

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
29R-T	29R-T	McHENRY	88	40
FED. ROAD DIST. NO. 1				
BALANCE				
FED. AID PROJECT				

CONTRACT NO. 62202

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications  
for Highway Bridges

**DESIGN STRESSES**

FIELD UNITS  
f'c = 24 MPa  
fy = 400 MPa (Reinforcement)  
fy = 250 MPa (Structural Steel)

**LOADING**

Live Load Traffic Surcharge = 11.5 kN/m<sup>2</sup>  
Fluid Lateral Soil Pressure = 6.3 kN/m<sup>3</sup>  
Parapet Impact Loading = 7.3 kN/m

**SEISMIC DATA**

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

**NOTES:**

- For Wall sections, see sheet SI-4
- For Utilities Locations & details see Roadway Plans.
- Lighting plans are being prepared by IDOT Dist. 1 and will be incorporated when made available.

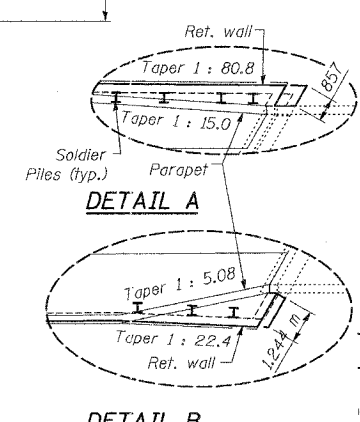
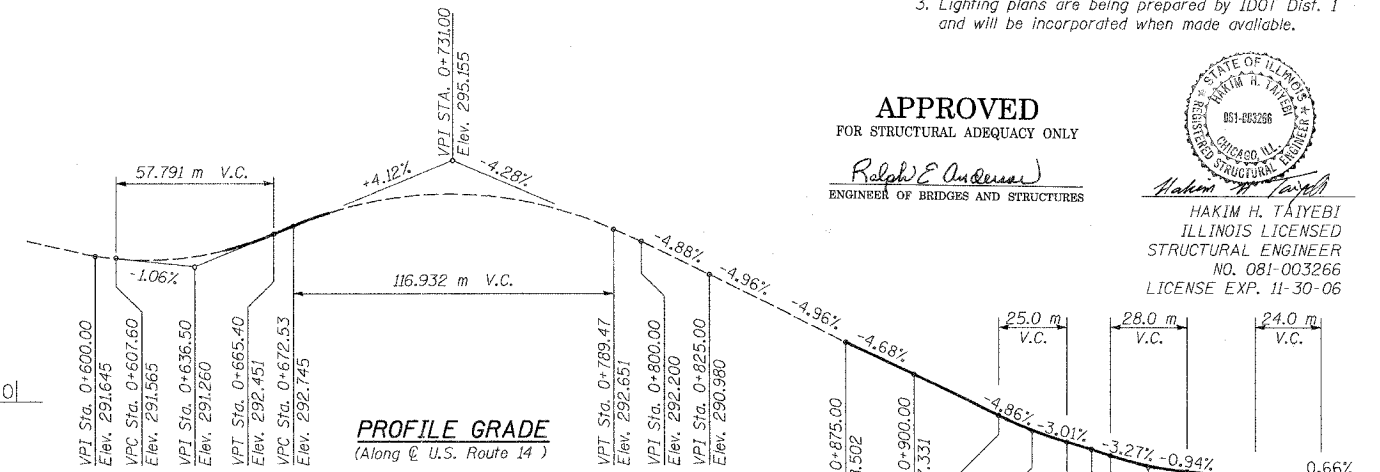
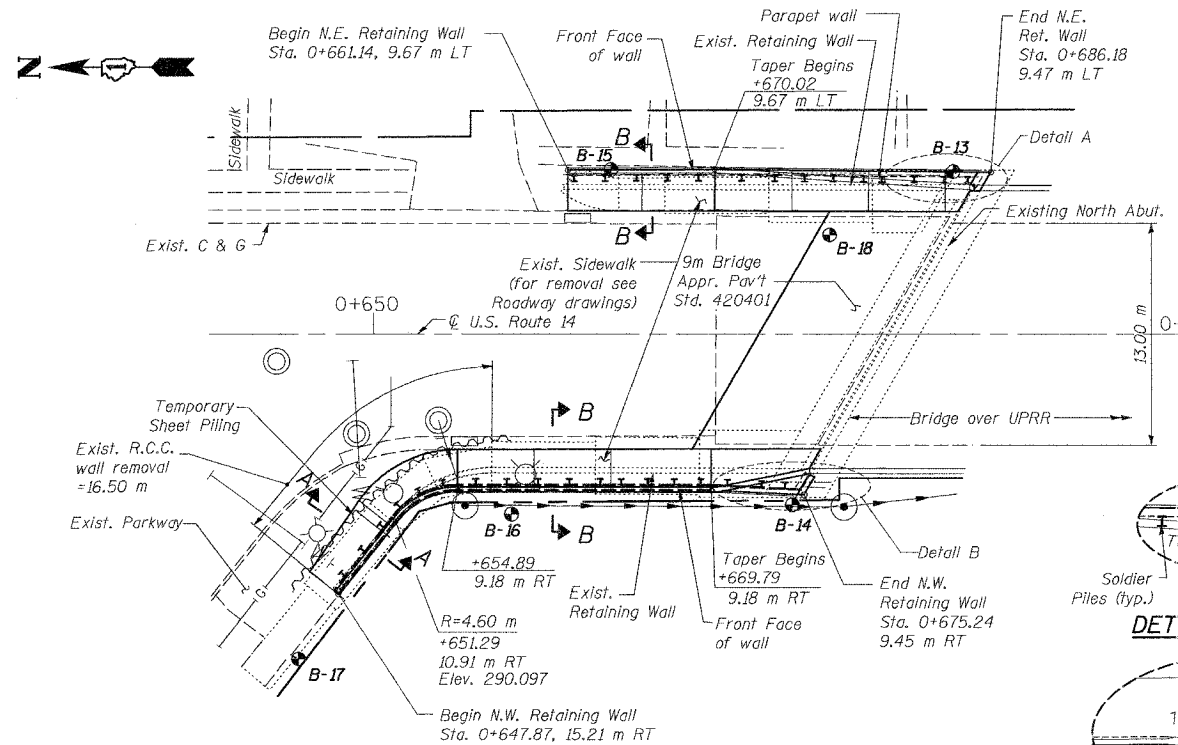
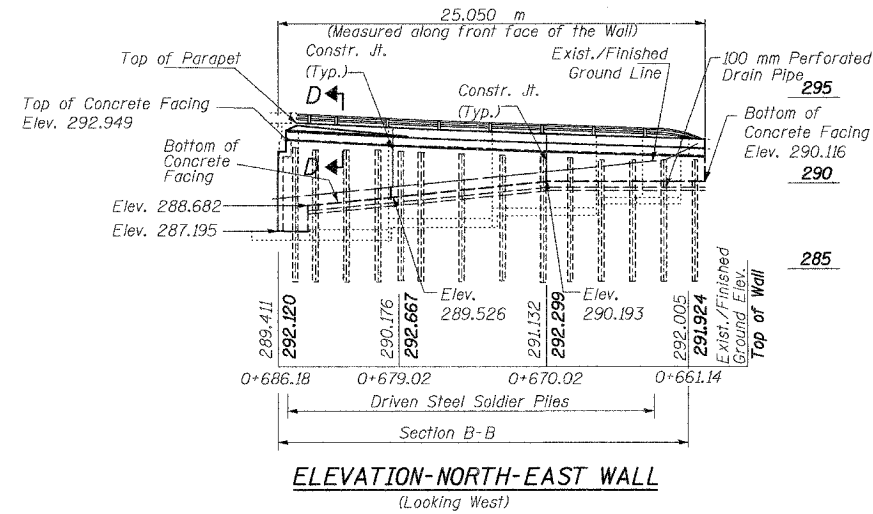
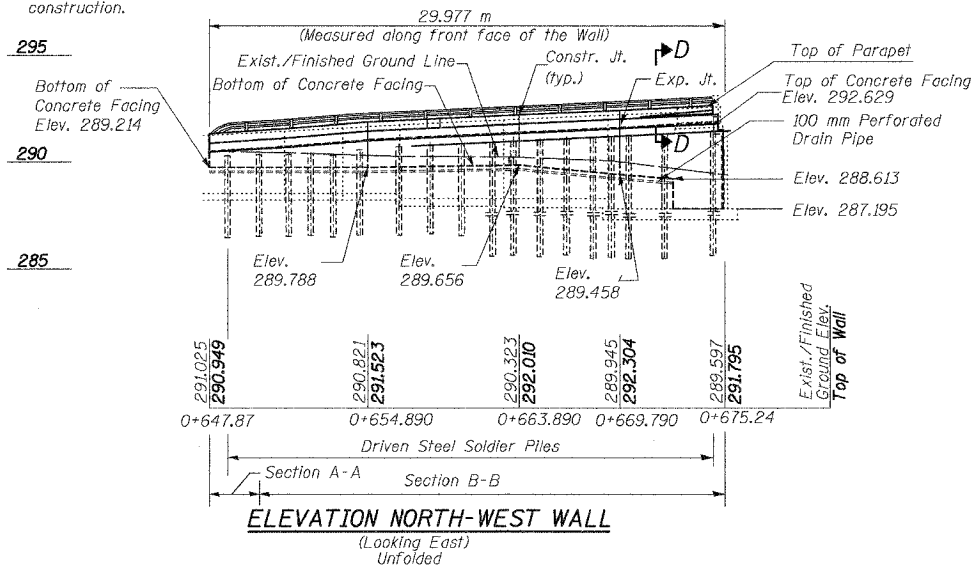
**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

