

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

3/18/2011
J.A.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	[(46-3)HB-6]I	KANKAKEE	1	8
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	66A01	

INDEX OF SHEETS

- COVER SHEET
- GENERAL NOTES, TYPICAL SECTION & SUMMARY OF QUANTITIES
- PLAN & PROFILE
- BRIDGE PLANS
- DETAILS

FOR INFORMATION ONLY
HIGHWAY PLANS

HIGHWAY STANDARDS

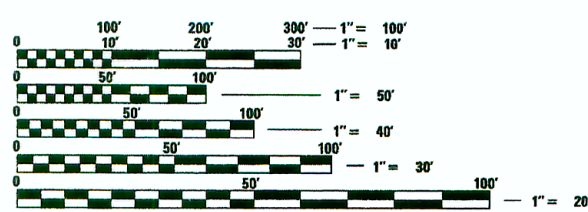
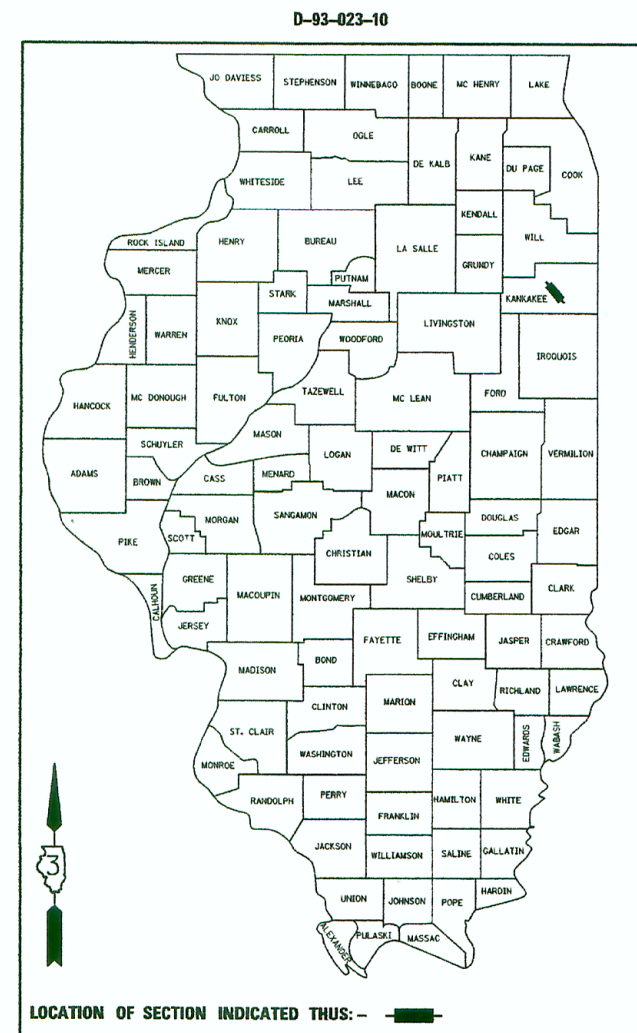
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-05	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY FROM EDGE OF PAVEMENT
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24' (600 mm) AWAY FROM EDGE OF PAVEMENT
701400-04	APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY
701406-05	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701501-05	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701901-01	TRAFFIC CONTROL DEVICES

