

**BILL OF MATERIAL -
NORTHEAST WINGWALL**

Bar	No.	Size	Length	Shape
h30	25	#7	16'-8"	
h31	13	#5	16'-8"	
h32	16	#7	7'-0"	
h33	8	#5	5'-0"	
h34	8	#7	7'-2"	
v30	34	#5	12'-3"	
Item	Unit	Quantity		
Concrete Box Culverts	Cu. Yd.	9.7		
Reinforcement Bars, Epoxy Coated	Pound	1,900		

**BILL OF MATERIAL -
SOUTHEAST WINGWALL**

Bar	No.	Size	Length	Shape
h40	24	#6	14'-8"	
h41	13	#5	14'-8"	
h42	15	#6	6'-9"	
h43	8	#5	6'-3"	
h44	8	#6	5'-11"	
v40	30	#5	11'-10"	
Item	Unit	Quantity		
Concrete Box Culverts	Cu. Yd.	8.4		
Reinforcement Bars, Epoxy Coated	Pound	1,370		

**BILL OF MATERIAL -
SOUTHWEST RETAINING WALL**

Bar	No.	Size	Length	Shape
h50	8	#5	3'-4"	
h51	8	#5	3'-2"	
h52	4	#5	5'-2"	
h53	4	#5	6'-8"	
h54	2	#5	14'-2"	
h55	4	#5	21'-8"	
h56	2	#5	29'-2"	
h57	12	#5	34'-2"	
n50	13	#6	7'-2"	
n51	29	#5	4'-3"	
f50	16	#5	6'-4"	
f51	36	#5	5'-3"	
f52	28	#5	4'-2"	
v50	4	#5	12'-2"	
v51	14	#5	10'-10"	
v52	16	#5	9'-2"	
v53	16	#5	7'-5"	
v54	16	#5	5'-9"	
v55	10	#5	4'-0"	
w50	14	#5	7'-8"	
w51	34	#5	8'-2"	
w52	10	#5	4'-8"	
Item	Unit	Quantity		
Concrete Box Culverts	Cu. Yd.	20.0		
Reinforcement Bars, Epoxy Coated	Pound	2,480		
Controlled Low- Strength Material	Cu. Yd.	3		

**BILL OF MATERIAL -
NORTHWEST WINGWALL
AND RETAINING WALL**

Bar	No.	Size	Length	Shape
h60	15	#7	6'-9"	
h61	8	#5	4'-5"	
h62	8	#7	7'-9"	
h63	25	#7	16'-8"	
h64	13	#5	16'-8"	
h65	22	#5	8'-8"	
n60	10	#6	4'-10"	
f60	20	#5	5'-9"	
v60	34	#5	11'-11"	
v61	20	#5	10'-7"	
w60	12	#5	9'-8"	
Item	Unit	Quantity		
Concrete Box Culverts	Cu. Yd.	16.4		
Reinforcement Bars, Epoxy Coated	Pound	2,610		

