71

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 6 | ARK. | 198-B | 1926 | 1 | 15 |

Mill Creek & Slough Sc. Co. Dr. # 201

STATE OF ARKANSAS

STATE HIGHWAY DEPARTMENT

# PLAN OF PROPOSED BRIDGES
## OVER
# MILL CREEK & SLOUGH
## SCOTT COUNTY

16 MILES SOUTH OF WALDRON, STATE HIGHWAY No. 71

FEDERAL AID PROJECT No. 198-B

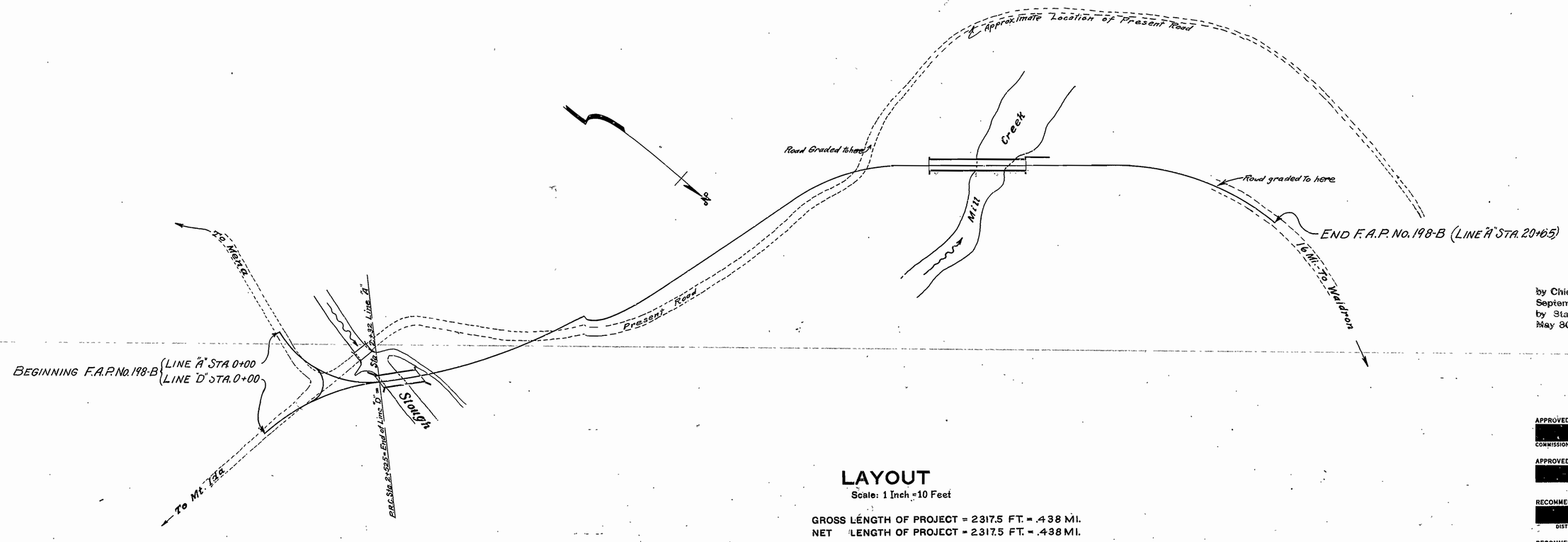
# JOB NO.-403

## INDEX OF SHEETS


Sheet No. 1 Title Sheet and Summary of Quantities.
" " 2 Plan and Profile of Mill Creek and Slough Bridges.
" " 3 Layout, Bridge over Slough.
" " 4 Floor Slab and Pier Details for Slough Bridge.
" " 5 Details, East Abutment for Slough Bridge.
" " 6 " West " " " "
" " 7 Layout, Bridge over Mill Creek.
" " 8 Details, North Half of Left Arch Ring, Mill Creek Bridge.
" " 9 " South " " " " " " " "
" " 10 " Approach Spans to Arch Span " " "
" " 11 " 26 Ft. Girder Spans, " " "
" " 12 " Retaining Wall, Mill Creek Bridge.
" " 13 Cross Sections, Roadway Embankment.
" " 14 " " " "
" " 15 " " " " and Typical Sections.


## QUANTITIES

| | | | | |
|---|---|---|---|---|
| Item No. | 11 | Clearing. | 2.51 | Acres |
| " " | 11 | Grubbing. | 1.99 | " |
| " " | 12 | Solid Rock Excavation. | 1512.4 | Cu. Yds. |
| " " | 12 | Loose " " | 1046.8 | " " |
| " " | 12 | Earth Excavation. | 4335.5 | " " |
| " " | 13 | Dry Excavation for Structures. | 663.8 | " " |
| " " | 13 | Wet " " " | 73.4 | " " |
| " " | 13-X | Solid Rock " " " | 221. | " " |
| " " | 54 | Class "A" Concrete. | 434.54 | " " |
| " " | 54 | " "S" " | 360.4 | " " |
| " " | 55 | Reinforcing Steel. | 75,862. | Lbs. |
| " " | 69 | Rip Rap (1 Ft. Thick.) | 180. | Sq. Yds. |
| " " | 74 | Concrete Railing for Structures | 603.7 | Lin. Ft. |




Specifications approved by Chief, Bureau of Public Roads September 28, 1925, and adopted by State Highway Commission May 30, 1925.

## LAYOUT
Scale: 1 Inch = 10 Feet

GROSS LENGTH OF PROJECT = 2317.5 FT. = .438 MI.
NET LENGTH OF PROJECT = 2317.5 FT. = .438 MI.

