STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 5103	1BR-3	WINNEBAGO		SHEETS
PROJ. FROM DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

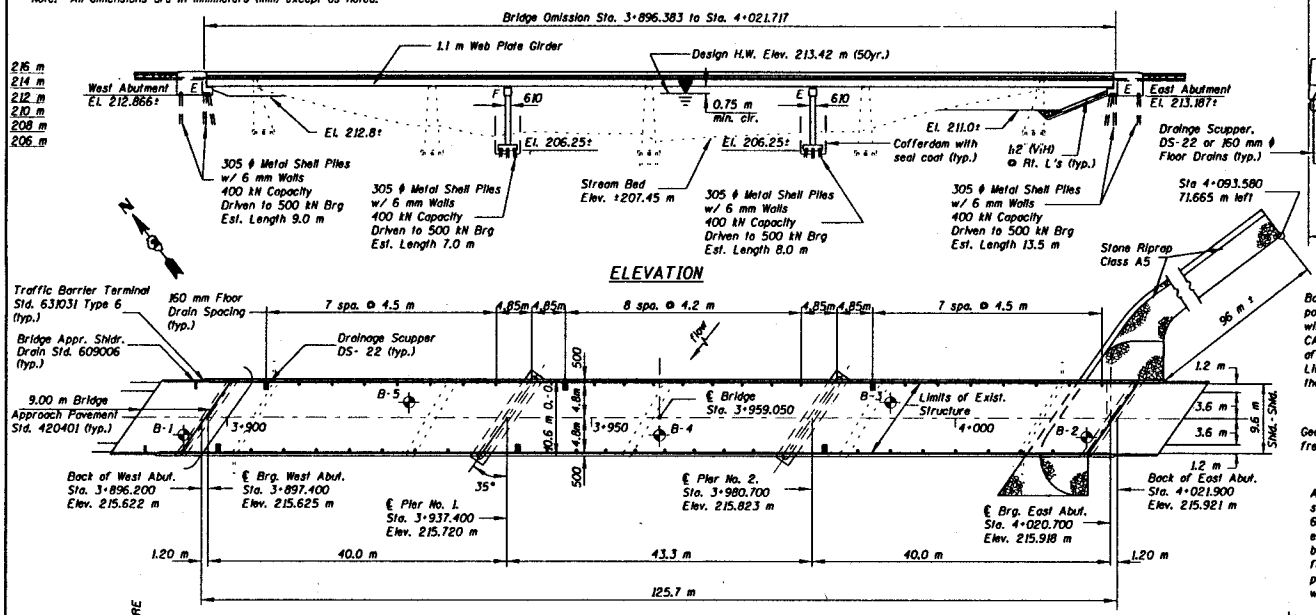
BENCHMARK

B.M. - cut square on S.E. bridge headwall. Elevation 215.670 m.

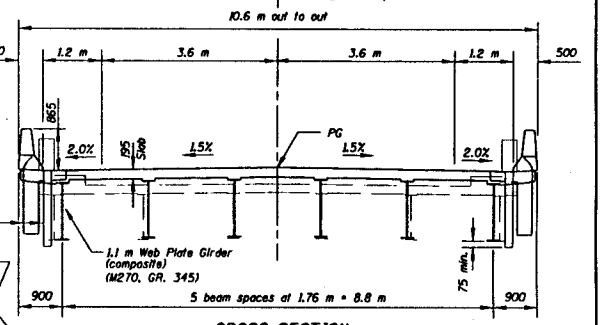
EXISTING STRUCTURE

S.N. 101-0026 built in 1943 as a four span steel beam and RC deck bridge. In 1975 a waterproofing membrane system was added. In 1986 additional repairs to the deck were completed. The structure is 108.55 m B-B abutment, 7.92 m F-F curb, with concrete stub abutments. Traffic to be maintained utilizing a detour.

