CONTRACT: 72D87
SHEET 8 OF 16

Bench Marks:
IDOT BM #15 Chiseled square at the southeast quadrant of the intersection of West Grand Avenue and Hazel Dell Road. Benchmark is located 33 feet south of the centerline of Hazel Dell Road on a headwall of a concrete pipe culvert. NAVD88 El. 602.47
IDOT BM #80 Chiseled cross on the center bolt of the east leg of an iron sign truss over the eastbound lane of Interstate 72. Benchmark is located 1.62 miles east of II Route 4. NAVD88 El. 601.28
IDOT BM #0150 Disk in monument vault on survey calibration baseline. Benchmark is located 13 feet north of the centerline of Hazel Dell Road and 0.5 miles west of the intersection of Hazel Dell Road and West Grand Avenue. NAVD88 El. 600.47
IDOT BM #374 Railroad spike in power pole west of a bike path and southeast of Recreation Drive. Benchmark is located 0.81 miles south of the intersection of West Grand Avenue and Hazel Dell Road. NAVD88 El. 604.61

EXISTING STRUCTURE

Sta. 608+51.98 F.A.I. 72
Over Recreation Drive and U.P. Railroad
Dual 4-Span Continuous non-composite steel stringer structure. Constructed in 1966.
Length of W.B. Structure = 238'-3/4" and Length of E.B. Structure = 236'-2". Bk. to Bk. Abutments along ℄ of Roadway. Both E.B. and W.B. Structures are 36'-0" wide. Substructure consists of 6 reinforced concrete piers on steel piles and 4 reinforced concrete Abutments supported on steel piles. Structure No. 084-0074 Eastbound, Structure No. 084-0075 Westbound.

No Salvage.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
FAI 72	"	SANGAMON	559	254
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 01
44 SHEETS

"(84-9-4)A,HBK,BY,BY-1 Contract No. 72541

DESIGN SPECIFICATIONS

AASHTO 2002
AASHTO 2003 Curved Girder Spec.

LOADING HS20-44 & ALT.

Allow 25 psf for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Badrock Acceleration Coefficient (A) = 0.05g
Site Coefficient (S) = 2.0

DESIGN STRESSES

FIELD UNITS (Load Factor Design)
f'c = 3,500 psi (Existing and New Concrete)
fy = 40,000 psi (Existing Reinforcement)
Fy = 60,000 psi (New Reinforcement)
fy = 36,000 psi ASTM A36. (Existing Structural Steel)
fy = 36,000 psi ASTM A36 (New Structural Steel)

CURVE DATA

(I-72 Survey Baseline)
P.I. STA = 607+25.73
Δ = 36° 03' 13" (Lt.)
D = 01° 36' 09"
R = 3,575.66'
T = 1,163.65'
L = 2,250.00'
E = 184.58'
P.C. STA = 595+62.07
P.T. STA = 618+12.07
S.E. = 4.5%
S.E. ATTN: 594+35 to 596+35
617+52 to 619+52

Existing Creosoted Approach Piles to be removed 2'-0" below top of subgrade (Typ.). 28 Piles total. Cost included with Bridge Approach Pavement Removal.

See Std. 515001

STATION 608+51.98
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. 72 SEC. (84-9-4)A,HBK,BY,BY-1
LOADING HS20-44
**

NAME PLATE

**(Structure No. 084-0074 Eastbound Structure & Structure No. 084-0075 Westbound Structure)

20'-0" Typ.
Limits of Protective Shield
No Construction Activities Or Other Obstructions May Be Placed Within These Limits
Steel H Piles
Existing wingwall pile Steel BP Pile
Existing Steel BP Piles and Steel H Piles
Existing Slope wall to be removed and replaced with a 6" Bituminous Coated Aggregate Slopewall.
Bk. W. Abut. Sta 607+58.59 Elev. 632.94
W33x130 (Composite) Existing & Proposed
Existing Conc. Barrier
Existing Recreation Dr.
Existing Bike Path
Existing 48" ℄ RCCP Storm Sewer
Existing 36" ℄ Pipe Culvert
Existing Steel BP Piles (Typ.)
Steel H Piles (Typ.)
1:2 (V:H) at Rt. ±5
*19'-11" min.
*19'-9" min.
21'-0"
23'-0" min. Vert. Clr.
℄ U.P. R.R.
*8'-0"
*12'-0" (typ.)
Top Of Rail
Temporary Sheet Piling
Existing Slope wall to be removed and replaced with a 6" Bituminous Coated Aggregate Slopewall
Existing 36" ℄ Pipe Culvert
Steel H Piles
Existing wingwall pile Steel BP Pile
Existing Steel BP Piles and Steel H Piles

