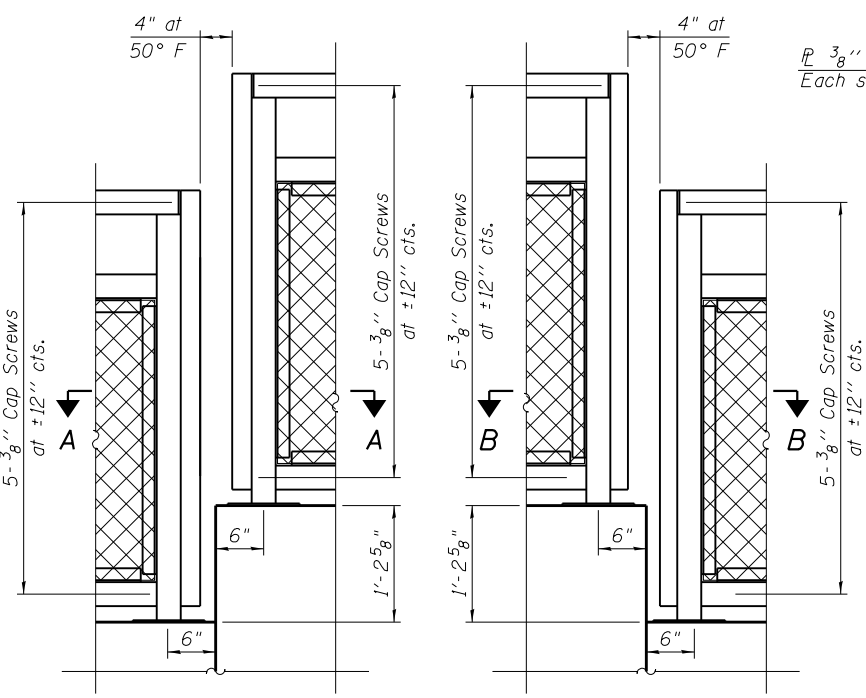
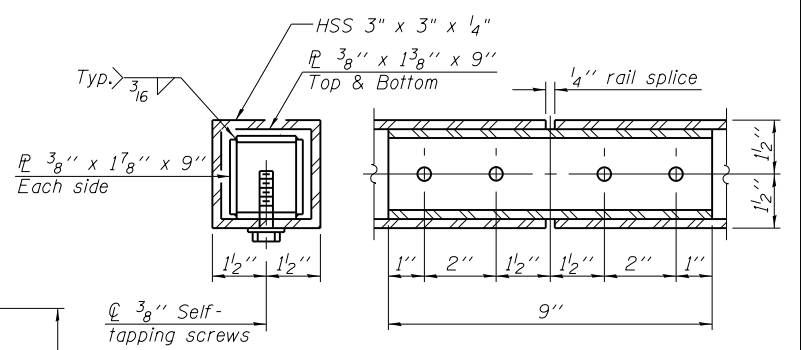


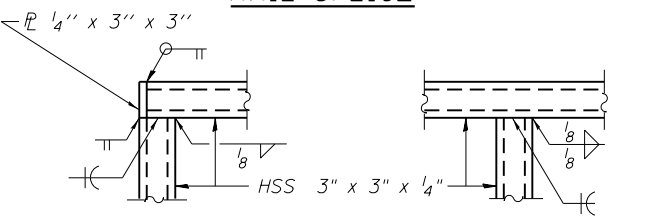
**DETAIL A SHOWN
DETAIL B OPPOSITE HAND**



