Sheet 1 of 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337		LAKE		
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Bench Mark

Square cut in concrete base of traffic signal pole in the NE corner of IL Rte. 22 and south bound I-94 off ramp, Elevation 208.948. (IDOT BM #21A.)

Existing Structure

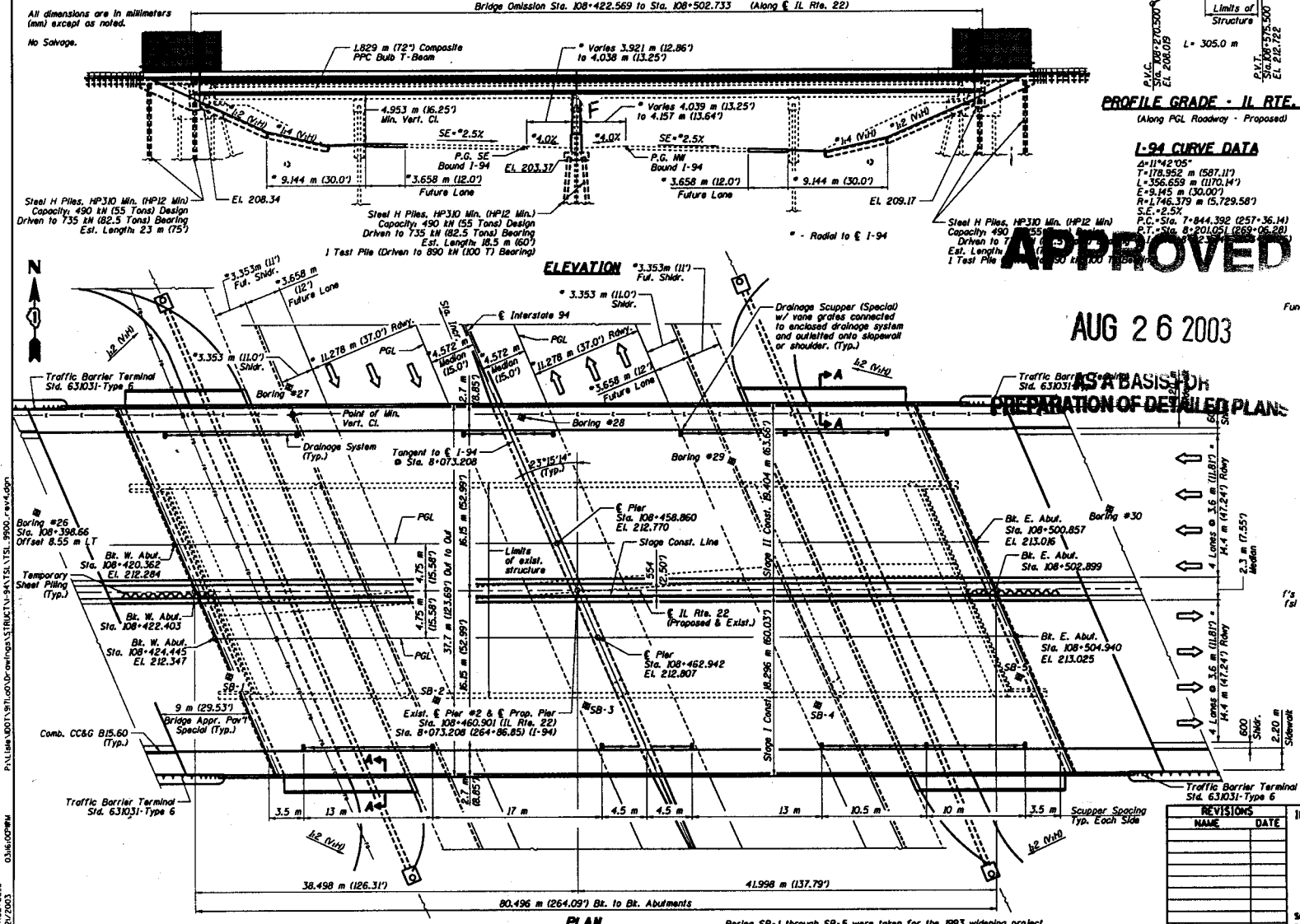
S.N. 049-9900 built by ISTHA in 1958. The original structure was widened by IDOT in 1993 as section T-12-3BY-89. The superstructure consists of an RC deck 21.692 m (71'-2") wide by 74.841 m (245'-6½") long supported on four span simply supported PPC beams. The existing structure is to be removed and replaced with a two span structure. Traffic shall be maintained during the replacement of the structure by stage construction.