FAI ROUTE 57
SECTION [(46-3)HB-6]I

"As Built Plans"
8-3-2010

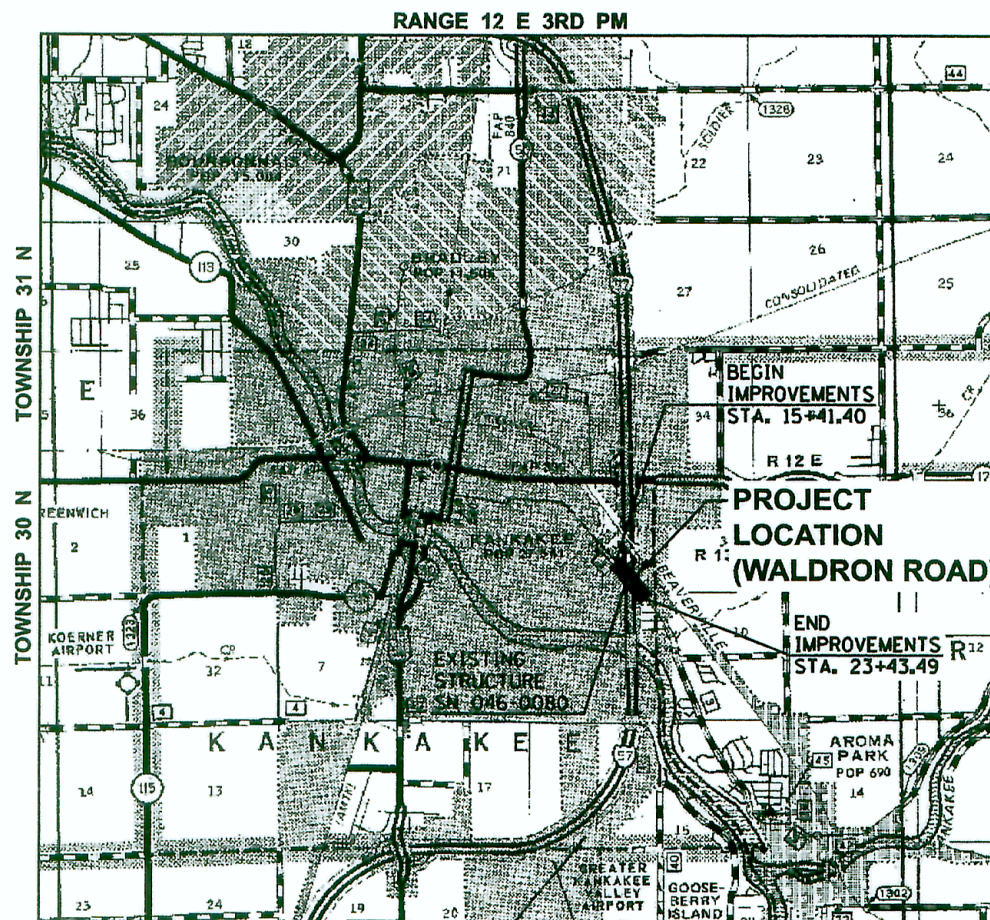
KANKAKEE COUNTY
JOB NO. C-93-062-10

THE PROJECT CONSISTS OF ADDING STEEL RAILING TO THE EXISTING BRIDGE CURB, APPROACH GUARDRAIL REMOVAL AND REPLACEMENT, REPAIR OF CONCRETE AND DECK REPAIR.



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811



N.T.S.

PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: PATRICK BRABOY

CONTRACT NO. 66A01

LOCATION MAP

GROSS LENGTH OF IMPROVEMENT = 802' (0.152 MILES)
NET LENGTH OF IMPROVEMENT = 802' (0.152 MILES)

1/15/2010 date
JAMES K. CLINARD
LICENSED PROFESSIONAL ENGINEER
NO. 062-041793
STATE OF ILLINOIS
expires 11-30-2011
signature
PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-001717

WALDRON ROAD
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
ADT = 6200 (2007)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: Jan 19, 2010

Scott E. Stahl, P.E.
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 19, 2010
Scott E. Stahl, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

March 19, 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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CHAMLIN ASSOCIATES
PERU ILLINOIS MORRIS

GENERAL NOTES:

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

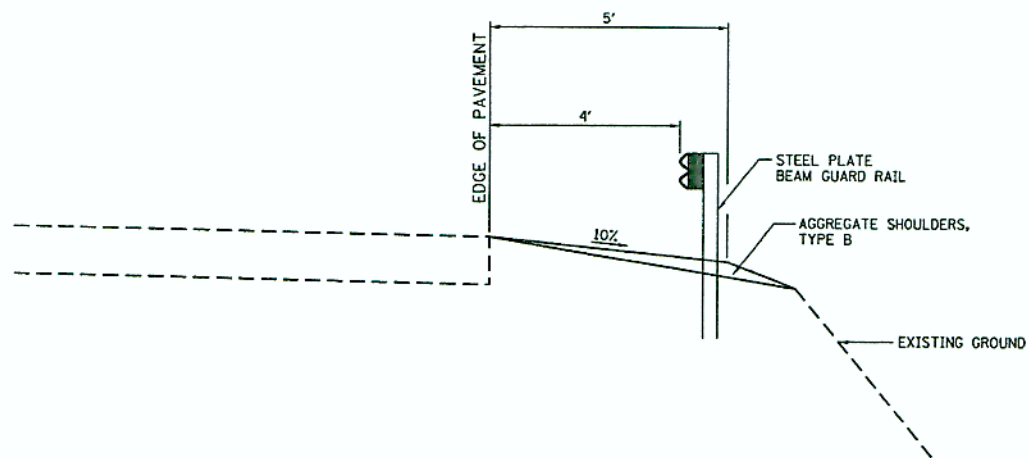
ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

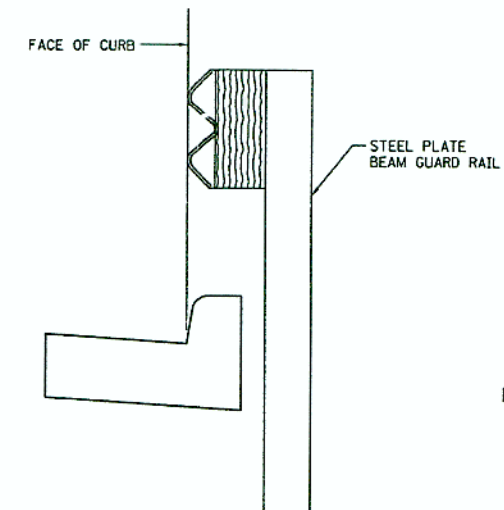
THE CONTRACTOR SHALL PLACE STONE RIPRAP CLASS A3 AS DIRECTED BY THE ENGINEER TO REPAIR SLOPE WASHOUTS. LT. & RT. STA. 21+00 TO STA. 21+50