APPROVED
[redacted]
COMMISSIONER-STATE LANDS, HIGHWAYS AND IMPROVEMENTS

APPROVED
[redacted]
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL
[redacted]
DISTRICT ENGINEER-U. S. BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL
[redacted]
CHIEF ENGINEER-U. S. BUREAU OF PUBLIC ROADS

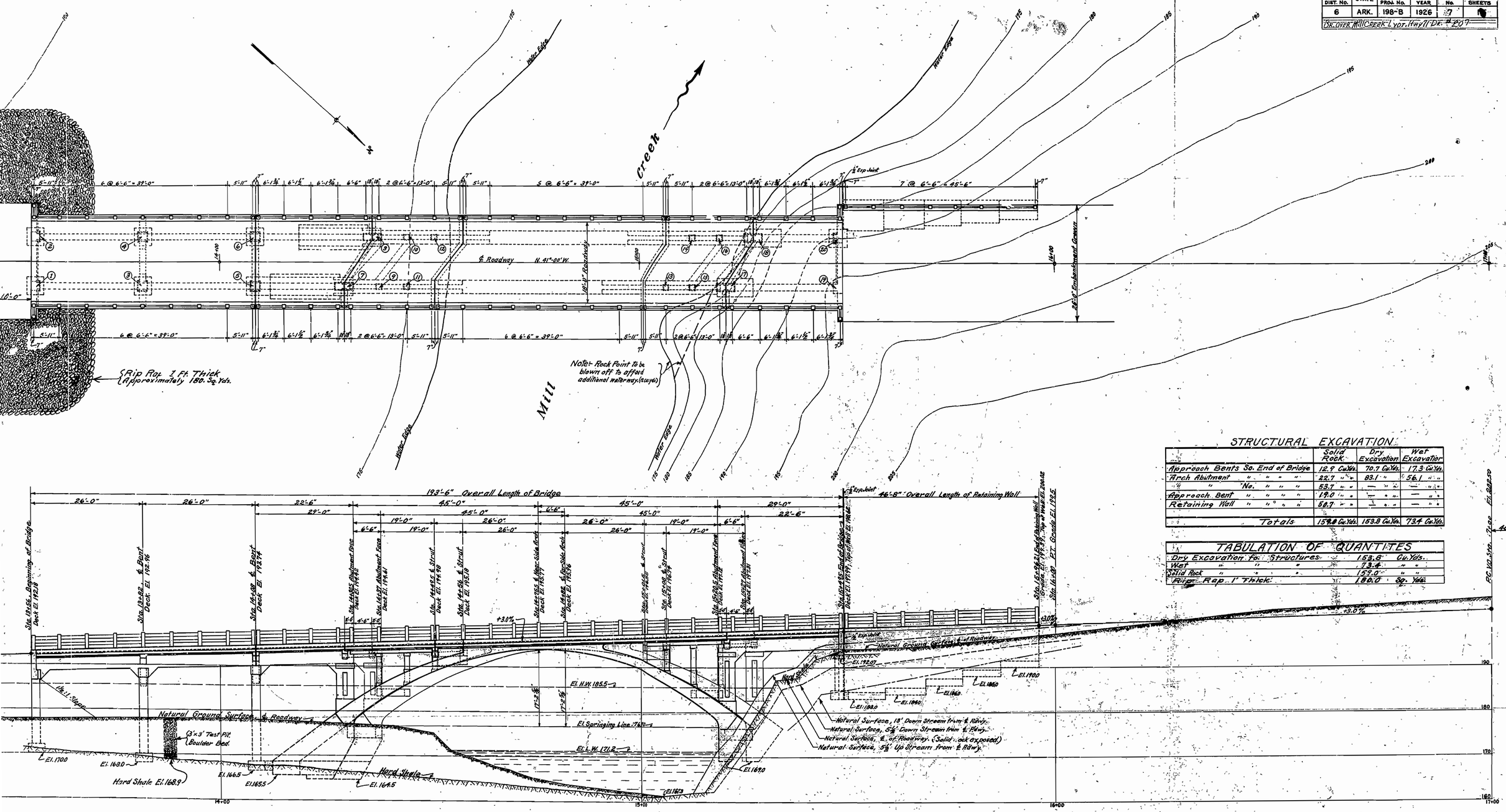
RECOMMENDED FOR APPROVAL.
[redacted]
STATE HIGHWAY BRIDGE ENGINEER.

APPROVED
[redacted]
DIRECTOR-U. S. BUREAU OF PUBLIC ROADS

Bridges No. 301 & 302 Drawing No. 201

| FED. ROAD DIST. NO. | STATE | FED AID PROJ. NO. | FISCAL YEAR | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 6 | ARK. | 198-B | 1926 | 7 | 7 |

BR. OVER MILL CREEK - LYON. HWY 71 DR. # 207




## STRUCTURAL EXCAVATION

| | Solid Rock | Dry Excavation | Wet Excavation |
|---|---|---|---|
| Approach Bents So. End of Bridge | 12.9 Cu. Yds. | 70.7 Cu. Yds. | 17.3 Cu. Yds. |
| Arch Abutment " " " " | 22.7 " " | 93.1 " " | 56.1 " " |
| " " No. " " " | 53.7 " " | — " " | — " " |
| Approach Bent " " " " | 17.0 " " | — " " | — " " |
| Retaining Wall " " " " | 50.7 " " | — " " | — " " |
| Totals | 156.8 Cu. Yds. | 163.8 Cu. Yds. | 73.4 Cu. Yds. |

## TABULATION OF QUANTITIES

| | | |
|---|---|---|
| Dry Excavation for Structures | 163.8 | Cu. Yds. |
| Wet " " " | 73.4 | " " |
| Solid Rock " " " | 157.0 | " " |
| Rip Rap 1' Thick | 180.0 | Sq. Yds. |

DRAINAGE AREA 55 SQ. MILES, HILLY & WOODED.
Scale :- 1" = 10'-0"

# LAYOUT

## BRIDGE OVER MILL CREEK

16 MILES SOUTH OF WALDRON, SCOTT COUNTY.
STATE HIGHWAY No. 71 ~ FED. AID PROJ. No. 198-B

ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK. MARCH 1927.

