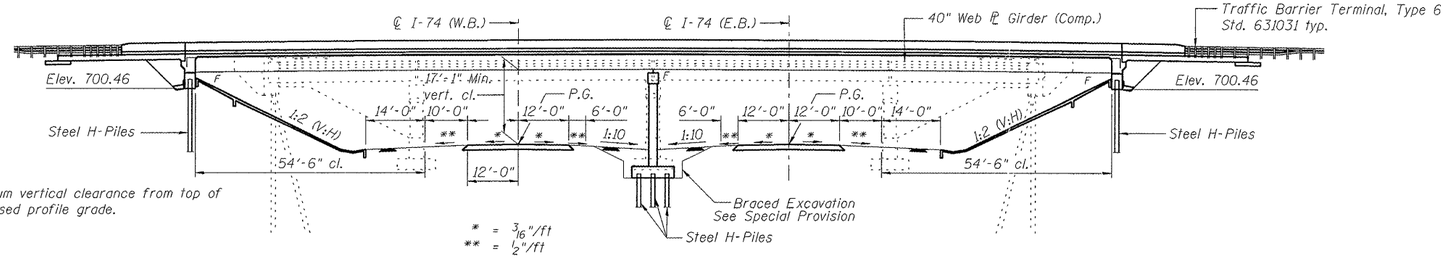
Bench Mark: IDOT BM92 Iron Pin w/ cap, North Apporach East Shoulder of Existing Structure. Elevation 704.38

Existing Structure: S.N. 010-0178 was built in 1960 as FAI Route 74, Section 10-6HB-4. It was built as a 4 simple span P.P.C. "I" beam structure. The substructure consists of open stub abutments and multiple round columned piers. The abutments are founded on a single row of piles. The piers are supported by spread footings. The Back to Back dimension measures 184'-6" while the Out to Out width measures 32'-6". The existing structure has a 9" curb and a 2'-0" saftey walk. The minimum vertical under clearance is 14'-9". The road will be closed and traffic detoured during construction. Road is currently closed.

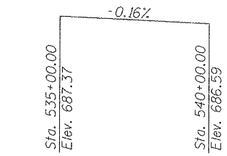
Salvage: Two 58 foot steel W36x150 girders installed on the deck of the existing structure to support the damaged beams of the existing structure shall be salvaged. See Special Provisions.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



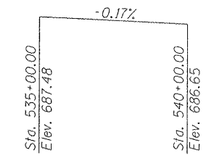
Note: Minimum vertical clearance from top of proposed profile grade.

ELEVATION



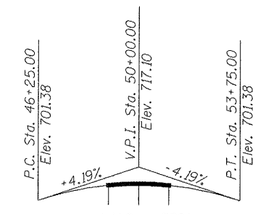
PROFILE GRADE

(F.A.I. Rte. 74 E.B. along ℄ Roadway)



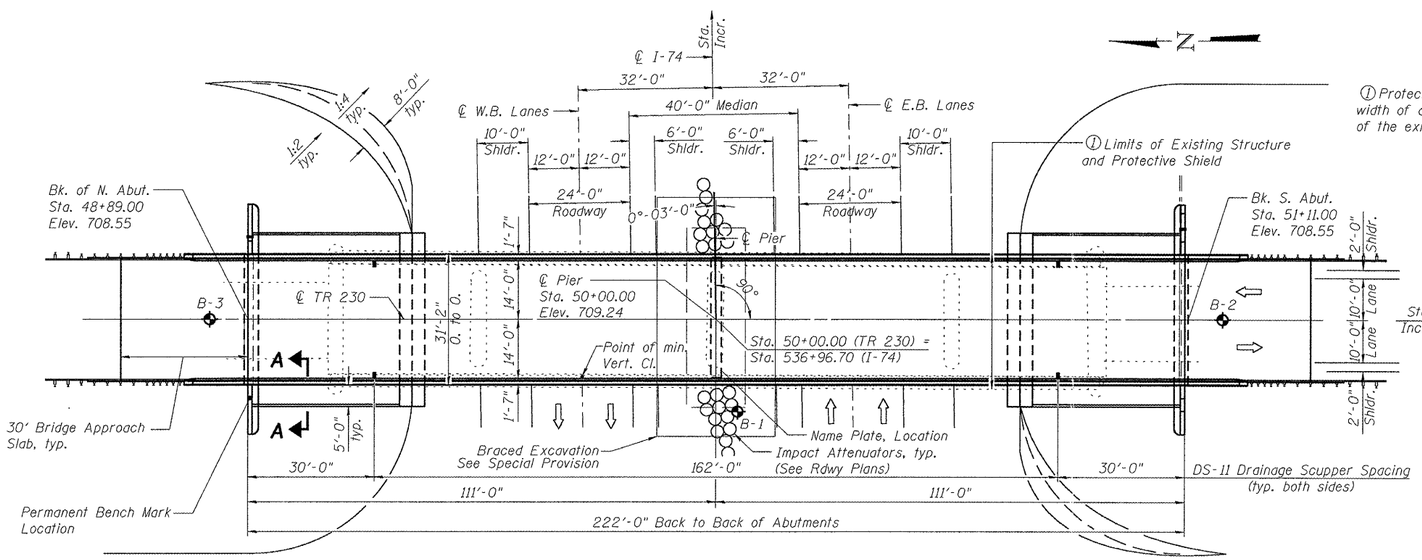
PROFILE GRADE

(F.A.I. Rte. 74 W.B. along ℄ Roadway)



PROFILE GRADE

(TR 230 along ℄ Roadway)



Protective Shield required for full width of deck only for spans 2 and 3 of the existing structure.

◆ Indicates Boring Location

PLAN

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

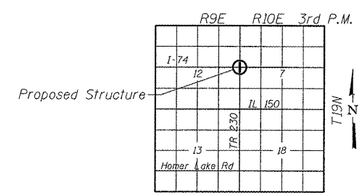
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.19g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.35g
Soil Site Class = E



LOCATION SKETCH

GENERAL PLAN & ELEVATION
TR 230 OVER
F.A.I. RTE 74-SECTION (10-6)HBR-5
CHAMPAIGN COUNTY
STATION 50+00.00
STRUCTURE NO. 010-0288

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TOD)
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
JOHN S. PERADOTTI
81-005671
JACKSONVILLE

JOHN S. PERADOTTI
ILLINOIS STRUCTURAL NO. 5671
EXPIRES: NOVEMBER 30, 2010

2-5-10
DATE

STATION 50+00.00
BUILT 201_ BY
STATE OF ILLINOIS
TR 230 SEC. (10-6)HBR-5
LOADING HL-93
STRUCTURE NO. 010-0288

NAME PLATE

See Std. 515001

DESIGNED	MEB
CHECKED	JSP
DRAWN	CJC
CHECKED	MEB

HR
HURST-ROSCHE ENGINEERS, INC.
PROFESSIONAL DESIGN NUMBER: 184-000258

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
20 SHEETS	74	(10-6)HBR-5	CHAMPAIGN	63	20
	SN 010-0288		CONTRACT NO. 70750		
	FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT		

D-95-007-09

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