

Bench Mark: Square cut in center of 13' Headwall.
21' West of IL Route 59, North of Sunrise
Drive. Elevation 598.12.

Existing Structure: Single Reinforced Concrete Box
Culvert, 14' wide by 10' high by 92'-6"
long. To be removed and replaced with
the road open to two (2) lanes of
traffic at all times by utilizing Staged
Construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provision.
2. Reinforcement Bars designated (E) shall be epoxy coated.
3. A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the horizontally cantilevered wingwalls.
4. All construction joints shall be bonded.
5. For backfilling and embankment, see Standard Specifications.
6. Exposed concrete edges shall have a standard 3/4" chamfer unless otherwise noted.
7. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

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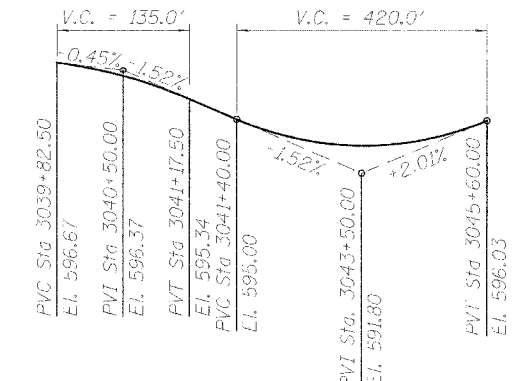
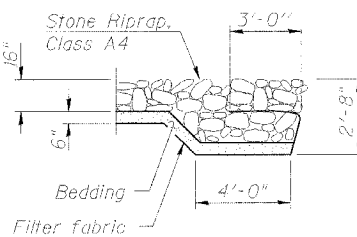
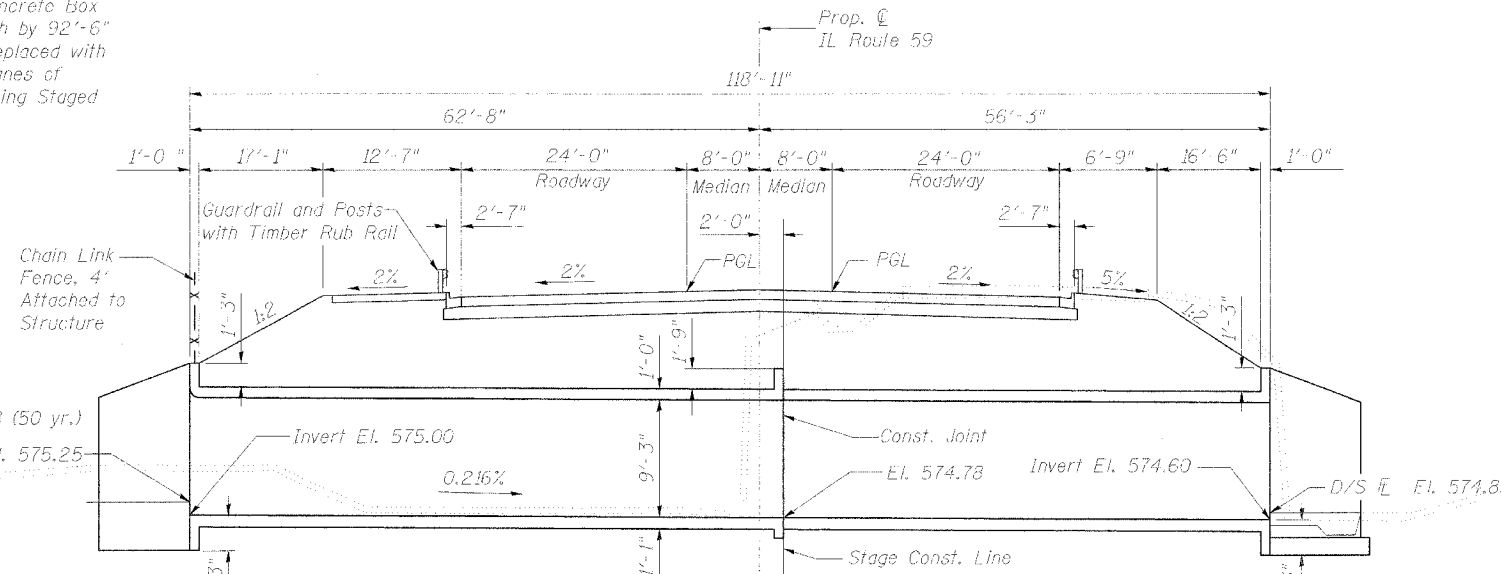
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- SI-2 CONSTRUCTION STAGING
- SI-3 CULVERT BOTTOM SLAB PLAN
- SI-4 CULVERT TOP SLAB PLAN
- SI-5 CULVERT SECTIONS AND DETAILS
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PROJECT NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. SI-1
114R-1	WILL	355	259	9	SHEETS