NO.	ITEM	UNIT	TOTAL
			QUANTITY
			100% STATE
			SFTY-2A
28100105	STONE RIPRAP, CLASS A3	SQ YD	80
44000300	CURB REMOVAL	FOOT	16
48101200	AGGREGATE SHOULDERS, TYPE B	TON	30
50900200	STEEL RAILING, TYPE 2399	FOOT	469
60500060	REMOVING INLETS	EACH	2
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	250
* 63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	FOOT	132
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	6
63200310	GUARDRAIL REMOVAL	FOOT	843
67100100	MOBILIZATION	L SUM	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
* 78200405	GUARDRAIL MARKERS	EACH	13
* 78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	6
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	81
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	3.6

* SPECIALTY ITEM



SECTION A-A
(SEE SHEET 4 OF 8)



SECTION B-B
(SEE SHEET 3 OF 8)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

REVIEWED BY: *David Bonnil*
ACTING DISTRICT STUDIES & PLANS ENGINEER

DATE: _____

EXAMINED BY: *Herb Dwyer*
DISTRICT CONSTRUCTION ENGINEER

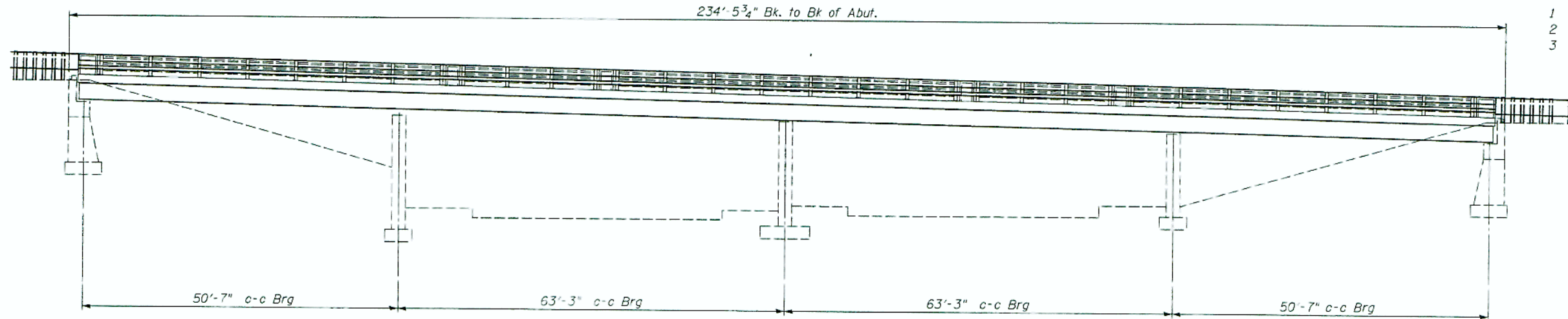
Wynne Phillips
DISTRICT MATERIALS ENGINEER

James A. Huchler
DISTRICT OPERATIONS ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

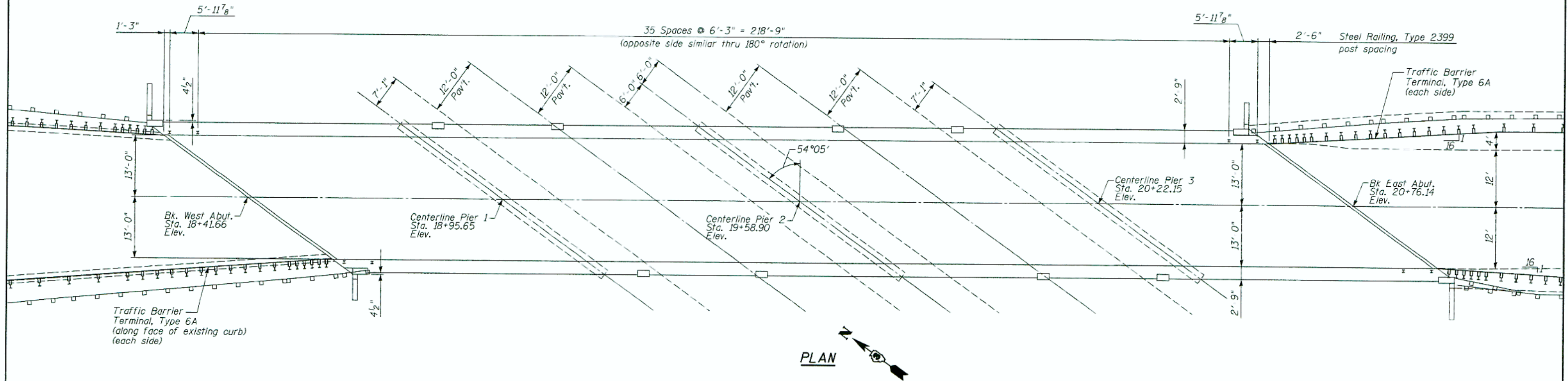
- 1 General Plan and Elevation
- 2 Deck Repair
- 3 Type 2399 Railing Details



