

| F.A.P. RTE.                                     | SECTION    | COUNTY            | TOTAL SHEETS | SHEET NO. |
|---|------------|-------------------|--------------|-----------|
| 304   | 2(B-5,B-6) | Pike              | 112          | 60        |
| STA. 456+34.50                                  |            | TO STA. 456+72.50 |              |           |
| FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT |            |                   |              |           |
| SN075-0509 Sheet 1 of 17                        |            |                   |              |           |

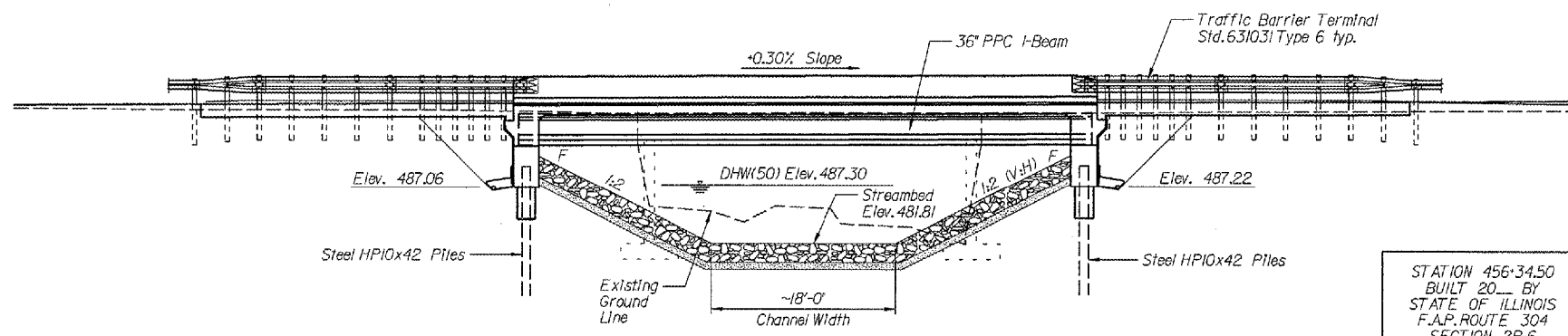
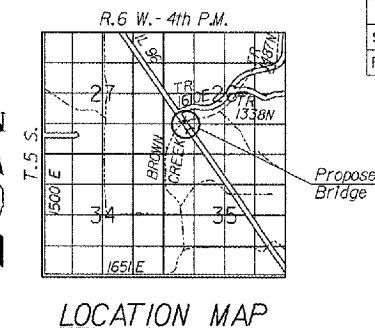
Benchmark - chisled "□" on Southwest Wingwall of Bridge No SN 075-0040, Elev.494.80

Existing structure: SN 075-0040, single span (32'-0" bk. to bk. abut.), reinforced concrete T-beam structure on closed abutments, 39'-4" o.a. to a deck. Built in 1937 as F.A. Rte. 158, Sec. No. 2-B. The contractor shall remove the existing structure as required and replace it with a single span 36' concrete I-beam superstructure on open abutments. The road shall be kept open to one lane traffic at all times utilizing stage construction.

No salvage.

INDEX OF SHEETS

| No. | Description                  |
|-----|------------------------------|
| 1   | General Plan and Elevation   |
| 2   | Quantities and General Notes |
| 3   | Stage Construction           |
| 4   | Temporary Concrete Barrier   |
| 5   | Top of Slab Elevations       |
| 6   | Top of Approach Slab Elev.   |
| 7   | Superstructure               |
| 8   | Superstructure Details       |
| 9   | Superstructure Details       |
| 10  | Framing Plan & Beam Details  |
| 11  | Beam Details                 |
| 12  | Bar Splice Details           |
| 13  | Abutment                     |
| 14  | Abutment Details             |
| 15  | Pile Encasement              |
| 16  | Boring Logs - NW Abutment    |
| 17  | Boring Logs - SE Abutment    |



