

**EXISTING STRUCTURE:** S.N. 101-6125  
 A Three Span (12'-10":26'-9":12'-10") Precast Prestressed Concrete Deck Beam (11") Structure on Reinforced Concrete Piers & Abutments @ Sta. 20+00. Skew 5° Rt. Ahead. To be Rehabilitated.

**BENCH MARK:**  
 Chiseled "X" on loading dock concrete wall north of bridge  
 Elev. 723.30

**BENCH MARK:**  
 R.R. Spike in P.P. at the S.W. corner of bridge  
 Elev. 723.47

**BILL OF MATERIAL - BRIDGE**

ITEM	UNIT	SUB	SUPER	TOTAL
Channel Excavation	Cu. Yd.			96
Porous Granular Embankment	Cu. Yd.	39		39
Stone Riprap, Class A5	Sq. Yd.	57		57
Filter Fabric	Sq. Yd.	57		57
Removal of Existing Superstructure	Each			1
Concrete Removal	Cu. Yd.	39.8		39.8
Structure Excavation	Cu. Yd.	59		59
Concrete Structures	Cu. Yd.	34.4		34.4
Concrete Superstructure	Cu. Yd.		107.5	107.5
Bridge Deck Grooving	Sq. Yd.		174	174
Protective Coat	Sq. Yd.		258	258
Reinforcement Bars, Epoxy Coated	Pound	6,380	21,190	27,570
Remove and Re-erecting Existing Railing	Foot		52	52
Name Plates	Each		1	1

SOUTH BRANCH OF KENT CREEK  
 RE-BUILT 2009 BY  
 CITY OF ROCKFORD  
 SECTION 98-00484-00-BR  
 M.S. RT. 6548 STATION 20+00  
 STR. NO. 101-6125 LOADING HL-93

**NAME PLATE LETTERING**

Refer To Std. 515001  
 Existing Name Plate shall be cleaned and relocated next to New name plate.  
 Cost incidental with name plates.

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**LOADING HL-93**

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

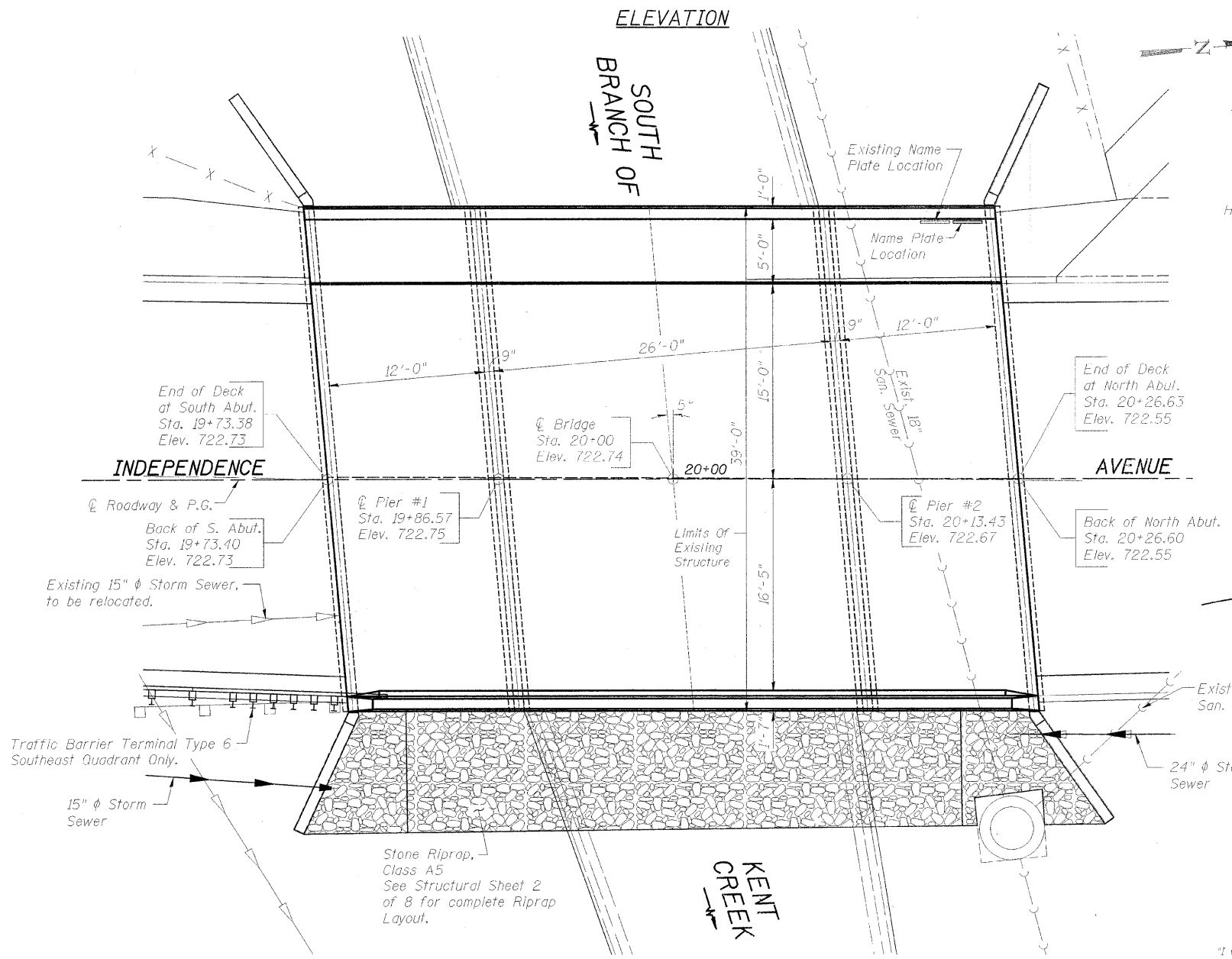
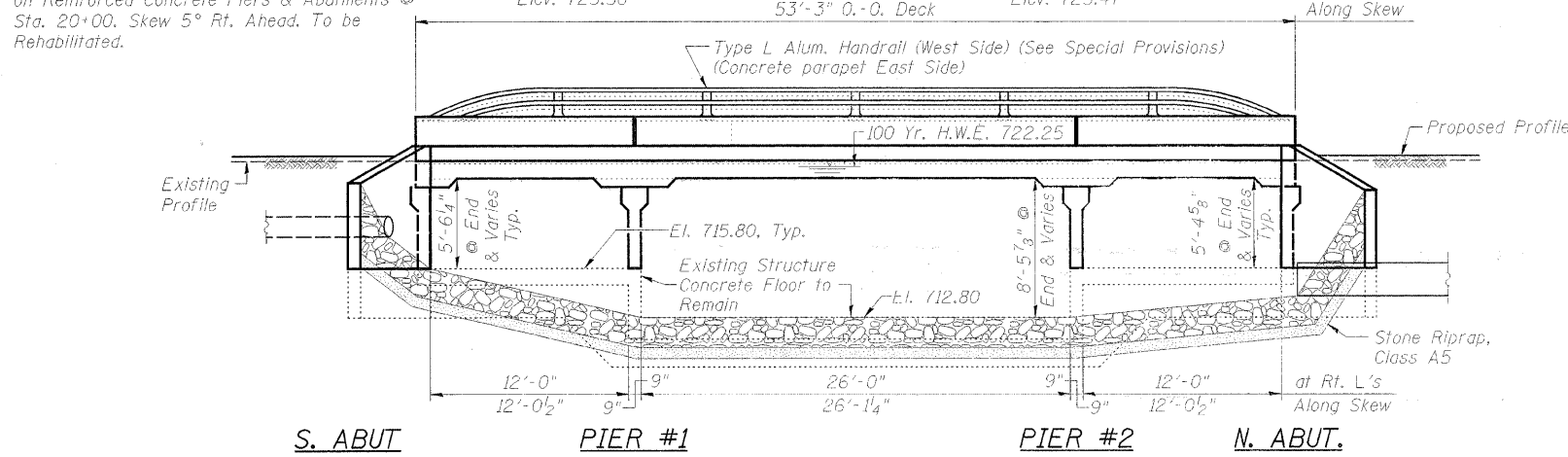
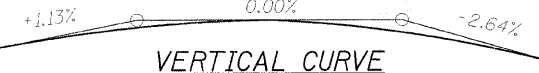
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Horizontal Bedrock Acceleration Coefficient (A) = 0.04 g  
 Site Coefficient (S) = 1.0

