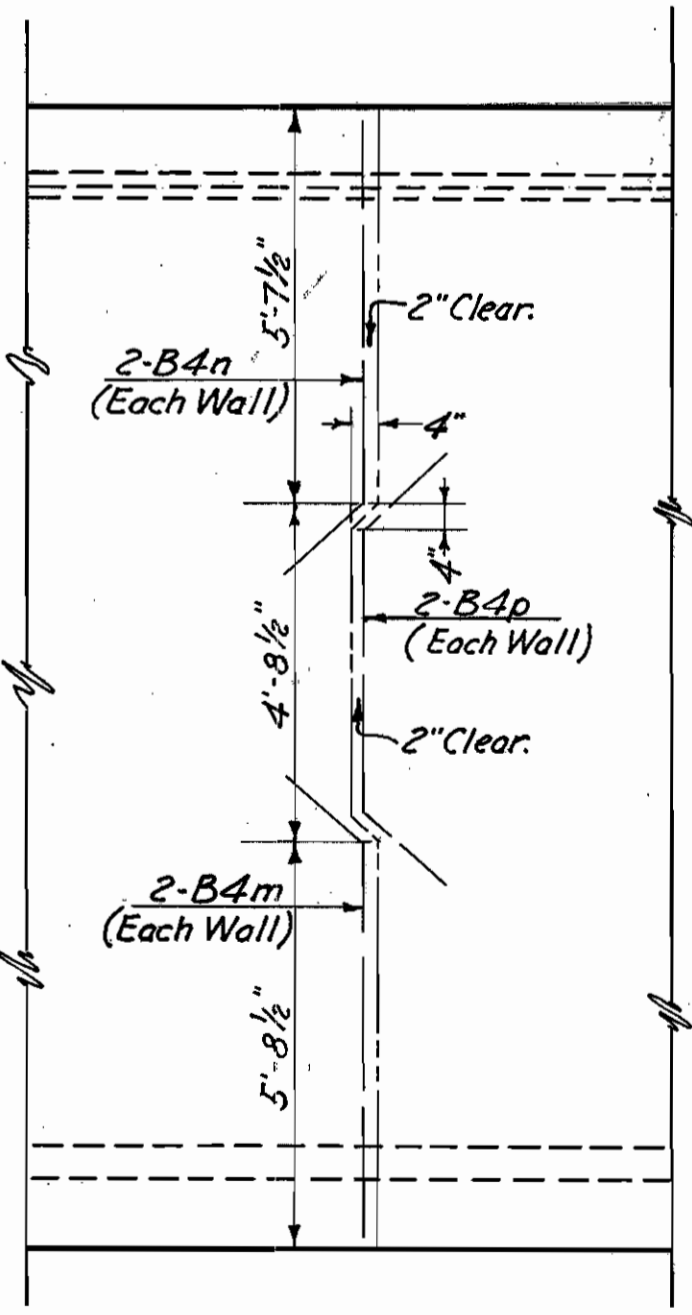


BAR DETAILS  
Scale 3/16" = 1'-0"

Note - All dimensions are out to out.



TYPICAL SECTION  
Sta. 0+14.39 to Sta. 5+84.45



PART ELEVATION  
SHOWING  
CONTRACTION JOINT

Note: B4g bars not used from Sta. 0+14.39 to Sta. 1+34.45. Instead of B4g use longitudinal reinforcement as shown on Sheets No 211 and No 212.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

**REINFORCING STEEL LAYOUT**  
REINFORCED CONCRETE BOX CULVERT  
BRIDGE NO CU-2-203  
SECTION CUY. 2-(19.51-20.53)  
DOAN BROOK CULVERT

SCALE: 3/8" = 1'-0"  
CUYAHOGA COUNTY

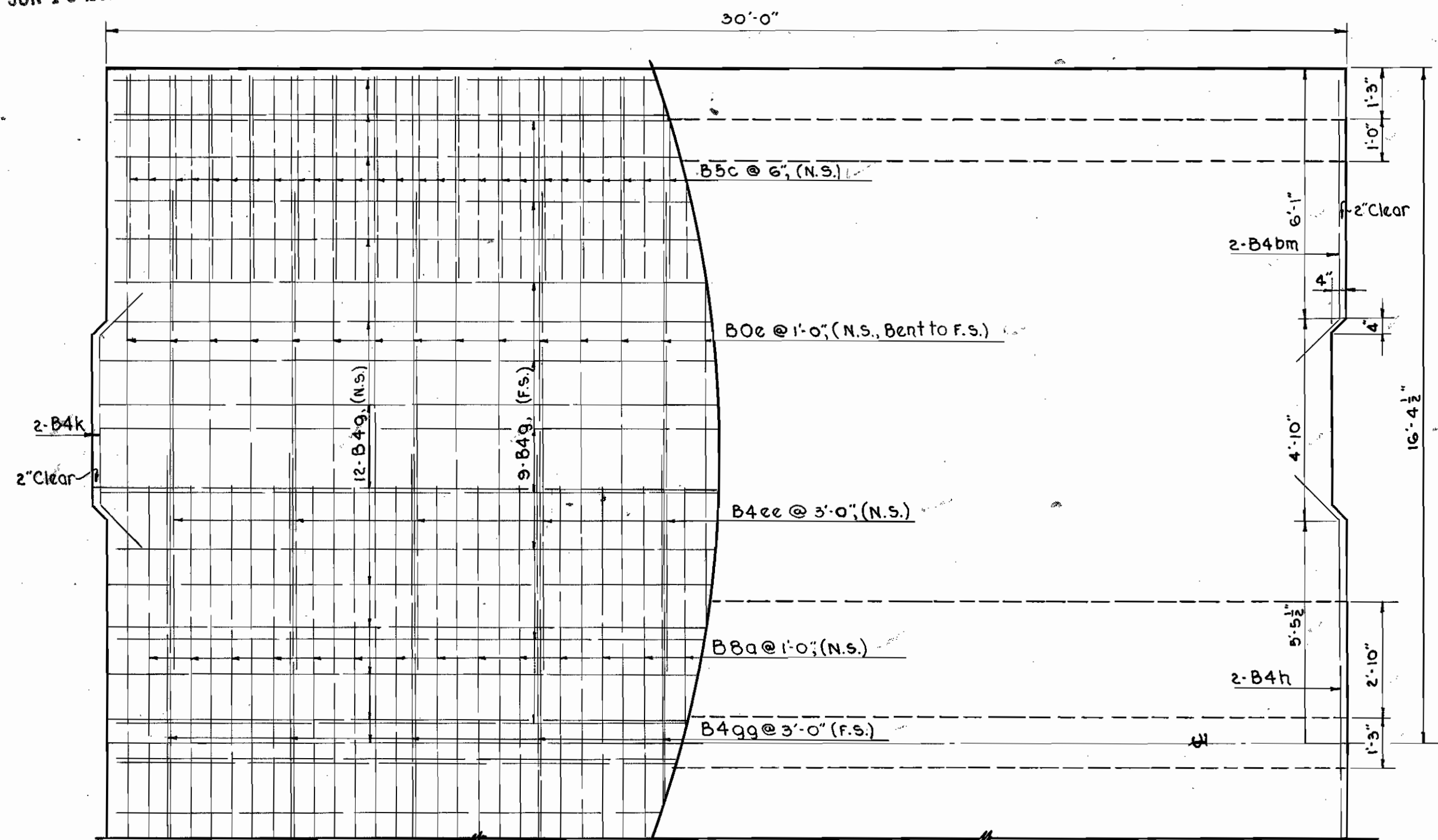
Designed/Drawn: D.W.P. D.F. C.W. D.F. M.R. 9-20-50  
Traced: \_\_\_\_\_ Checked: \_\_\_\_\_ Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