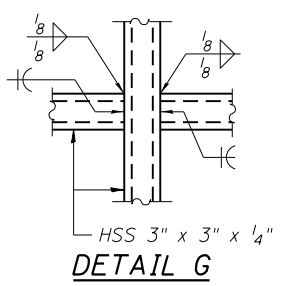
**DETAIL C
DETAIL D**



RAIL SPLICE



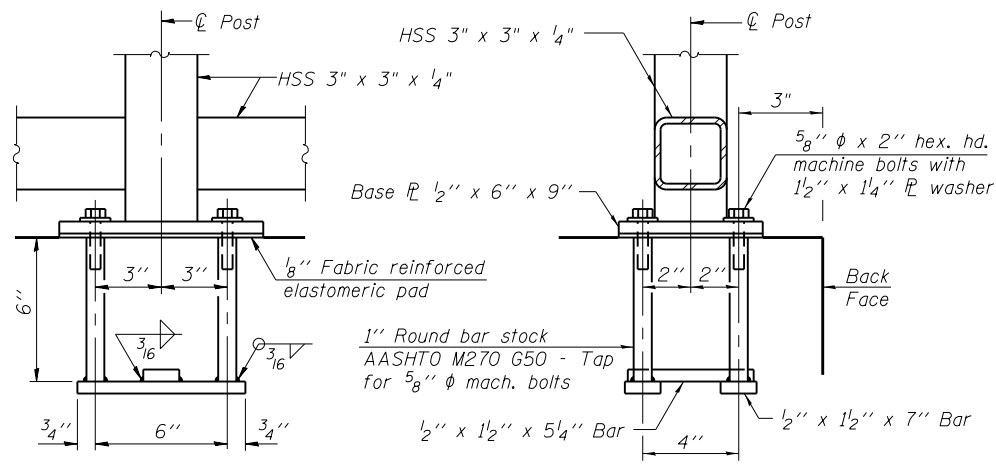
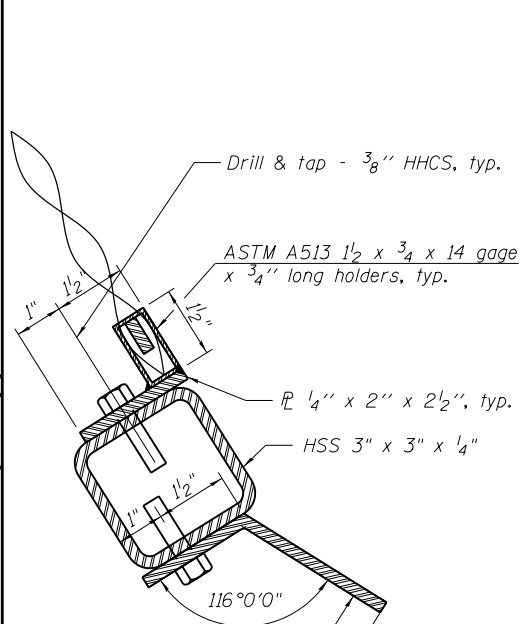
**DETAIL E
DETAIL F**



DETAIL G

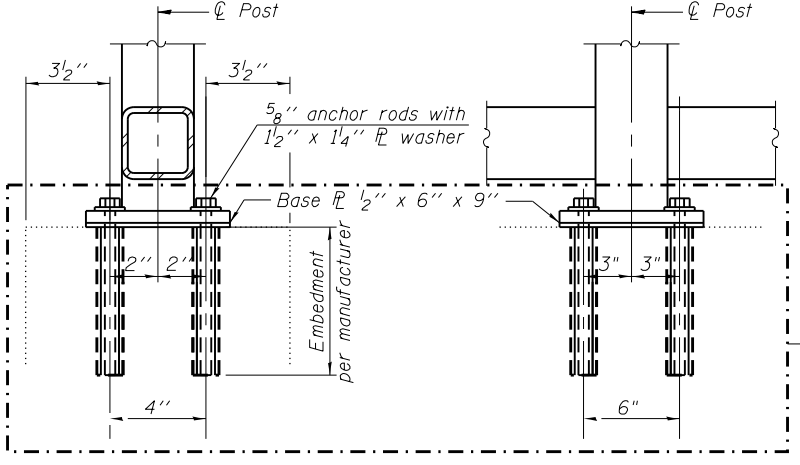
NOTES:

1. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
2. All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.
3. Reinforcement shall be spaced to miss anchor bolts.
4. For locations of Detail A thru D, See Sheet S-13.