STATION 456+34.50  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. ROUTE 304  
SECTION 2B-6  
LOADING HS 20-44  
STR. NO. 075-0509

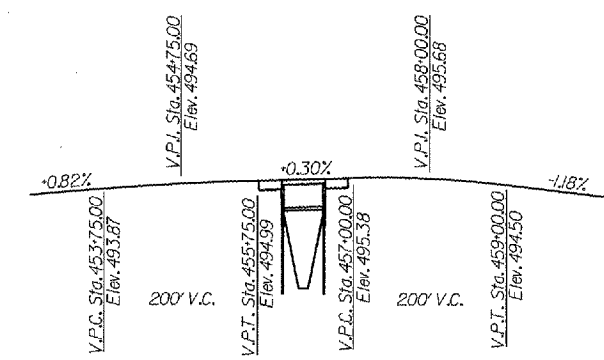
**NAME PLATE**  
See Std. 515001

**LOADING HS20-44**  
Allow 50\*/sq.ft. For Future Wearing Surface

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications - 17th Ed.

**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 4.8%g  
Site Coefficient (S) = 1.0

**DESIGN STRESSES**  
(FIELD UNITS)  
f'c = 3,500 psi  
fy = 60,000 psi (reinforcement)  
(PRECAST PRESTRESSED UNITS)  
f'c = 6,000 psi  
f'cl = 5,000 psi  
f's = 270,000 psi (1/2" dia. low lax. strands)  
fst = 201,960 psi (1/2" dia. low lax. strands)

