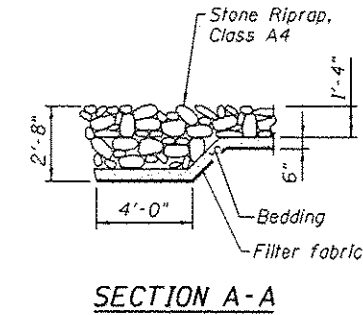
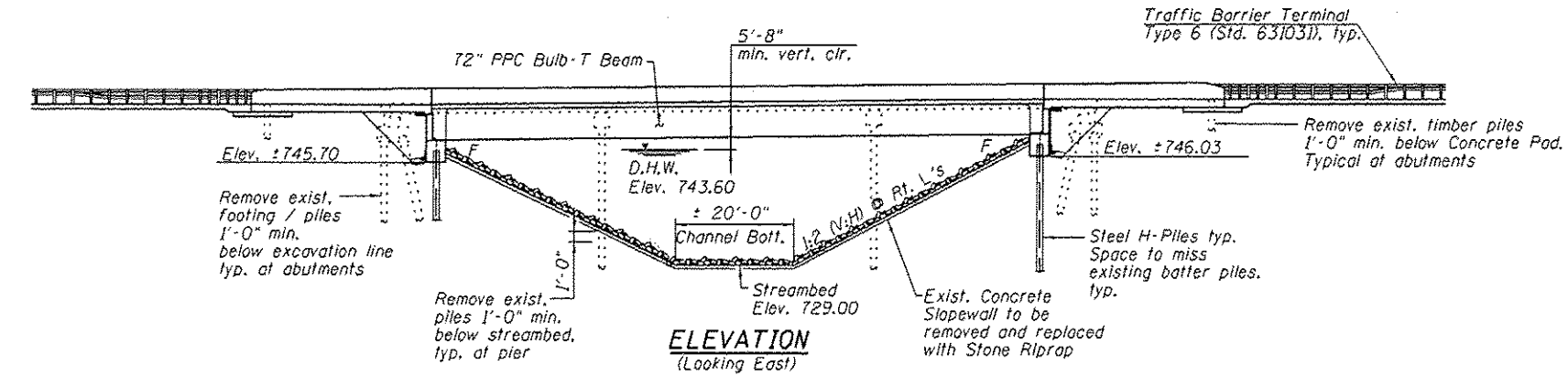


Bench Mark: BM#1 - Chiseled square located on the north end of the west wingwall EB I-74 Elevation 758.26
 Existing Structure: S.N. 048-0003 built in 1965 as F.A.I. Route 74 (EB), Section 48-25B at Sta. 416+04. Existing structure consists of 3-span continuous reinforced concrete cast in place slab supported by closed concrete abutments and concrete pile bent piers. Structure is 121'-6" long Bk. to Bk. of abutments, width is 44'-0" Out to Out of deck. Structure to be removed and replaced. Traffic to be maintained utilizing stage construction.

No salvage



DESIGN SPECIFICATIONS
 2012 AASHTO LRFD Bridge Design Specifications

LOADING HL-93
 Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi
 $(\frac{1}{2}"$ low lax strands)
 $f_{pbt} = 201,960$ psi
 $(\frac{1}{2}"$ low lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.070g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.111g
 Soil Site Class = C

DESIGN SCOUR ELEVATION TABLE

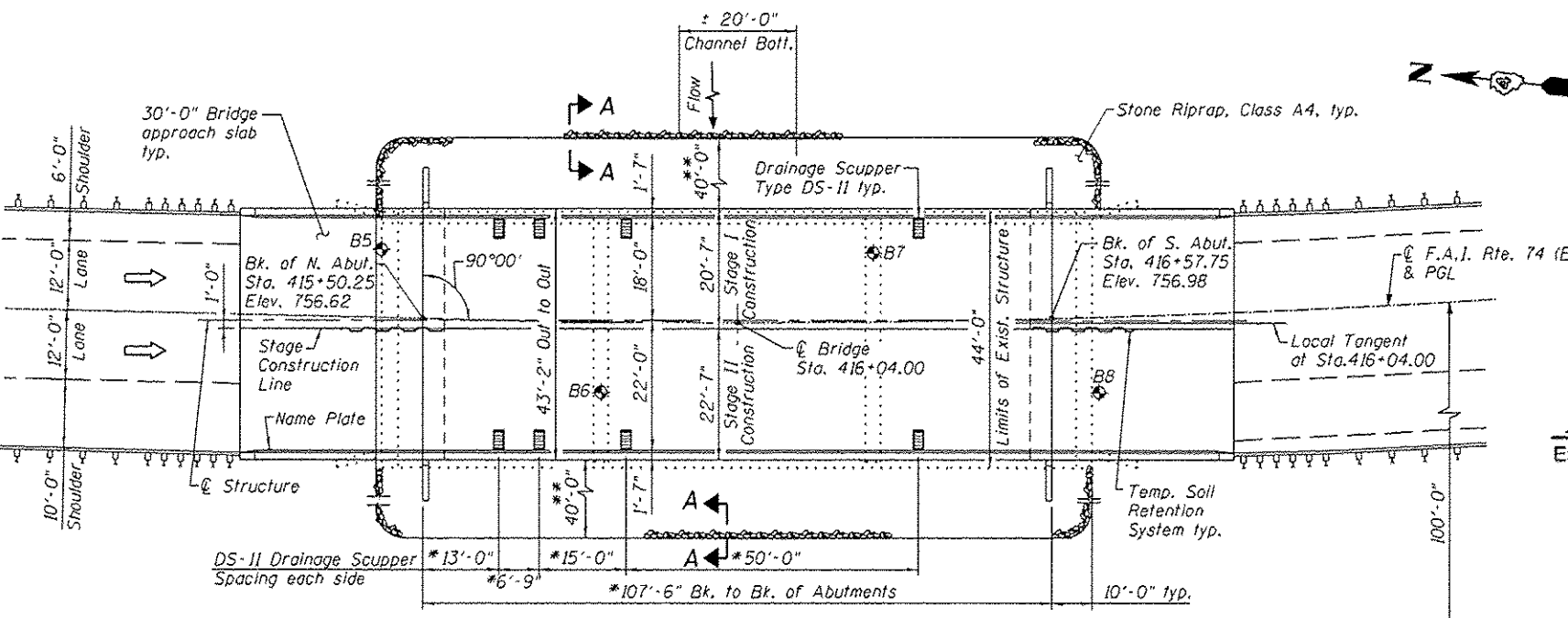
Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	745.68	746.03