ELEVATION

SCOPE OF WORK

1. Deck patching
2. Structural Repair of Concrete
3. Add Steel Railing



PLAN

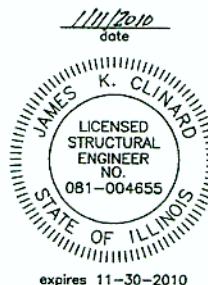
GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Steel Railing, Type 2399	Foot	469
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	3.6
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	81

DESIGNED -	
CHECKED -	
DRAWN	NV
CHECKED	JKC



signature
PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-001717

CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

GENERAL PLAN AND ELEVATION
WALDRON ROAD OVER I57
F.A.I. 57 SEC. [(46-3)HB-6]I
KANKAKEE COUNTY
STA. 19+58.90
STRUCTURE NO. 046-0080

SHEET NO. 1 3 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	[(46-3)HB-6]I	KANKAKEE	8	5
CONTRACT NO. 66A01					
ILLINOIS FED. AID PROJECT					

7/16/10 Sunny 85°

Z0016002 Deck Slab Repair (Full Depth, Type II)

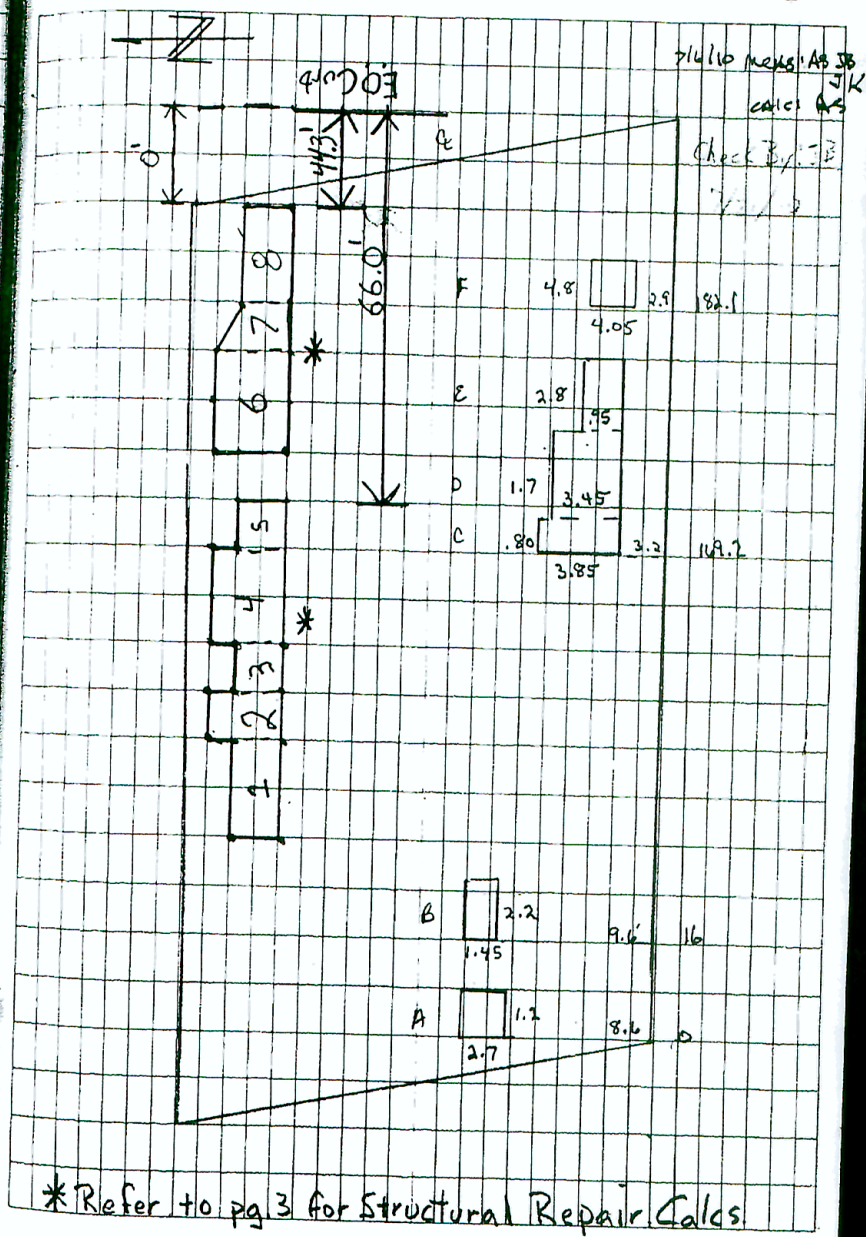
Depth
CHECK'S

- A.) .6 .6 .6 $1.2 \times 2.7 \times 1/9 = 0.36$
- B.) .6 .6 .65 $2.2 \times 1.45 \times 1/9 = 0.35$
- C.) .62 .57 .63 $0.8 \times 3.85 \times 1/9 = 0.34$
- D.) .6 .55 .65 $1.7 \times 3.45 \times 1/9 = 0.65$
- E.) .6 .59 .61 $2.8 \times 0.95 \times 1/9 = 0.30$
- F.) .62 .65 .6 $4.8 \times 4.05 \times 1/9 = 2.16$
- 4.16 Sq yds.

