

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	99 (1&2) I-11	WILL	176	95
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**WATERWAY INFORMATION**

(Information taken from 2004 Exist. Plans for S.N. 099-0032)

Exist. Low Grade Elev.: 594.0 ft. @ Sta. 392+00

Drainage Area = 5.3 mi<sup>2</sup>

Flood	Frequency (Yr)	Q ft <sup>3</sup> /s	Opening (ft <sup>2</sup> )		Natural H.W.E. (ft)	Created Head (ft)		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	410	152	152	589.3	0.2	0.2	589.5	589.5
Base	50	700	155	155	589.4	0.5	0.5	589.9	589.9
Overtopping	100	850	157	157	589.5	0.8	0.8	590.3	590.3
Max Calc.	500	1440	163	163	589.8	1.9	1.9	591.7	591.7

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	Drilled Shaft 'DS1'	Drilled Shaft 'DS2'
	578.10	578.10

**BENCHMARK:**

BM 3166 Square and "X" cut in SE corner of west parapet wall of east frontage road bridge over Sunnlyland Drain creek and is about 10 inches above pavement. El. 594.42

**ADJACENT STRUCTURE INFORMATION:**

S.N. 099-0032 One span, 22'-9" back to back of abutments, reinforced slab on abutments walls. 36'-2" between barriers. The substructure was originally constructed in 1959. The superstructure was replaced in 2005.

**SALVAGE:**

None.

**DESIGN SPECIFICATIONS:**

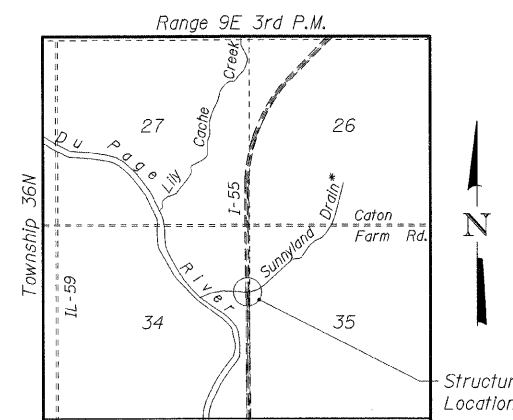
AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002.  
AASHTO Guide Specification for Structural Design of Sound Barrier

**DESIGN LOADING:**

Wind Load On Noise Abatement Wall: 35 psf  
Noise Wall Weight ≤ 55 psf of wall face area

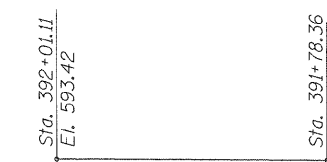
**DESIGN STRESSES:**

Concrete, f'c = 3,500 psi (Concrete Beam)  
Concrete, f'c = 4,000 psi (Drilled Shafts)  
Reinforcement, fy = 60,000 psi



**LOCATION MAP**

\* "Public Waters"



**GRADE (EXIST.)**

Along front face of bridge west parapet (Elevations based off of survey data)

**LEGEND**

- ◆ NW3-44 Soil Boring Location
- x - x - Exist. Fence
- Exist. Guardrail

**NOTES:**

1. Stations and offsets are measured from the East Frontage Road (Exist.) to the Noise Abatement Wall 3.
2. F.F. denotes front face.
3. See Sht. S-2 for Index of Sheets.

