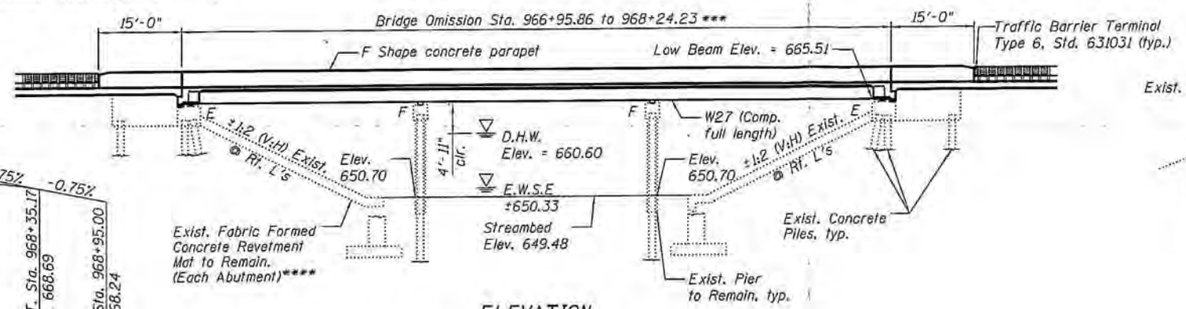
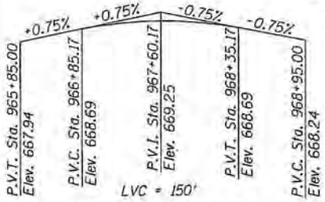
Benchmark: BM#6 - Chiseled "□" top S.E. corner of east abutment, Sta 968+35.34, 18.11' Rt. Elev. 665.21
BM#5-R.O.W. Marker, south side of U.S. Rte. 6/34, House No. 5732, east edge of yard, Sta 965+00.00, 45.60' Rt. Elev. 663.24

Existing Structure:
S.N. 006-0140 Built in 1981 and rehabilitated in 1994 as F.A.S. Rte 2246, Section 8D-BR and Section 8D-BR-M at Station 30+93.5 as a 3-span P.P.C. deck beam (21" depth) bridge 130'-1 1/2" Bk. To Bk. of abutments with 33'-0" ft clear width and 36'-0" o.-o. The substructure consists of open pile bent abutments and piers supported on concrete piles. Existing PPC deck beam superstructure to be removed and replaced with cast in place concrete deck on steel wide flange beam superstructure. Traffic to be maintained under stage construction, subject to currently posted load limits. Temporary Steel Bracing Contract 66A53 installed in 2011. Steel wide flange beams anchored to existing substructure units to support PPC Deck beams. Temporary steel bracing to be removed with existing superstructure.