*Hakim H. Tayebi*  
HAKIM H. TAYEBI  
ILLINOIS LICENSED  
STRUCTURAL ENGINEER  
NO. 081-003266  
LICENSE EXP. 11-30-06

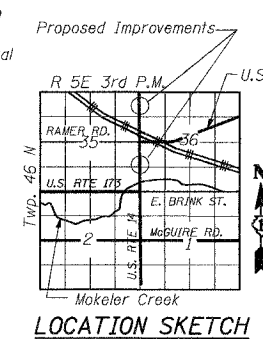
**Bench Mark:** At Harvard, one block E. of U.S. Highway 14 on State Highway 173, 14 m S., 11.6 m W. of, and 0.52 m Higher Than center of Cross Streets (Junction N. Hart and E. Diggins), 2.9 m S. and 0.46 m W. of NE, corner Grade School Parking Lot, in concrete post, Aluminum Tablet Stamped "51 A 1923 966" Painted R1 "966.3" Tablet Mutilated, Designation Re-Stamped) Elev. =294.508

**Existing Structure:** Reinforced concrete retaining walls were built in 1939 along the north and south approach pavement of bridge over UPRR. They are supported on spread footings and vary in height. The retaining walls have been previously repaired in 1984. Portions of remaining walls will be removed. New soldier piles with C.I.P. concrete facing to be constructed at all four quadrants of the bridge over UPRR. The road shall be kept open to one lane traffic in each direction at all times utilizing stage construction.

No Salvage.



- LEGEND**
- Exist. Light Pole
  - Exist. Fire Hydrant
  - Soil Boring Location
  - Existing Wall Removal
  - Exist. Catch Basin
  - Exist. Manhole
  - Prop. Manhole
  - Prop. Right of Way
  - Prop. S.S.
  - Exist. Gas Main
  - Exist. Water Main



**GENERAL PLAN & ELEVATION NORTH WALLS**  
U.S. 14 RETAINING WALLS AT MOKELER CREEK SECTION 29R-T McHENRY COUNTY STA. 0+647.90 TO STA. 0+982.78 AT STRUCTURE NO. 056-0007  
Date: February, 2005 Scale: None

DESIGNED J.S./R.A.  
CHECKED H.T./N.S.  
DRAWN J.S.  
CHECKED H.T./M.R.

**Soodan**  
Soodan & Associates, Inc.  
Civil, Mechanical, Electrical & Construction Consultants  
300 North LaSalle Street, Suite 2000  
Chicago, Illinois 60602  
Tel: 312/553-0003 Fax: 312/553-1006  
E-Mail: Transport@soodan.com