

| WHERE REQUIRED<br>STA TO STA | AMOUNT REQUIRED | AMOUNT AVAILABLE | PERCENT FUNDING | REMARKS |
|------------------------------|-----------------|------------------|-----------------|---------|
|                              |                 |                  |                 |         |
|                              |                 |                  |                 |         |
|                              |                 |                  |                 |         |
|                              |                 |                  |                 |         |
|                              |                 |                  |                 |         |

# ALLEGAN COUNTY ROAD COMMISSION

## IN CO-OPERATION WITH MICHIGAN STATE HIGHWAY DEPARTMENT AND BUREAU OF PUBLIC ROADS

### PLAN AND PROFILE OF PROPOSED

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN STATE HIGHWAY DEPARTMENT CURRENT STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS.

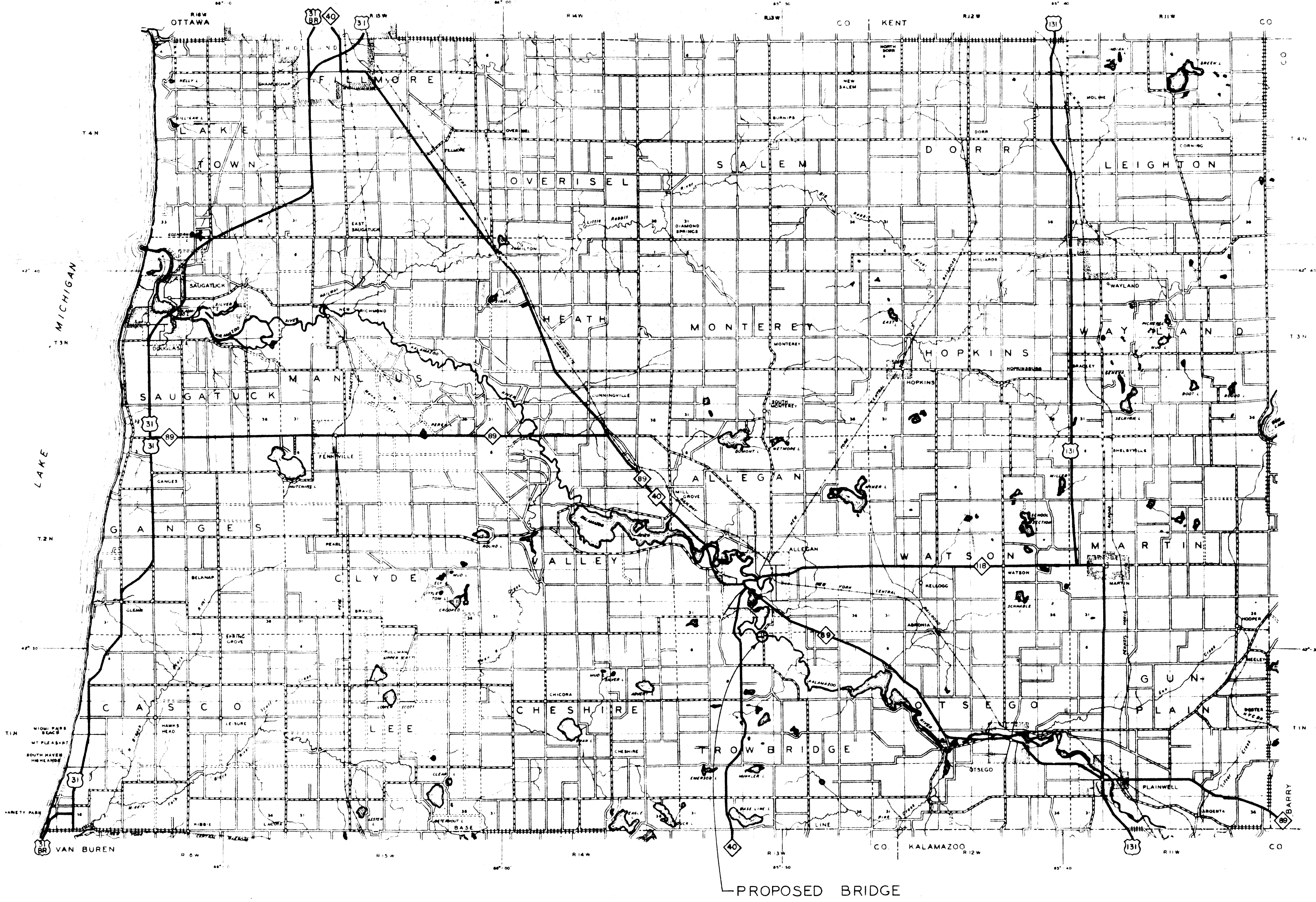
| DIV NO | STATE         | FED PROJ NO | FISCAL YEAR | SHEET NO | TOTAL SHEETS |
|--------|---------------|-------------|-------------|----------|--------------|
| 4      | MICH          |             |             | 1        | 4            |
| ROUTE  | STATE PROJECT | COUNTY      | TWP         | SHEET NO | TOTAL SHEETS |
| 31     | 6-133 B       |             |             | 1        | 4            |

NOTE: PROVISIONS WILL BE MADE FOR CONTROL OF EROSION ON SHOULDERS AND SLOPES BY MEANS OF SEEDING, SODDING, OR OTHER ACCEPTABLE METHODS, EITHER AS A PART OF THIS CONTRACT, OR TO BE DONE BY THE COUNTY UPON COMPLETION OF THE CONTRACT WORK.

## COUNTY PROJECT No. 6-133 B

- INDEX OF SHEETS  
 1. TITLE SHEET  
 2. GENERAL PLAN OF SITE  
 3.&4. STRUCTURE DETAILS

PROPERTY OF  
ALLEGAN COUNTY ROAD COMMISSION



CONTRACT FOR TIMBER BRIDGE

COUNTY APPROVAL  
BOARD OF COUNTY ROAD COMMISSIONERS

BY Dale Morris CHAIRMAN DATE 11/22/67  
 BY David Mohr MEMBER DATE 11/22/67  
 BY Paul Bayless MEMBER DATE 11/22/67  
 BY Fred D. Neib COUNTY ENGINEER DATE 11/22/67