No Salvage

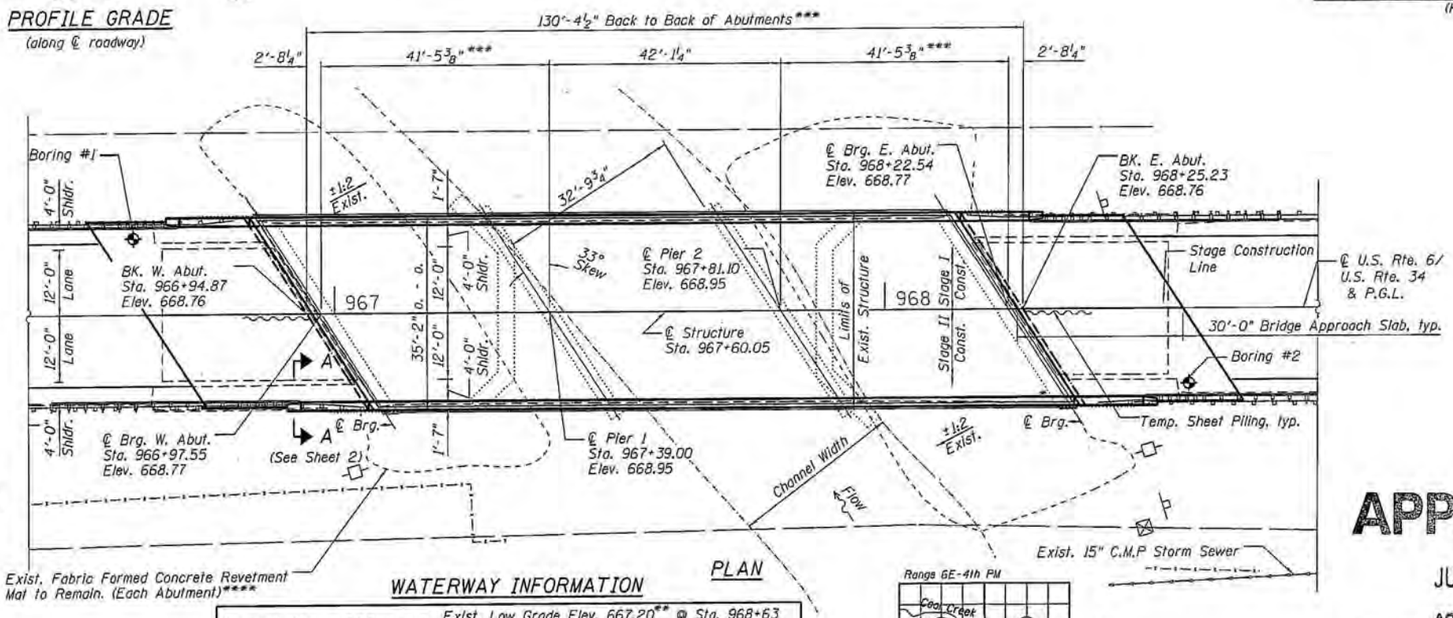


ELEVATION



PROFILE GRADE

(along ℄ roadway)



PLAN

*** Length and omission based on survey not existing plans.

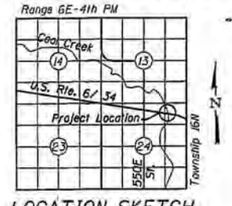
**** Patch damaged portions of Revetment mat. Details and Quantities to be determined during design.

WATERWAY INFORMATION

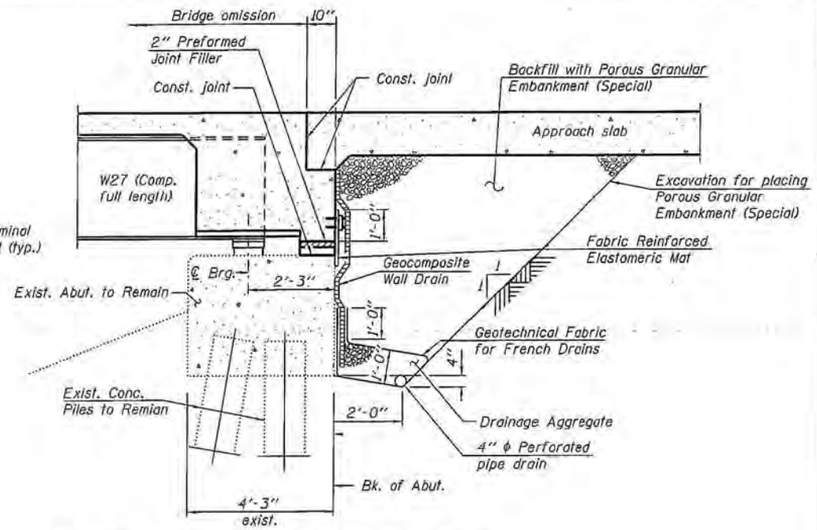
Drainage Area = 24.5 sq. mi. Exist. Low Grade Elev. 667.20** @ Sta. 968+63
Prop. Low Grade Elev. 667.24** @ Sta. 965+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	2,920	547	547	659.1	0.4	0.4	659.4	659.4
Design	50	4,520	679	679	660.6	0.5	0.5	661.1	661.1
Base	100	5,250	758	758	661.5	0.5	0.5	662.0	662.0
Max. Calc.	500	7,000	967	967	663.7	0.4	0.4	664.1	664.1

10 year velocity through existing bridge = 7.1 fps
10 year velocity through proposed bridge = 7.1 fps
** At Edge of Pavement at Local Sag



LOCATION SKETCH



SECTION THRU SEMI-INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

HIGHWAY CLASSIFICATION

F.A.P. Rte. 613 - U.S. Rte. 6/ U.S. Rte. 34
Functional Class: Minor Arterial (Non Urban)
ADT: 2,200 (2009); 2,900 (2033)
ADTT: 16% (2009)
DHV: 261 (Two-way)
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic Directional Distribution 50:50

LOADING HL-93

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

DESIGN SPECIFICATIONS

(NEW CONSTRUCTION)

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M270 Gr. 50W)

FIELD UNITS (EXISTING CONSTRUCTION)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock acceleration coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

APPROVED
JUN 27 2012
AS A BASIS FOR PREPARATION OF DETAILED PLANS

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	661.50*	646.45	646.45	661.50*

* Bottom of Existing Abutments

GENERAL PLAN
U.S. ROUTE 6/ U.S. ROUTE 34 OVER COAL CREEK
F.A.P. RTE. 613 SEC. (8D-BR) BR
BUREAU COUNTY
STATION 967+60.05
STRUCTURE NO. 006-0140

