

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAP 773 IL 121	(108BR-3) 31B-1	CUMBERLAND	96	36	22 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-			

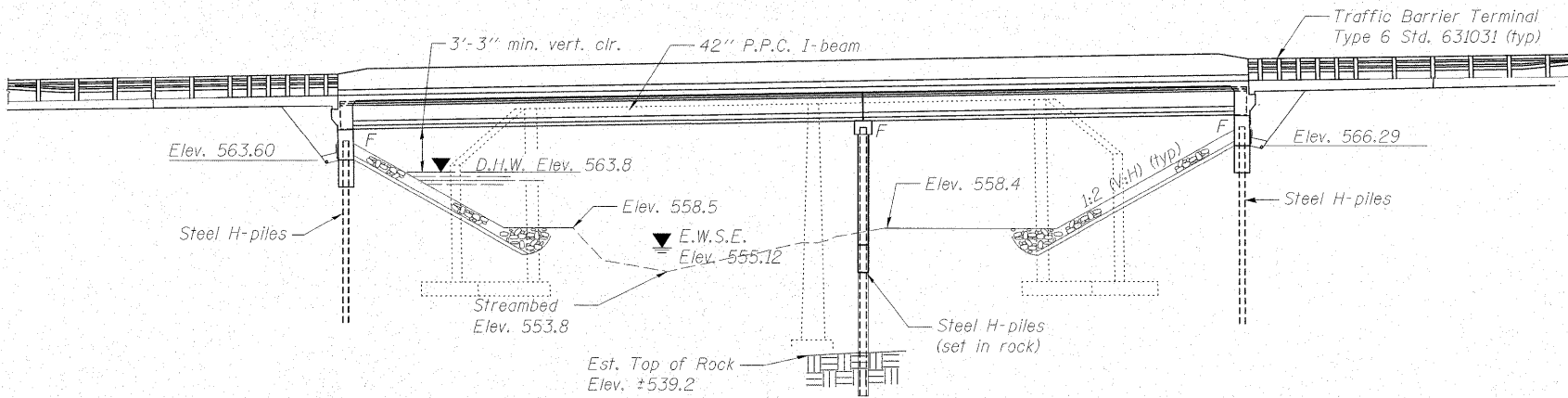
Contract # 74237

Bench Mark #318- Brass Disk in top of concrete curb in southwest corner of structure (S.N. 018-0029) station 399+00, 17' Rt., Elev. 570.56.

Existing Structure- S.N. 018-0029; Built in 1928 as S.B.I. 131 Section 108-B at Station 399+38.

Original structure is a 2-span reinforced concrete deck girder supported by closed concrete abutments and a concrete solid shaft pier on spread footings. The structure was reconstructed in 1980 as FA 773, Section 108BR-3. The substructure was partially removed and widened and the superstructure was replaced and widened using PPC deck beams, 75.54' bk. to bk. abutments, 33'-0" out to out of deck. Structure is to be removed and replaced with a 2-span 42" PPC I beam bridge on integral abutments. One lane traffic is to be maintained using stage construction.

No Salvage-



ELEVATION

STATION 399+34.00
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RTE. 773 SEC. (108BR-3)B-1
LOADING HL93
STRUCTURE NO. 018-0062

NAME PLATE
See Std. 515001

INDEX OF SHEETS

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- 21 Bar Splicer Assembly Details
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DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications - 4th ed.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