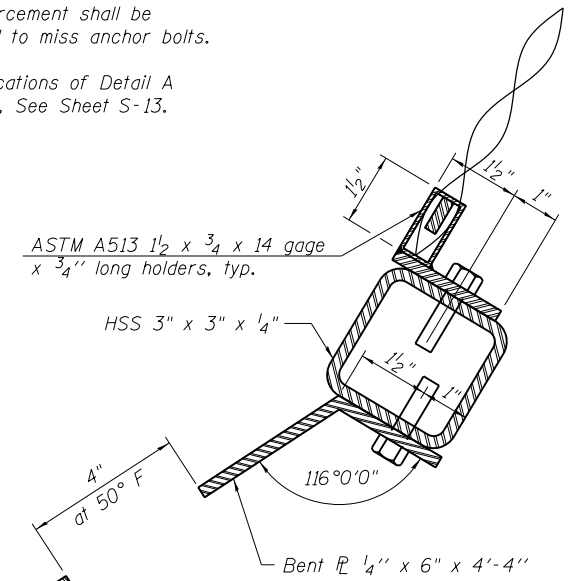
ANCHOR BOLT DETAILS IN NEW CONCRETE

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8 inch diameter anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

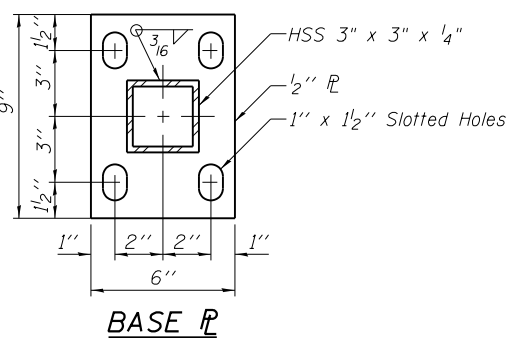


ANCHOR BOLT DETAILS IN EXISTING CONCRETE

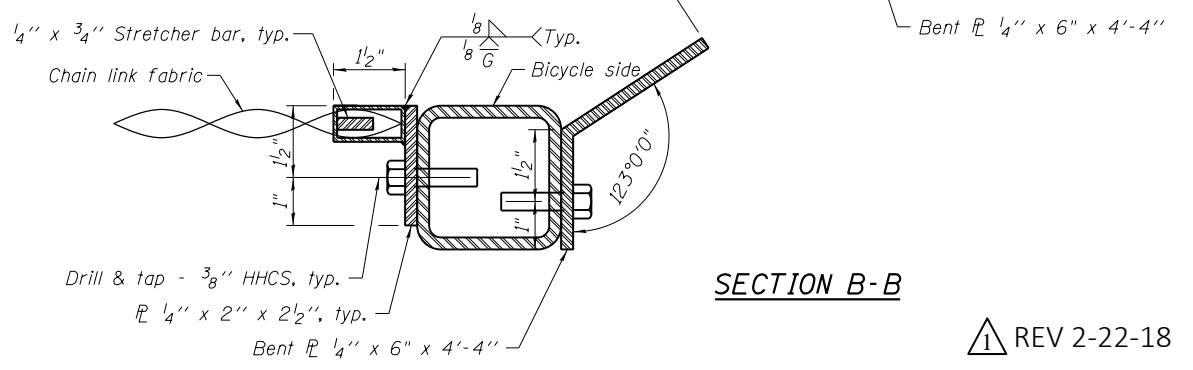
The Contractor shall perform drilling and setting 5/8 inch diameter anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



SECTION A-A



BASE PLATE



SECTION B-B

REV 2-22-18

10/16/31 AM
2/21/2018

HBM
ENGINEERING GROUP, LLC.
CONSULTING & DESIGN
INSPECTION & RATING
RESEARCH & TESTING

4415 WEST HARRISON ST.
SUITE 231
MILLSIDE, IL 60162
PHONE: (708) 236-0900
FAX: (708) 236-0901

DESIGNED - KJD	REVISED - LAB 02/15/18
DRAWN - KJD	REVISED
CHECKED - MAI, MI	REVISED
DATE - 12/08/2017	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