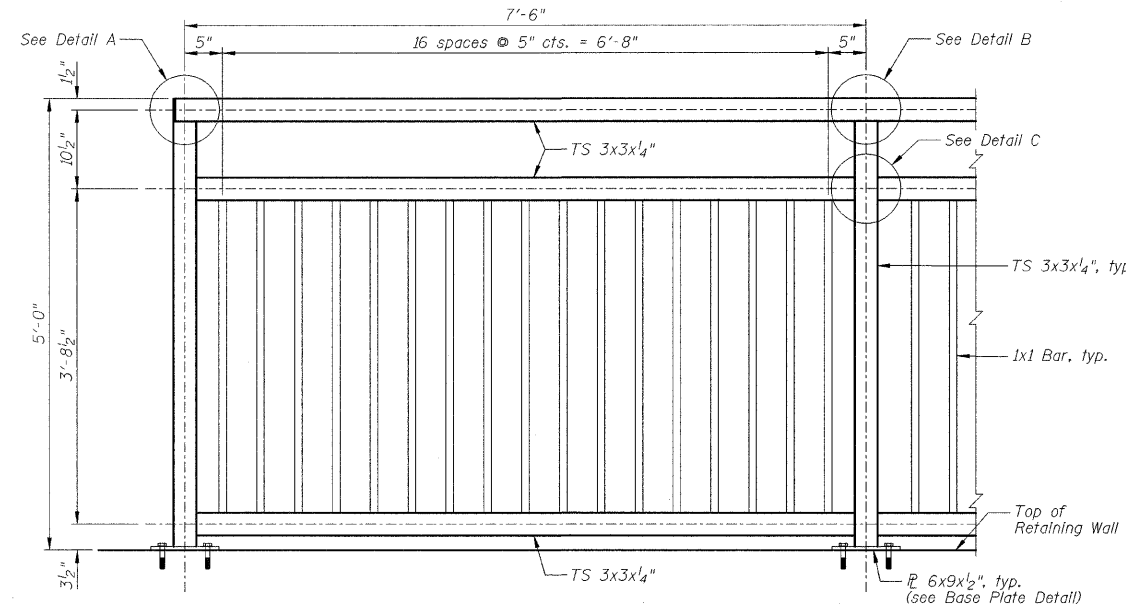
BAR BENDING DIAGRAMS

Bar	a	b	Diagram
n50	6'-2"	1'-0"	
n51	3'-5"	10"	
n60	3'-10"	1'-0"	

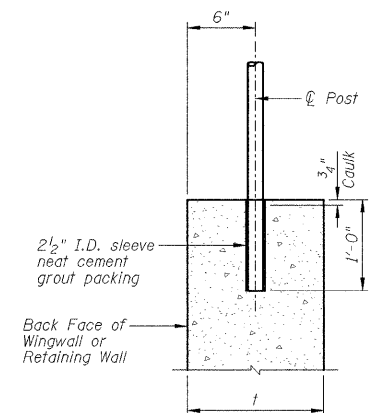
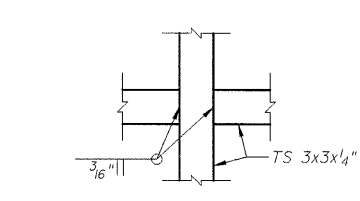
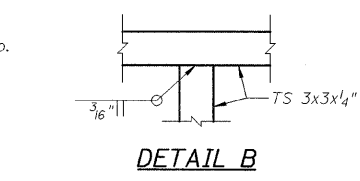
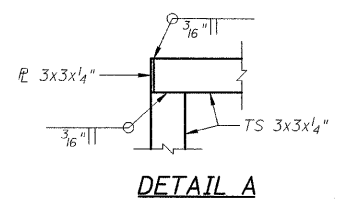
Bar	a	b	c	d	Diagram
h32	4'-3"	2'-9"	2'-6 1/2"	1'-0 5/8"	
h33	2'-9"	2'-3"	2'-1"	10 3/8"	
h42	5'-0"	1'-9"	8"	1'-7 3/8"	
h43	3'-9"	2'-6"	11 1/2"	2'-3 3/4"	
h50	1'-9"	1'-7"	3 1/4"	1'-6 3/4"	
h51	2'-3"	11"	1 7/8"	10 7/8"	
h62	4'-9"	3'-0"	3 3/8"	2'-11 7/8"	

Bar	a	b	c	d	e	Diagram
h34	3'-6"	11"	10 1/8"	2'-9"	2'-3"	
h44	3'-0"	11"	4 1/4"	2'-0"	9 1/8"	
h60	2'-9"	6"	3 7/8"	3'-6"	3 5/8"	
h61	2'-3"	2 1/2"	1 1/2"	2'-0"	2 1/2"	