Bridge No. 302 Drawing No. 207

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 6 | ARK. | 198B | 1926 | 8 | 15 |

N. 20' Left Arch Ring Mill Creek Dr. 20'

## Special Notes

Specifications: Arkansas Standard Specifications of May 30, 1925.

Design Data:

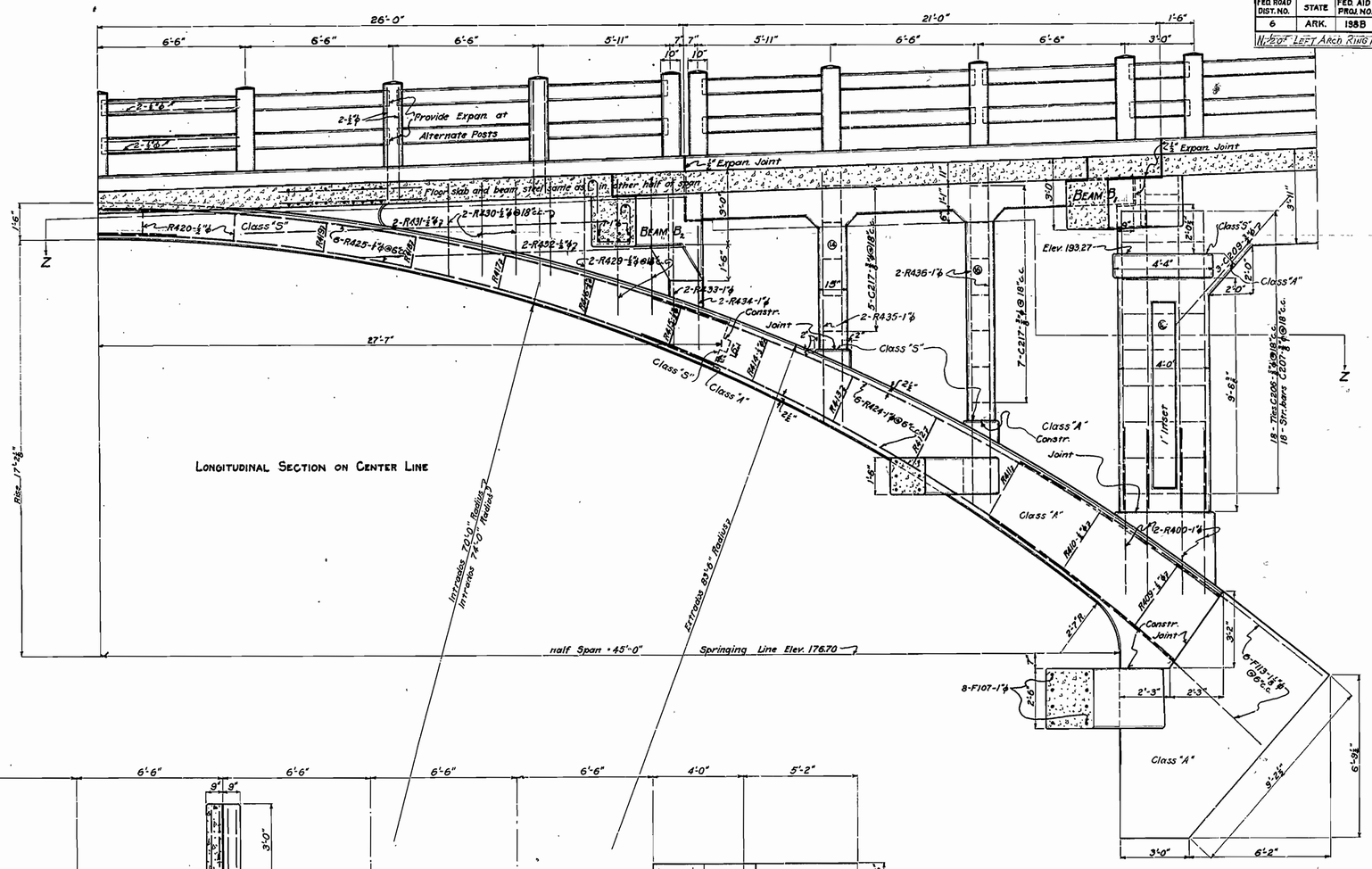
| | |
|---|---|
| Concentrated Load: | 2-15 Ton Trucks |
| Impact Allowance: | 25% of Live Load |
| Steel in Tension: | 16,000 lbs. per sq. in. |
| Concrete in Compression | 650 lbs. per sq. in. |