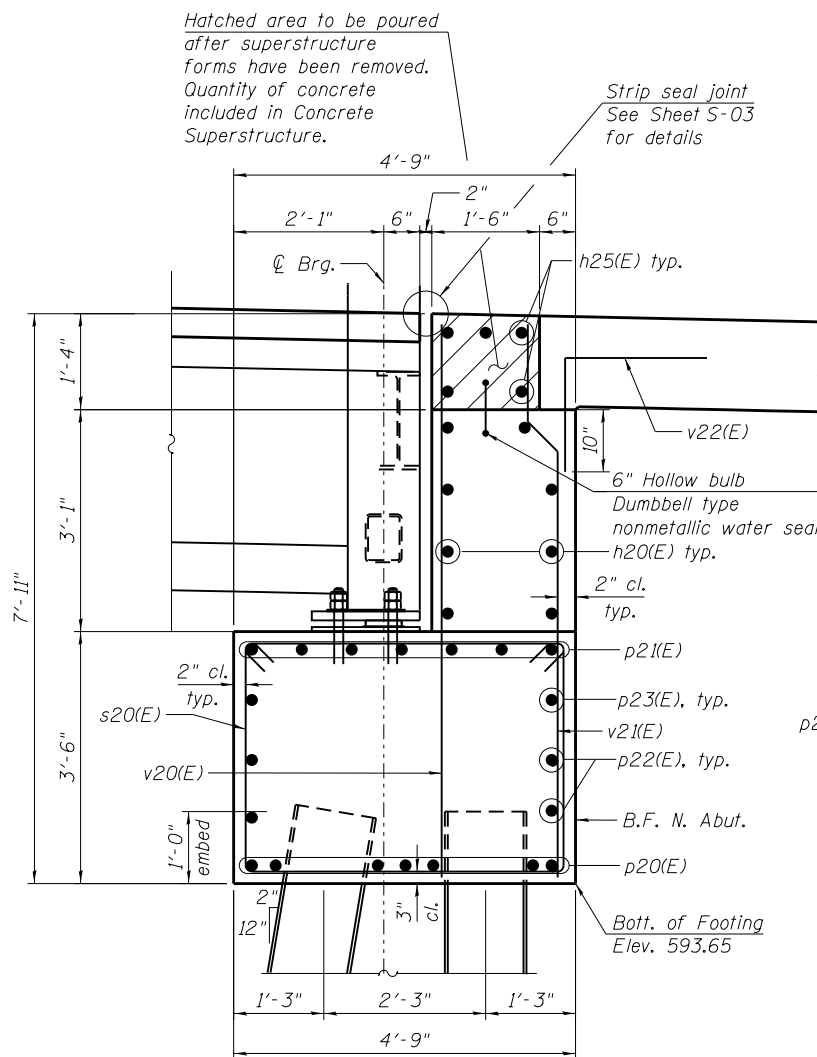
**SOUTH ABUTMENT BICYCLE RAILING DETAILS
STRUCTURE NO. 016-0539**

TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9250	142A-B	COOK	42	28
CONTRACT NO. 62B99				