7/19/10 Field Meas = JB JK

- Approved Source
- Tickets in File
- Plant Reports in File
- Concrete Placed 7/19/10
- Calcs Above

Total Sq Yd = 4.2 sq yd
0.2 =



7/20/10 Cloudy 85°

Field Meas: JB JK

Calcs: JK

Click By: ER 7/20/10

X0325805 Structural Repair Core $\leq 5"$

- Approved Source

- Tickets in File

- Plant Report in File

$$1.) (1.55 + 1.75) \frac{1}{2} * 9.20 = 15.18 \text{ Sq Ft}$$

$$2.) (2.15 + 2.25) \frac{1}{2} * 4.15 = 9.13$$

$$3.) (1.65) * 1.05 = 1.73$$

$$4.) (2.75) * 3.90 = 10.73$$

$$5.) (1.5 + 1.4) \frac{1}{2} * 3.90 = 5.66$$

$$6.) (1.75 + 1.7) \frac{1}{2} * 8.10 = 13.97$$

$$7.) (1.7 + 1.3) \frac{1}{2} * 0.50 = 0.75$$

$$8.) (1.3) * 8.20 = 10.66$$

$$\underline{\underline{\text{Total (1) = 67.81 Sq Ft}}}$$

(3)

$$\text{Face A: } 0.70' (9.2 + 4.15 + 1.05 + 3.9 + 3.9) \\ = 15.54 \text{ Sq Ft}$$

$$\text{Face B: } 0.70' (8.1 + .5 + 8.2) = 11.76 \text{ Sq Ft}$$

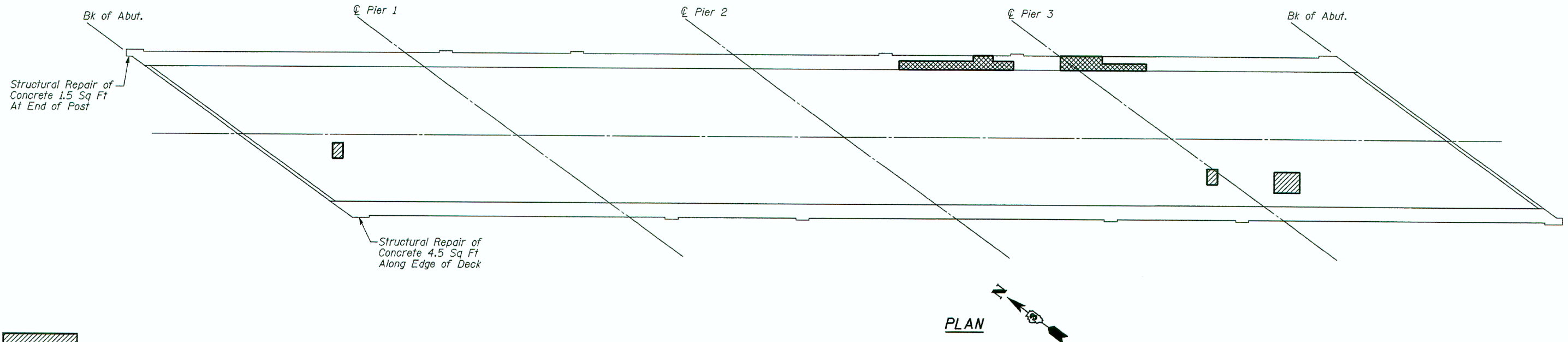
(Total (1) + Face A + Face B)