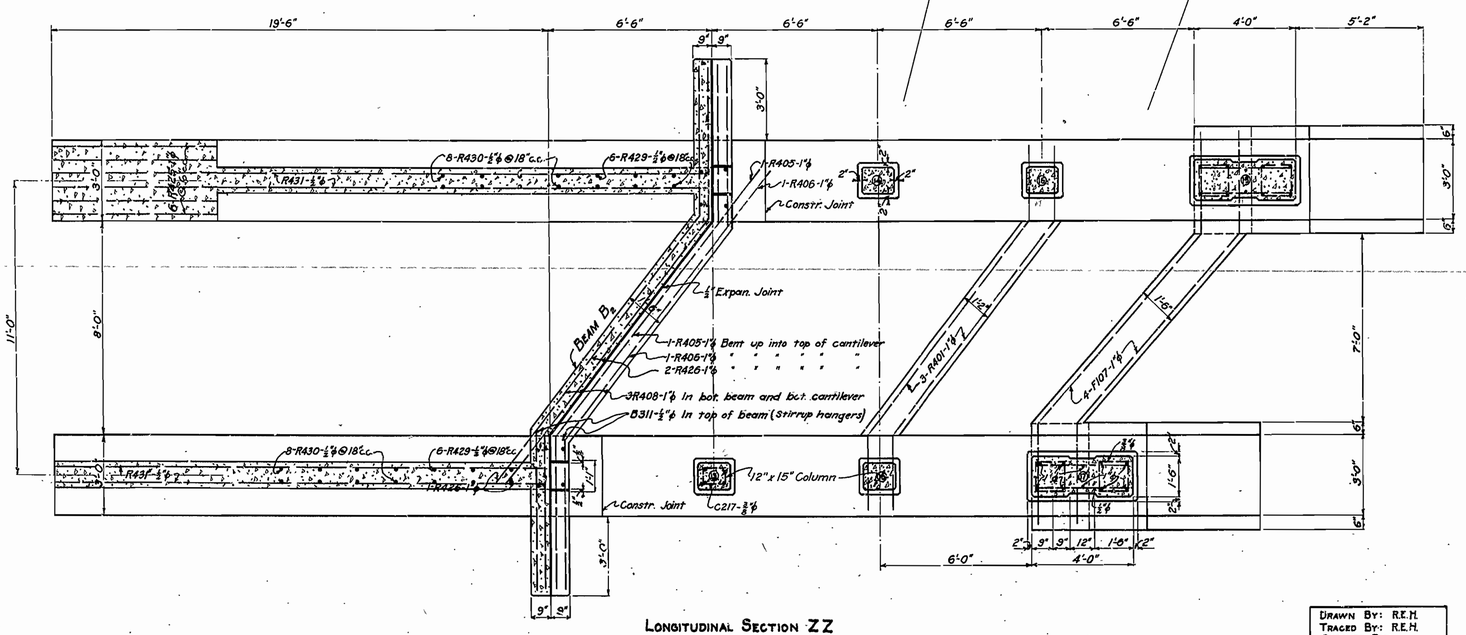
Concrete: Chamfer all exposed edges $\frac{3}{4}$" unless shown otherwise. All concrete is to be poured in the dry. Precast Hand Rails - 1-3 Mix, Max. Agg. $\frac{1}{4}$ in. Caps, Columns, part of Arch Rings below center construction joint, and Footings - Class "A". Center portion of Arch Rings, slab, curb, beams, and Small Spandrel Columns, handrail posts - Class "S".

Reinforcing Steel: All reinforcing steel to be deformed bars (square twisted bars not to be considered deformed). All bars are to be securely wired in place before concrete is poured. Reinforcing steel in handrailing is not to be included in pay Item No. 55 but is to be covered in unit price bid of Item No. 74. All reinforcing steel, unless shown otherwise, is $2\frac{1}{2}$ in. from center of steel to outside of concrete.

Drain Boxes and Expansion Devices: Roadway drain boxes and expansion devices to be included in Item No. 55 (Reinforcing Steel).

Shop list and bending diagrams of reinforcing steel must be submitted by Contractor for approval before fabrication is begun.




### Quantities for Arch and Approach Spans

| | |
|---|---|
| Class "A" Concrete | 179.9 cu. yds. |
| " "S" " | 225.4 " " |
| Hand Railing | 396.4 linear ft. |
| Reinforcing Steel | 54,957 lbs. |

Drawn By: R.E.H.
Traced By: R.E.H.
Checked By:
Date: April 26, 1927.

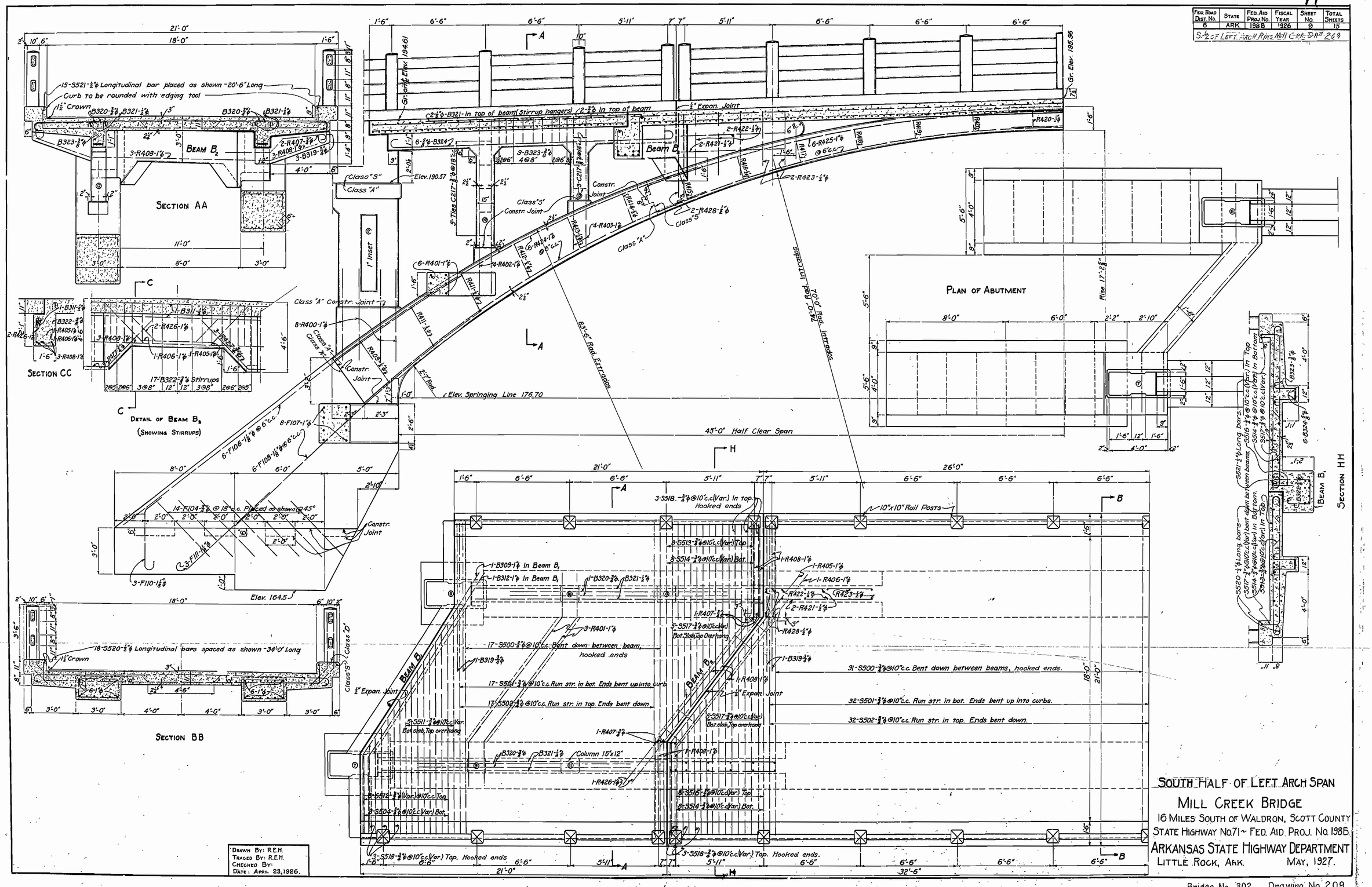
# North Half of Left Arch Ring
## Mill Creek Bridge