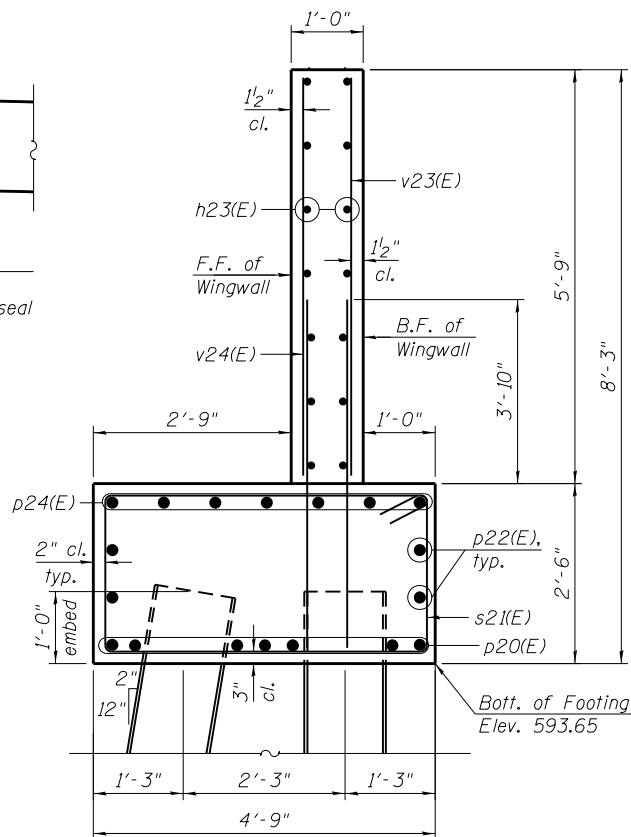
ILLINOIS FED. AID PROJECT

BILL OF MATERIAL

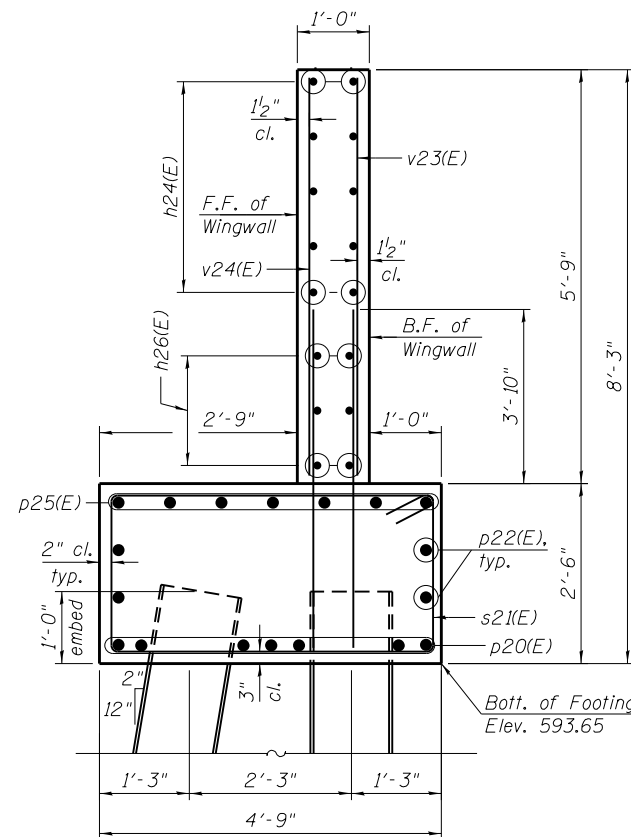
Bar	No.	Size	Length	Shape
h20(E)	8	#5	17'-8"	————
h21(E)	10	#5	7'-7"	————
h22(E)	16	#5	6'-4"	————
h23(E)	14	#5	9'-8"	————
h24(E)	10	#5	18'-6"	————
h25(E)	5	#5	15'-2"	————
h26(E)	4	#5	16'-11"	————
p20(E)	7	#7	44'-11"	————
p21(E)	7	#7	17'-8"	————
p22(E)	4	#5	44'-11"	————
p23(E)	2	#5	17'-8"	————
p24(E)	7	#7	15'-1"	————
p25(E)	7	#7	23'-2"	————
p26(E)	14	#6	8'-1"	————
s20(E)	18	#5	15'-11"	————
s21(E)	29	#5	13'-11"	————
s22(E)	3	#5	8'-11"	————
u20(E)	10	#6	12'-1"	————
v20(E)	19	#5	7'-6"	————
v21(E)	19	#5	7'-8"	————
v22(E)	17	#5	3'-9"	————
v23(E)	29	#6	7'-10"	————
v24(E)	29	#5	7'-10"	————
Concrete Structures		Cu. Yd.	33.5	
Concrete Superstructure		Cu. Yd.	1.2	
Protective Coat		Sq. Yd.	3	
Reinforcement Bars, Epoxy Coated		Pound	4,530	
Furnishing Steel Piles HP14x73		Foot	260	
Driving Piles HP14x73		Foot	260	
Test Pile Steel HP14x73		Each	1	
Pile Shoes		Each	11	
Concrete Sealer		Sq. Ft.	303	