$$(67.81 + 15.54 + 11.76) = 95.11 \text{ Sq Ft}$$

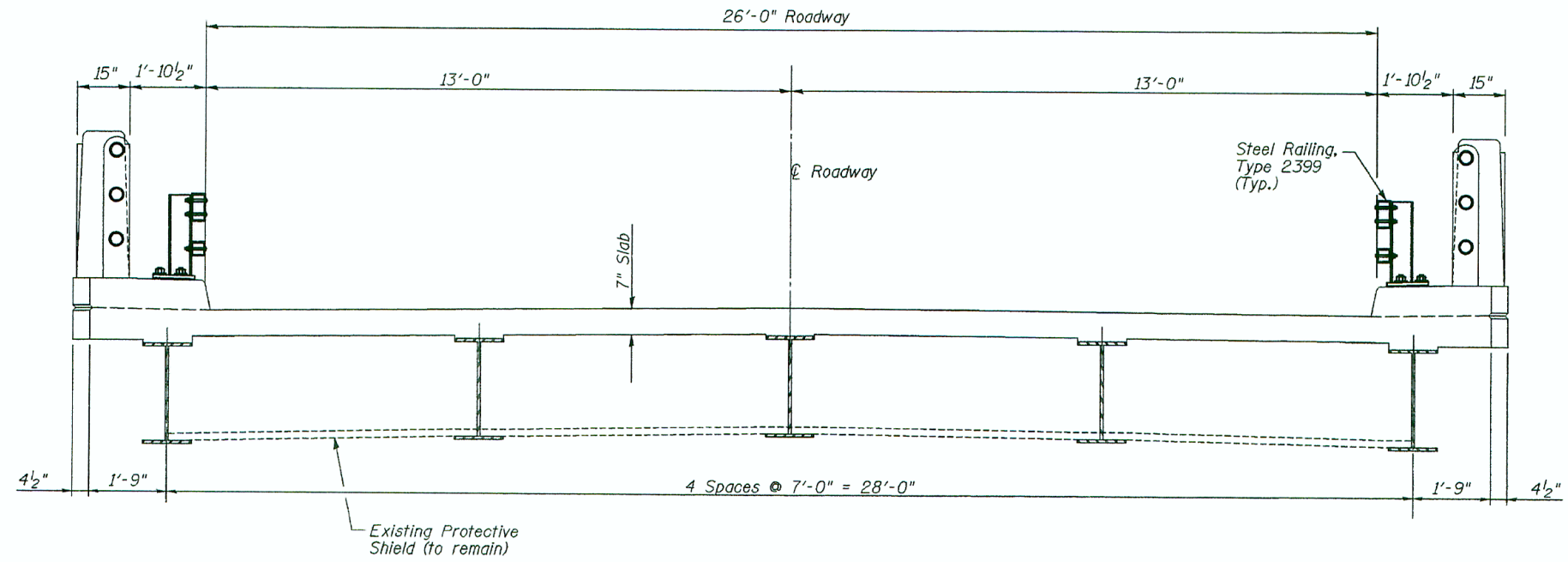
OR 7

Total

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- Deck Slab Repair (full Depth, Type II) - 3.6 Sq Yd
- Structural Repair of Concrete (Depth Equal to or Less than 5 inches) - 75 Sq Ft



