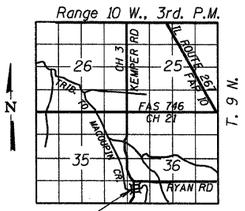
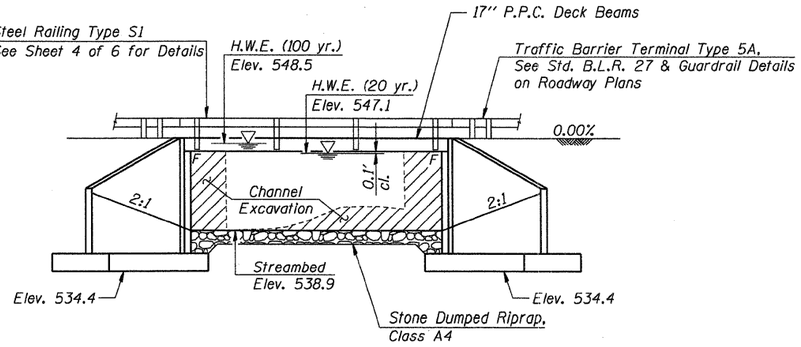
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 3	06-00052-00-BR	JERSEY	18	6

SHEET 1 OF 6 CONTRACT NO. 97359

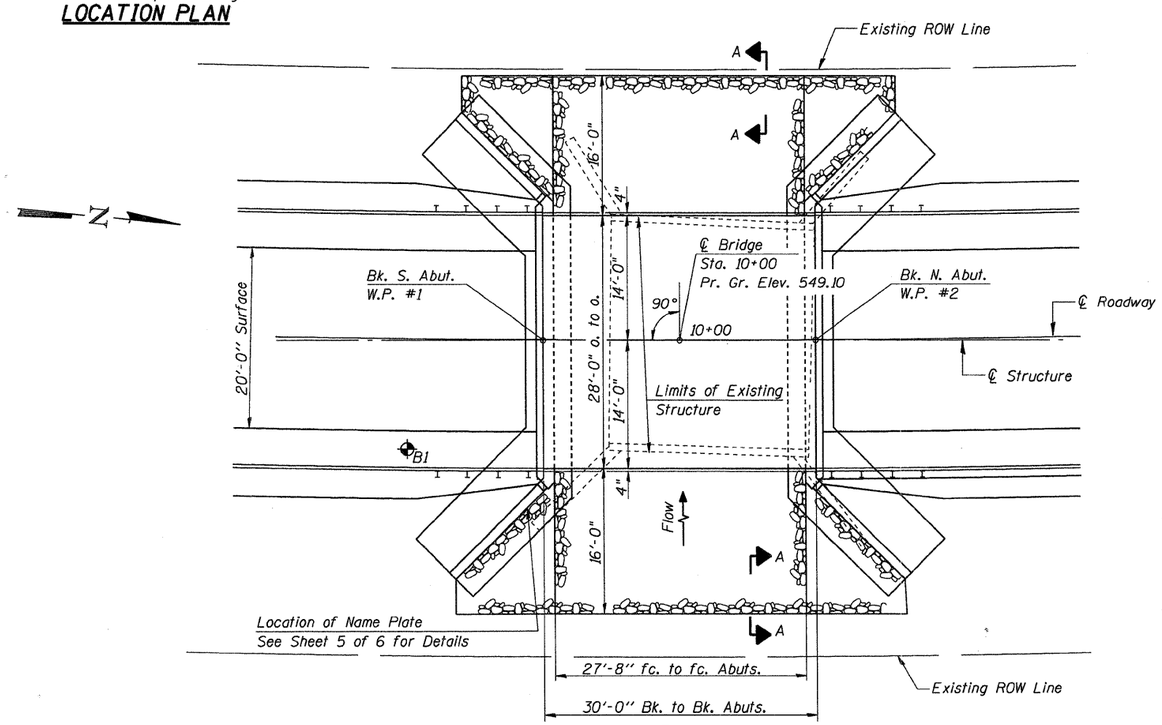
EXISTING STRUCTURE NO. 042-4011
STA 10+00 SINGLE SPAN CONCRETE SLAB
BRIDGE ON CLOSED CONCRETE ABUTMENTS
20.1' FC-FC ABUTMENTS
24.75' FC-FC HANDRAILS
NO SKEW
REMOVAL OF EXISTING STRUCTURES = 1 EACH