All dimensions are in millimeters (mm) except as noted.

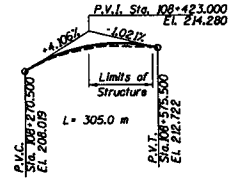
No Salvage.

Notes

1. English units provided for reference only. In the event of dimension conflict, SI units shall control.
2. Existing structure shall be removed to at least 300 mm below grade line.

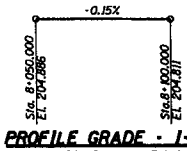


Boring SB-1 through SB-5 were taken for the 1993 widening project.



PROFILE GRADE - IL RTE. 22

(Along PGL Roadway - Proposed)



PROFILE GRADE - I-94

(Along PGL Roadway- Existing)

I-94 CURVE DATA

Δ=11°42'05"
T=178.952 m (587.11')
L=356.659 m (1170.14')
E=9.145 m (30.00')
R=1,746.379 m (5,729.58')
S.E.=2.5%
P.C.=Sta. 7+844.392 (257+36.14)
P.T.=Sta. 8+201.051 (269+06.28)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

HIGHWAY CLASSIFICATION

F.A.P. Route 337 - Illinois Route 22
ADT: 34,000 (2000); 48,000 (2020)
DHV: 2,000 (2020)
Func. Class: Suburban Strategic Regional Arterial
Design Speed: 70 km/h (45 mph)

F.A.I. 94
ADT: 134,500 (2001); 166,200 (2021)
Func. Class: Interstate
Design Speed: 110 km/h (70 mph)
Posted Speed: 90 km/h (55 mph)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

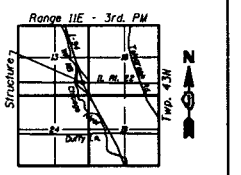
LOADING MS18 (HS 20)

Allowance for Future Wearing Surface = 1.2 kN/m² (25 psf)

DESIGN STRESSES

FIELD UNITS
f'c = 24 MPa (3,500 psi)
fy = 400 MPa (60,000 psi) (reinf.)

PECAST PRESTRESSED UNITS
f'c = 45 MPa (6,500 psi)
f'ci = 36 MPa (5,200 psi)
f's = 1,860 MPa (270,000 psi) (1/2" ϕ low lax. strands)
fsi = 1,400 MPa (202,000psi) (1/2" ϕ low lax. strands)



LOCATION SKETCH

APPROVED

AUG 26 2003

AS A BASIS FOR PREPARATION OF DETAILED PLANS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
ILLINOIS ROUTE 22 OVER I-94
(TRI-STATE TOLLWAY)

F.A.P. 337 SECTION 1-12-3-R-1
STRUCTURE NUMBER 049-0200
ISTHA BRIDGE NO. 403B
LAKE COUNTY STATION 108+460.901

SCALE: NONE DRAWN BY: E. MROCZEK
DATE: August, 2003 CHECKED BY: G. HATLESTAD

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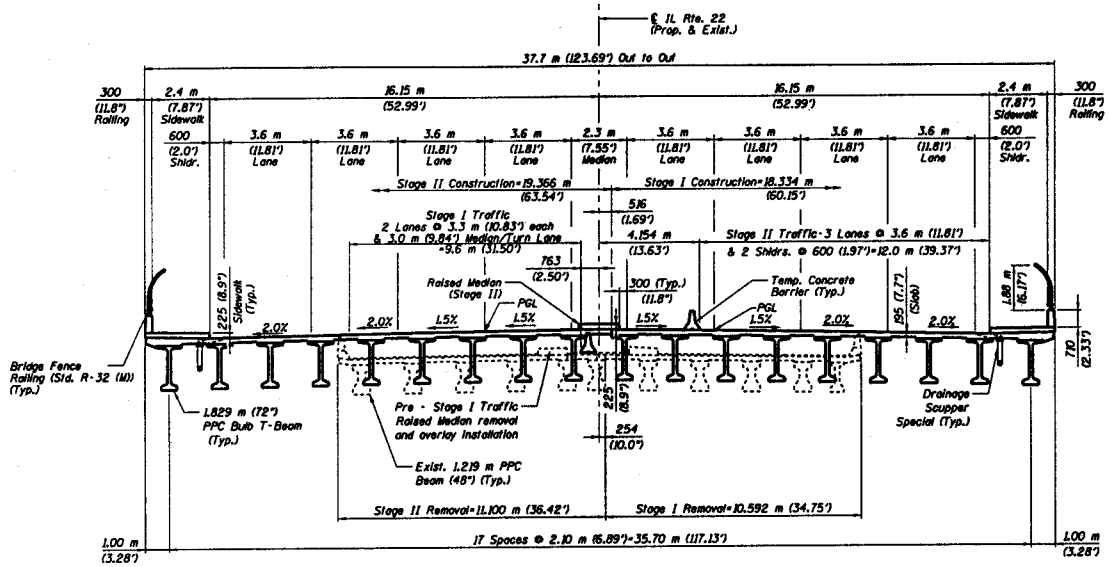
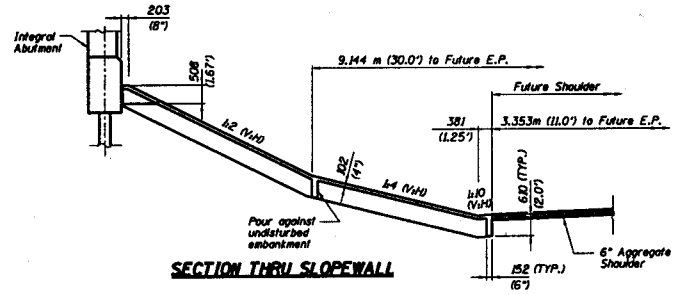
Sheet 2 of 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337		LAKE		
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