STATE HIGHWAY DEPARTMENT APPROVAL

APPROVED \_\_\_\_\_ STATE HIGHWAY COMMISSIONER  
 BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT FOR \_\_\_\_\_

COUNTY APPROVAL  
BOARD OF COUNTY ROAD COMMISSIONERS

BY \_\_\_\_\_ CHAIRMAN DATE \_\_\_\_\_  
 BY \_\_\_\_\_ MEMBER DATE \_\_\_\_\_  
 BY \_\_\_\_\_ MEMBER DATE \_\_\_\_\_  
 BY \_\_\_\_\_ COUNTY ENGINEER DATE \_\_\_\_\_

BRIDGE DIVISION APPROVAL

RECOMMENDED FOR APPROVAL \_\_\_\_\_ ENGINEER OF BRIDGE DESIGN DATE \_\_\_\_\_  
 APPROVED \_\_\_\_\_ BRIDGE ENGINEER DATE \_\_\_\_\_

STATE HIGHWAY DEPARTMENT APPROVAL

APPROVED \_\_\_\_\_ STATE HIGHWAY COMMISSIONER  
 BY \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

APPROVED \_\_\_\_\_  
 \_\_\_\_\_ DISTRICT ENGINEER DATE \_\_\_\_\_



BM#1 El. 150.00  
SW. corner of corr.  
Walk on front of  
house. 100' Rt. Sta. 0-50

BM#2 El. 120.89  
Spike in root of  
40' Elm. 60' Lt. Sta. 3+50

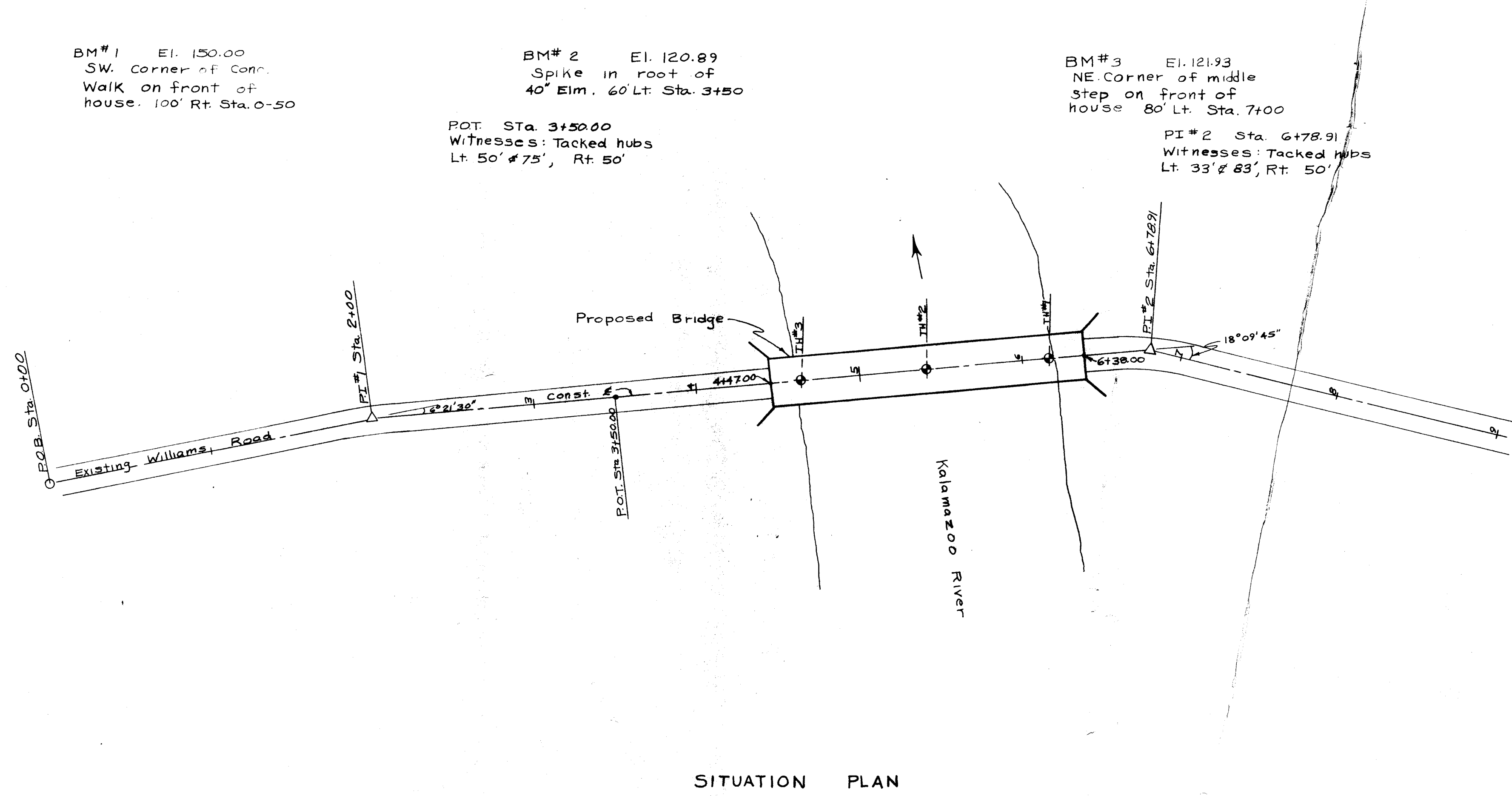
BM#3 El. 121.93  
NE corner of middle  
step on front of  
house 80' Lt. Sta. 7+00

POT. Sta. 3+50.00  
Witnesses: Tacked hubs  
Lt. 50' & 75', Rt. 50'