CROSS SECTION

DESIGNED -
CHECKED -
DRAWN NV
CHECKED JKC

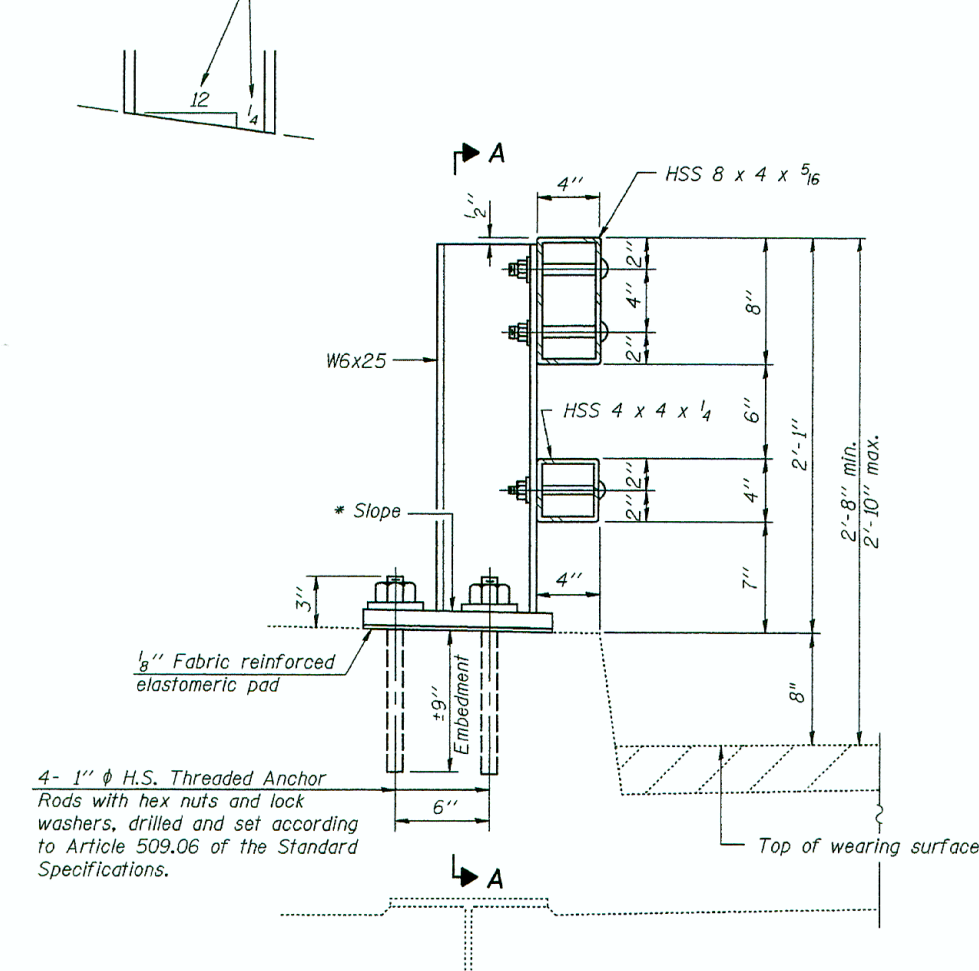
DECK REPAIR
STRUCTURE NO. 046-0080

CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

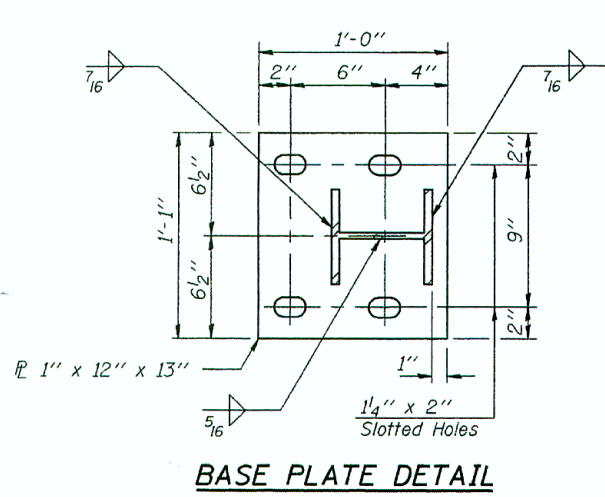
SHEET NO. 2 3 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	[(46-3)HB-6]I	KANKAKEE	8	6
			CONTRACT NO. 66A01		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

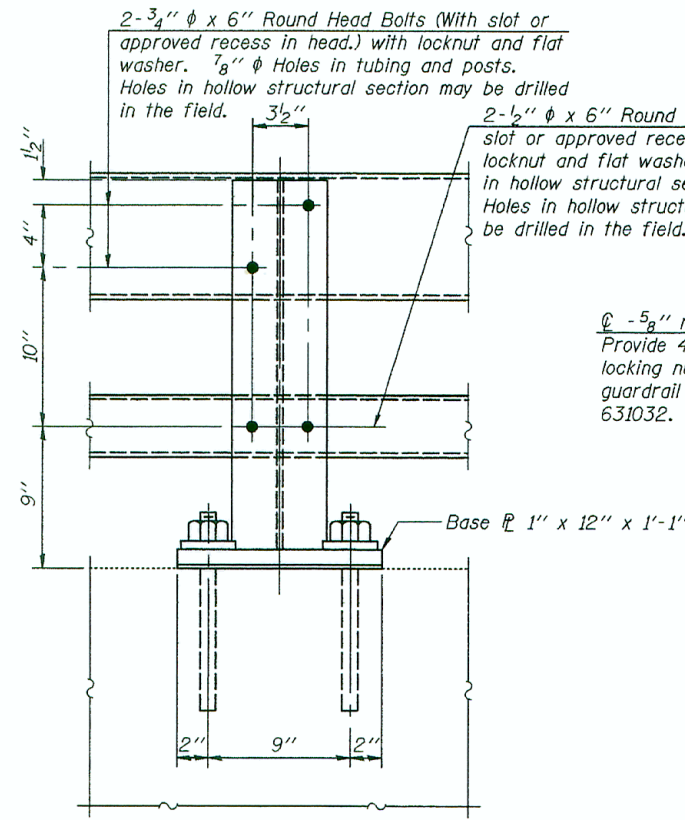
* Cut bottom end of post to curb slope.