WATERWAY INFORMATION

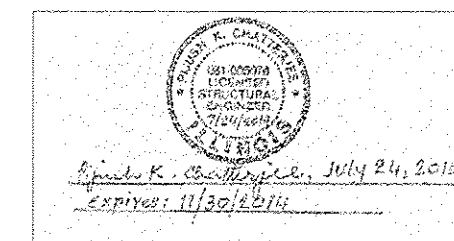
Drainage Area = 9.34 sq. mi. Low Grade Elev. 756.87 ft @ Sta. 415+43.5

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	1942	530	612	741.5	0.2	0.2	741.7	741.7
Base	50	3168	695	722	743.6	0.3	0.3	743.9	743.9
Overtopping	100	3740	762	768	744.4	0.3	0.3	744.8	744.7
Max. Calc.	500	5135	924	920	746.2	0.4	0.4	746.6	746.5

EWSE = 731.75 (per Survey taken 01-22-2010)



APPROVED
 For Structural Adequacy Only
De Carol Perry
 Engineer of Bridges & Structures

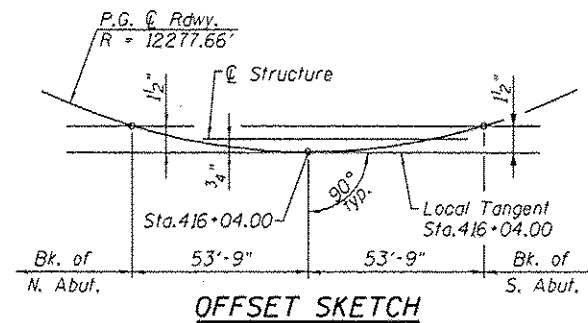
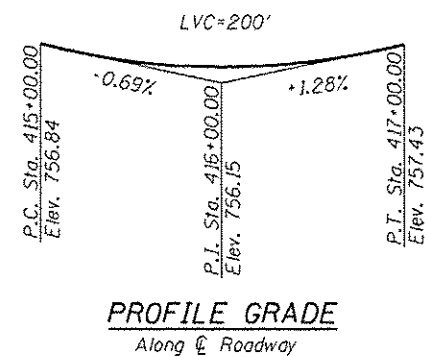


STATION 416+04.00
 BUILT 2011 BY
 STATE OF ILLINOIS
 F.A.I. RT. 74 EB SEC. 48-[(25B)BR. BR-1]
 LOADING HL-93
 STR. NO. 048-0090

NAME PLATE
 See Std. 515001

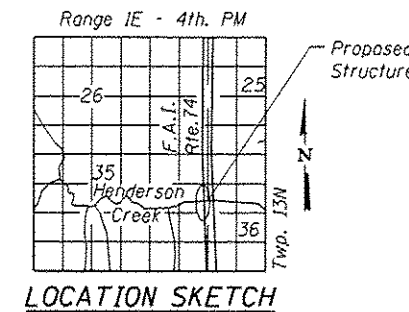
* Measured along local tangent
 ** For riprap limits the Contractor shall match limits of existing slope wall

Note:
 Lane and Shoulder dimensions are measured radially



CURVE DATA

$\Delta = 7^\circ 58' 36"$
 $D = 0^\circ 28' 00"$
 $T = 856.02'$
 $L = 1709.28'$
 $E = 29.81'$
 $R = 12277.66'$
 P.C. = Sta. 409+56.65
 P.T. = Sta. 426+65.93
 P.I. = Sta. 418+12.68



GENERAL PLAN AND ELEVATION
EB I-74 OVER HENDERSON CREEK
F.A.I. RTE. 74 (EB) - SEC. 48-[(25B)BR. BR-1]
KNOX COUNTY
STATION 416+04.00
STRUCTURE NO. 048-0090

FILE NAME: ...0480090-0004-001-GPE.dgn	DESIGNED EV	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 048-0090 SHEET NO. 51 OF 525 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT TIME: 4:27:42 PM	DRAWN JCP	REVISED -				74	48-[(25B)BR. BR-1]	KNOX	131	22
PLOT DATE: 9/29/2014	CHECKED PC	REVISED -				CONTRACT NO. 68885				
	DATE 05 03 2013	REVISED -				ILLINOIS FED. AID PROJECT				