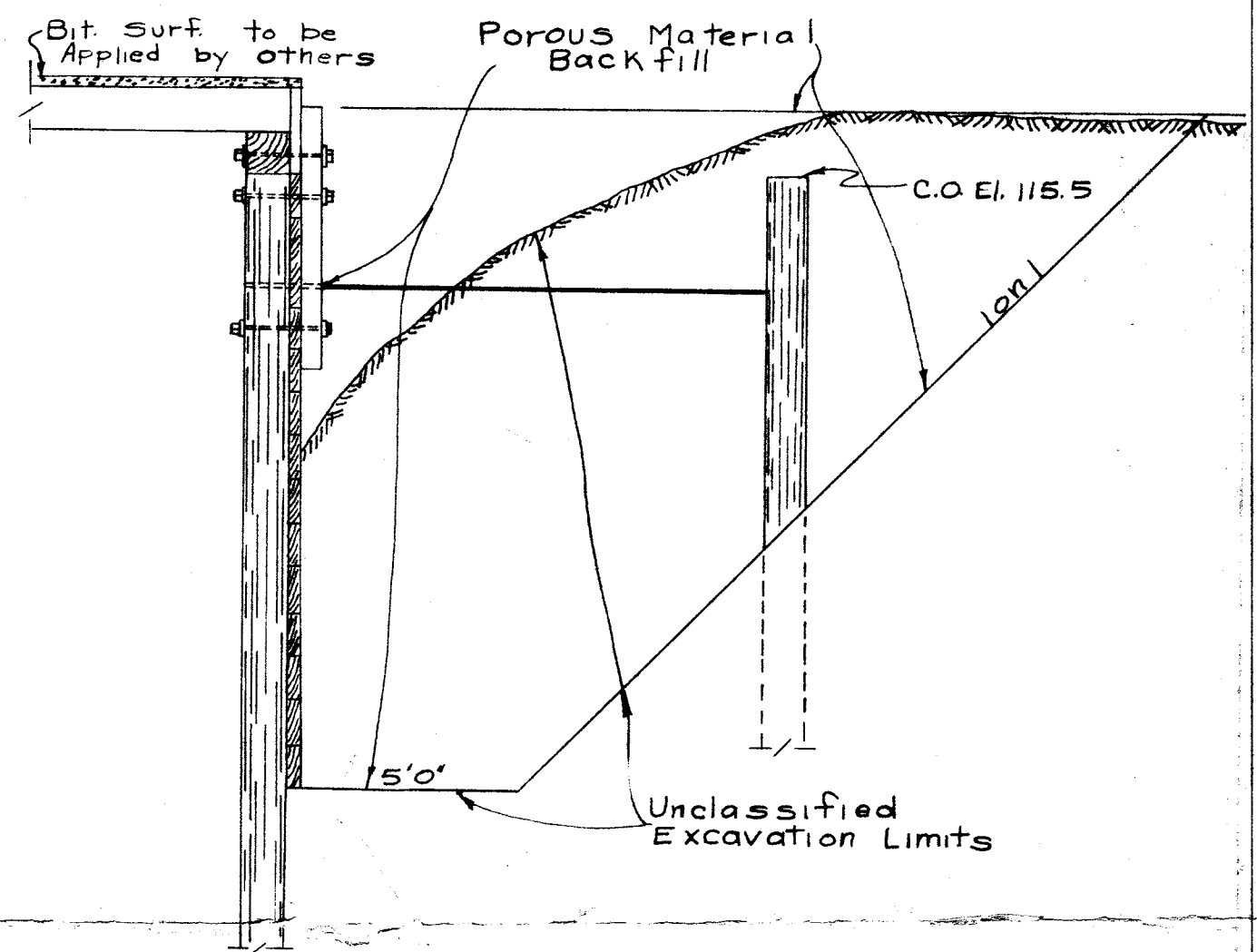
PI#2 Sta. 6+78.91  
Witnesses: Tacked hubs  
Lt. 33' & 83', Rt. 50'

LOG OF BORINGS  
Boring Started at  
Bottom of River

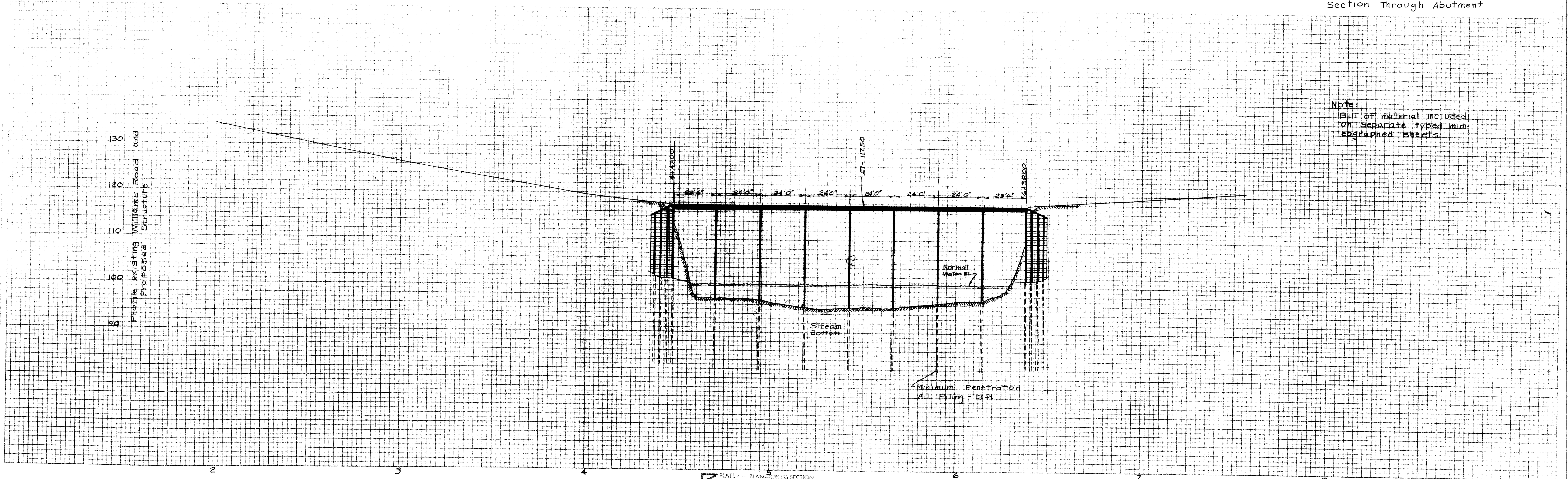
| TH.#1<br>Sta. 6+15<br>Water 3'3" deep             | TH.#2<br>Sta. 5+40<br>Water 4'0" deep    | TH.#3<br>Sta. 4+64<br>Water 2'6" deep         |
|---|--|---|
| 0<br>Loose Brown<br>Coarse Sand<br>and Gravel     | 0<br>Loose Brown<br>Sand<br>and Gravel   | 0<br>Loose Brown<br>Coarse Sand<br>and Gravel |
| 3.0   | 2.0                                      | 3.0   |
| Loose Brown<br>Coarse Sand<br>Some Fine<br>Gravel | Firm Brown<br>Coarse Sand<br>Some Gravel | Firm Brown<br>Coarse sand<br>Some Gravel      |
| 11.0  | 13.3                                     | 13.0  |
| Firm Brown<br>Medium Sand                         | Firm Brown<br>Medium Sand                | Firm Brown<br>Medium Sand                     |
| 22.0<br>End of<br>Boring                          | 20.0<br>End of<br>Boring                 | 20.0<br>End of<br>Boring                      |



