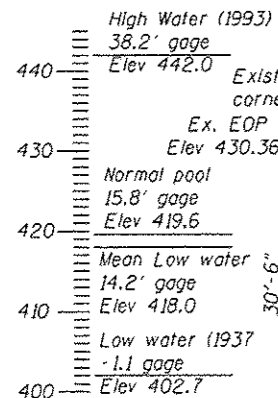


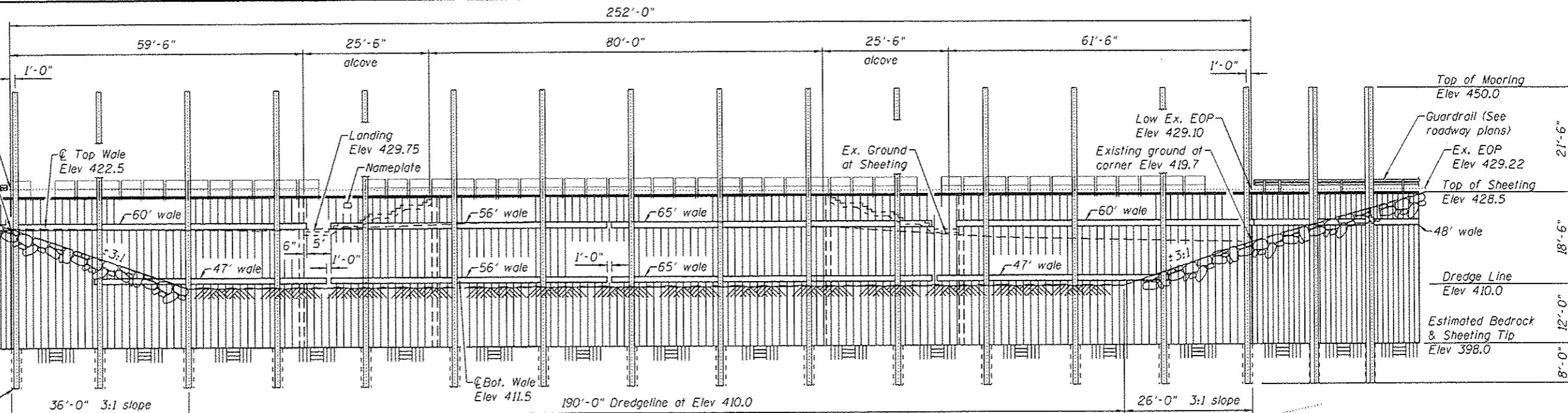
**BENCHMARK**

TBM RR spike driven in SE side of powerpole 1' above ground on north side of IL 100 across from ferry office Elev 432.660 (NGVD29)