**SHT. S-1 OF S-6**

REVISIONS	
NAME	DATE

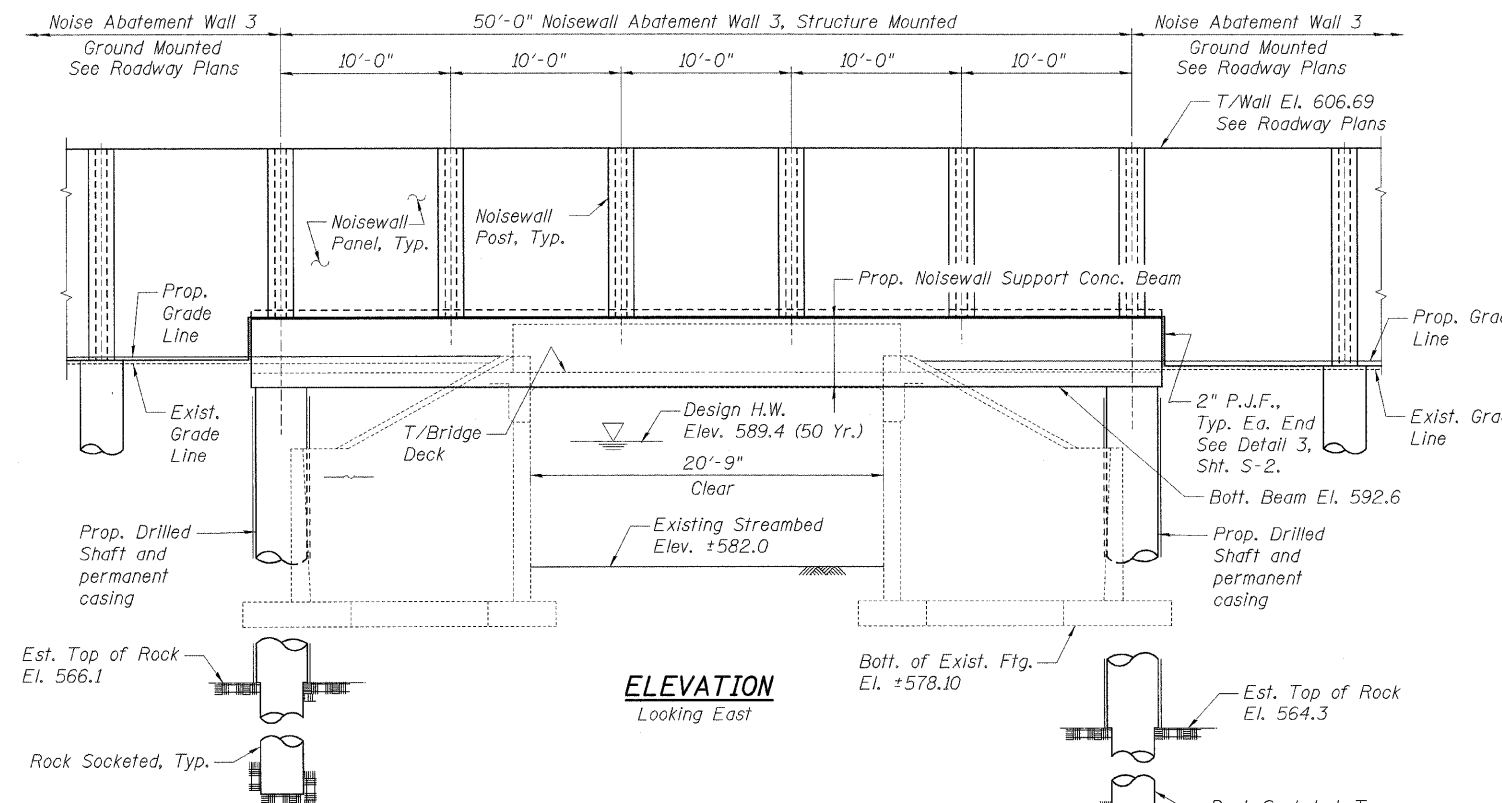
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55 (BLACK ROAD TO U.S. ROUTE 30)  
NOISE ABATEMENT WALLS  
NOISE WALL OVER SUNNLYLAND DRAIN AT EAST FRONTAGE ROAD  
S.N. 099-0032, STA. 391+89.74, SECTION 99 (1&2) I-11  
WILL COUNTY