MICROFILM  
JUN 10 1987

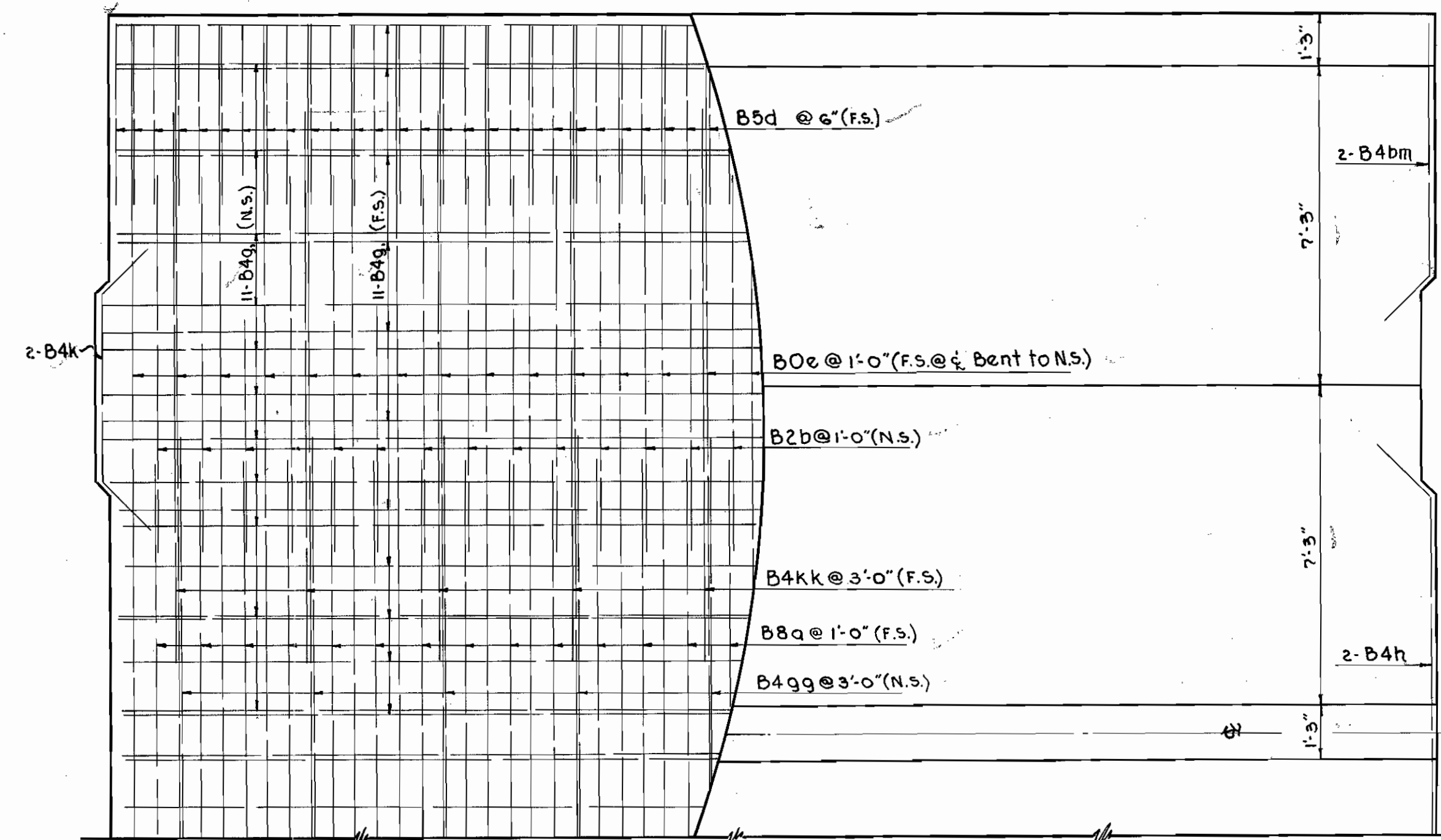
FED. RD. DIVISION	STATE	FEDERAL AID PROJECT	TYPE FUNDS
2	OHIO	U.I. 329 (7)	Postwar