SITUATION PLAN

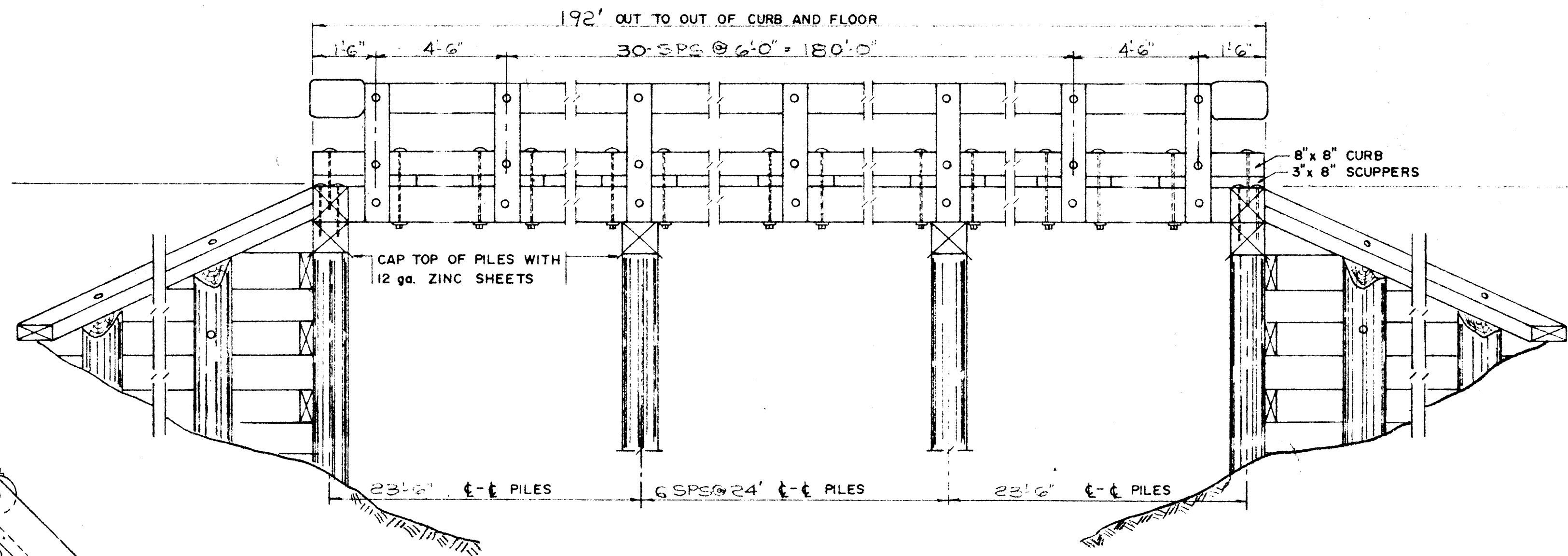


Section Through Abutment

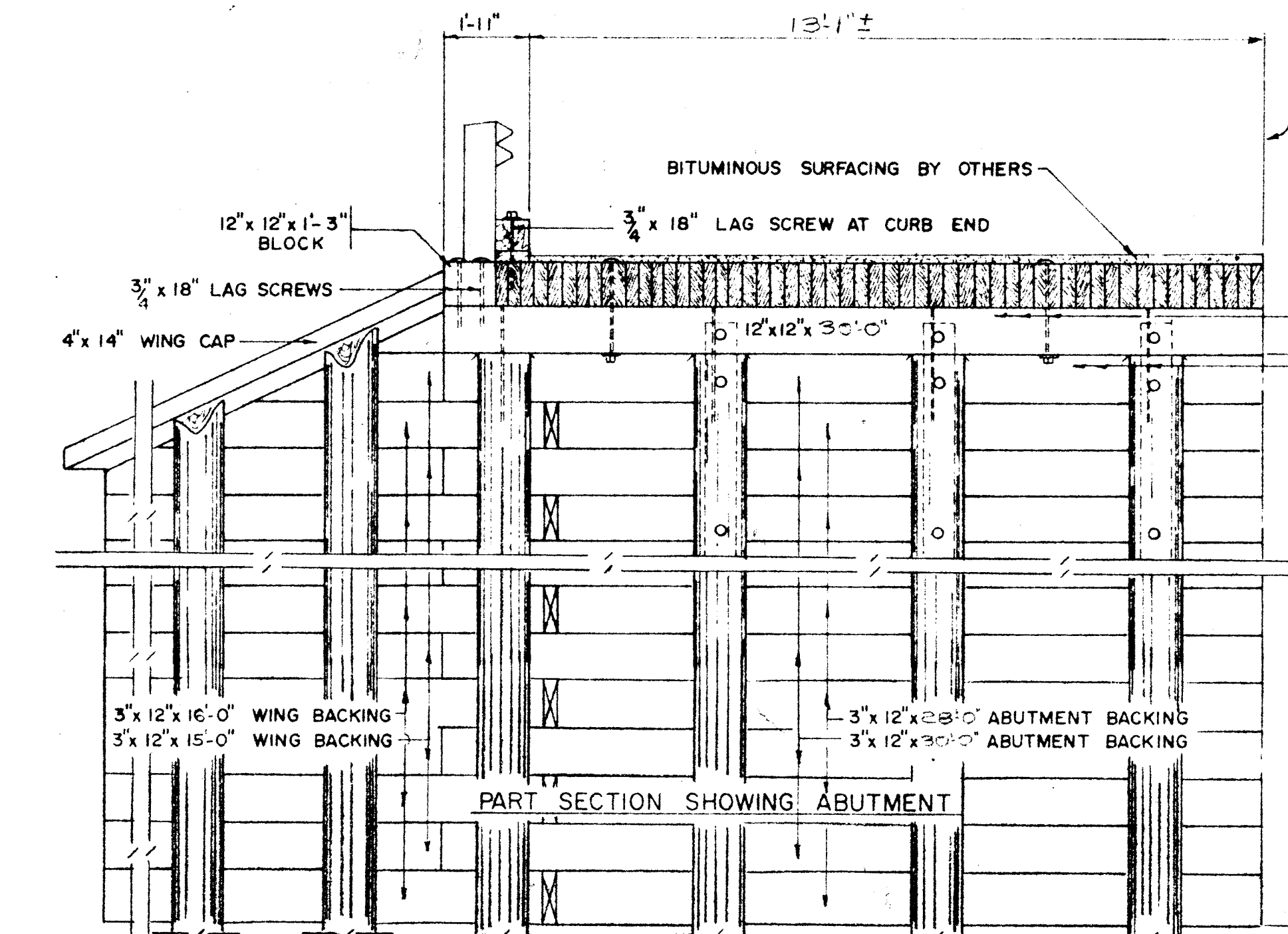


Note:  
Bill of material included  
on separate typed mem-  
ographed sheets.