**GENERAL PLAN & ELEVATION**

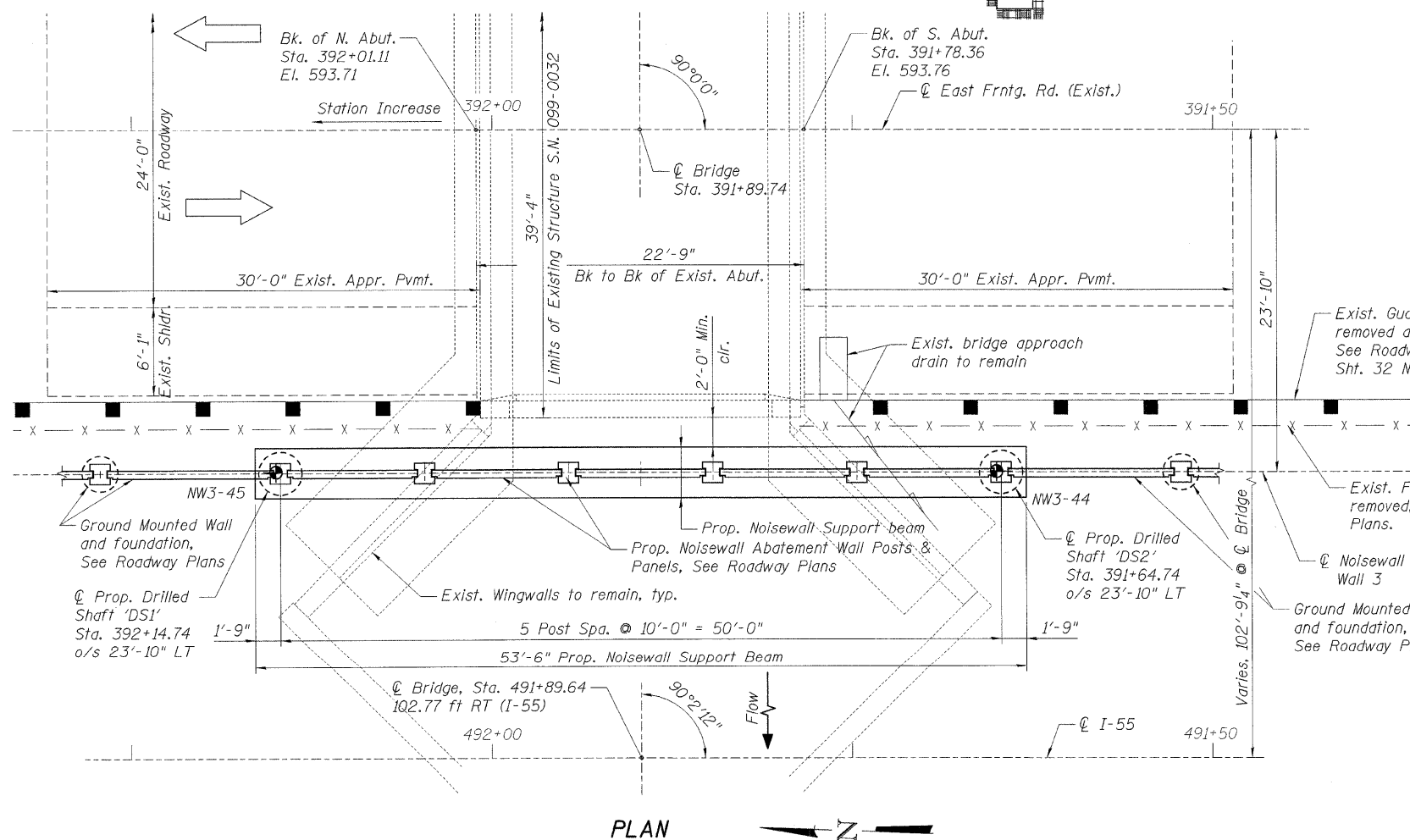
SCALE: DRAWN BY BJK  
DATE 02/06/09 CHECKED BY MJK

**TENG**

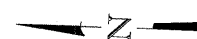
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS



**ELEVATION**  
Looking East



**PLAN**



PLOT DATE = #DATES  
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 USER NAME = #USER#