CUYAHOGA COUNTY  
CUY. 2-(19.51-20.53)  
CUY. 283-1.54

214  
217



PART PLAN-TOP

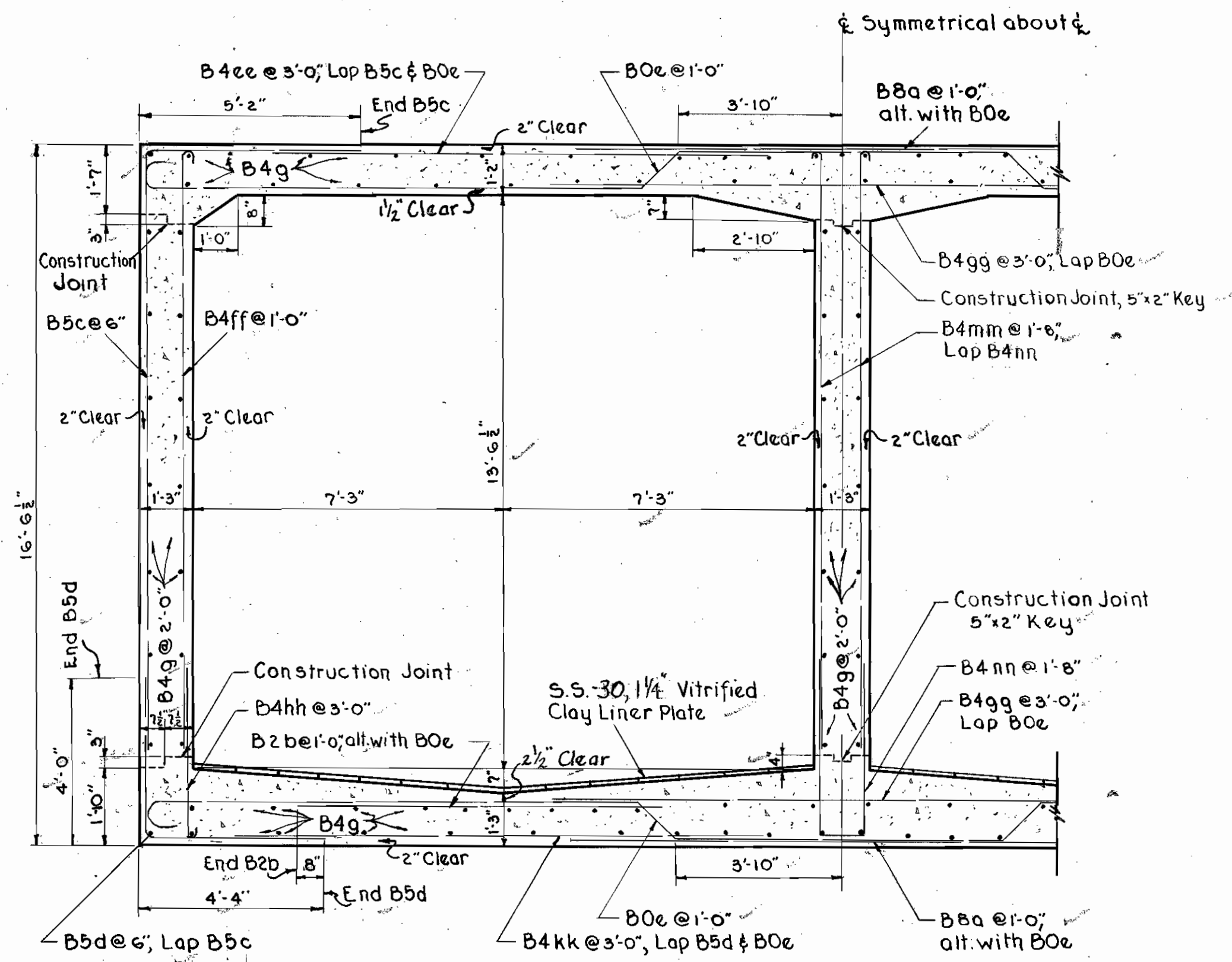


PART PLAN-BOTTOM

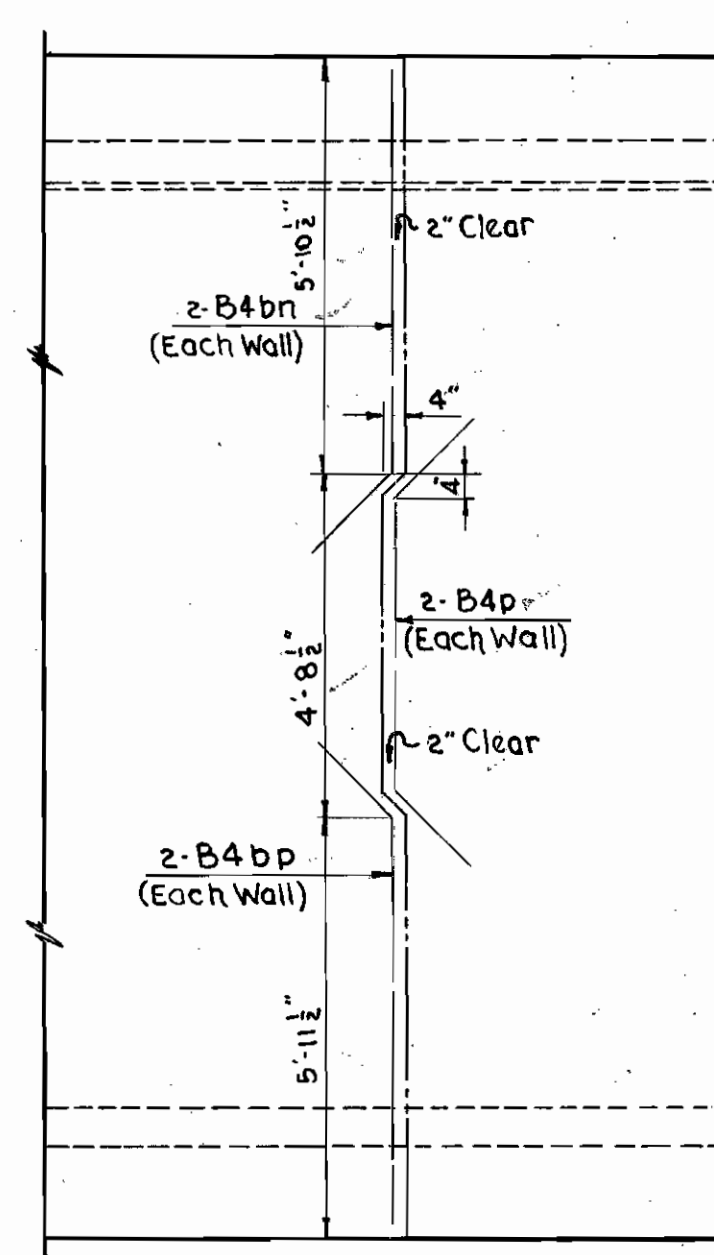
Outside dimensions same as Top

**BAR SCHEDULE FOR 30' SECTION**

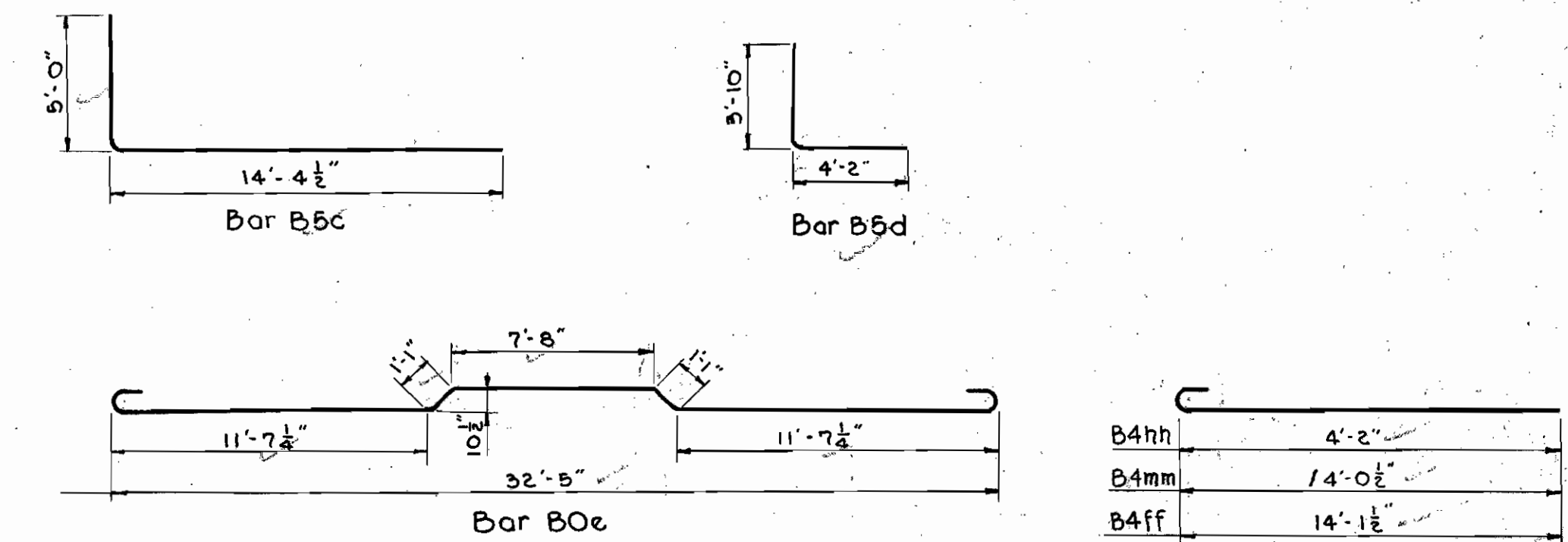
MARK	SIZE	TYPE	N <sup>o</sup>	LENGTH	WEIGHT
B0e	1/2"	Bt.	60	35-10 1/2"	11,436
B8a	1"	Str.	58	12'-6"	2,465
B5c	3/8"	Bt.	120	19'-3 1/2"	3,477
B5d	3/8"	Bt.	120	7'-11"	1,427
B4g	3/8"	Str.	127	29'-8"	3,930
B4ff	3/8"	Bt.	60	14'-8 1/2"	920
B4mm	3/8"	Bt.	36	14'-7 1/2"	549
B4h	3/8"	Bt.	4	13'-11"	158
B4gg	3/8"	Str.	20	13'-5"	280
B4kk	3/8"	Str.	20	12'-4 1/2"	258
B4ee	3/8"	Str.	20	11'-6 1/2"	241
B4nn	3/8"	Bt.	18	9'-3"	174
B4bm	3/8"	Bt.	8	7'-5"	62
B4bp	3/8"	Bt.	6	7'-3 1/2"	46
B4bn	3/8"	Bt.	6	7'-2 1/2"	45
B4k	3/8"	Bt.	8	7'-2"	60
B4p	3/8"	Bt.	6	7'-0 1/2"	44
B4hh	3/8"	Bt.	20	4'-9"	99
B2b	1/2"	Str.	58	8'-6"	329