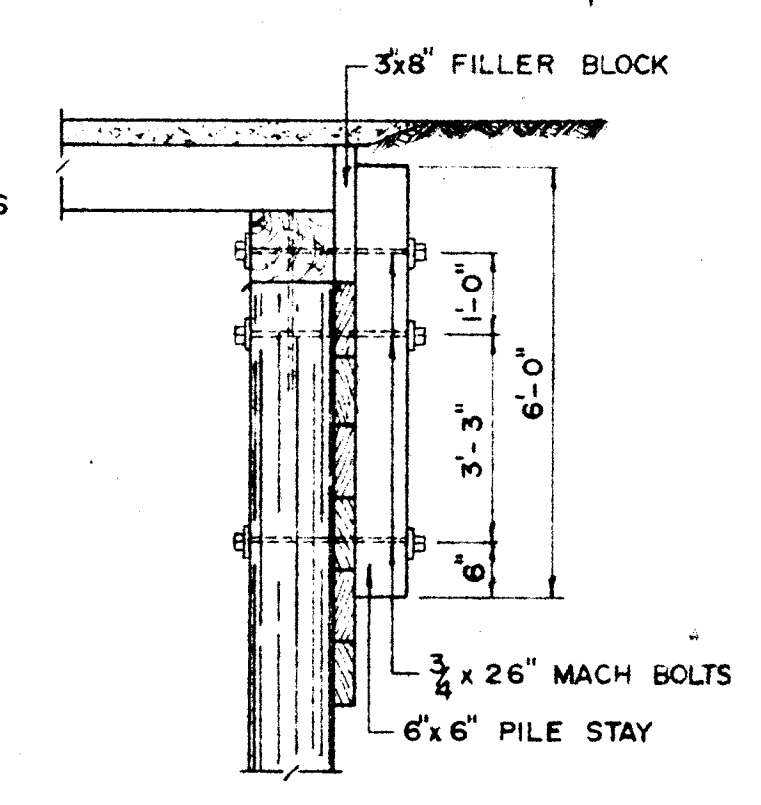




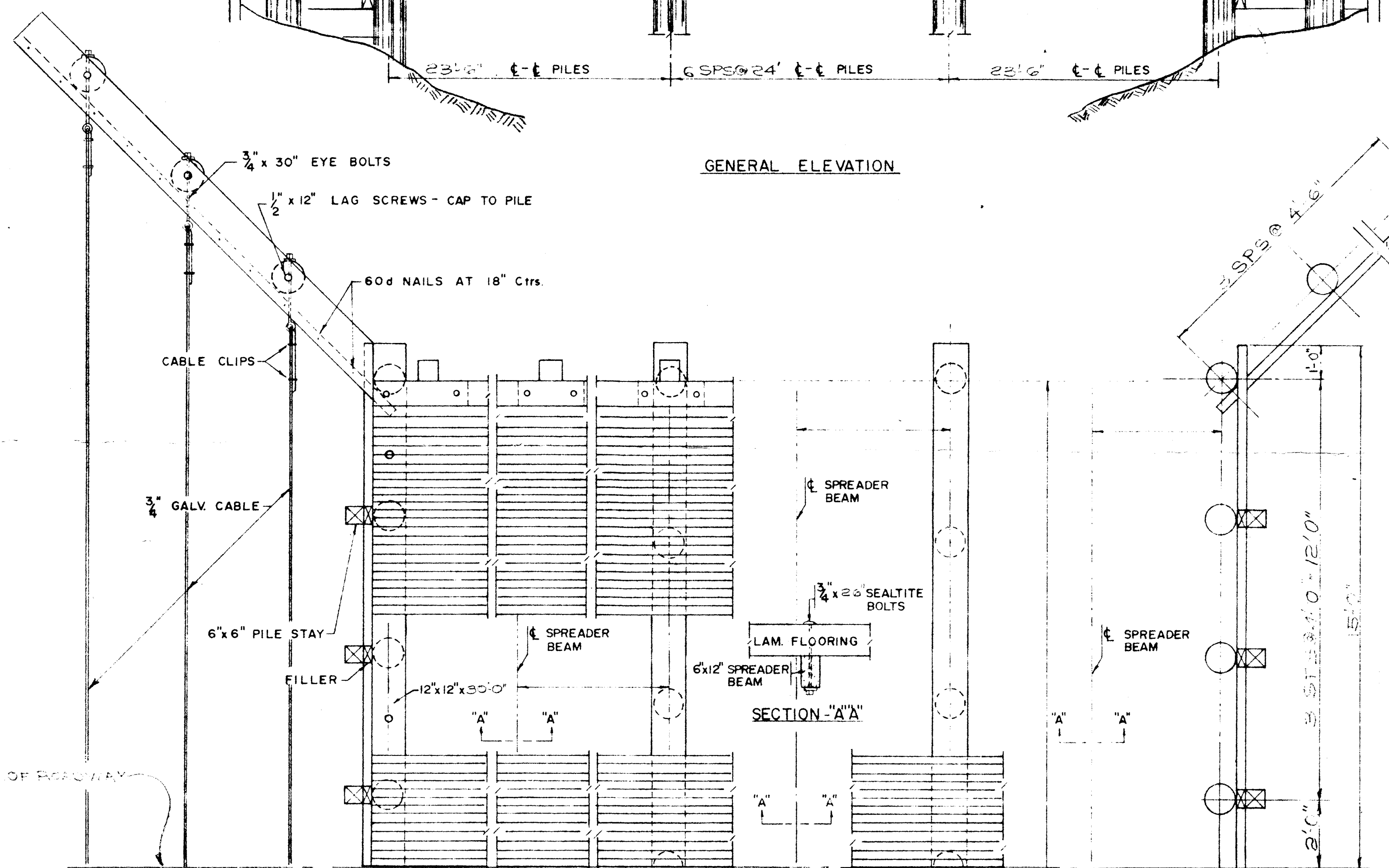
GENERAL ELEVATION



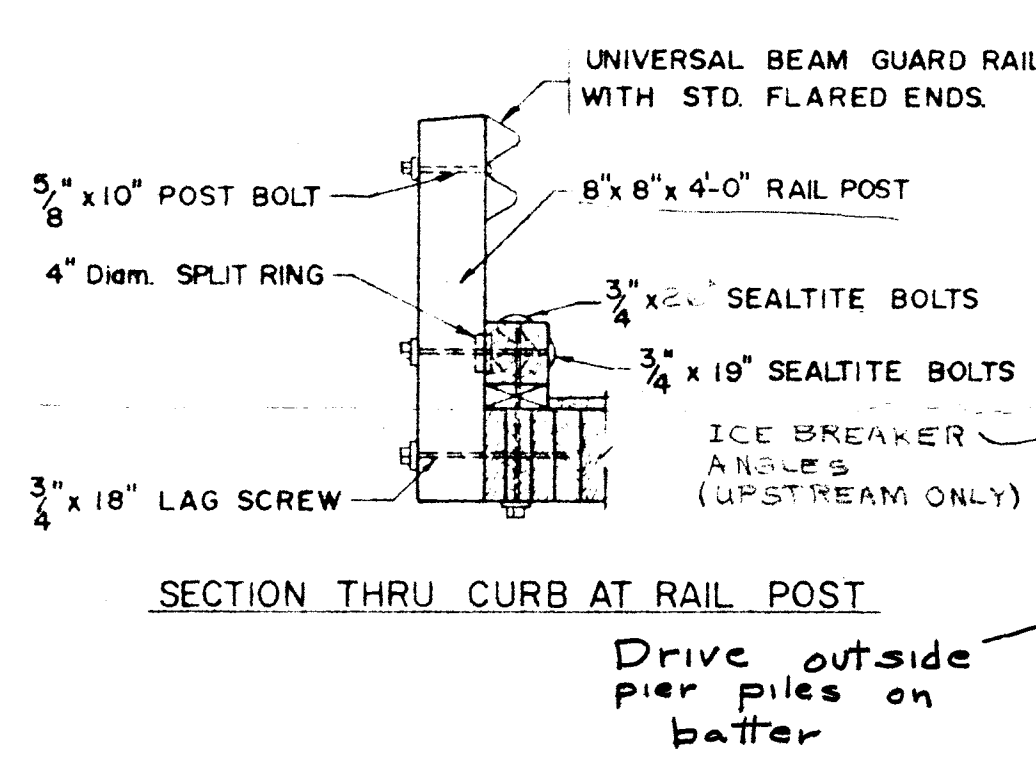
PART SECTION SHOWING ABUTMENT