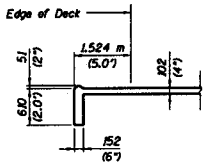


CROSS SECTION

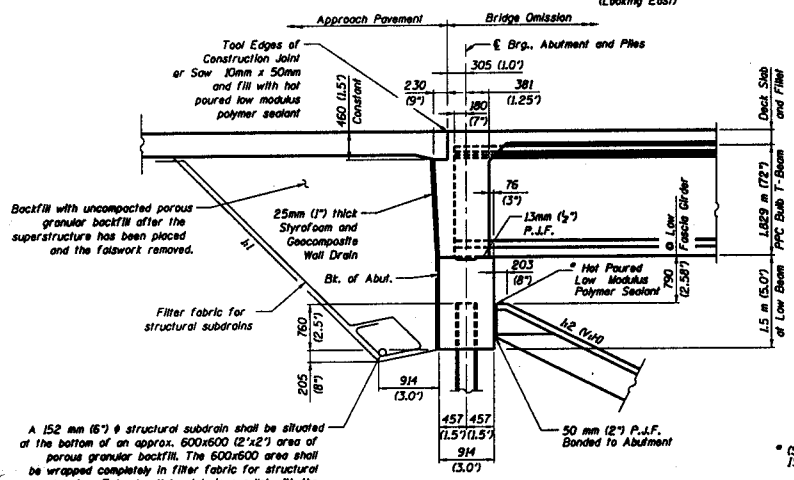
(Looking East)



SECTION THRU SLOPEWALL



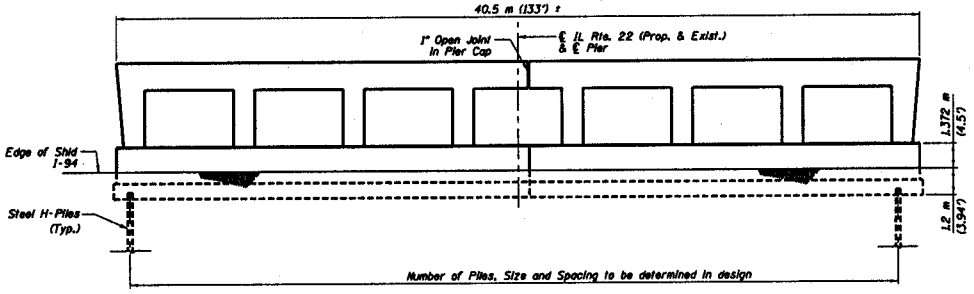
SECTION A-A



SECTION THRU PROPOSED ABUTMENT

Dimensions @ Rt. L's

* (See Section 1120.2 of the ISHTA Standard Specifications)



PIER SKETCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CROSS-SECTION & DETAILS
ILLINOIS ROUTE 22 OVER I-94
(TRI-STATE TOLLWAY)

FAP 337 SECTION T-12-3-R-1
STRUCTURE NUMBER 049-0200
(ISTHA BRIDGE NO. 403)
LAKE COUNTY STATION 100+460.901
SCALE: NONE DRAWN BY: E. MROCZEK
DATE: August, 2003 CHECKED BY: G. HATLESTAD

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