16 Miles South of Waldron, Scott County.
State Highway No. 71 ~ Fed. Aid Proj. No. 198B.
Arkansas State Highway Department.
Little Rock, Ark. May, 1927.

Bridge No. 302 Drawing No. 208

| Fed. Road Dist. No. | State | Fed. Aid Proj. No. | Fiscal Year | Sheet No. | Total Sheets |
|---|---|---|---|---|---|
| 6 | ARK. | 198 B | 1926 | 9 | 15 |

S½ of Left Arch Rib, Mill Cr. Dr. # 269




South Half of Left Arch Span

Mill Creek Bridge

16 Miles South of Waldron, Scott County

State Highway No. 71 ~ Fed. Aid Proj. No. 198B.

Arkansas State Highway Department

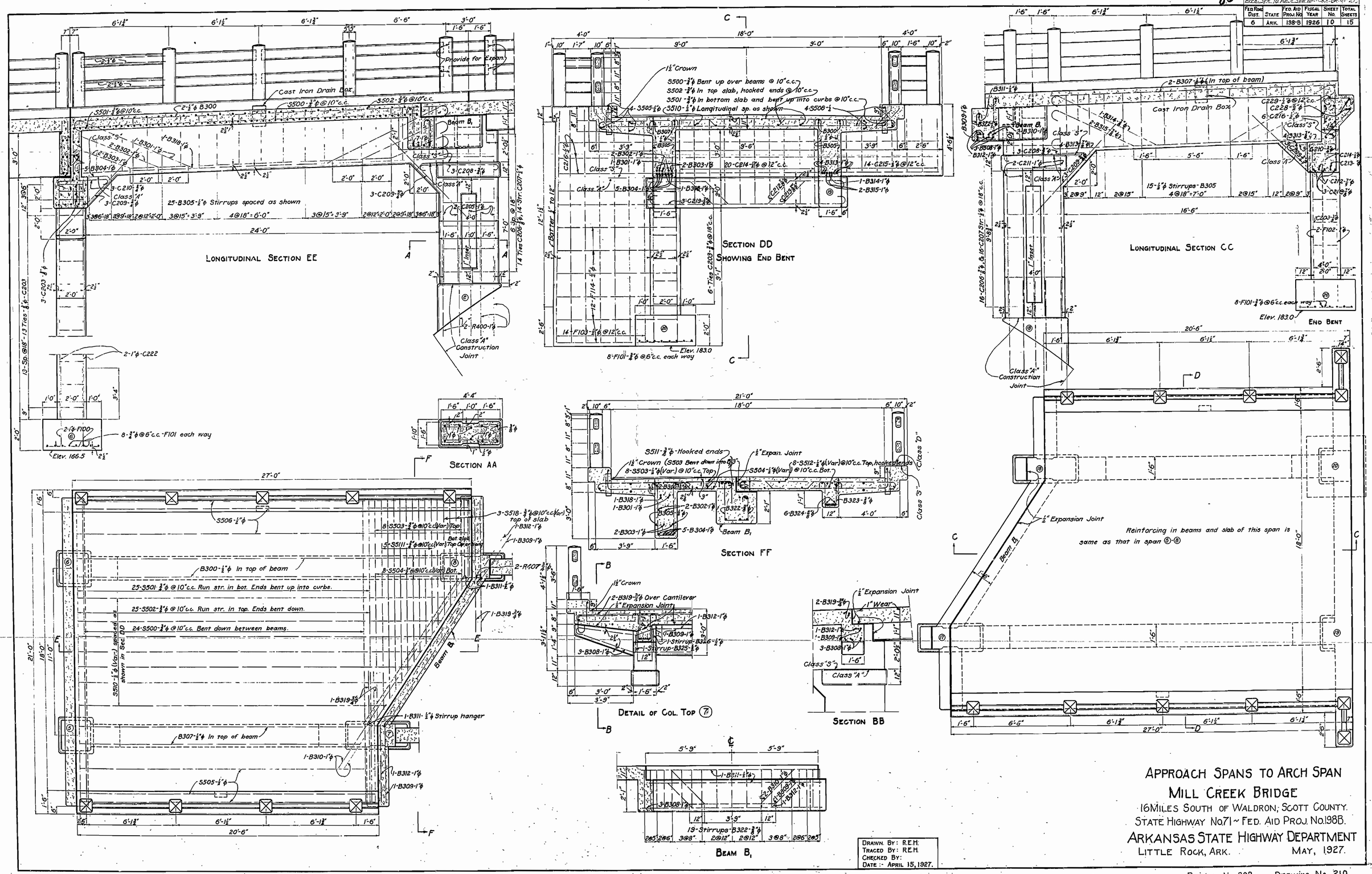
Little Rock, Ark. May, 1927.