TYPICAL SECTION  
STA. 5+84.45 TO STA. 7+34.45



PART ELEVATION  
SHOWING  
CONTRACTION JOINT

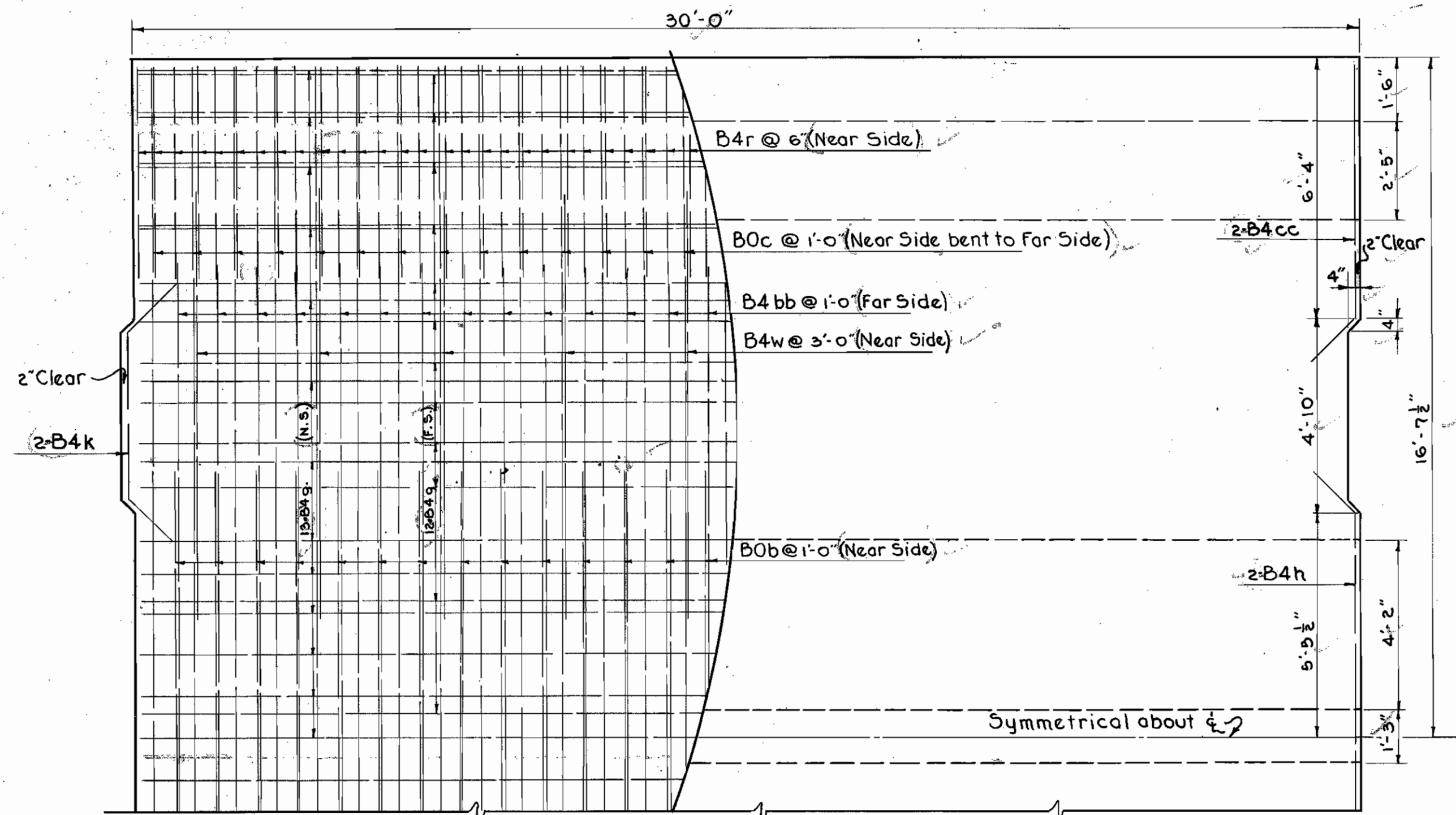


**BAR DETAILS**

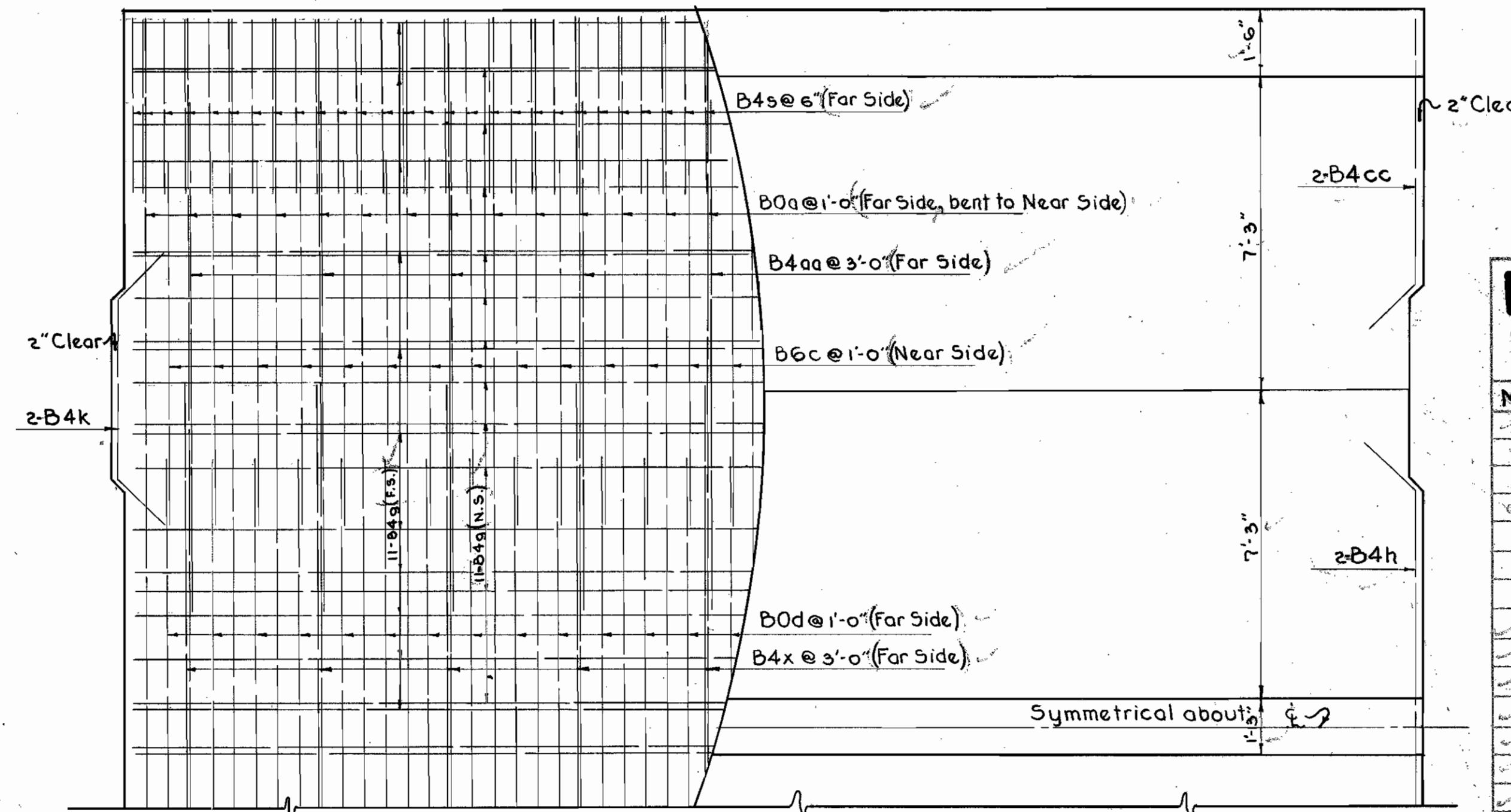
Scale 3/16" = 1'-0"  
Note: All dimensions out to out of bar.