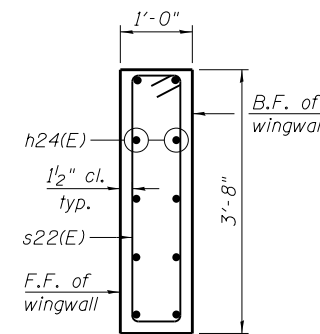
SECTION A-A



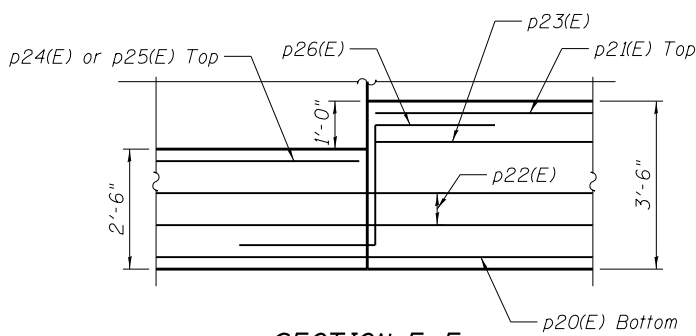
SECTION B-B



SECTION C-C



SECTION D-D

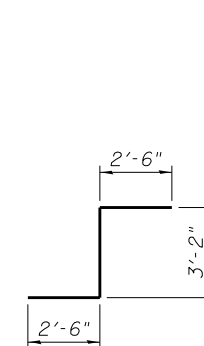


SECTION E-E

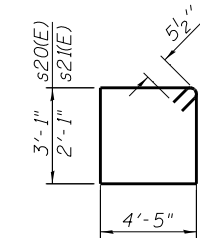
NOTES:

- For anchor bolt layout, see Pedestrian Truss Superstructure sheets prepared by the manufacturer.
- Space reinforcement to miss anchor bolts.
- All exposed surfaces of backwalls, bridge seats, wingwalls and front faces of pile caps shall be treated with Concrete Sealer.
- For HP Pile details, see Sheet S-21.
- The abutment seat elevation shall be coordinated with the requirements of the Pedestrian Truss Superstructure with approval from the Engineer.

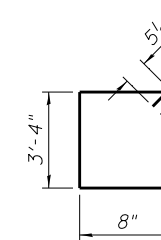
- For temporary soil retention system, see Sheet S-04.
- For existing structure removal details, see Sheets S-05 and S-06.
- The portion of the existing North Abutment and wingwalls to be removed shall be removed after the complete construction of the new North Abutment and wingwalls.
- If the Contractor determines partial removal of structural elements is required for means/methods of construction, a structural analysis/detailed drawings and plans, sealed by an Illinois Licensed Structural Engineer, shall be submitted for review and approval by Engineer. This cost shall be included in Removal of Existing Structures.
- Holes shall be precored through the existing abutment footing for piles which are to be driven past the existing abutment footing according to Article 512.09 of the Standard Specifications. If oversized holes are drilled, the void space outside of the pile shall be filled with dry, loose sand. Cost included in the cost of the Driving Piles.
- According to the existing plans, the thickness of the existing abutment footing is approximately 3'-0", with one layer of #6 reinforcement at the top of the footing, spaced at 6" cts.



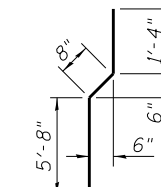
BAR p26(E)



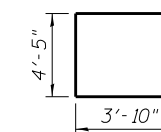
BARS s20(E) & s21(E)



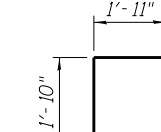
BARS s22(E)



BAR v21(E)



BAR u20(E)



BAR v22(E)

Minimum Bar Laps		
Bar	Lap	
	s < 6"	s >= 6"
#4	2'-7"	2'-7"
#5	3'-4"	3'-2"
#6	4'-9"	3'-10"
#7	5'-6"	4'-5"
#8	7'-2"	5'-1"

10/16/2018 2:21/2018 P:\1501-630-DDT-PTB-172-Item-18 (Various-Ver-dwg)\03-Structural\Sheet-Files\S16-NAbutSec&Det.dgn

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 PHONE: (708) 236-0900
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S16-NAbutSec&Det.dgn
USER NAME = lisa.buntin
PLOT SCALE = 4x0' 1/2" = 1"
PLOT DATE = 2/21/2018

DESIGNED - MI, SK
DRAWN - SK
CHECKED - MAI, MI
DATE - 12/08/2017

REVISED LAB 02/15/18
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT SECTIONS AND DETAILS
STRUCTURE NO. 016-0539
 SHEET S-16 OF S-23 SHEETS

TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9250	142A-B	COOK	42	30
CONTRACT NO. 62B99				
ILLINOIS FED. AID PROJECT				