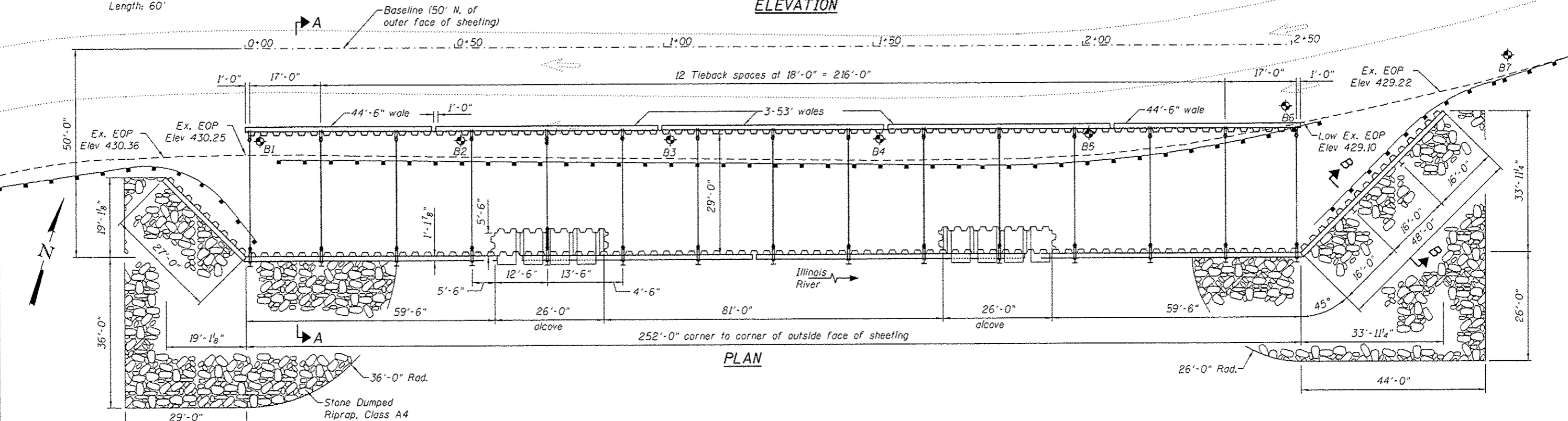


Gages are from Grafton Gage Station (Gage 0 = Elev 403.79)

HP14x89 mooring piles  
Tip Elevation 390.0  
Length: 60'



**ELEVATION**



**PLAN**

**GENERAL NOTES**

- All walers and mooring soldier piles are HP 14x89. Splices in mooring soldier piles will not be allowed. Field welded splices are allowed in the walers, as approved by the Engineer. Splices are required at both wingwall corners of the top wale.
- Sheeting horizontal dimensions, alcove dimensions, closure channel size, and tieback spacings are based on sheeting sections assumed to be 12" wide and 18" long. These may be adjusted based on the actual chosen sheeting section selected by the Contractor.
- The retaining wall and tieback sheeting shall have a minimum published section modulus of 28.0 cu.in./ft.
- See sheet 2 for Section A-A and B-B.



BRUSSELS FERRY HARBOR  
BUILT 2015 BY  
STATE OF ILLINOIS  
F.A.P. 304, SEC 21-5  
STATION 1155+00  
STRUCTURE NO. 042-W001

**NAME PLATE**  
See Sid. 515001

EXPIRES 11-30-2014

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

**DESIGN LOADING**

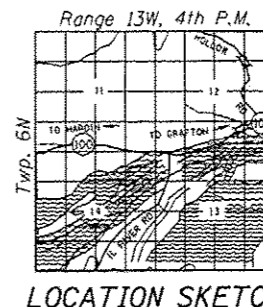
**SHEET PILING** 32 pcf Equivalent Fluid Pressure  
**STAIRWAY** Live Load = Greater of 100psf uniform load or a 300 lb. concentrated load. Maximum deflection = 1/4"

**DESIGN STRESSES**

**SHEET PILING & STRUCTURAL STEEL** fy = 50,000 psi AASHTO M270, Grade 50  
**ANCHOR RODS** Fu = 150,000 psi ASTM A722

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Channel Excavation	Cu. Yd.	3,927
Stone Dumped Riprap, Class A4	Sq. Yd.	589
Furnishing & Erecting Structural Steel	Pound	97,070
Concrete Structures	Cu. Yd.	8.5
Reinforcement Bars, Epoxy Coated	Pound	770
Furnishing Steel Piles HP14x89	Foot	1,020
Name Plates	Each	1
Porous Granular Embankment, Special	Cu. Yd.	2,550
Permanent Steel Sheet Piling	Sq. Ft.	14,609
Setting Piles In Rock	Each	17
Fiberglass Reinforced Polyester Rolling	Foot	313
F.R.P. Stair and Grating System	Sq. Ft.	351



DESIGNED - John Uahle	EXAMINED - [Signature]	DATE - SEPTEMBER 18, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND ELEVATION 042-W001 SHEET NO. 1 OF 5 SHEETS	F.A.P. RTE. 304	SECTION 21-5	COUNTY JERSEY	TOTAL SHEETS	SHEET NO.
CHECKED - Bill Kramer	PASSED - [Signature]	REVISED						20	10
DRAWN - John Uahle	REVISED								
CHECKED - Bill Kramer									

ILLINOIS FED. AID PROJECT