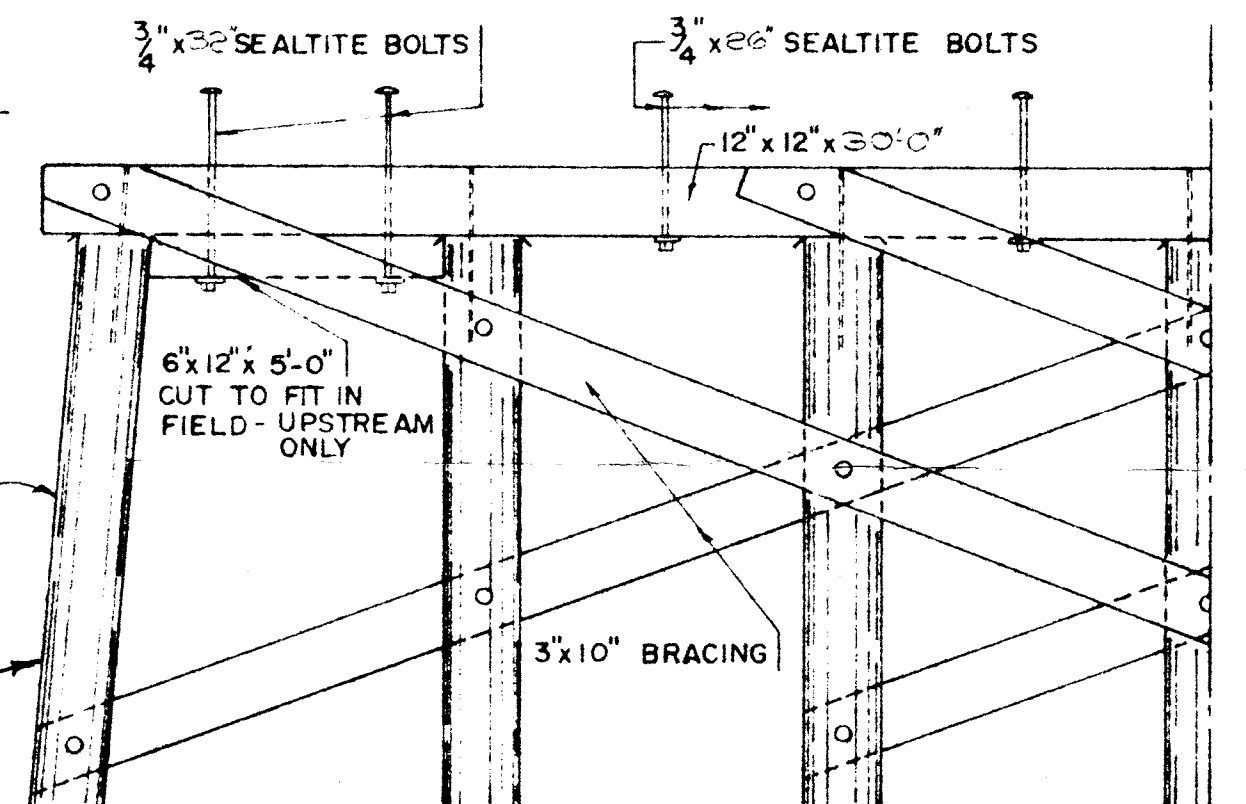
SEC'N THRU ABUT



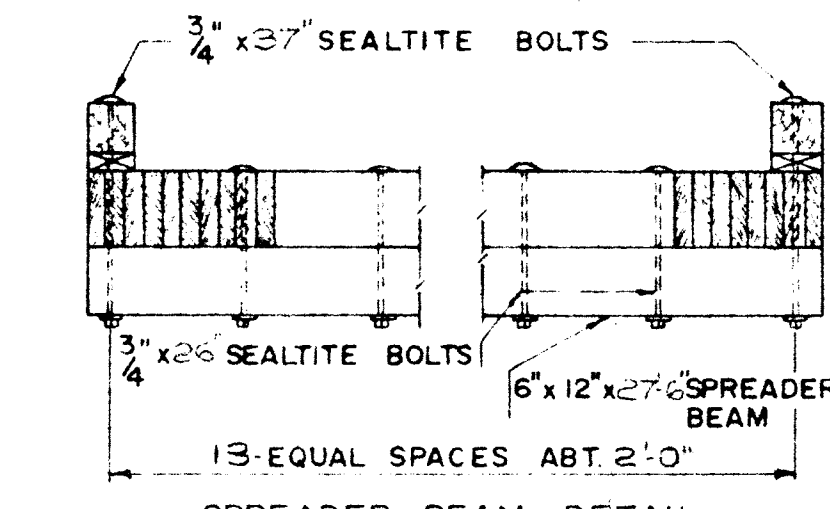
GENERAL HALF PLAN



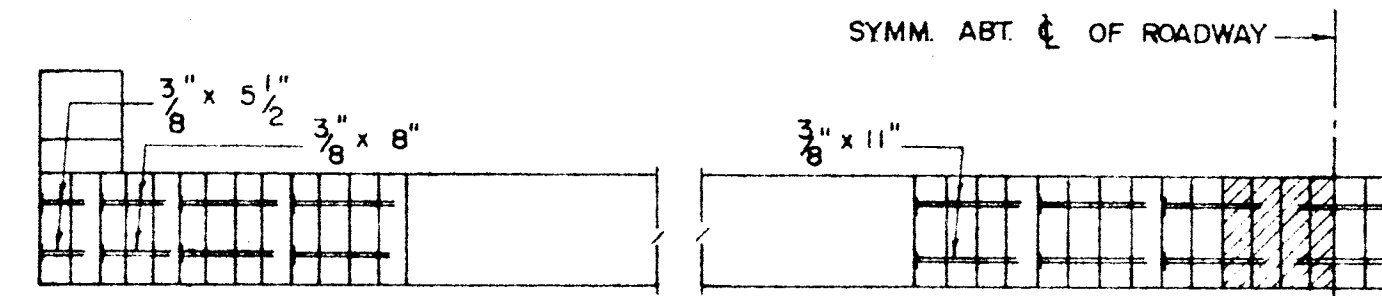
SECTION THRU CURB AT RAIL POST



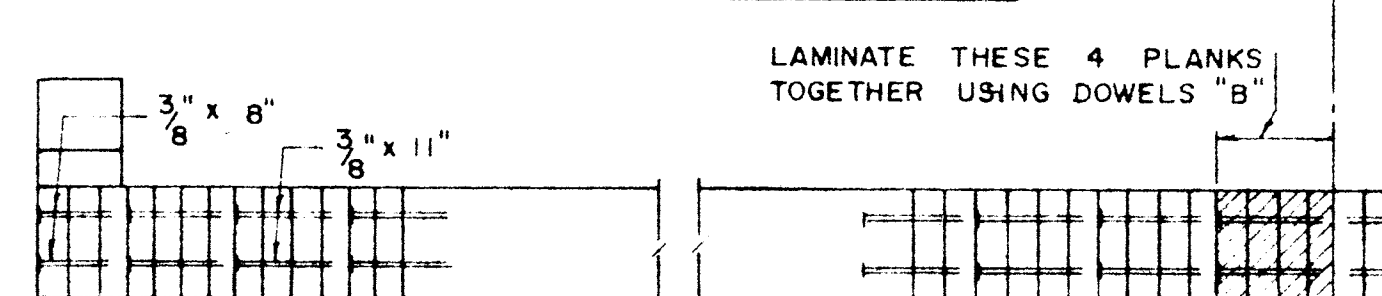