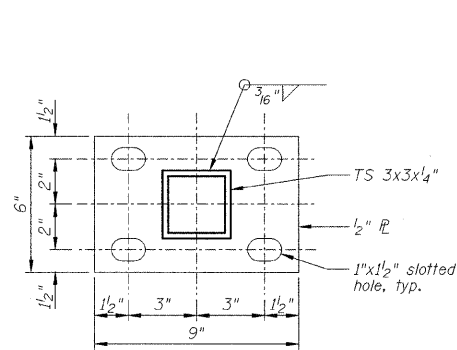
Bar	a	b	c	d	e	Diagram
h52	2'-0"	8"	1 3/8"	2'-6"	1'-5 1/4"	



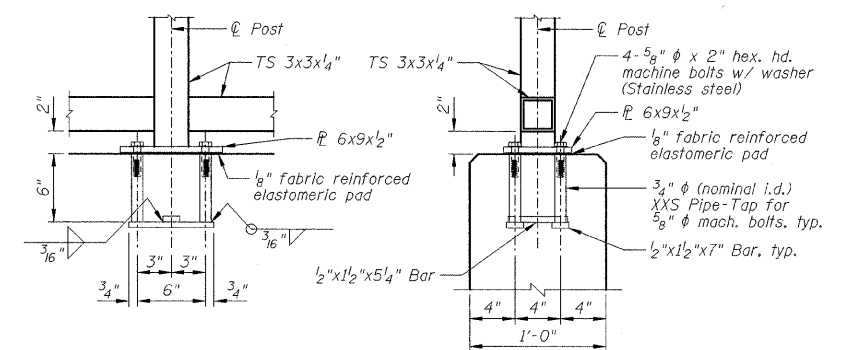
BICYCLE RAILING TYPICAL DETAIL



**CHAIN LINK FENCE
POST ANCHORAGE DETAIL**

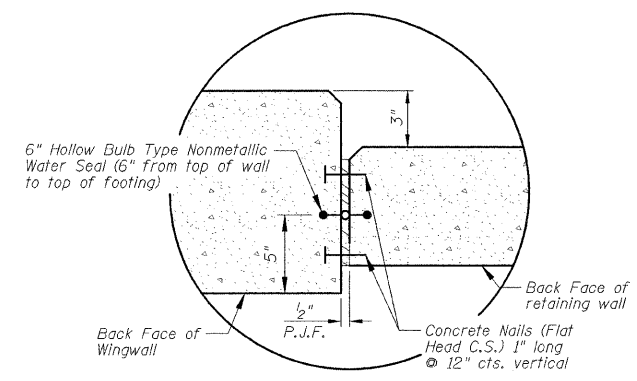


BASE PLATE DETAIL

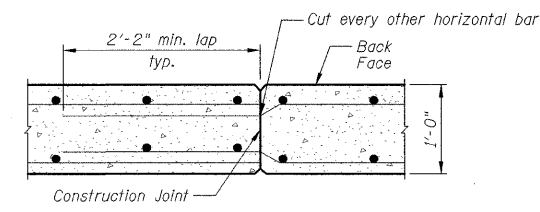


ANCHOR BOLT DETAILS

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



DETAIL A



CONSTRUCTION JOINT DETAIL

NOTE:

All posts, railing, splices, anchor devices, and bent plates shall be painted using the Shop and Field Applied Paint System or the Shop Applied Paint System. Color will be chosen by the Owner.

DESIGNED - SDH	REVISED -
DRAWN - JWK	REVISED -
CHECKED - MSW	REVISED -
DATE - 01/22/2009	REVISED -

TOWN OF NORMAL	
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WINGWALLS & RETAINING WALLS BILL OF MATERIAL AND DETAILS	
SCALE:	SHEET NO. C21 OF 23 SHEETS STA. TO STA.

VIRGINIA AVENUE OVER SUGAR CREEK SECTION 04-00226-00-BR MCLEAN COUNTY	
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F.A.J.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6366	04-00226-00-BR	MCLEAN	52	42
S.N. 057-7834		CONTRACT NO. 91416		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		