

Bench Mark: Chiseled square on southeast concrete wingwall of the Central Avenue bridge over North Fork of Kent Creek. NGVD 29 Elevation 729.22.

Existing Structure: Structure No. 101-3023 is a three span, continuous reinforced concrete slab bridge that was built in 1966. The existing structure is 103'-2" long, back of abutment to back of abutment and 70'-0" wide, outside of deck to outside of deck. Both abutments are spill through type abutments supported by steel piles. Both piers are pile bent piers supported by steel piles encased in concrete columns.

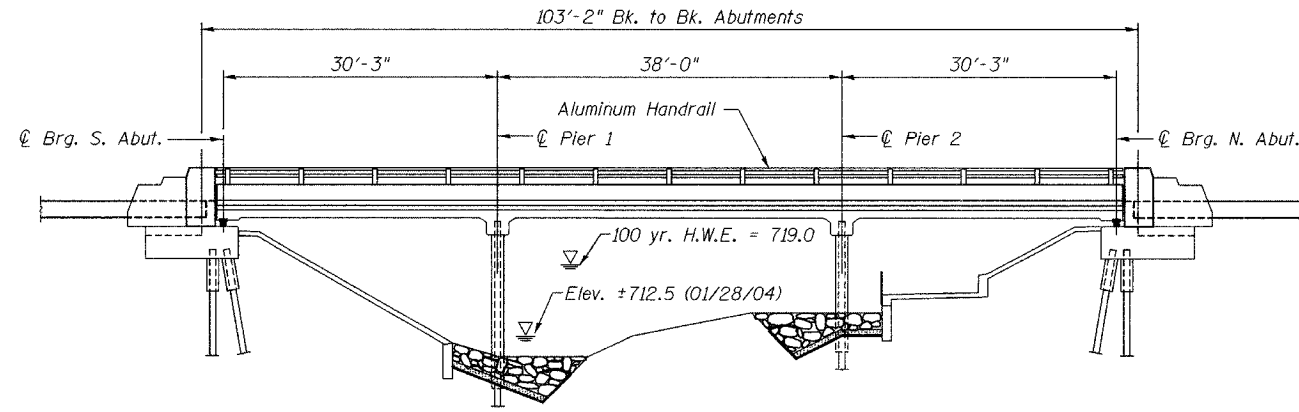
WATERWAY INFORMATION

Drainage Area = 24.4 SQ. MI. Low Grade Elev. 725.45 @ Upstream & Downstream Faces

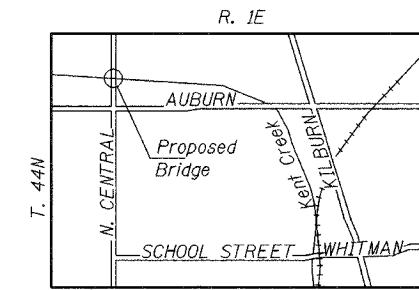
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	1320	264.6	264.6	717.9	0.17	0.17	718.1	718.1
Base	100	1800	328.3	328.3	718.8	0.22	0.22	719.0	719.0

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5102		WINNEBAGO	18	5

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BHM-5099(64)
03-00336-00-BR



ELEVATION
(Looking West)



LOCATION MAP

DESIGN STRESSES

Super: $f'_c = 4,000$ psi (Microsilica Overlay)
 $f'_c = 3,500$ psi
 $f_y = 40,000$ psi (Existing)
 $f_y = 60,000$ psi (Proposed)

Existing $f'_c = 2,500$ psi
 Sub: $f_y = 40,000$ psi (Existing)
 $f_y = 60,000$ psi (Proposed)