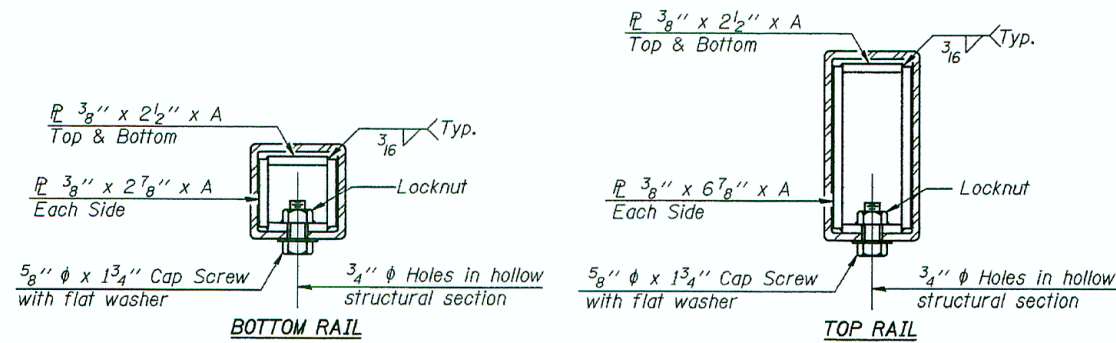
SECTION AT RAIL POST



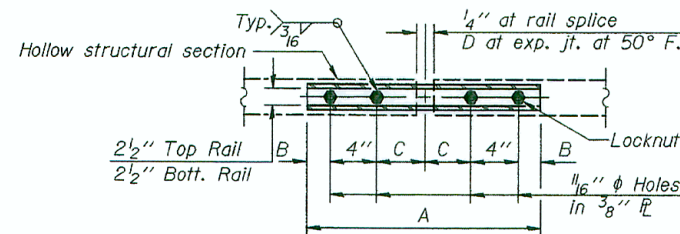
BASE PLATE DETAIL



SECTION A-A

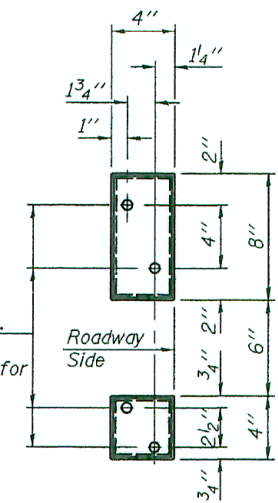


SECTIONS AT RAIL SPLICE

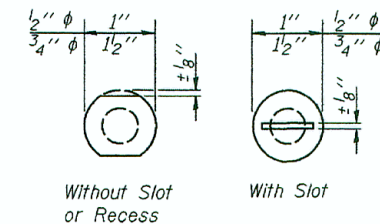


PLAN-BOTT. SPLICE TYPICAL

RAIL SPLICE CONNECTION AT EXPANSION JT.

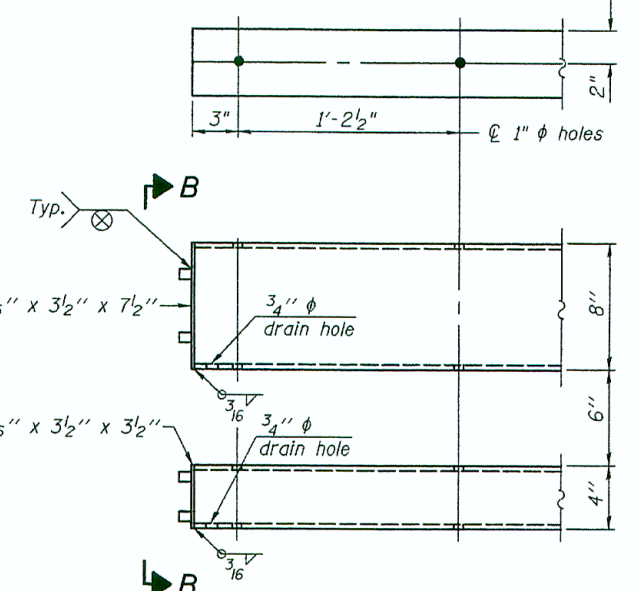


VIEW B-B



VIEW C-C

DETAIL OF 1/2 inch phi & 3/4 inch phi ROUND HEAD BOLTS



END OF RAIL DETAILS

Notes:

- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
- Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
- Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
- All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	469

STEEL RAILING, TYPE 2399
STRUCTURE NO. 046-0080

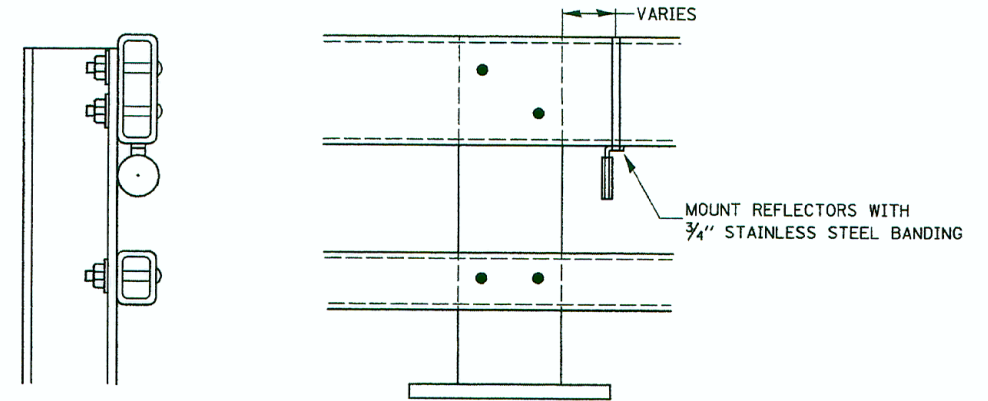
DESIGNED -
CHECKED -
DRAWN NV
CHECKED JKC

R-31

11-1-09

(6'-3" Maximum Post Spacing)

SHEET NO. 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS	57	[(46-3)HB-6]I	KANKAKEE	8	7
			CONTRACT NO. 66A01		
ILLINOIS FED. AID PROJECT					



NOTES

1. REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.
2. FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

REFLECTOR MOUNTING
DETAIL FOR STEEL RAIL

782-3

FILE NAME = D366A01-SHT-DETAILS.DGN	USER NAME = ---	DESIGNED - JKC	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS	F.A.I. RTE. 57	SECTION [(46-3)HB-6II]	COUNTY KANKAKEE	TOTAL SHEETS 8	SHEET NO. 8	
	PLOT SCALE = 1"=10'	CHECKED - JKC	REVISED - ---			SCALE: NONE		SHEET NO. --- OF --- SHEETS		STA. _____ TO STA. _____	
	PLOT DATE = 11/09	DATE - 11/09	REVISED - ---			FED. ROAD DIST. NO. _ [ILLINOIS] FED. AID PROJECT					

CONTRACT NO. 66A01