STATE OF OHIO DEPARTMENT OF HIGHWAYS			
REINFORCING STEEL LAYOUT REINFORCED CONCRETE BOX CULVERT BRIDGE NO. CU-2-203 SECTION CUY. 2-(19.51-20.53) DOAN BROOK CULVERT			
SCALE: 3/8" = 1'-0"		CUYAHOGA COUNTY	
Designed/Drawn:	Traced:	Checked:	Reviewed:
DF	DF	S.E.W.	DF
		MAY 9-20-60	





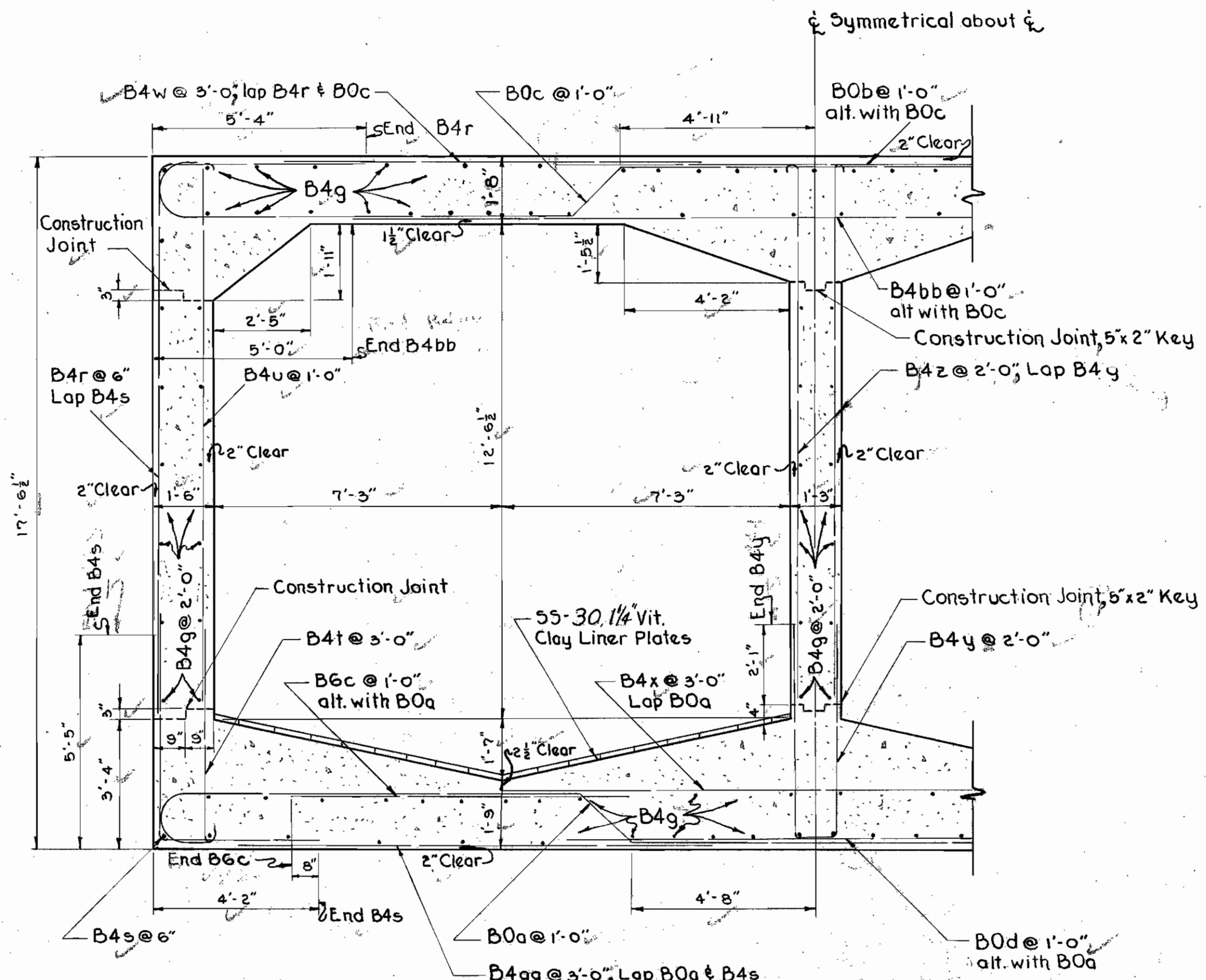
**PART PLAN - TOP**



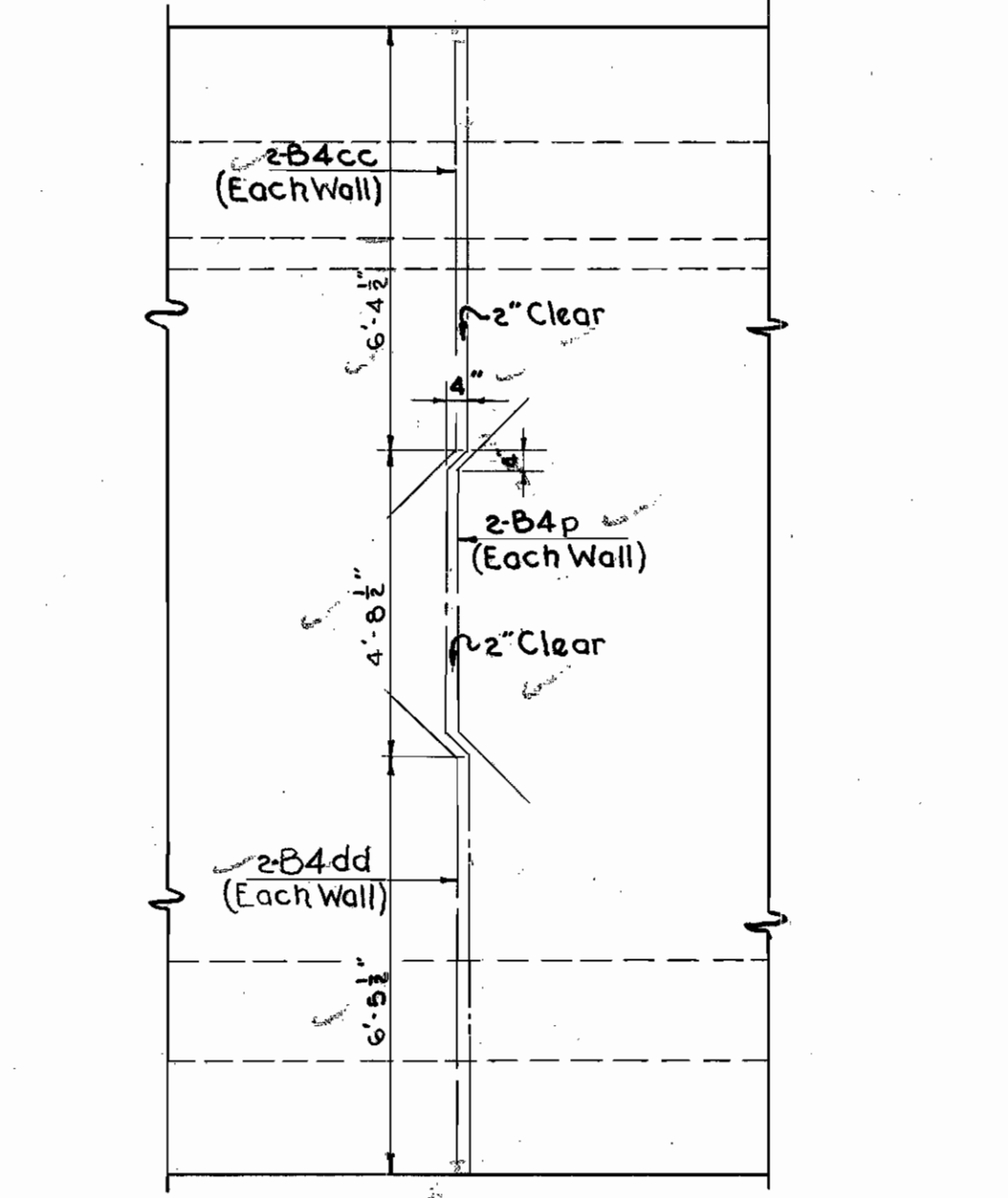
**PART PLAN - BOTTOM**

**BAR SCHEDULE FOR 30' SECTION**

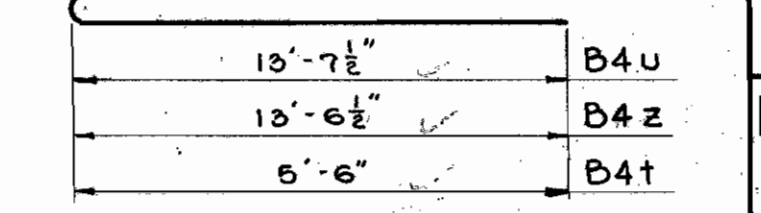
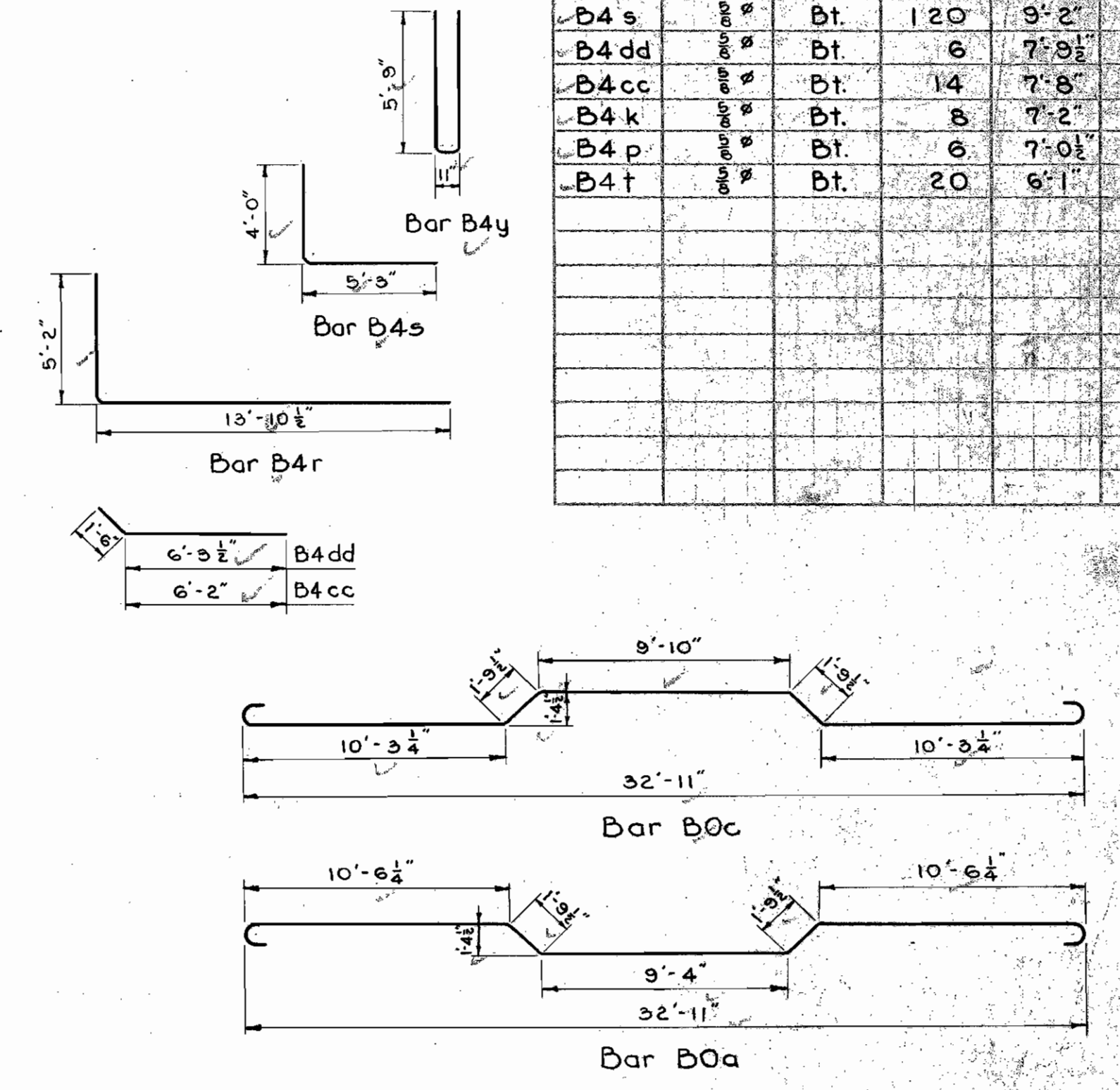
MARK	SIZE	TYPE	N <sup>o</sup>	LENGTH	WEIGHT
B0a	1 1/2"	Bt.	30	36'-10"	5871