COMPANY NAME: HDR Inc.
PROJECT CONTACTS: Bob E. Davies
CLIENT: IDOT D3
DATE PLOTTED: 6/19/2012 10:36:07 AM
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	CHECKED - KMA	REVISED	
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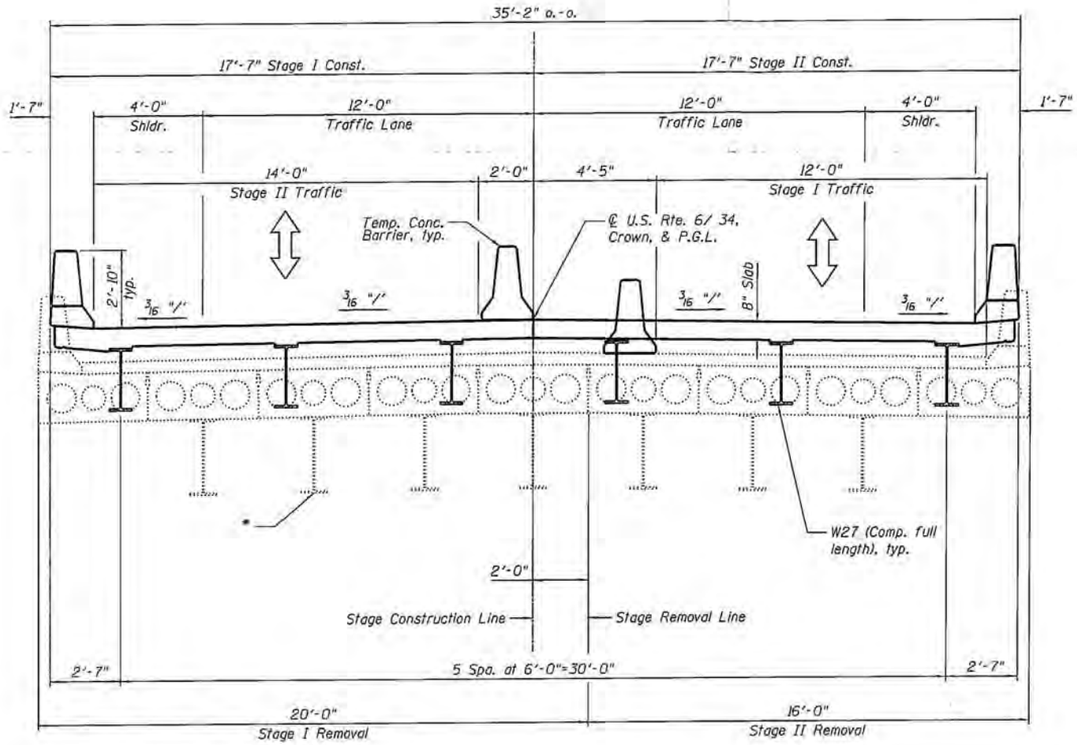
PLOT DATE = 6/19/2012	CHECKED - RGD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

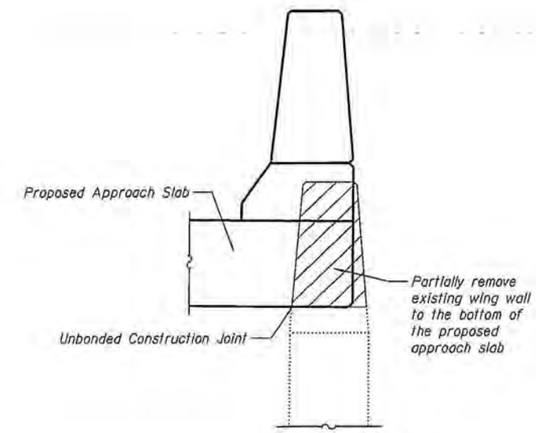
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
613	(8D-BR) BR	BUREAU	2	1
		CONTRACT NO.		
		(ILLINOIS) FED. AID PROJECT		



CROSS SECTION

(Looking East)

* Existing W33 x 118 Steel Bracing, typical each span



SECTION A-A

(To be refined during final design)

Note:
The condition of the existing beams and bracing for the duration of Stage I Traffic should be verified for the posted load during final design. If their condition changes, the propsed staging sequence shall be re-evaluated.

Note:
Concrete repairs are required on the existing substructure units. See the approved Bridge Condition Report and the most recent inspection reports for more information.

APPROVED

JUN 27 2012

AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN
U.S. ROUTE 6/ U.S. ROUTE 34 OVER
COAL CREEK
F.A.P. RTE. 613 SEC. (8D-BR) BR
BUREAU COUNTY
STATION 967+60.05
STRUCTURE NO. 006-0140

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SHEET NO. 2 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
613	(8D-BR) BR	BUREAU	2	2
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

COMPANY NAME: $COMPANY_NAME$
PROJECT CONTACT: Robert G. Davies
CLIENT: IDOT D3
DATE PLOTTED: 6/19/2012 2:12:36 PM
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