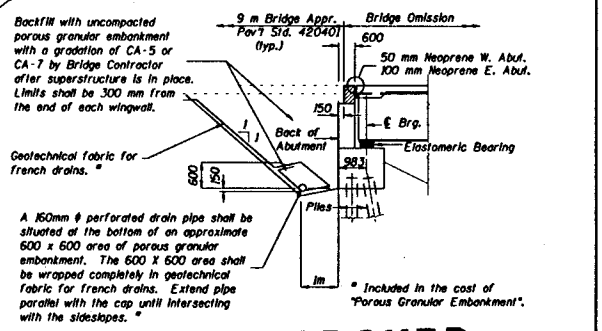
No salvage
Note: All dimensions are in millimeters (mm) except as noted.



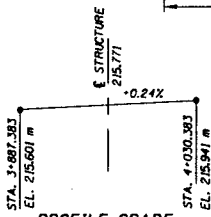
ELEVATION



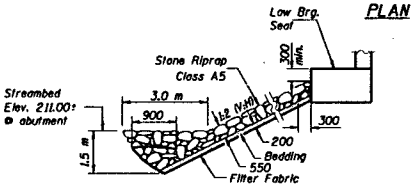
CROSS SECTION



SECTION THRU BUTMENTS
(Dimensions at Rt. Angles)

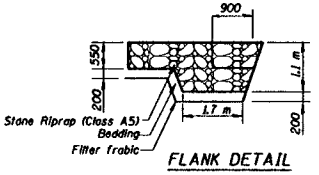


PROFILE GRADE
(along ℄ Roadway)

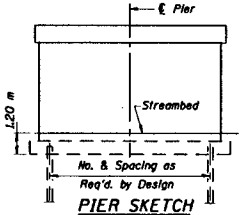


PLAN

STONE RIPRAP ANCHOR DETAIL
(Dimensions at Rt. Angles)



FLANK DETAIL



PIER SKETCH

APPROVED
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DEC 21 2000

HIGHWAY CLASSIFICATION

F.A.U. Rte. 5103 - Beltline Road
ADT: 2200 (2001), 3000 (2021)
DHV: 300 (2021)
Functional Class: Urban Minor Arterial
Design Speed: 90 km/h

DESIGN SPECIFICATIONS

AASHTO 1996 with 1997, 1998, & 1999 Interims

LOADING MS 18

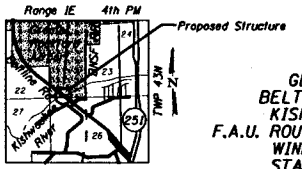
Allow 2.4 kN/m² for future wearing surface.

DESIGN STRESSES

FIELD UNITS
f'_c = 24 MPa
f_y = 400 MPa (Reinf.)
f_y = 345 MPa (M270 GRADE 345)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.033
Site Coefficient (s) = 1.0



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 2846 km² Low Grade Elev. 213.85 m @ Sta. 3+650

Flood	Freq. Yr.	Q m³/s	Opening m² Exist.	Opening m² Prop.	Nat. H.W.E. m	Head - m Exist.	Head - m Prop.	Headwater Elev. - m Exist.	Headwater Elev. - m Prop.
Design	50	737	349	365	213.42	0.02	0.01	213.44	213.43
Base	100	881	366	385	213.64	0.04	0.01	213.68	213.65
Overtopping	200±	1000	379	400	213.81	0.05	0.01	213.86	213.82
Max. Calc.	500	1258	-	-	-	-	-	-	-

DESIGNED	D. FENDER
CHECKED	D. BELL
DRAWN	D. FENDER
CHECKED	S. BRASE

DATE: 09-27-00

GENERAL PLAN
BELTLINE ROAD OVER
KISHWAUKEE RIVER
F.A.U. ROUTE 5103 - SEC. 1BR-3
WINNEBAGO COUNTY
STATION 3+959.050
STRUCTURE NO. 101-0171