

Bk. of W. Abut.

Elev. 668.55

•

Boring

Sta. 243+13.00:

Drainage Scupper Type DS-11 (typ

each side)

6''∳ Deck Drains spacing

(typ. both sides)

DRAWN R. Sommer

CHECKED PRE NRB

40'-4

simple span PPC deck beams. This work was under F.A. Rte. 721, Section 113BR at 244+53.00.

In 2002 four deck beams were replaced under F.A. Rte. 721, Section D5 Deck Beam Replace, 2002-1.

The original abutments & piers consist of solid walls on timber pile supported footings. The widened portion of the abutments are

an open type supported by a single row of concrete piles. The widened portion of the piers are solid walls supported by a single

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



BALCAE BALCAE SHEET NO. SHEET NO. ${\cal I}$ DEWITT 18 SHEETS

Contract #70232

GENERAL NOTES

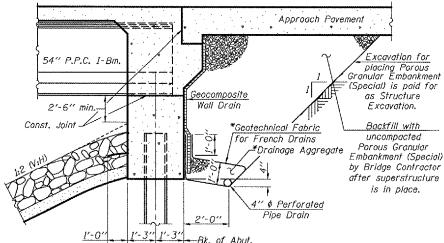
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (II. Modified). See Special Provisions.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Up to \(^1_4\) inch will be ground off the bridge slab and bridge approach pavement. Reinforcement bars designated (E) shall be epoxy coated.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.



SECTION THRU INTEGRAL ABUTMENT TOTAL BILL OF MATERIAL

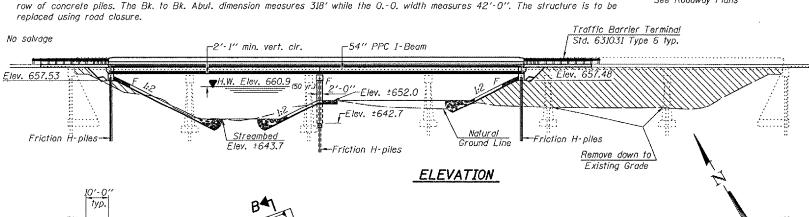
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each		***************	1
Concrete Superstructure	Cu. Yd.	242		242
Concrete Structures	Cu. Yd.		104	104
Structure Excavation	Cu. Yd.		282	282
Furnishing and Erecting Precast Prestressed Concrete I Beams, 54''	Foot	1119		1119
Reinforcement Bars, Epoxy Coated	Pound	50760	11690	62450
Test Pile Steel HPI2x63	Each		3	3
Furnishing Steel Piles HP12x63	Foot		741	741
Driving Piles	Foot		741	741
Name Plates	Each			1
Porous Granular Embankment (Special)	Cu. Yd.		266	266
Stone Riprap, Class A5	Sq. Yd.		1475	1475
Filter Fabric	Sq. Yd.		1475	1475
Protective Coat	Sq. Yd.	826		826
Diamond Grinding (Bridge Section)	Sq. Yd.	809		809
Drainage Scuppers, DS-11	Each	2		2
Floor Drains	Each	22		22
Underwater Structure Excavation Protection-Location 1	Each			1
Geocomposite Wall Drain	Sq. Yd.		110	110
Pipe Underdrains for Structures 4"	Foot		163	163
Bar Splicers	Each	64		64
Bridge Deck Grooving	Sq. Yd.	627		627
Concrete Encasement	Cu. Yd.		7.0	7.0
Asbestos Bearing Pad Removal	Each			168

LOCATION SKETCH

GENERAL PLAN ILLINOIS ROUTE 10 OVER SALT CREEK F.A.P. ROUTE 721 - SECTION (113BR)BR DEWITT COUNTY STATION 244+07.00 STRUCTURE NO. 020-0062



Limits of Earth Excavation See Roadway Plans



imits of Existing

Structure

11.&12. Beam Details © Pier & © Proposed Structure Sta. 244+07.00 Bk. of E. Abut Sta. 245+01.00 Elev. 668.50 Shoulder Drain typ. East Approach Std. 609006 Elev. 668.50 Borina 3

> II. Rte. 10 & P.G.

5 spa. @ 13'-0'' = 65'-0'' 14'-0''

PLAN

-Stone RR Class A5

94'-0"

Borina 2

*Included in the cost of Pipe Underdrains for Structures.

Specifications and Highway Standard 601101).

All drainage system 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

4. Top of West Approach Slab Elevations

5. Top of East Approach Slab Elevations

6. Superstructure

8. Drainage Scupper

9. Diaphragm Details

10. Framing Plan

13. West Abutment

14. East Abutment

18. Boring Logs

15 Pier 16. Pile Details 17. Bar Splicers

7. Superstructure Details

STATION 244+07.00 BUILT 200 BY STATE OF ILLINOIS .A.P. RTE. 721 - SEC. (113BR)BR LOADING HS20-44 STR. NO. 020-0062

30' Bridge Approach Pavement (Special) Std. 420401 typ.

NAME PLATE

See Std 515001 Elev. 643. SECTION C-C

LOADING HS20-44 Allow 50#/sq. ft. for future wearing surface. DESIGN SPECIFICATIONS

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

= 6,000 psi $f_{ci} = 5.000 \ psi$

 $f_s' = 270.000 \text{ psi } (\frac{1}{2})' \text{ low lax. strands})$ f_{si} = 201,960 psi ($\frac{1}{2}$ ' ϕ low lax strands)

SEISMIC DATA

Selsmic Performance Category (SPC) = A Bedrock Acceleration Coefficient (A) = 4.6%g Site Coefficient (S) = 1.0

0.00% 0 Stone RR Class A5 Bedding Reddina Filter Fabric Filter Fabric -LVC = 500' SECTION B-B PROFILE GRADE

The profile grade shows the final elevations after grinding.

SECTION A-A

2 spa. @

13'-8" =

188'-0" Bk. to Bk. of Abutments

			Exist.	Low Gro	ide Elev.	667.7	ft. 🕫	Sta. 24	4+00
Drainage Are	ea = 294	mi.²	Prop.	Low Gra	de Elev.	667.8	ft. O	Sta. 24:	9+00
Flood	Freq.	a	Opening	Sq. Ft.	. Ft. Not. Head - Ft.		Headwater El.		
1-1000	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	6964	2001	1489	659.1	0.3	0.5	659.4	659,6
Design	50	10385	2503	1812	660.9	0.3	0.8	661.2	661.7
Base	100	11816	2701	1917	661.6	0.4	1.0	662.0	662.6
Max. Calc.	500	15201	3104	2168	663.0	0.4	1.4	663.4	664,4

WATERWAY INFORMATION

EXPIRES 11-30-2008 10 Yr. Velocity through Exist. Bridge = 3.5 fps 10 Yr. Velocity through Prop. Bridge = 4.8 fps