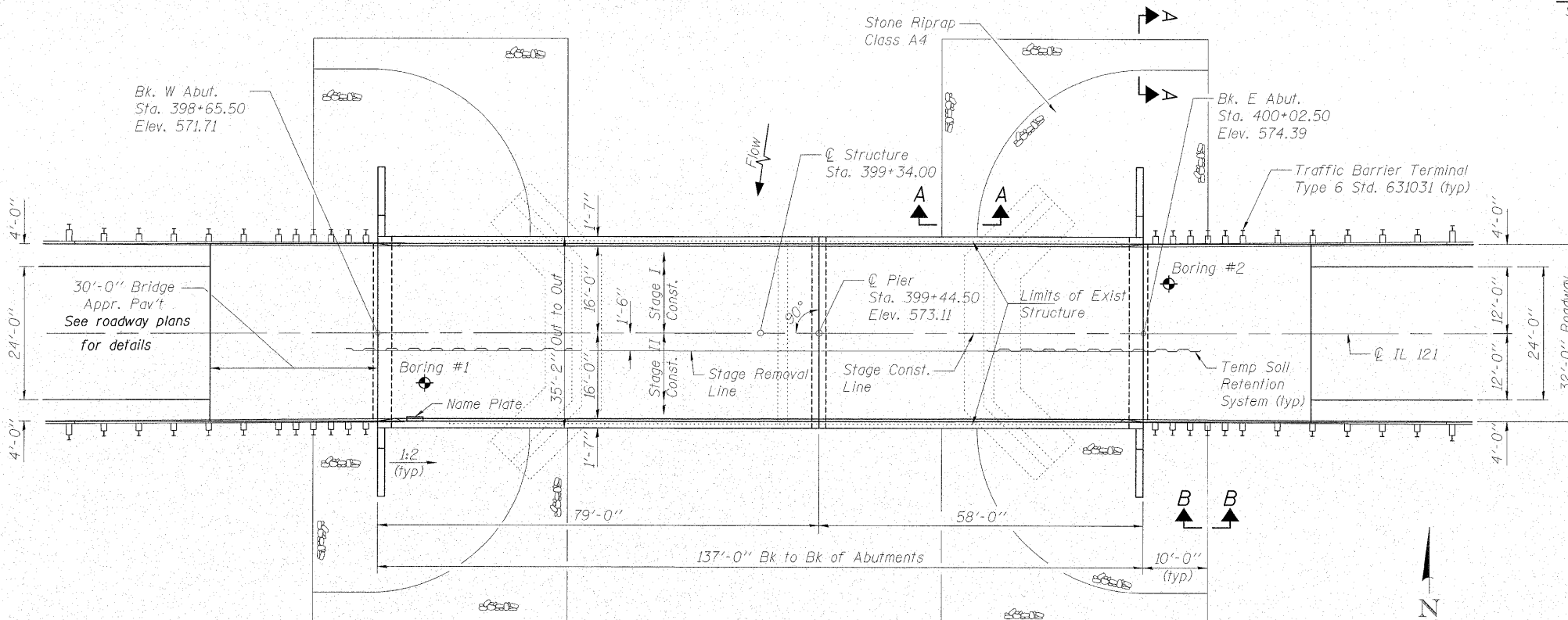
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

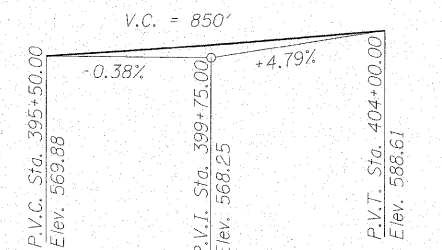
$f'_c = 7,000$ psi
 $f'_{ci} = 6,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ low lax strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.067 g
Site Coefficient (S) = 1.5



PLAN



PROFILE GRADE
(along ϕ roadway)



DESIGNED - BAS
CHECKED - KEF
DRAWN - LAD
CHECKED - RJA



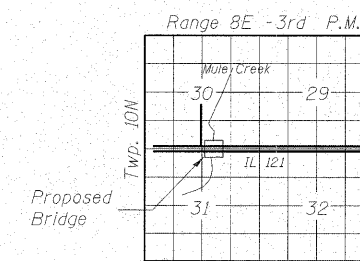
Kristen E. Fields
Date Signed: 1-12-09
Exp. Date: 11-30-10

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier	E. Abut.
	563.6	543.8	566.3

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL ROUTE 121 OVER MULE CREEK
F.A.P. RTE. 773 - SECTION (108BR-3)B-1
CUMBERLAND COUNTY
STATION 399+34.00
STRUCTURE NO. 018-0062