Contract # 62416

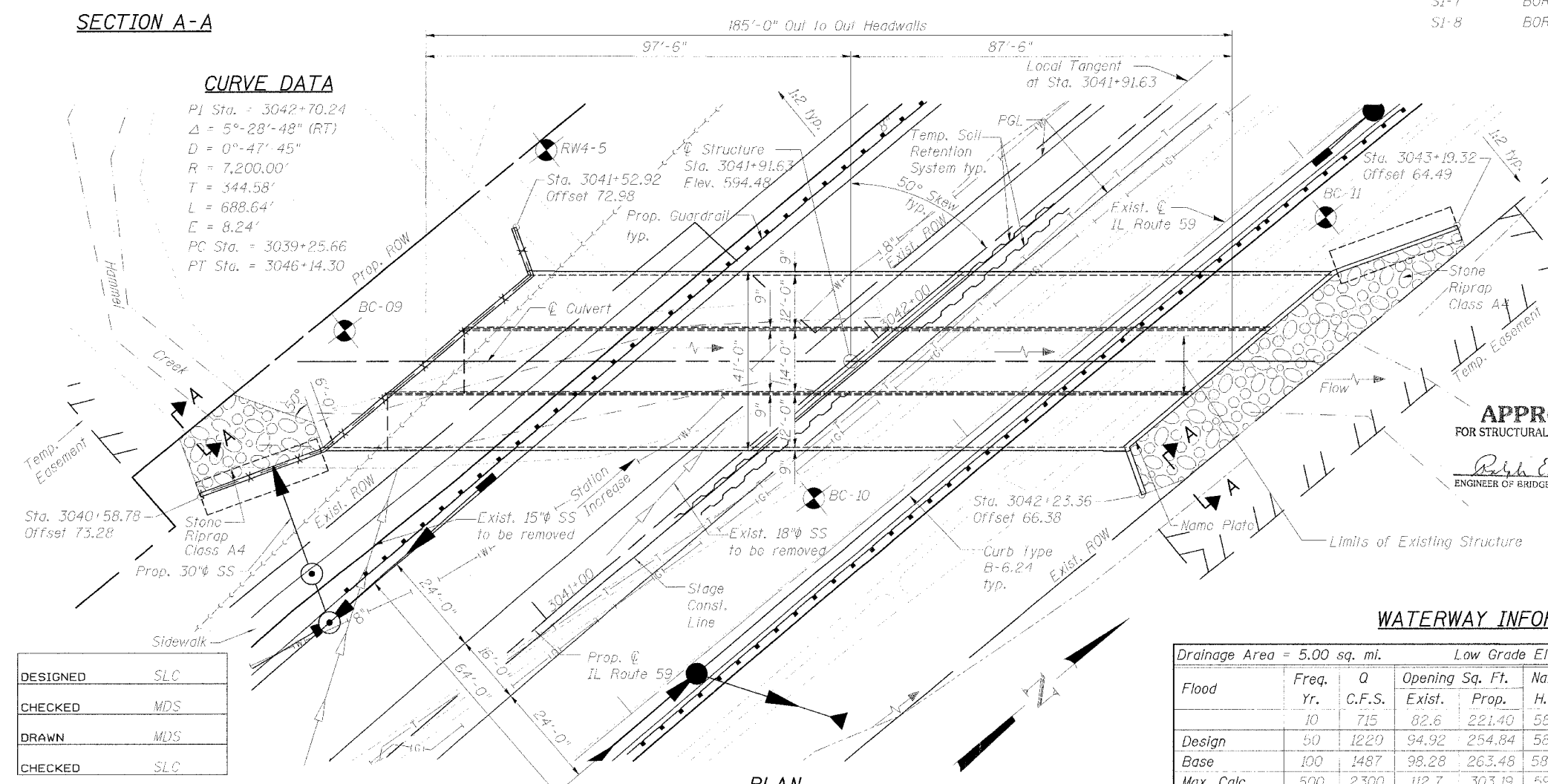
TOTAL BILL OF MATERIAL

Item	Unit	Total
Stone Riprap, Class A4	Sq. Yd.	180
Filler Fabric	Sq. Yd.	240
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	166,890
Reinforcement Bars, Epoxy Coated	Pound	1420
Bar Splicers	Each	212
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	860.4
Chain Link Fence, 4' Attached to Structure	Foot	104
Temporary Soil Retention System	Sq. Ft.	1228



CURVE DATA

PI Sta. = 3042+70.24
Δ = 5°-28'-48" (RT)
D = 0°-47'-45"
R = 7,200.00'
T = 344.58'
L = 688.64'
E = 8.24'
PC Sta. = 3039+25.66
PT Sta. = 3046+14.30



DESIGN SPECIFICATIONS

AASHTO 2002 "Standard Specifications for Highway Bridges".

LOADING HS20-44

Allow 50 lb/sq ft for future wearing surface.

DESIGN STRESSES

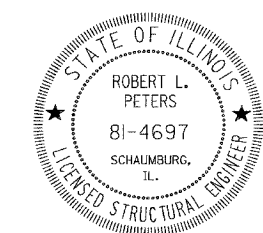
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