LOADING HS20-44

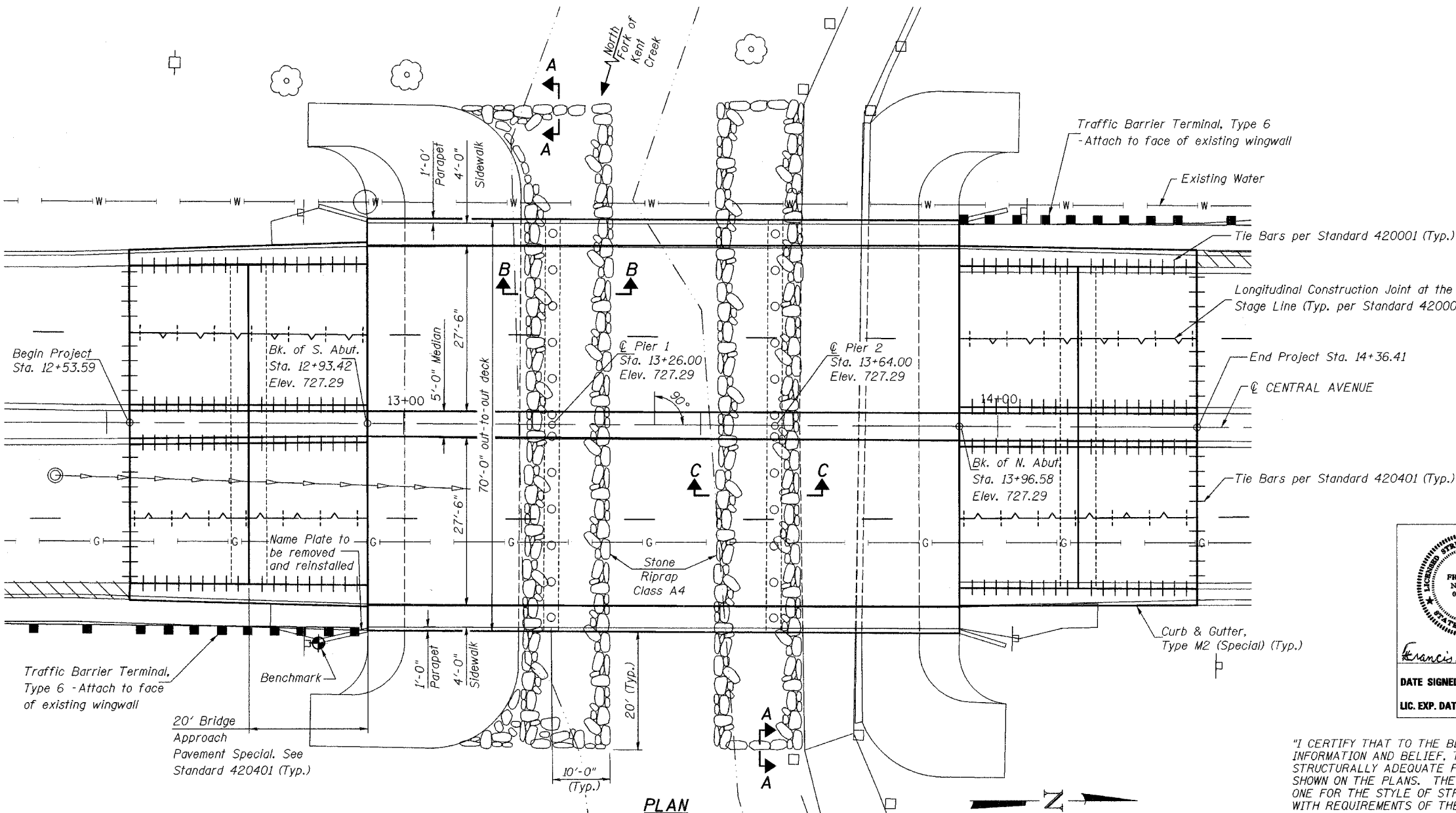
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

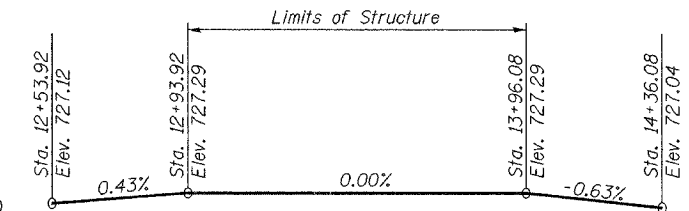
2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.03
 Site Coefficient (S) = 1.0



PLAN



PROPOSED PROFILE GRADE

NOTES

- See Sheet 6 of 18 for Section A-A, Section B-B, and Section C-C.

Professional Engineer Seal for Francis L. Nautman, State of Illinois, License No. 081-004900. Date signed: 1/30/2006. License expires: 11/30/2006.

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

Corporate License Number 184-001-084

GENERAL PLAN & ELEVATION

**CENTRAL AVENUE BRIDGE
 OVER NORTH FORK OF KENT CREEK
 F.A.U. ROUTE 5102
 SECTION 03-00336-00-BR
 WINNEBAGO COUNTY
 STRUCTURE NUMBER 101-3023
 STATION 13+45**

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JOB NO. 03R1809

DATE 4/28/06

11/22/06 AM
 01/30/2006
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 LAYOUT: FLN 11/18/05
 DRAWN: MGN 12/13/05
 REVIEWED: FLN 12/27/05