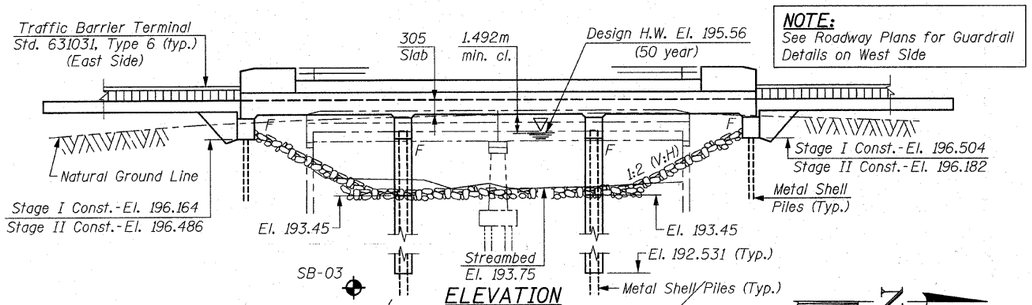
BENCH MARK:
Control Point #120, Sta. 9+997.36, 8.07m Rt., PK Nail Elev. 196.048 - N. 10300.898, E. 9954.002

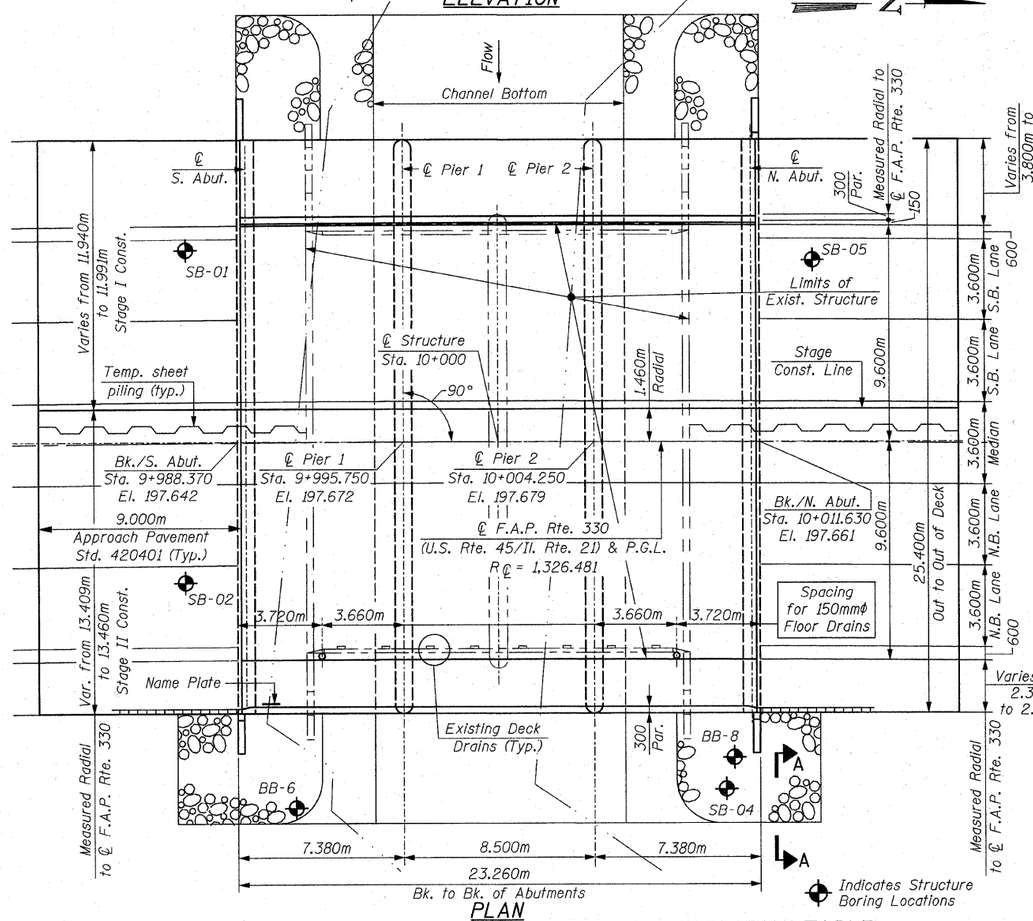
Existing Structure: S.N. 049-0007 was built in 1922. 17.12m long. 9.14m wide, as a two-span continuous R.C. Slab Bridge on closed abutments and single solid wall Concrete Pier supported on Timber Piles, widened in 1930 to 15.80m. The Structure was widened and given a new 44mm Bituminous Wearing Surface in 1980. Milling and Resurfacing was done in 1994.