B0c	1 1/2"	Bt.	30	36'-10"	5871
B0b	1 1/2"	Str.	29	13'-0"	2003
B0d	1 1/2"	Str.	29	12'-6"	1926
B6c	1 1/2"	Str.	29	8'-6"	504
B4g	1 1/2"	Str.	129	29'-8"	3982
B4bb	1 1/2"	Str.	29	23'-3"	703
B4r	1 1/2"	Bt.	120	18'-11 1/2"	2373
B4x	1 1/2"	Str.	10	16'-0 1/2"	167
B4u	1 1/2"	Bt.	60	14'-2 1/2"	889
B4z	1 1/2"	Bt.	30	14'-1 1/2"	442
B4h	1 1/2"	Bt.	4	13'-11"	58
B4y	1 1/2"	Bt.	15	12'-3"	192
B4aa	1 1/2"	Str.	20	12'-0"	250
B4w	1 1/2"	Str.	20	10'-6 1/2"	220
B4s	1 1/2"	Bt.	120	9'-2"	1147
B4dd	1 1/2"	Bt.	6	7'-9 1/2"	49
B4cc	1 1/2"	Bt.	14	7'-8"	112
B4k	1 1/2"	Bt.	8	7'-2"	60
B4p	1 1/2"	Bt.	6	7'-0 1/2"	44
B4t	1 1/2"	Bt.	20	6'-1"	127