LOCATION PLAN



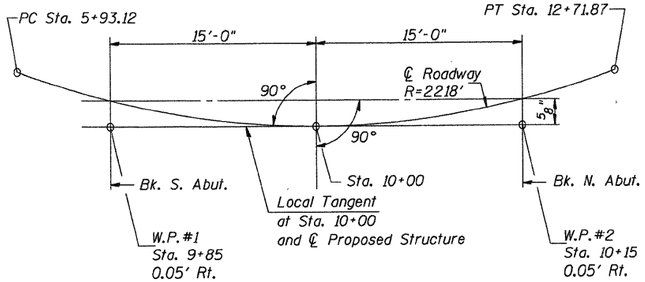
ELEVATION



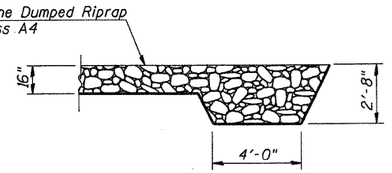
PLAN

TRIBUTARY TO MACOUPIN CREEK
BUILT 20__ BY
JERSEY COUNTY
SEC. 06-00052-00-BR
COUNTY HIGHWAY 3
F.A. PROJ. BROS-0083(045)
STR. NO. 042-3147 LOADING HL93

LETTERING FOR NAME PLATE
See Std. 515001



OFFSET LAYOUT SKETCH



SECTION A-A
FLANK STONE RIPRAP DETAIL

GENERAL NOTES

See Special Provisions for Boring data.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

No backfill or embankment shall be placed behind the abutments until the deck beams are in place, dowels are grouted and backwalls are poured. See Article 502.10 of the Standard Specifications.

The back face of abutments and wingwalls shall be waterproofed according to Article 503.18 of the Standard Specifications.

Maximum Soil Pressure Under Footing Q Max = 4.000 psf

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
*	Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	840		840
	Concrete Structures	Cu. Yd.		118.2	118.2
*	Reinforcement Bars	Pound		8480	8480
*	Reinforcement Bars, Epoxy Coated	Pound		1980	1980
	Steel Railing, Type S1	Foot	60		60
	Name Plates	Each		1	1
	Stone Dumped Riprap, Class A4	Ton		220	220
	Structure Excavation	Cu. Yd.		460	460
*	Porous Granular Embankment, Special	Cu. Yd.		106	106
	Geocomposite Wall Drain	Sq. Yd.		60	60
*	Underwater Structure Excavation Protection - Location 1 (S. Abut.)	Each		1	1
*	Underwater Structure Excavation Protection - Location 2 (N. Abut.)	Each		1	1

* See Special Provisions

WATERWAY INFORMATION

Drainage Area	1.1 Sq. Mi.
Existing Opening (20 Yr.)	112 Sq. Ft.
Proposed Opening (20 Yr.)	227 Sq. Ft.
Existing Opening (100 Yr.)	112 Sq. Ft.
Approach Opening (100 Yr.)	138 Sq. Ft.
Proposed Opening (100 Yr.)	227 Sq. Ft.
Design Discharge (20 Yr.)	1050 C.F.S.
Created Head (20 Yr.)	0.0 Ft.
100 Year Discharge	1600 C.F.S.
100 Yr. Created Head	0.3 Ft.

DESIGNED	A.A.N.
CHECKED	T.S.H.
DRAWN	A.J.H
CHECKED	M.D.C.

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi ($\frac{1}{2}$" ϕ low lax. strands)
f_{pbt} = 201,960 psi ($\frac{1}{2}$" ϕ low lax. strands)
f_y = 60,000 psi (Reinforcement)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with 2008 Interims
Allow 50#/Sq. Ft. for future wearing surface.

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges'".

Michael D. Cummins (10-16-2008)
ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/10)

LICENSED STRUCTURAL ENGINEER
MICHAEL D. CUMMINS
4822
SPRINGFIELD
STATE OF ILLINOIS

GENERAL PLAN & ELEVATION

CH 3 (KEMPER ROAD)
OVER TRIBUTARY TO MACOUPIN CREEK
SECTION 06-00052-00-BR
JERSEY COUNTY
STA. 10+00
S.N. 042-3147

CUMMINS ENGINEERING CORPORATION

JOB #: 2202
FILE: 2202gpe.dgn
DATE: 10/16/2008