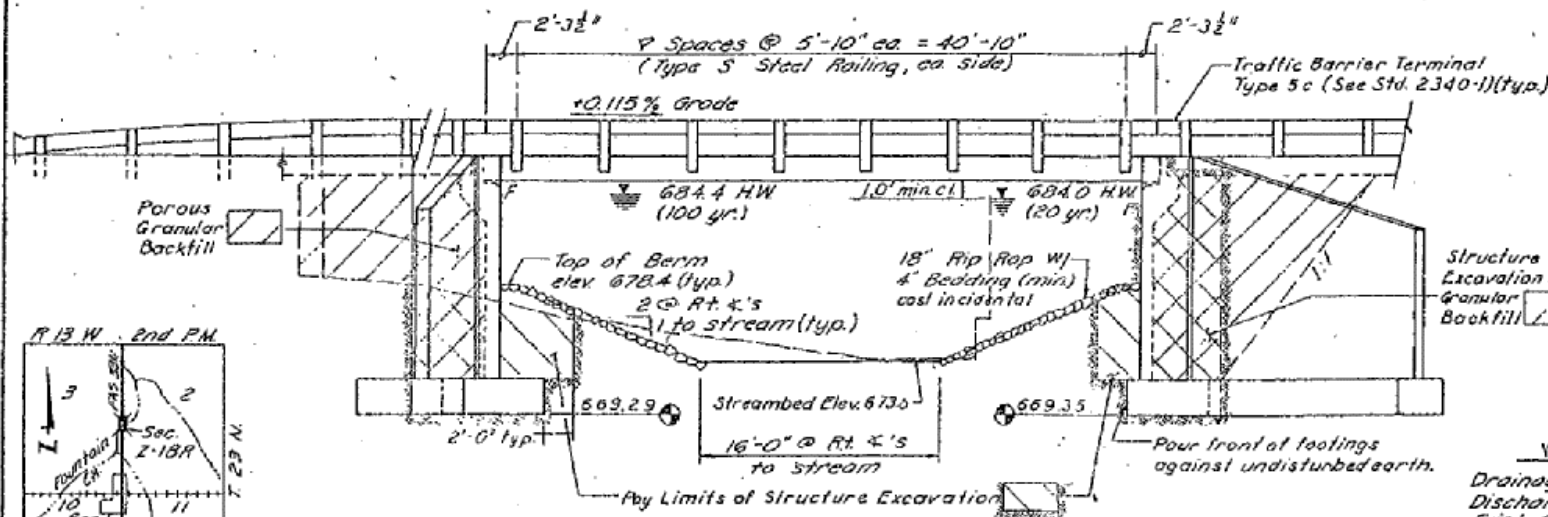
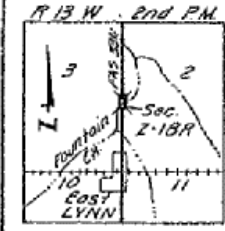


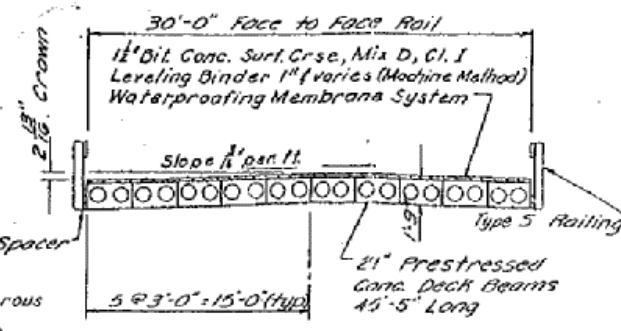
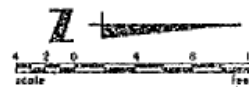
Bench Mark: E. End of W. Headwall  
 Lt. Sta. 23+81.2  
 Elev. 687.89



**ELEVATION**



LOCATION SKETCH



**ROADWAY CROSS SECTION**

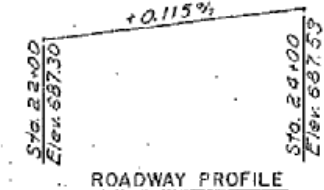
**WATERWAY INFORMATION**

Drainage Area	11.8 Sq. Mi.
Discharge (Design Flood 20 yr.)	1720 c.f.s.
Exist. Opening (Below 20 yr. HWIE)	327 Sq. Ft.
Required Opening (Below 20 yr. HWE)	330 Sq. Ft.
Prop. Opening (Below 20 yr. HWE)	333 Sq. Ft.
Created Head for Design Flood	0.25 ft.
100 yr. Discharge	2510 c.f.s.
Created Head for 100 yr. Flood	0.66 ft.

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c$	= 3500 psi.
$f_y$	= 60,000 psi.
$n$	= 30