STATION 3041+91.63
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 338 SEC. 114R-1
LOADING HS20
STR. NO. 099-4660

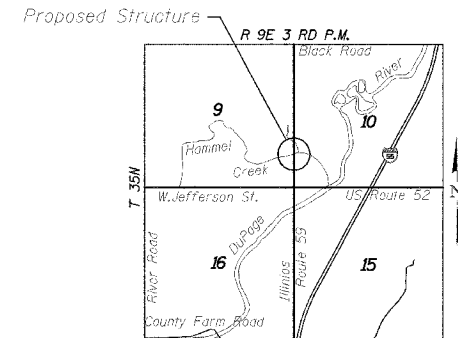
NAME PLATE

See Std. 515001

APPROVED
FOR STRUCTURAL ADEQUACY ONLY



Robert L. Peters, P.E., S.E.
NO. 081-04697
EXP. DATE 11/30/08



WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.		Head-Ft.		Headwater Et.	
			Exist.	Prop.	H.W.E.	Head-Ft.	Exist.	Prop.	Exist.	Prop.
Design	10	715	82.6	221.40	581.30	1.12	0.00	582.25	581.30	
Base	50	1220	94.92	254.84	582.18	2.62	0.00	581.80	582.18	
Max. Calc.	100	1487	98.28	263.48	582.42	3.70	0.15	586.12	582.57	
	500	2300	112.7	303.19	590.17	6.72	0.79	590.17	584.24	

DESIGNED	SLC
CHECKED	MDS
DRAWN	MDS
CHECKED	SLC

GENERAL PLAN

IL ROUTE 59 OVER HAMMEL CREEK
F.A.P. ROUTE 338 SECTION 114R-1
WILL COUNTY
STATION 3041+91.63
STRUCTURE NO. 099-4660