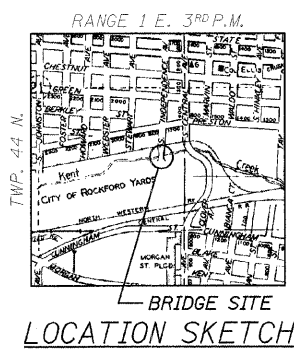
**WATERWAY INFORMATION**

Drainage Area ..... 14.03 Sq. Mi.  
 Design Discharge (30 Yr.) ..... 2,850 C.F.S.  
 Existing Opening ..... 351 Sq. Ft.  
 Required Opening ..... 351 Sq. Ft.  
 Proposed Opening ..... 351 Sq. Ft.  
 Created Head (30 Yr.) ..... 0.93'  
 100 Yr. Discharge ..... 3,501 C.F.S.  
 Created Head (100 Yr.) ..... 0.95'  
 High Water Elev. (100 Yr.) ..... 722.25 Ft.

P.I. Sta. 19+45 El. 722.75 V.C. = 90' K = 79  
 P.I. Sta. 20+35 El. 722.75 V.C. = 90' K = 34



**PLAN**



Brian K. Converse  
 DATE: 2/5/2009  
 EXPIRES 11/30/10

"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 Complies With Requirements Of The Current 'AASHTO Standard Specifications For Highway Bridges'."

STRUCTURAL SHEET NO. 1 OF 8 SHEETS

**GENERAL PLAN AND ELEVATION INDEPENDENCE AVE. OVER S. BR. OF KENT CK. STA. 20+00 (S.N. 101-6125) SECTION 98-00484-00-BR CITY OF ROCKFORD WINNEBAGO COUNTY**

WHA JOB NUMBER 1038R08	<b>WILLET, HOFMANN &amp; ASSOCIATES, INC.</b> CONSULTING ENGINEERS Land Surveying - Transportation - Structural Environmental - Architecture 809 East Second Street Dixon, Illinois 61021 Phone 815.294.3381 Fax 815.294.3385 Design Firm #184-000918 www.willettthofmann.com	Designed By: D.D. Damhoff Date: 10/08 Checked By: B.K. Converse Date: 12/08 Drawn By: F. D. Lochat Date: 10/08		
M.S. RTE. 6548B	SECTION 98-00484-00-BR	COUNTY WINNEBAGO	TOTAL SHEETS 18	SHEET NO. 8
CONTRACT NO. 85453				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT BHM-5099(50)				