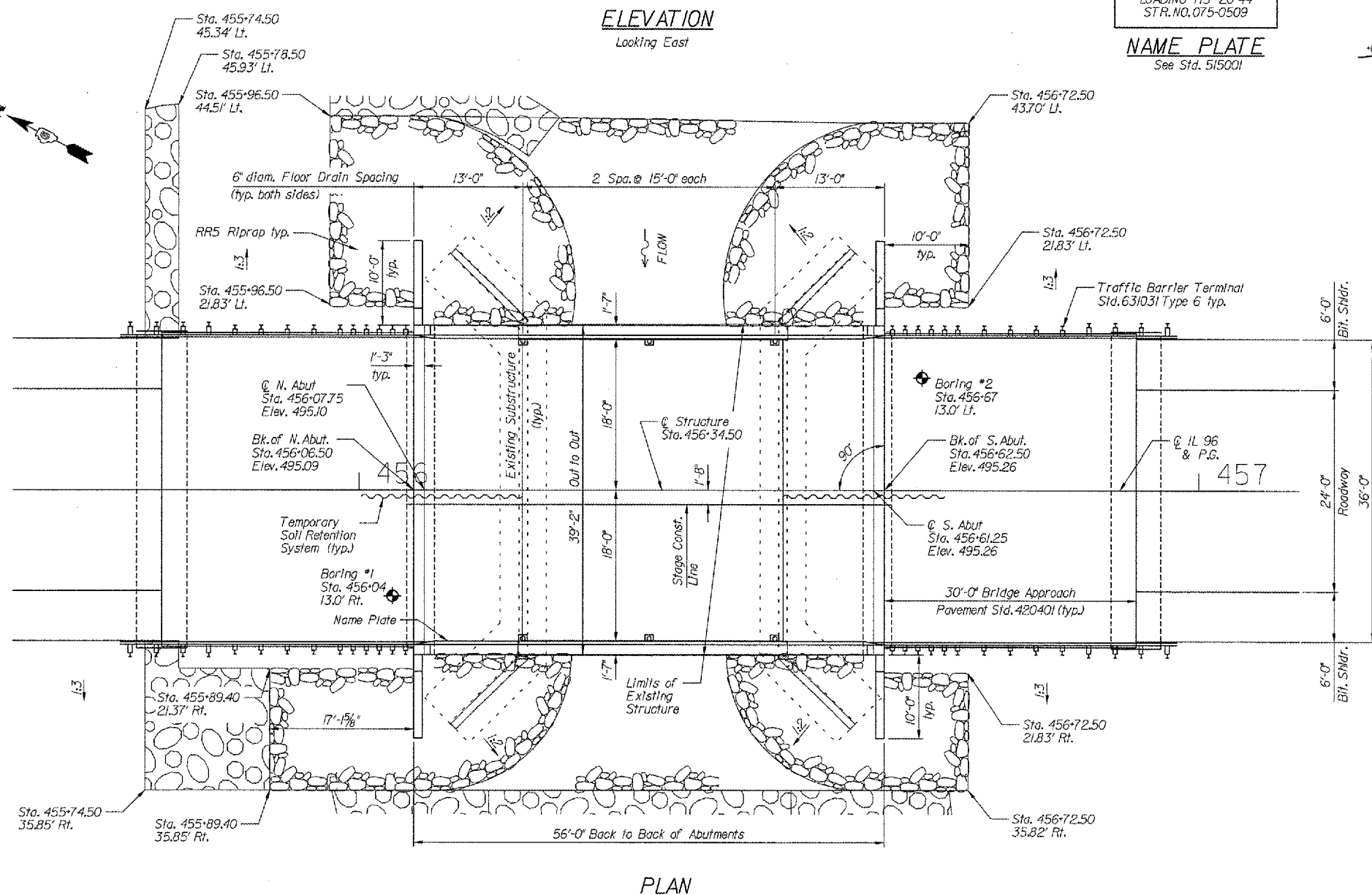


**PROFILE GRADE**  
Along C. Roadway

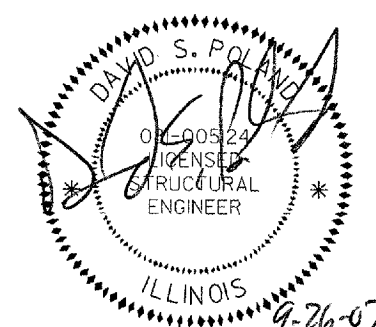
| Design Scour Elevations |                |
|-------------------------|----------------|
| North Abutment          | South Abutment |
| 487.1                   | 487.2          |

**WATERWAY INFORMATION**

| Flood       | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. |       | Natural H.W.E. | Head Ft. |       | Headwater Elev. |        |
|-------------|-----------|----------|-----------------|-------|----------------|----------|-------|-----------------|--------|
|             |           |          | Exist.          | Prop. |                | Exist.   | Prop. | Exist.          | Prop.  |
| Design      | 10        | 1285     | 62              | 90    | 486.20         | 2.99     | 2.47  | 489.19          | 488.67 |
| Base        | 50        | 2106     | 95              | 135   | 487.30         | 4.29     | 3.64  | 491.59          | 490.94 |
| Overlapping | 100       | 2471     | 108             | 154   | 487.73         | 4.50     | 3.83  | 492.23          | 491.56 |
| Max. Calc.  | 20        | 1580     | 76              | 107   | 485.62         | 3.88     | 2.72  | 490.50          | 489.34 |
|             | 500       | 3372     | 137             | 199   | 488.69         | 4.64     | 3.98  | 493.33          | 492.67 |



**PLAN**



DAVID S. POLAND  
LICENSED STRUCTURAL ENGINEER  
QUINCY, ILLINOIS  
EXPIRES: 11/30/08

**APPROVED**  
For Structural Adequacy Only

*Ralph E. Anderson (TJD)*  
Engineer of Bridges & Structures

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN AND ELEVATION  
ILLINOIS ROUTE 96 OVER  
BROWN CREEK  
PIKE COUNTY  
FAP RTE 304 - SECTION 2(B-5,B-6)  
STATION 456+34.50  
STRUCTURE NO. 075-0509

SCALE: N/A  
DATE: SEPT 2007

DRAWN BY: JLS  
CHECKED BY: DSP

PLOT DATE = 08/27/07  
FILE NAME = 075-0509-01  
PLOT SCALE = 1/8"=1'-0"  
USER NAME = JLS