**TYPICAL SECTION  
STA. 7+34.45 TO STA. 9+74.45**



**PART ELEVATION  
SHOWING  
CONTRACTION JOINT**



**BAR DETAILS  
Scale 3/16" = 1'-0"**

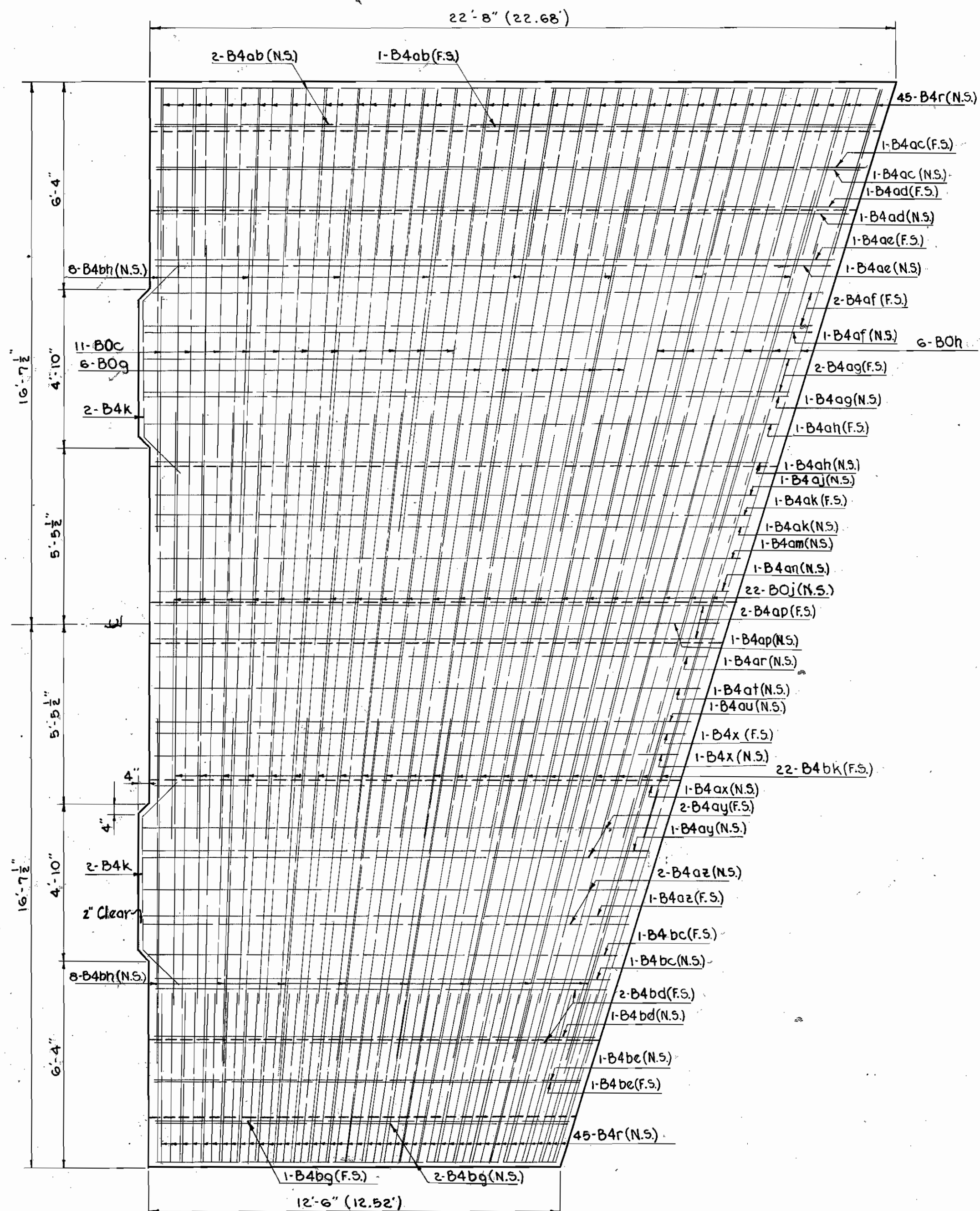
Note: All dimensions are out to out.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

**REINFORCING STEEL LAYOUT**  
REINFORCED CONCRETE BOX CULVERT  
BRIDGE NO. CU-2-203  
SECTION CUY. 2(19.51-20.53)  
DOAN BROOK CULVERT  
CUYAHOGA COUNTY

SCALE: 3/8" = 1'-0"