Bridge No. 302 Drawing No. 209

80

APPR. SPE. TO AE-B SPN MILL CR. BR. C.P. 21

| Fed. Road Dist. | State | Fed. Aid Proj. No. | Fiscal Year | Sheet No. | Total Sheets |
|---|---|---|---|---|---|
| 6 | Ark. | 198-B | 1926 | 10 | 15 |




# Approach Spans to Arch Span
## Mill Creek Bridge

16 Miles South of Waldron; Scott County.
State Highway No. 71 ~ Fed. Aid Proj. No. 198B.

Arkansas State Highway Department
Little Rock, Ark. May, 1927.

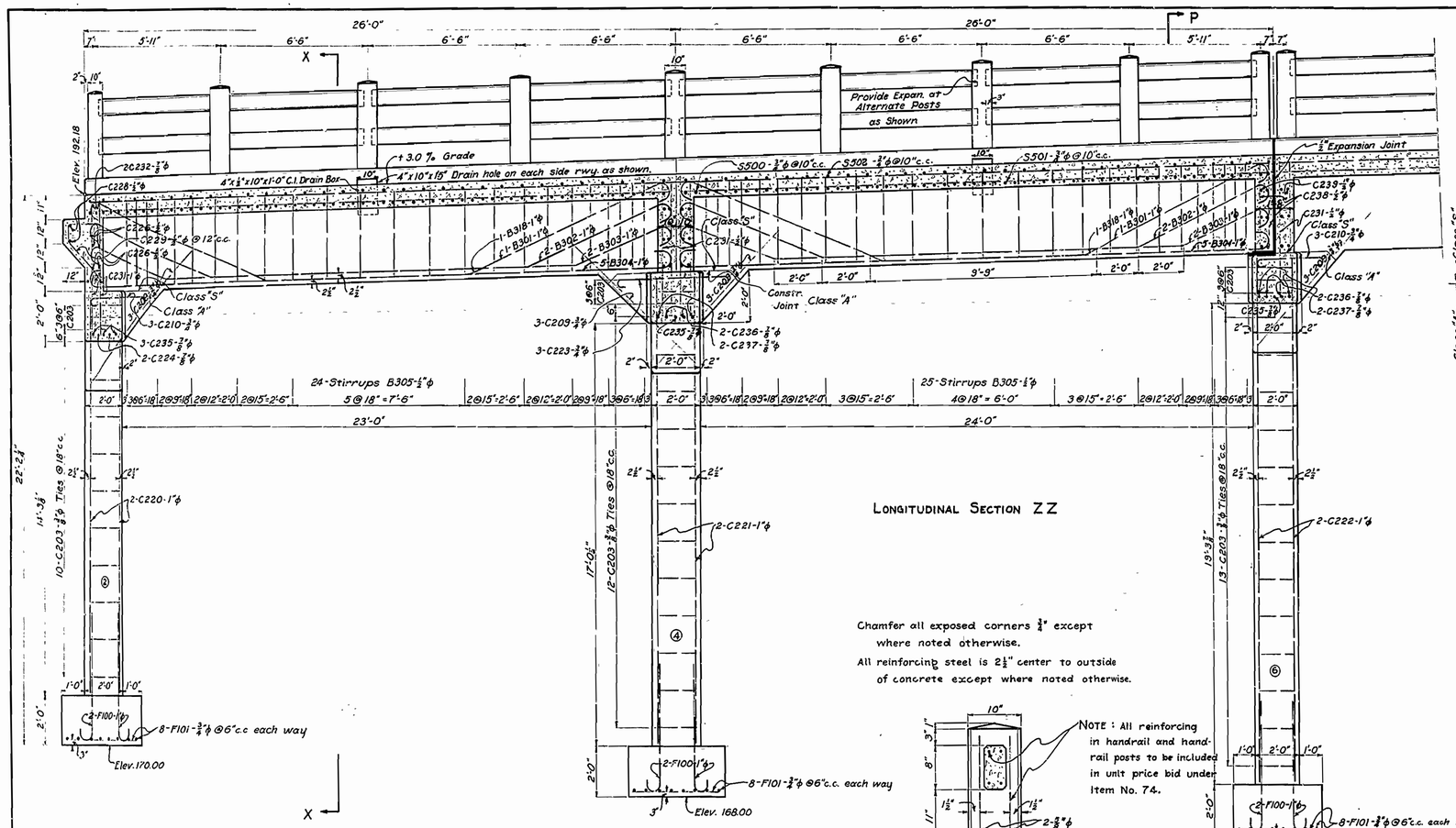
Drawn By: R.E.H.
Traced By: R.E.H.
Checked By:
Date:- April 15, 1927.

