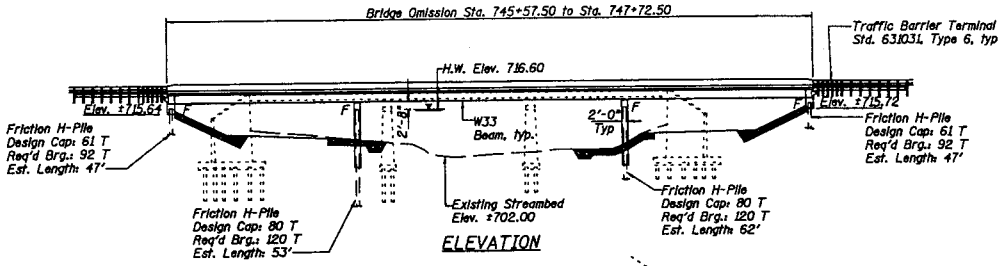
***(129BR-3)BR

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| F.A.P. 326 | *** | CHAMPAIGN | | |

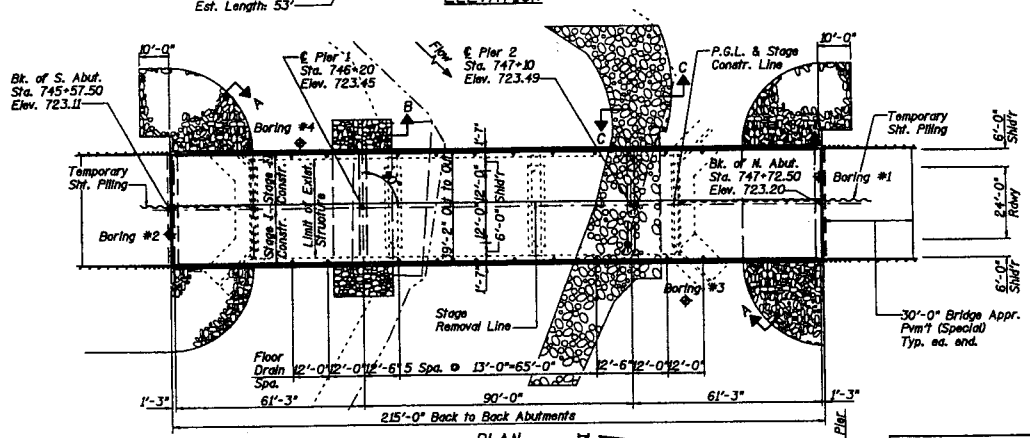
SHEET NO. - - SHEETS

Bench Mark: 4685-2 Chiseled square located on top of the southwest wingwall of the existing South Abutment. Elev. 720.19

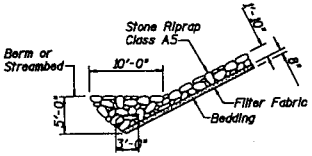
Existing Structure: S.N. 010-0051, originally built in 1931 as SBI Route 47, Section 129B. In 1981, the superstructure was replaced, the substructure widened and pier caps reconstructed as F.A. Route 100, Section 129 BR. In 2000 Superstructure repairs were made including expansion joint & keyway repairs. The existing structure is a three simple spans PPC deck beam bridge with Spans 1 @ 47'-10", 1 @ 48'-1½" & 1 @ 47'-9½". The existing structure to be removed and replaced. The road shall be kept open to one lane of traffic by utilizing stage construction.



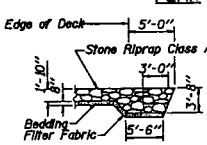

ELEVATION



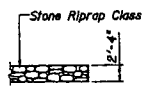

PLAN



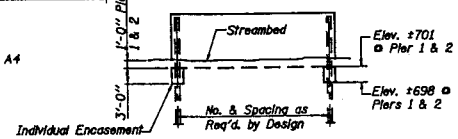

SECTION A-A



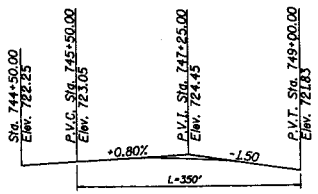

SECTION B-B



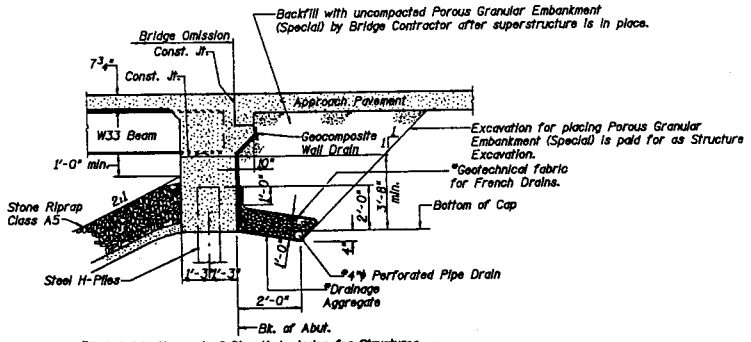

SECTION C-C




PIER SKETCH




PROFILE GRADE
(Along ℄ Roadway)




*Included in the cost of Pipe Underdrains for Structures.