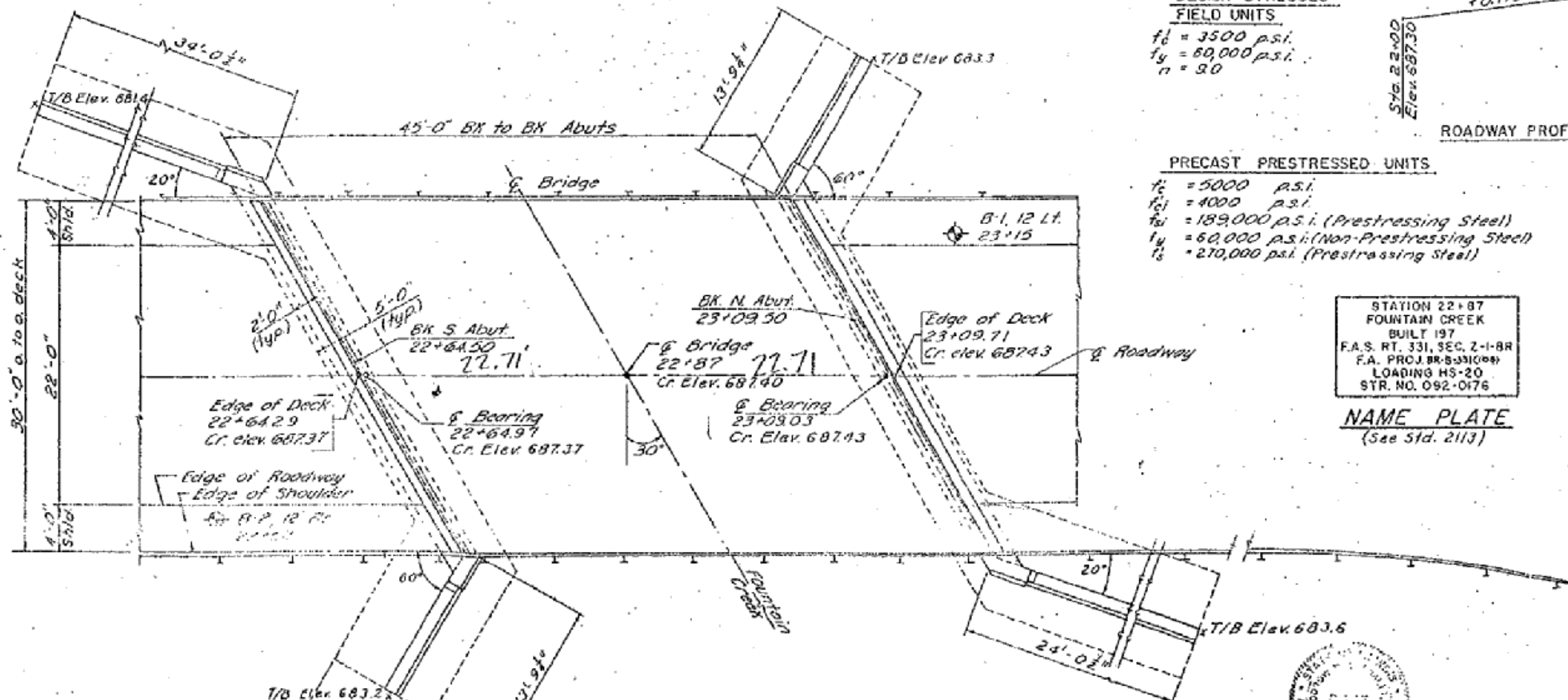
ROADWAY PROFILE

**PRECAST PRESTRESSED UNITS**

$f'_c$	= 5000 psi.
$f'_c$	= 4000 psi.
$f_y$	= 189,000 psi. (Prestressing Steel)
$f_y$	= 60,000 psi. (Non-Prestressing Steel)
$f_s$	= 210,000 psi. (Prestressing Steel)

STATION 22+87  
 FOUNTAIN CREEK  
 BUILT 197  
 F.A.S. RT. 331, SEC. 2-1-BR  
 F.A. PROJ. BR. 331000  
 LOADING HS-20  
 STR. NO. 092-0176

**NAME PLATE**  
 (See Std. 2113)



**NOTES:**

- The "State of Illinois Standard Specification for Road & Bridge Construction" adopted July 1, 1976, and latest revisions shall apply.
- Concrete: Class X concrete shall be used throughout except for precast units. See the applicable specs for concrete requirements for precast units.
- Backfill behind abutments shall not be placed until precast beams have been dowelled into place. See Article 502.11 of the Standard Specifications.
- See Special Provisions for soil boring logs.

**EXISTING STRUCTURE**

Sta. 22+81.88 Span @ 45', Concrete slab bridge with concrete rails, closed abutments and wingwalls. The bridge contractor shall remove existing structure in accordance with Section 501 of the Standard Specifications. All materials are considered non-salvageable under this contract, except that broken concrete which meets the requirements for broken concrete riprap (see special provisions) which may be used as riprap as directed by the Engineer. All remaining materials shall be disposed of to the approval of the Engineer.

Portions of the existing South Abutment and wingwalls may remain in place if they do not interfere with the proposed bridge and roadway construction & are covered by a minimum of 2 ft of surface cover without deviating from proposed slopes and grades.

**TOTAL BILL OF MATERIALS**

Item	Unit	Quantity
Porous Granular Backfill	Ton	1616
Removal of Exist. Structures	Each	1
Structure Excavation	Cu.Yd.	84.3
Class X Concrete	Cu.Yd.	197.6
Precast Prestressed Concrete Deck Beams (21')	Sq.Ft.	1363
Reinforcement Bars	Lbs.	18,230
Name Plates	Each	1
Waterproofing Membrane System	Sq.Yd.	155
Bituminous Concrete Surface Course, Mix Type C, Class I	Tons	13
Steel Railing, Type 5	Lt. Ft.	91
Portland Cement Mortar for Railing Gr. (6 in. Ft.)	Cu. Ft.	409

FILE NAME =	USER NAME = shererjm	DESIGNED - JMS	REVISED -
ca:\proj\jects\d570749\cad\sheet\d570749-1\ht-details.dgn		DRAWN - JMS	REVISED -
PLOT SCALE = 100.0000' / IN.		CHECKED - JMS	REVISED -
PLOT DATE = 10/10/2008		DATE - 090308	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE (INFORMATION ONLY)

SCALE: N/A SHEET NO. 1 OF 2 SHEETS STA. 69+38.43 TO STA. 69+84.83

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)2009BBR	VERMILION	16	7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70749	