Bridge No. 302 Drawing No. 210

81

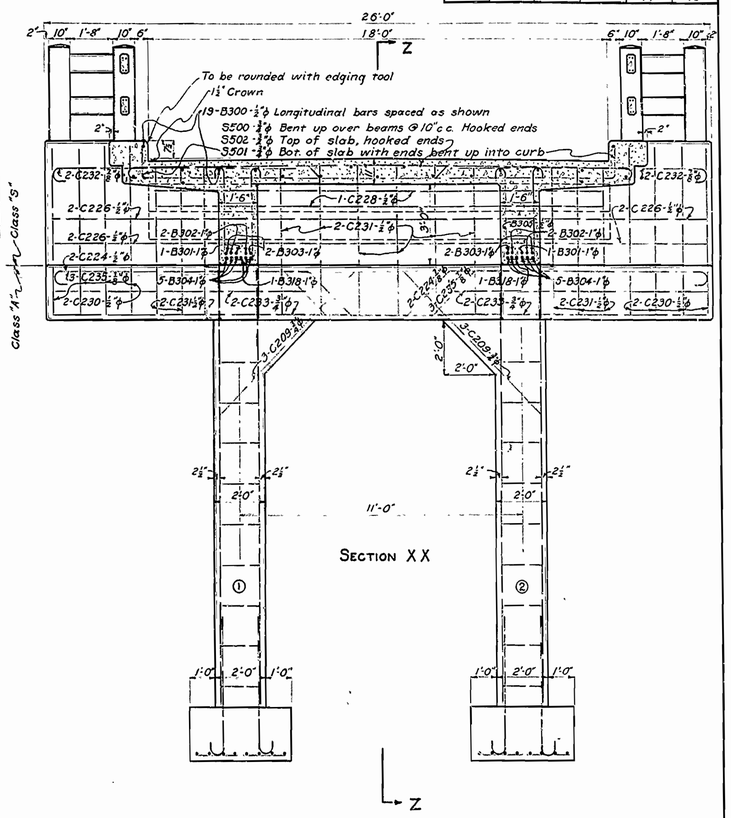
26' Gir. Span Mill Crk. St. Hwy. 71 Dr. # 211

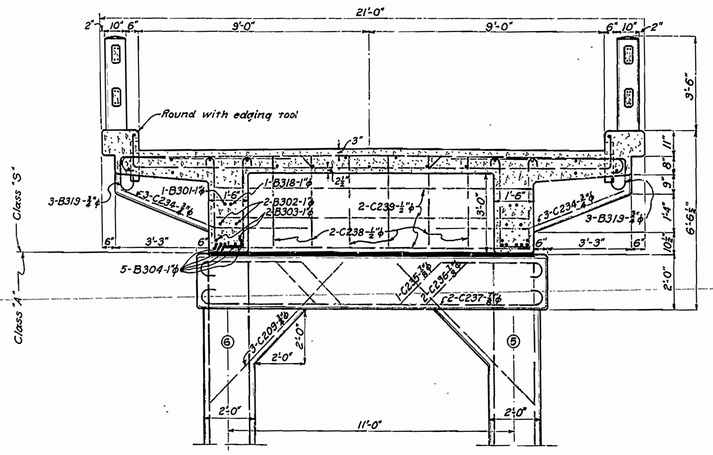
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 6 | ARK | 198B | 1926 | 11 | 15 |



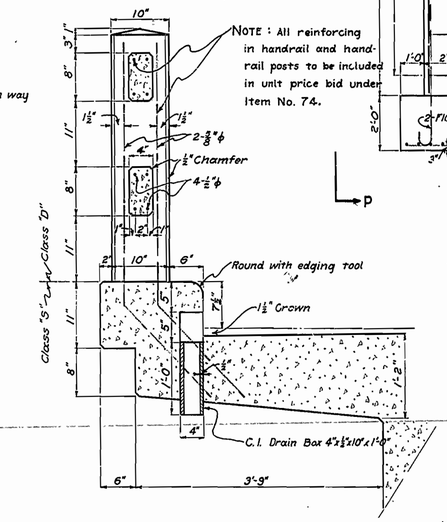

Chamfer all exposed corners ¾" except where noted otherwise.

All reinforcing steel is 2½" center to outside of concrete except where noted otherwise.

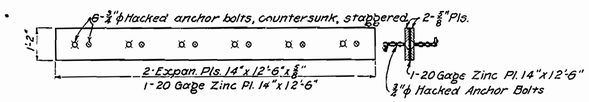



Section PP




Detail of Curb




Detail of Expan. Pls.

# 26 FT. GIRDER SPANS
## MILL CREEK BRIDGE

16 MILES SOUTH OF WALDRON, SCOTT COUNTY
STATE HIGHWAY No. 71 ~ FED. AID PROJ. No. 198B.

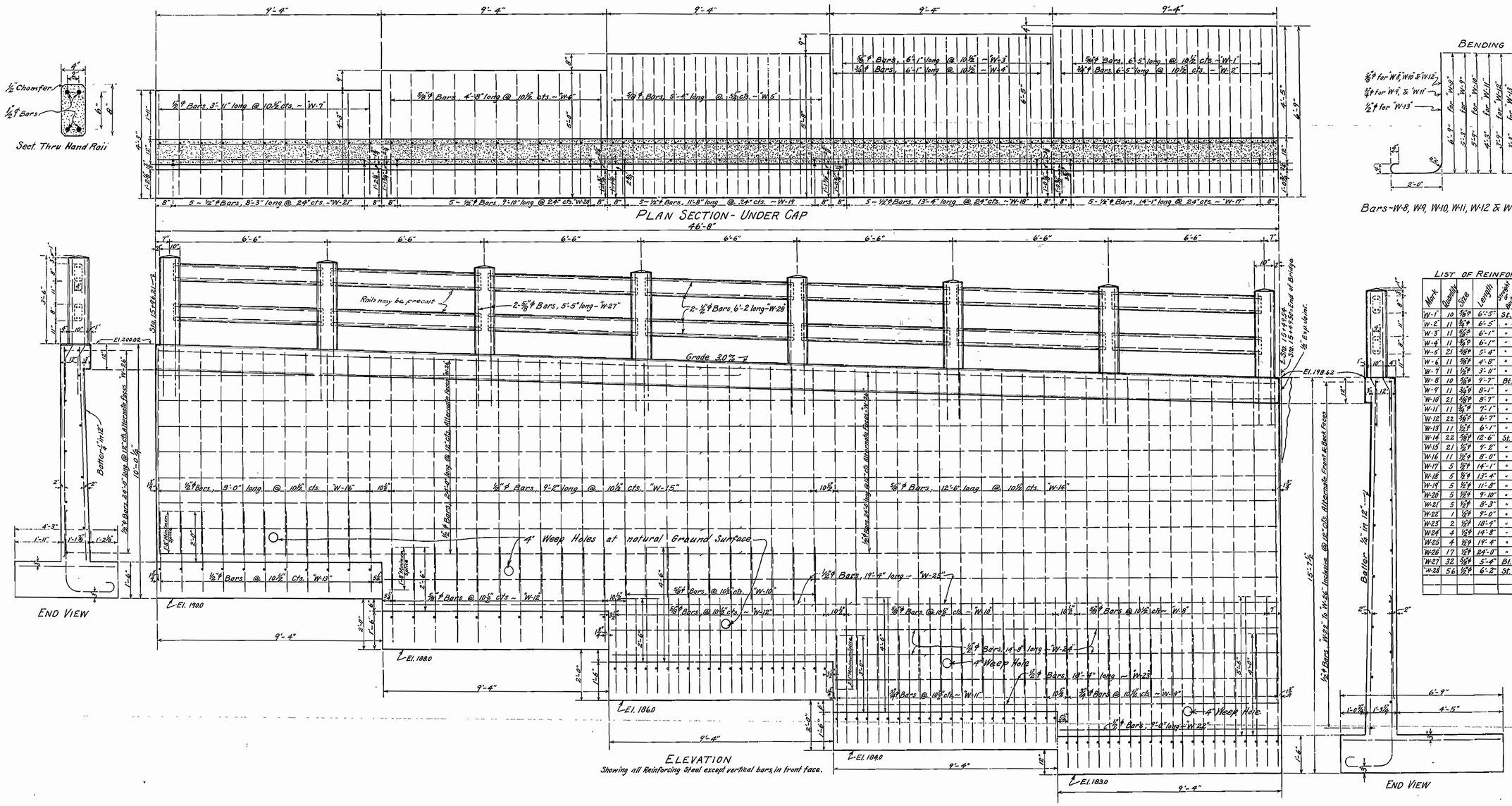
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK. MAY, 1927.