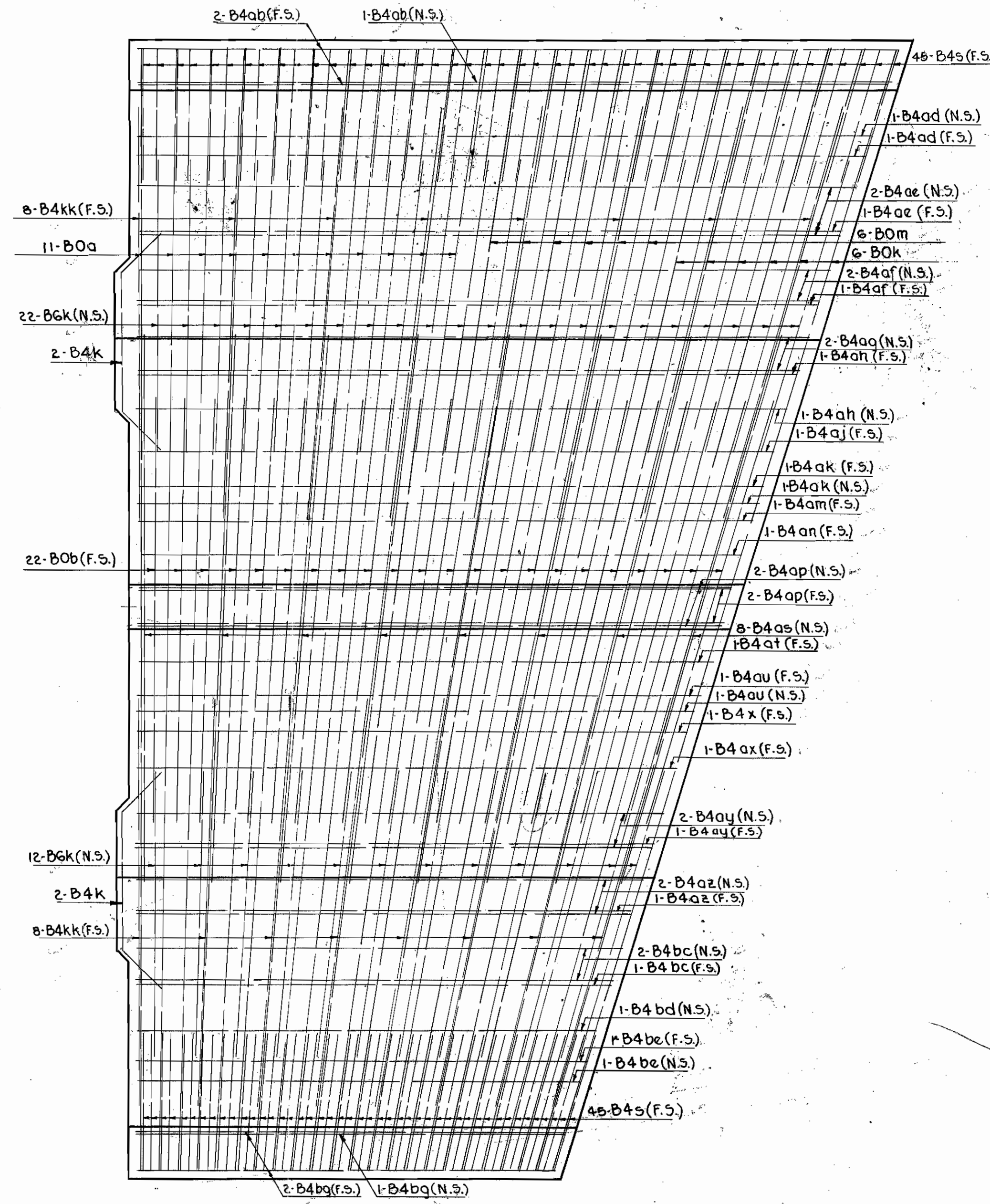
Designed:	Drawn:	Traced:	Checked:	Reviewed:	Date:
D.W.P.	D.F.	S.E.W.	D.F.	M.H.C.	9-10-50



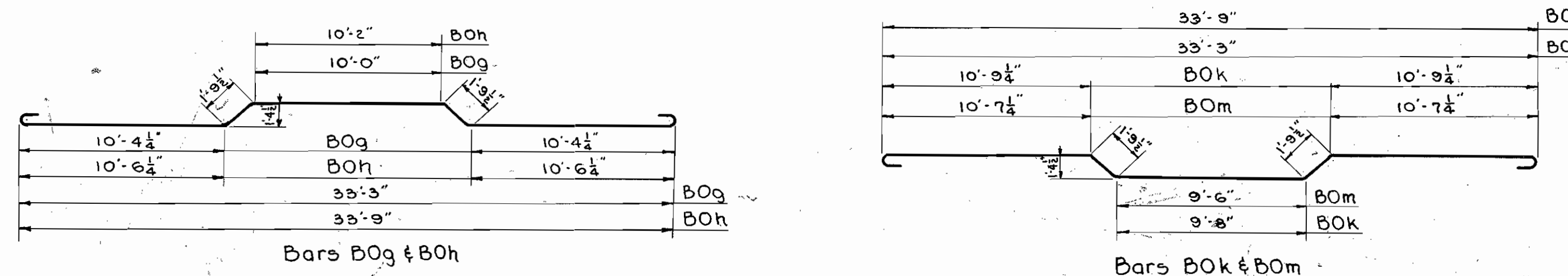
**PLAN-TOP**  
STA. 9+74.45 to STA. 9+92.05

NOTE: Typical Section similar to that of Sta. 7+34.45 to Sta. 9+74.45. Spacing of bars to be maintained on left side and tapered toward right side.

Use	Instead of
B4bh	B4w
B0c, B0h, & B0g	B0c
B0j	B0b
B4bk	B4bb
B0a, B0k, & B0m	B0a
B4as	B4x
B0b	B0d
B4bf	B4aa
B6d	B6c
Longitudinal Bars as shown	B4g



**PLAN-BOTTOM**



**BAR DETAILS**  
Scale: 3/16" = 1'-0"

**BAR SCHEDULE FOR SECTION**

MARK	SIZE	TYPE	NO	LENGTH	WEIGHT
B0h	1 1/2"	Bt.	6	37'-8"	1201
B0k	1 1/2"	Bt.	6	37'-8"	1201
B0m	1 1/2"	Bt.	6	37'-2"	1183
B0g	1 1/2"	Bt.	6	37'-2"	1183
B0a	1 1/2"	Bt.	11	36'-10"	2152
B0c	1 1/2"	Bt.	11	36'-10"	2152
B0j	1 1/2"	Str.	22	13'-6"	1573
B0b	1 1/2"	Str.	22	13'-0"	1523
B6k	3/8"	Str.	34	9'-0"	6
B4bk	5/8"	Str.	22	24'-0"	11
B4ab	5/8"	Str.	19	21'-0"	9
B4ac	5/8"	Str.	2	21'-0"	1
B4ad	5/8"	Str.	4	21'-0"	2
B4ae	5/8"	Str.	5	20'-7"	2
B4af	5/8"	Str.	6	20'-3"	3
B4ag	5/8"	Str.	3	19'-5"	1
B4ar	5/8"	Bt.	30	17'-0"	11
B4ah	5/8"	Str.	2	17'-0"	1
B4aj	5/8"	Str.	2	17'-0"	1
B4ak	5/8"	Str.	4	18'-2"	2
B4am	5/8"	Str.	2	17'-0"	1
B4an	5/8"	Str.	2	17'-2"	1
B4ap	5/8"	Str.	19	17'-2"	8
B4ar	5/8"	Str.	1	16'-0"	1
B4as	5/8"	Str.	8	16'-0"	4
B4at	5/8"	Str.	2	16'-0"	1
B4au	5/8"	Str.	3	16'-4"	2
B4ax	5/8"	Str.	3	16'-0"	2
B4ax	5/8"	Str.	2	15'-9"	1
B4ay	5/8"	Str.	6	14'-5"	3
B4az	5/8"	Str.	6	14'-3"	3
B4u	5/8"	Bt.	36	14'-0"	21
B4z	5/8"	Bt.	20	14'-0"	13
B4bc	5/8"	Str.	5	13'-11"	3
B4bd	5/8"	Str.	4	13'-3"	2
B4be	5/8"	Str.	4	12'-11"	2
B4kk	5/8"	Str.	16	12'-4 1/2"	20
B4y	5/8"	Bt.	10	12'-3"	12
B4bg	5/8"	Str.	19	12'-2"	24
B4bh	5/8"	Str.	16	10'-10"	18
B4s	5/8"	Bt.	90	9'-2"	860
B4k	5/8"	Bt.	8	7'-2"	60
B4p	5/8"	Bt.	6	7'-0 1/2"	44
B4t	5/8"	Bt.	14	6'-1"	83

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS

**REINFORCING STEEL LAYOUT**  
REINFORCED CONCRETE BOX CULVERT  
BRIDGE NO. CU-2-203  
SECTION CUY. 2(1951-2053)  
DOAN BROOK CULVERT

SCALE: 3/8" = 1'-0" CUYAHOGA COUNTY

Designed	Drawn	Checked	Rev.	Date	Revised
DF	BE	DF		MAY 9-20-50	