PIER DETAIL



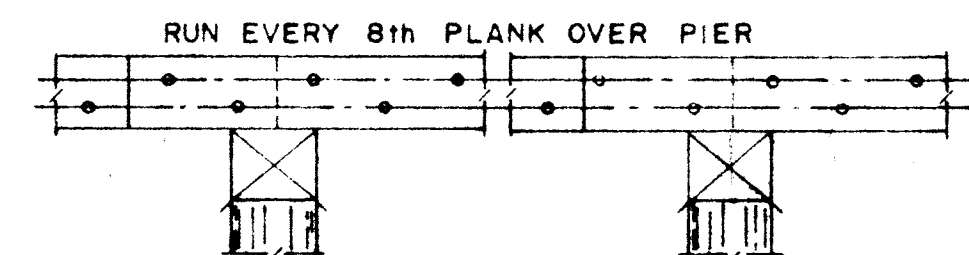
SPREADER BEAM DETAIL



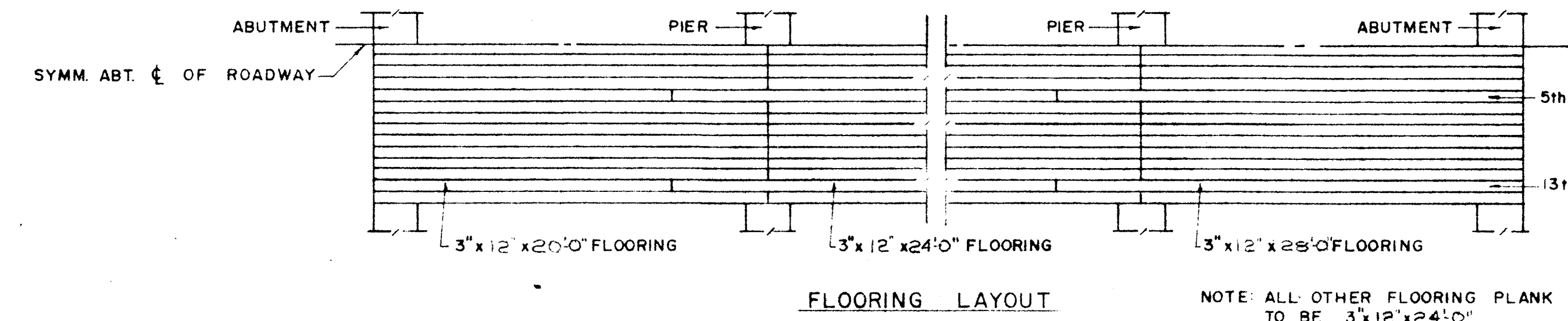
TRANSVERSE SECTION "B-B" SHOWING POSITION OF DOWELS "A"