The Existing Structure is to be removed and replaced utilizing Stage Construction.

Salvage: none



ELEVATION



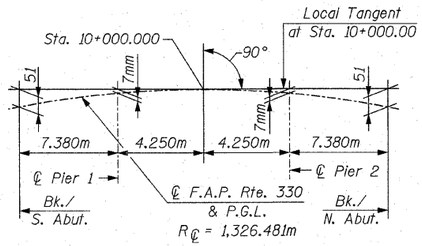
PLAN

WATERWAY INFORMATION TABLE

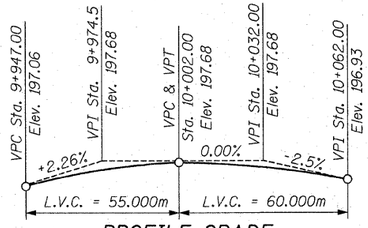
Drainage Area = 17.09 km²

Exist. low grade elev. = 196.080m @ Sta. 9+984.66
Prop. low grade elev. = 196.110m @ Sta. 9+885.50

FLOOD	FREQ. (YEAR)	Q m³/s	WATERWAY OPENING m² EXIST.	WATERWAY OPENING m² PROP.	NATURAL H.W.E.	HEAD (m) EXIST.	HEAD (m) PROP.	HEADWATER ELEV. EXIST.	HEADWATER ELEV. PROP.
	10	11.8	23.4	26.1	195.53	0.02	0.01	195.55	195.54
DESIGN	50	15.9	23.4	26.6	195.56	0.04	0.01	195.60	195.57
BASE	100	23.2	23.4	27.1	195.59	0.08	0.03	195.67	195.62
MAX. CALC.	500	24.6	23.4	27.5	195.62	0.09	0.03	195.71	195.65



OFFSET SKETCH

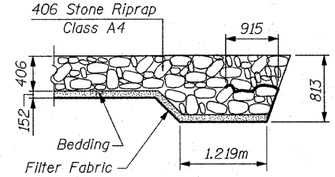


PROFILE GRADE

(ALONG ℄ F.A.P. Rte. 330)

CURVE DATA

P.I. Sta. = 9+992.250
Δ = 11.58°
R = 1,326.481
T = 134.486
L = 268.055m
E = 6.8000
e = 5.79°
P.C. Sta. = 9+857.764m
P.T. Sta. = 10+125.820m



SECTION A-A

DESIGN SCOUR ELEVATION TABLE

Location	S. Abut.	Pier 1	Pier 2	N. Abut.
Design Scour Elevations	196.164	187.650	187.650	196.182

LOADING MS18

Allow 2.4 kN/m² for future Wearing Surface

DESIGN SPECIFICATIONS

AASHTO 2002

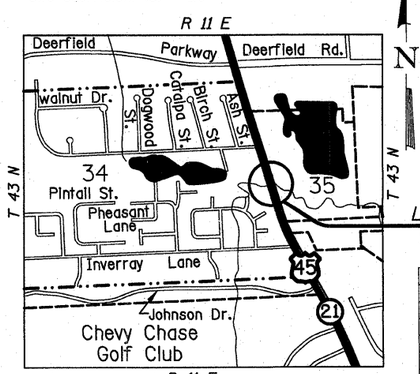
DESIGN STRESSES

FIELD UNITS

f'_c = 24 MPa
f_y = 400 MPa (reinforcement)

SEISMIC DATA

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



LOCATION SKETCH

LOCATION OF STRUCTURE

REVISIONS NAME	DATE

SHEET S01 OF S26

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	1Y-B-R-1	LAKE	124	48
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62032

INDEX OF SHEETS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATION 10+000.000
BUILT 2008 BY
STATE OF ILLINOIS
F.A.P. RTE. 330 SEC. 1Y-B-R-1
LOADING MS18
STR. NO. 049-0194

NAME PLATE

See Std. 515001

STATE OF ILLINOIS
BHADRESH N. SHAH
081-004476
LICENSED STRUCTURAL ENGINEER
CHICAGO

BHADRESH N. SHAH
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS LIC. No. 081-004476
EXPIRES: 11-30-08

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
U.S. RTE. 45 / IL. RTE. 21
OVER
APTAKISIC CREEK
F.A.P. RTE. 330 SECTION: 1Y-B-R-1
LAKE COUNTY STATION 10+000.000
STRUCTURE NO. 049-0194

SCALE: NONE
DATE: OCTOBER 16, 2007
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

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