ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

HIGHWAY CLASSIFICATION

Rockford Pedestrian Riverwalk

Functional Class: Pedestrian **DESIGN STRESSES**

FIELD UNITS

 $f'c = 3,500 \ psi$

fy = 60,000 psi (Reinforcement)

fy = 50,000 psi (M270 Grade 50) - Soldier Pile

PREFABRICATED BRIDGE UNITS

 $fy = 50,000 \, psi \, (M270 \, Grade \, 50)$ See Special Provisions for "Pedestrian Truss Superstructure"

LOADING

Pedestrian/Bicycle Design Loading: 85 psf Vehicular: H-10

DESIGN SPECIFICATIONS

Americans with Disabilities Act (ADA) 2002 AASHTO "Standard Specifications for Highway Bridges" 17th Edition, AASHTO "Guide Specifications for Design of Pedestrian Bridges"

SEISMIC DATA

Seismic Performance Category (SPC) = A Horizontal Bedrock Acceleration Coefficient (A) = 0.0325qSite Coefficient (S) = 1.0

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Prefabricated Cable—Stayed Pedestrian Bridge	Sq. Ft.	2,740		2,740
Structure Excavation	Cu. Yd.			
Rock Excavation for Structures	Cu. Yd.		101	101
Concrete Structures	Cu. Yd.		179.9	179.9
Reinforcement Bars (Epoxy Coated)	Pound		19,636	19,630
Furnishing Soldier Pile W Section W27x178	Foot		156	156
Setting Piles in Rock	Each		8	8 ,
PCC Pavement, 7 ½"	Sq. Yd.	304.4		304.4
Geocomposite Wall Drain	Sq. Yd.		68.0	68.0
Form Liner Textured Surface	Sq. Ft.		71.5	71.5

REFER TO SHEET 11 FOR GENERAL NOTES

WATERWAY INFORMATION

Drainage .	Area :	= 6400	Sq.Mi.		Low Gra	de Elev.	712.57	@ Sta 2	210+67.0)
	Frea.	Q	Opening Sq.Ft.		Nat	Head — Ft.		Headwater El.		
Flood		Yr.	C.F.S.	Exist.	Prop.	H. W.E.	Exist.	Prop.	Exist.	Prop.
Design		100	41,500	N/A	905	707.0	N/A	N/A	N/A	N/A
Base		100	41,500	N/A	905	707.0	N/A	N/A	N/A	N/A
Max. Calc.		500		N/A	1,493	709.6	N/A	N/A	N/A	N/A

DESIGN SCOUR ELEVATIONS					
South Abutment	Pier	North Abutment			
700.0	700.0	700.0			

STATION 209+48.25 BUILT 2011 BY CITY OF ROCKFORD
SECTION No. 06-00543-00-BT LOADING H-10 STR No. 101-6350

NAME PLATE

INDEX OF BRIDGE SHEETS

- General Plan & Elevation
- Substructure Layout
- Superstructure Details Superstructure Details
- South Abutment Details South Abutment Details
- North Abutment Details
- North Abutment Details
- Pier Details
- Pier Details
- Typical Abutment Details and General Notes



REVIEWED AND APPROVED FOR STRUCTURAL ADEQUACY ONLY EXCLUDING PRE-FABRICATED SUPERSTRUCTURE

Todd C. Ude

Engineering Associates. Inc.

SHEET NO. I II SHEETS

GENERAL PLAN & ELEVATION CABLE-STAYED PEDESTRIAN BRIDGE PEDESTRIAN RIVERWALK ALONG THE ROCK RIVER **WINNEBAGO COUNTY** <u>SECTION NO. 06-00543-00-BT</u> STATION 209+48.25 STRUCTURE NO. 101-6350

F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. 06-00543-00-BT WINNEBAGO 56 CONTRACT NO. 85521 FED. ROAD DIST. NO. FED. AID PROJECT ILLINOIS

PEER REVIEWED