TRANSVERSE SECTION "C-C" SHOWING POSITION OF DOWELS "B"

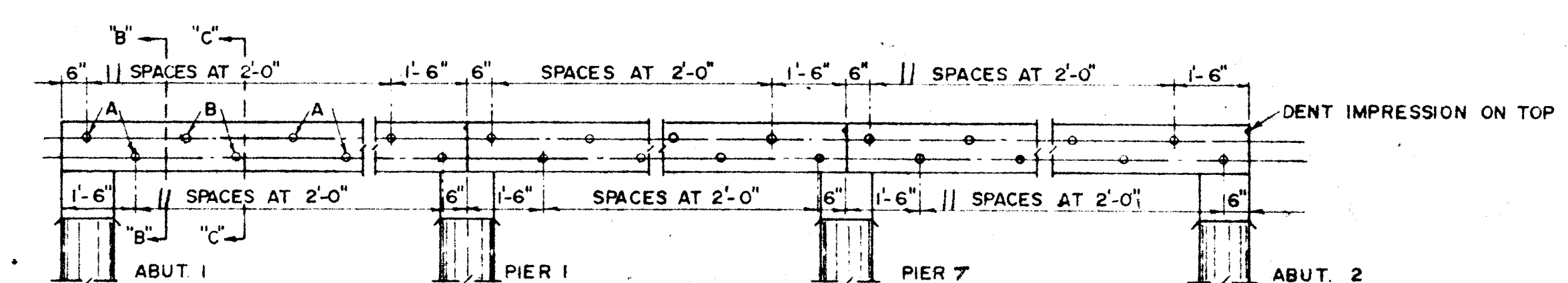


PART SECTION SHOWING FLOORING SEE FLOORING LAYOUT DIAGRAM



FLOORING LAYOUT

NOTE: ALL OTHER FLOORING PLANK TO BE 3' x 12' x 24'-0"



LONGITUDINAL SECTION SHOWING DOWEL SPACING

NOTE: IN ORDER TO SECURE PROPER MATCH OF HOLES, PLACE END OF PLANK WITH DENT AT PIER 1 FOR SPAN 1, PIER 2 FOR SPAN 2, ABUT. 2 FOR SPAN 3. PLACE PLANK SO DENT IS UP. START DOWELS THIS END.

BACKING NOTE: SECURE BACKING TO PILES WITH 2-60d NAILS AT EACH INTERSECTION.  
 PILE NOTE: 4 DEADENED 20 FT. LONG  
 2 TEST PILES 45 FT. LONG  
 14 ABUT PILES 35 FT. LONG  
 12 WING PILES 30 FT. LONG  
 49 PIER PILES 35 FT. LONG  
 DRIVE ALL PILES TO 15 TONS BEARING EACH. DESIGN IN ACCORDANCE WITH 1957 AASHTO SPECS FOR H-20 LOADING. NO IMPACT.

SPECIFICATIONS

ALL PILING AND TIMBER SHALL BE CREOSOTE PRESSURE TREATED ACCORDING TO CURRENT STATE SPECIFICATIONS. PILING SHALL MEET STATE SPECIFICATIONS. ALL TIMBER TO BE DOUGLAS FIR (COAST REGION) AND TO BE GRADED AS PER WCLA NO 15 EFFECTIVE MARCH 15, '56. UNIVERSAL BEAM GUARD RAIL AS SHOWN. FLOOR LAMINATIONS SHALL BE AS PER PAR 123-B, 1500 Lbs.-f AND SHALL BE SIS TO 3" H & M. BALANCE OF TIMBER SHALL BE AS FOLLOWS: THICKNESS OF TIMBER 4" OR LESS SHALL BE AS PER PAR 123-B, 1500 Lbs.-f. ALL TIMBERS ARE ROUGH UNLESS OTHERWISE NOTED. ALL TIMBER CUT IN THE FIELD SHALL BE TREATED WITH 3 COATS OF HOT CREOSOTE BRUSHING OIL. ALL HOLES SHALL BE TREATED WITH AN APPROVED BOLT HOLE TREATER. DOWELS SHALL BE "RINGSHANK" TYPE OR AN APPROVED EQUAL. AN ACCEPTED ALTERNATE USING 7" SPIKES AT ALTERNATE 18" CTRS. WILL BE ALLOWED. EVERY 3rd LAMINATION TO BE TOE-NAILED TO CAP WITH 30d NAILS. ALL HARDWARE TO BE GALVANIZED AS PER STATE SPECIFICATIONS. CONSTRUCTION REQUIREMENTS TO CONFORM TO STATE SPECIFICATIONS. ALL TIMBERS TO BE CUT TO EXACT LENGTHS, DRESSED TO SIZE REQUIRED AND ALL PRACTICAL FRAMING TO BE DONE PRIOR TO TREATMENT. FLOORING NOTE: LAMINATE 4 PLANKS TOGETHER USING DOWELS IN HOLES "B" AND TOE-NAIL TO CAP SO ONE EDGE IS ON C OF ROADWAY. THEREAFTER PLACE PLANK IN PAIRS. FOR PAIRS ON EITHER SIDE OF THE 4 PLANKS, DRIVE DOWELS IN HOLES "A" FOR SUCCEEDING PAIRS ON BOTH SIDES OF C USE "B" AND "A" ALTERNATELY BEFORE DRIVING DOWELS. PLANKS MUST BE SPIKED TOGETHER WITH 60d NAILS SO DOWEL HOLES ARE LINED UP AND EACH PLANK IS IN CONTACT WITH ADJACENT PLANK THROUGHOUT ITS ENTIRE LENGTH. LAMINATIONS MUST BE TIGHT OVER ENTIRE ROADWAY. THICKNESS OF TIMBER MORE THAN 4" SHALL BE AS PER PAR 125-B, 1200 Lbs.-c

ALLEGAN COUNTY  
 WILLIAMS ST. BRIDGE  
 192' CREOSOTE TREATED TIMBER BRIDGE  
 26' CLEAR ROADWAY  
 LONGITUDINAL LAMINATED FLOORING  
 SECTION \_\_\_\_\_ TOWNSHIP \_\_\_\_\_ RANGE \_\_\_\_\_  
 WHEELER LUMBER BRIDGE AND SUPPLY COMPANY  
 DATE 10-12-67 APPROVED \_\_\_\_\_  
 SHEET No 3 OF 4

REVISED: 10-17-67 JHS