DRAWN BY: R.E.H.
TRACED BY: R.E.H.
CHECKED BY:
DATE: MAY 2, 1927.

Bridge No. 302 Drawing No. 211

| FED. ROAD DIST. No. | STATE | FED. AID PROJ. No. | FISCAL YEAR | SHEET No. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 6 | ARK. | 198-B | 1926 | 12 | 15 |

RETAINING WALL AT BR. MILL CREEK ST. HWY. 71 DR. No. 212




## LIST OF REINFORCING STEEL

| Mark | Quantity | Size | Length | Straight Bars | Location |
|---|---|---|---|---|---|
| W-1 | 10 | 5/8" ϕ | 6'-5" | St. | Footing. |
| W-2 | 11 | 3/4" ϕ | 6'-5" | " | " |
| W-3 | 11 | 5/8" ϕ | 6'-1" | " | " |
| W-4 | 11 | 3/4" ϕ | 6'-1" | " | " |
| W-5 | 21 | 5/8" ϕ | 5'-4" | " | " |
| W-6 | 11 | 5/8" ϕ | 4'-8" | " | " |
| W-7 | 11 | 1/2" ϕ | 3'-11" | " | " |
| W-8 | 10 | 5/8" ϕ | 9'-7" | Bt. | Footing and Wall. |
| W-9 | 11 | 3/4" ϕ | 8'-1" | " | " " " |
| W-10 | 21 | 5/8" ϕ | 8'-7" | " | " " " |
| W-11 | 11 | 3/4" ϕ | 7'-1" | " | " " " |
| W-12 | 22 | 5/8" ϕ | 6'-7" | " | " " " |
| W-13 | 11 | 1/2" ϕ | 6'-1" | " | " " " |
| W-14 | 22 | 5/8" ϕ | 12'-6" | St. | Vertical Bars Front Face of Wall. |
| W-15 | 21 | 1/2" ϕ | 9'-2" | " | " " " " " " |
| W-16 | 11 | 1/2" ϕ | 8'-0" | " | " " " " " " |
| W-17 | 5 | 1/2" ϕ | 14'-1" | " | " Rear " " " |
| W-18 | 5 | 1/2" ϕ | 13'-4" | " | " " " " " " |
| W-19 | 5 | 1/2" ϕ | 11'-8" | " | " " " " " " |
| W-20 | 5 | 1/2" ϕ | 9'-10" | " | " " " " " " |
| W-21 | 5 | 1/2" ϕ | 8'-3" | " | " " " " " " |
| W-22 | 1 | 1/2" ϕ | 9'-0" | " | Horizontal Bars in Wall. |
| W-23 | 2 | 1/2" ϕ | 18'-4" | " | " " " " |
| W-24 | 4 | 1/2" ϕ | 14'-8" | " | " " " " |
| W-25 | 4 | 1/2" ϕ | 19'-4" | " | " " " " |
| W-26 | 17 | 1/2" ϕ | 24'-0" | " | " " " " |
| W-27 | 32 | 5/8" ϕ | 5'-4" | Bt. | Hand Rail Posts. |
| W-28 | 56 | 1/2" ϕ | 6'-2" | St. | Hand Railing. |

## TABULATION OF QUANTITIES.

| | | |
|---|---|---|
| Concrete Class "A" | 37.15 | Cu. Yds. |
| Reinforcing Steel | 2335. | Lbs. |
| Hand Railing | 46.3 | Lin. Ft. |

NOTE:- All concrete in footing, wall and cap to be Class "A"; in hand rail 1:3 Mix.
See Sheet No. 8 for special notes.

# RETAINING WALL DETAILS

## BRIDGE OVER MILL CREEK

16 MILES SOUTH OF WALDRON, SCOTT COUNTY.
STATE HIGHWAY No. 71 ~ FED. AID PROJ. No. 198-B.

**ARKANSAS STATE HIGHWAY DEPARTMENT.**

LITTLE ROCK, ARK. MARCH 1927.

Bridge No. 302 Drawing No. 212