ELEVATION

* Dimensions At Right Angles to ℄ Track

6'-0" Bridge Approach Pavement Connector See Std. 420401 (Typ.)
30' Bridge Appr. Pav't. See Std. 420401 (Typ.)
Inlet to be removed
Brdg. Appr. Shldr. Pav't. Drain Std. 609006 (Typ.)
Exist. Conc. Hdwl. To Be Removed
5'-0"
Proposed 36" ℄ Pipe Culvert Extension
Exist. 48" ℄ RCCP Storm Sewer
Existing Railroad R.O.W.
Point of Min. Vert. Clearance Offset 20'-8½" from ℄ I-72 W.B.
Existing Concrete Barrier
Station Identification
Temporary Sheet Piling
3-6" ℄ Floor Drains, 2 Spa. at 8'-0" each = 16'-0" Typ. Span 1 & 4
Existing 36" ℄ Pipe Culvert
8'-0"
13'-0"
5'-0"
Name Plate
Bridge Appr. Pav't. Drain (Typ.) Std. 609006
Inlet to be removed
Drainage Scupper (DS-11 Typ.)
℄ I-72 (W.B.) & P.G.
Stage I Constr.
Stage II Constr.
12'-0"
12'-0"
10'-0"
6'-0" Shldr.
24'-0" Roadway
40'-0" Out to Out
43'-2" Out to Out
1'-7"
32'-7" Min.
8'-0"
19'-11" Min.
℄ Pier #1 Sta 608+14.38 Elev. 633.09
℄ Pier #2 Sta 608+78.06 Elev. 633.17
1964-10
1964-8
1964-2
Temp. Sheet Piling (Typ.)
℄ Exist. Pier #1
℄ Exist. Pier #2
℄ Exist. Pier #3 Stage Constr. Jt.
1964-6
℄ Pier #3 Sta 609+42.37 Elev. 633.16
1964-5
Sta. 609+17.56 I-72 Survey Baseline
Sta. 03+40.17 ℄ U.P. R.R.
Bk. E. Abut. Sta 609+99.80 Elev. 633.06
Indicates Boring Location
Existing Approach Piles (Typ.)
℄ Existing Brg. West Abutments
Back Existing West Abutments
Existing 36" ℄ Pipe Culvert
R.R. R.O.W.
28°-51'-38"
℄ U.P. R.R.
610
I-72 Survey Baseline
Sta. 608+51.98
Sta. 02+86.53 U.P. R.R. Mile Post 189.45
℄ Existing Brg. East Abutments
Bk. Existing East Abutments
Drainage Scupper (DS-11 Typ.)
Local Tangent at Sta. 608+51.98
Paved Ditch to be removed each end.
Bk. W. Abut. Sta 607+10.74 Elev. 632.69
Limits of Existing Structures
EXISTING RECREATION DRIVE
EXISTING BIKE PATH
℄ Pier #1 Sta 607+64.70 Elev. 632.90
℄ Pier #2 Sta 608+26.26 Elev. 633.05
1964-7
1964-9
1964-1
1964-4
℄ Pier #3 Sta 608+88.39 Elev. 633.12
1964-3
℄ Exist. Pier #3 Stage Constr. Jt.
℄ I-72 (E.B.) & P.G.
Name Plate
℄ Exist. Pier #1
Sta. 608+64.45 I-72 Survey Baseline
Sta. 02+32.21 ℄ U.P. R.R.
Exist. 48" ℄ RCCP Storm Sewer
2'-9⅞"
52'-9½"
62'-10⅞"
237'-0½" Bk. to Bk. Abutment, Existing
R.R. Mile Post Reference
Existing Railroad R.O.W.
Temporary Sheet Piling
Exist. Conc. Hdwl. To Be Removed
Proposed 36" ℄ Pipe Culvert Ext.
2'-0"
Bk. E. Abut. Sta 609+43.82 Elev. 633.10
47'-5"
46'-8"

PLAN

Note:
Traffic Barrier Terminal, Type 6, Std. 631031 at Approaching Ends.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

JAMES K. HOLT
4376
REGISTERED STRUCTURAL ENGINEER OF ILLINOIS
SIGNATURE:
DATE SIGNED: 1-20-06
LISC. EXP. DATE: 11-30-06

Range 5W - 3RD PM
Twp. 15N
Existing Structure

LOCATION SKETCH

Corporate License Number 184-001-084

GENERAL PLAN AND ELEVATION
F.A.I. 72 OVER UNION PACIFIC RAILROAD
SECTION (84-9-4)A,HBK,BY,BY-1
SANGAMON COUNTY
STATION 608+51.98
STR NO. 084-0074 EB - 084-0075 WB

HANSON

JOB 96S2002B
DATE 01/12/06

STRUCTURE No. 2 & 3

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES

FOR INFORMATION ONLY