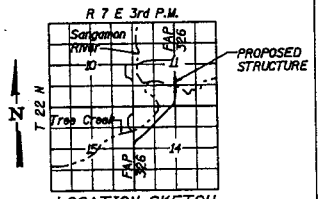
All drainage components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

SECTION THRU INTEGRAL ABUTMENT

APPROVED

DEC 14 2005

AS A BASIS FOR PREPARATION OF DETAILED PLAN




LOCATION SKETCH

F.A.P. Rte. 326 - II Rte. 47
Functional Class: Other Principal Arterial
ADT: 3,300 (2003); 4,000 (2023)
ADTT: 600 (2023)
DHV: 350 (2023)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c$ = 3,500 psi
$f_y$ = 60,000 psi (reinforcement)
$f_y$ = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.7g
Site Coefficient (S) = 1.2

WATERWAY INFORMATION

Proposed Low Grade Elev.= 720.09 @ Sta. 752+00.01

| Drainage Area = 114.4 Sq. Mi. Low Grade Elev.= 720.09 @ Sta. 752+00.01 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. Exist. | Opening Sq. Ft. Prop. | Nat. H.W.E. | Head-Ft. Exist. | Head-Ft. Prop. | Headwater El. Exist. | Headwater El. Prop. |
| | 10 | 5,153 | 1,228 | 1,570 | 715.4 | 0.7 | 0.5 | 716.1 | 715.9 |
| Design | 50 | 7,540 | 1,389 | 1,806 | 716.6 | 1.0 | 0.7 | 717.6 | 717.3 |
| Base | 100 | 8,515 | 1,442 | 1,886 | 717.0 | 1.1 | 0.8 | 718.1 | 717.8 |
| Overtopping | | | | | | | | | |
| Max. Calc. | 500 | 10,786 | 1,563 | 2,069 | 717.9 | 1.4 | 0.9 | 719.3 | 718.8 |

GENERAL PLAN

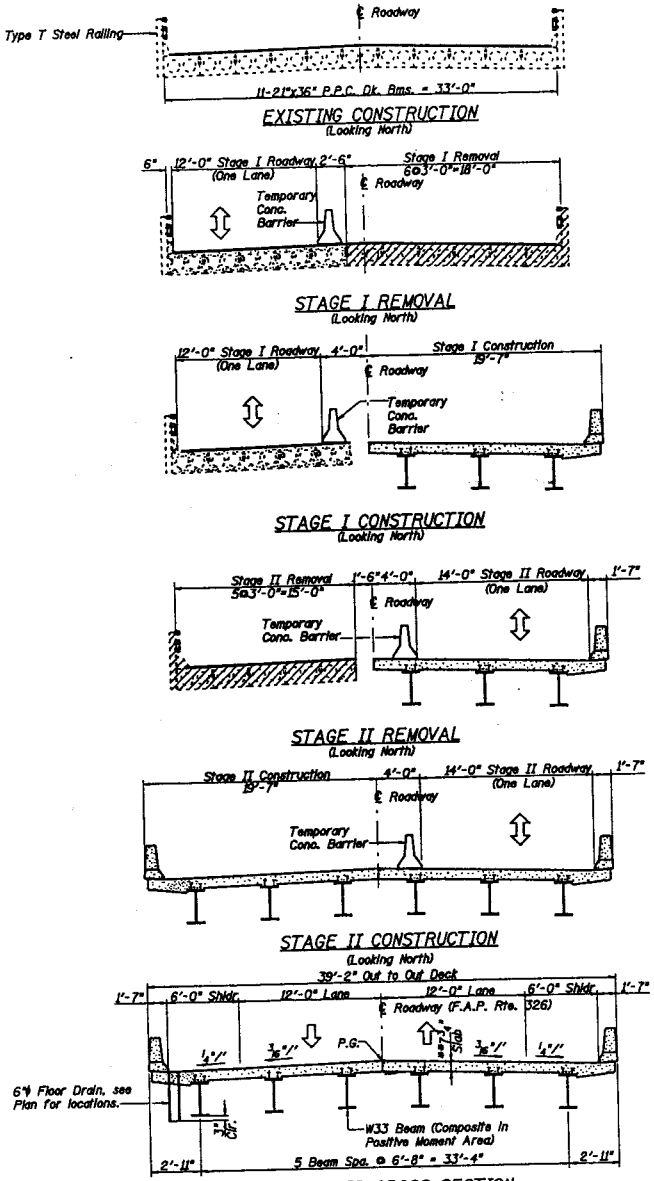
IL. ROUTE 47
OVER SANGAMON RIVER
F.A.P. ROUTE 326 SEC. (129BR-3)BR
CHAMPAIGN COUNTY
STATION 746+65.00
STRUCTURE NO. 010-0281

| REVISIONS NAME | DATE |
|---|---|
| | |

DRAWING NUMBER S-1

***(1298R-3)BR

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| F.A.P. 326 | *** | CHAMPAIGN | | - SHEETS |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | |




STAGE CONSTRUCTION

IL. ROUTE 47
OVER SANGAMON RIVER
F.A.P. ROUTE 326 SEC. (1298R-3)BR
CHAMPAIGN COUNTY
STATION 746+65.00
STRUCTURE NO. 010-0281

| NAME | REVISIONS | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

DRAWING NUMBER

S-2