

BENCHMARK:
 "M" in Mueller on Fire Hydrant at Private Road Southwest of Bridge. Elev. 100.00

EXISTING STRUCTURE:
 Three Span Concrete Deck Beam Bridge on Pile Bent Abutments and Piers.
 52'-0" O.-O. Deck, 137'-6" Bk.-Bk. Abutments.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 7359/09-00702-00-BR		MACON	12	4
FED. ROAD DIST. NO.	ILLINOIS PROJECT	BHM-5169(37)		
		CONTRACT NO. 95512		

GENERAL NOTES

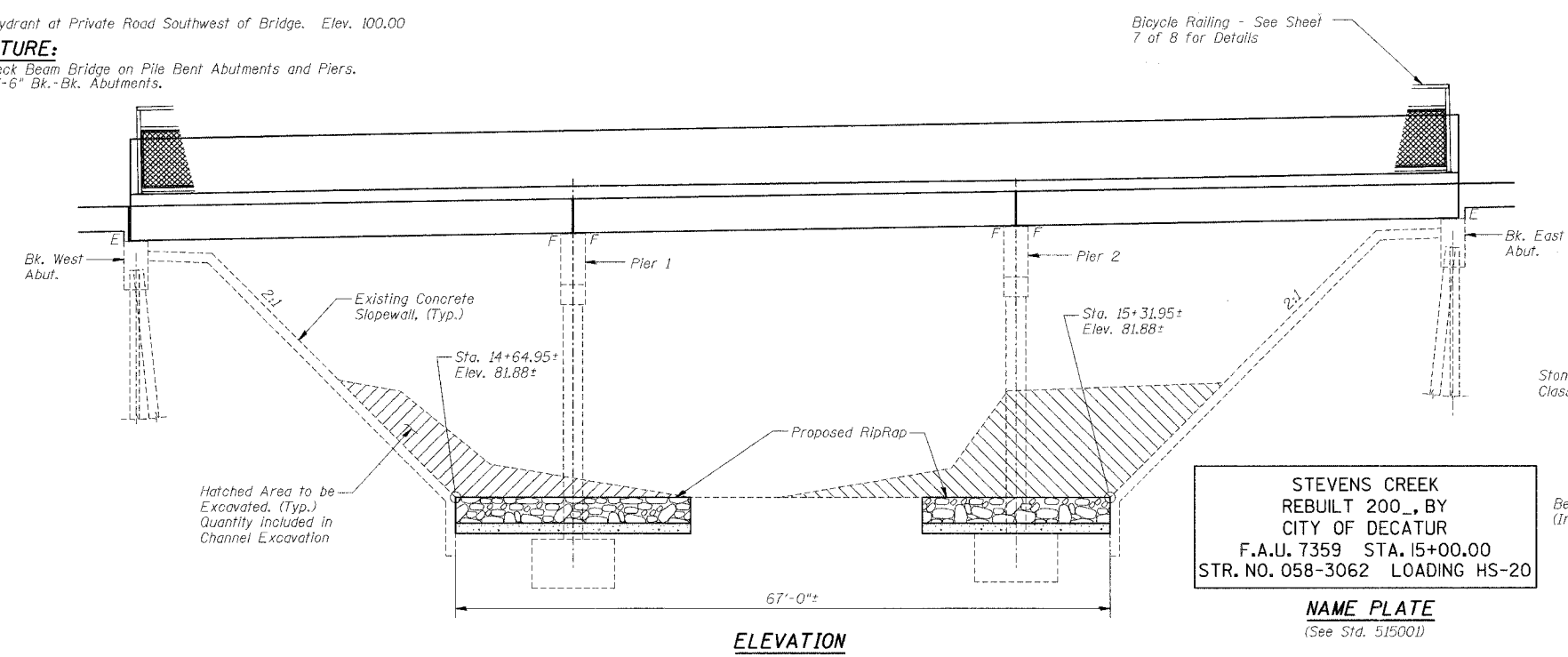
Layout of Riprap may be varied in the field to suit ground conditions as directed by the Engineer.

Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M-322, Grade 60.

The area between the bottom of the beams and the top of the caps shall be filled with non-shrink grout to prevent the beams from rocking.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		370	370
Stone Riprap, Class A4	Sq. Yd.		294	294
Filter Fabric	Sq. Yd.		294	294
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		0.5	0.5
Concrete Structures	Cu. Yd.		0.6	0.6
Concrete Superstructure	Cu. Yd.	16.0		16.0
Concrete Wearing Surface	Cu. Yd.	123		123
Strip Seal Expansion Joint Assembly	Foot	102		102
Protective Coat	Sq. Yd.	867		867
Polymer Modified Portland Cement Mortar	Sq. Yd.		4.7	4.7
Epoxy Crack Injection	Foot		3.5	3.5
P.P.C. Deck Beams (21" Depth)	Sq. Ft.	6936		6936
Reinforcement Bars, Epoxy Coated	Pound	11730	40	11770
Steel Railing, Type SM	Foot	137		137
Name Plates	Each	1		1
Bicycle Railing	Foot	137		137



STEVENS CREEK REBUILT 200... BY CITY OF DECATUR
 F.A.U. 7359 STA. 15+00.00
 STR. NO. 058-3062 LOADING HS-20
NAME PLATE
 (See Std. 515001)

DESIGN SPECIFICATIONS
 2002 AASHTO

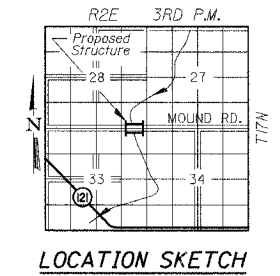
LOADING HS20-44

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.
 $n = 9$

PPC UNITS
 $f'_ci = 4,000$ p.s.i.
 $f'_c = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i.
 $f'_si = 189,000$ p.s.i.

CONCRETE WEARING SURFACE
 $f'_c = 5,000$ p.s.i.



WATERWAY INFORMATION

Drainage Area = 49.9 Sq. Mi. Existing Low Grade Elev. 97.29 @ Sta. 14+31.84
 Proposed Low Grade Elev. 97.42 @ Sta. 14+00.00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head-Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	30	4,577	771	939	93.21	0.51	0.13	93.72	93.34
Base	100	5,736	863	1,040	93.98	0.67	0.35	94.65	94.33
Overlapping									
Max. Calc.	500	7,473	1,051	1,249	95.05	1.50	1.32	96.55	96.37

Low Beam Elev. (Prop.) = 94.71



DATE: March 29, 2007

Keith W. Benting
 KEITH W. BENTING
 ILL. STRUCTURAL NO. 4777

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'.

GENERAL PLAN AND ELEVATION

Date	Designed DCS	F.A.U. 7359 (MOUND RD.) OVER STEVENS CREEK CITY OF DECATUR STA. 15+00.00 PROP. STR. NO. 058-3062	Sheet No.
Revisions	Drawn BKN		1
	Checked TDN		
	Approved KWB		
			of 8
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		URS Job No. 36431697

