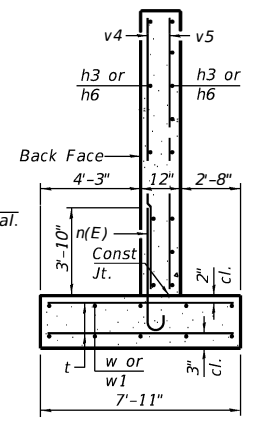
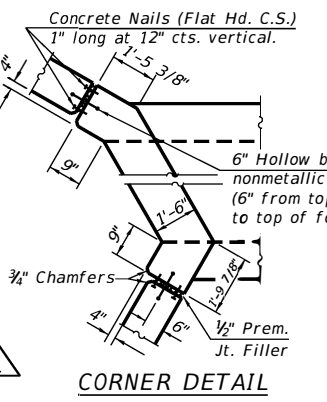
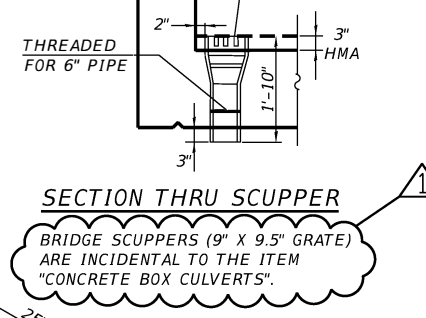
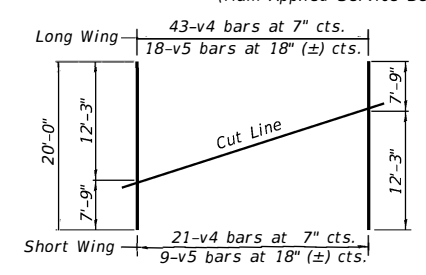


R-4006  
BRIDGE SCUPPER (9" X 9.5" GRATE)  
EXTEND 6" PIPE 3 INCHES  
BELOW CONCRETE DECK.  
INSTALL AT CENTER OF EACH  
CELL, UPSTREAM AND  
DOWNSTREAM, 6 TOTAL



SECTION A-A  
(Max. Applied Service Bearing Pressure = 2500 psf)



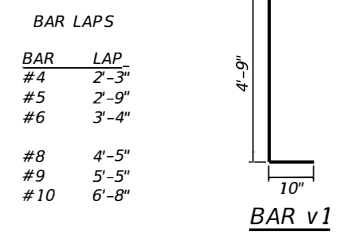
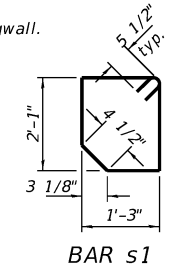
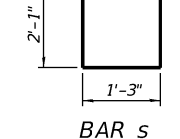
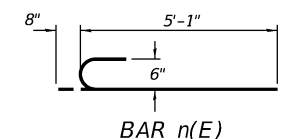
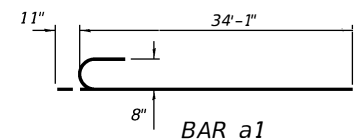
FIELD CUTTING DIAGRAM  
Order bars shown full length. Cut as shown  
and use remainder of bars in opposite wingwall.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	228	#8	35'-0"	┌
a2	232	#9	34'-8"	┌
d	116	#4	5'-5"	└
h	92	#6	23'-0"	┌
h1	184	#6	23'-0"	┌
h2	128	#5	22'-6"	┌
h3	40	#4	11'-5"	┌
h4	48	#10	24'-5"	┌
h9	92	#4	22'-3"	┌
n(E)	128	#6	5'-9"	┌
s	64	#5	7'-7"	┌
s1	64	#5	7'-6"	┌
t	196	#4	7'-8"	┌
v	136	#6	8'-6"	┌
v1	272	#6	5'-7"	┌
v2	258	#5	7'-3"	┌
v3	8	#6	13'-9"	┌
v4	64	#5	20'-0"	┌
v5	27	#4	20'-0"	┌
w	36	#5	11'-5"	┌
w1	36	#5	24'-5"	┌
Concrete Box Culverts	Cu. Yd.		322.0	
Reinforcement Bars	Pound		79,510	
Reinforcement Bars, Epoxy Coated	Pound		1,110	

Notes:  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
At the Contractor's option, a longer v1 bar may be ordered to replace the v bar.  
No reduction in quantities shall be made for this substitution.  
TSA-SB-TT-LS 2-17-2017

NOTE: LAP a1 bars at straight ends with hooked ends at exterior walls



5 FILES

USER NAME =	DESIGNED - TO	REVISED - 01/06/2022
DRAWN - ORG	CHECKED - TO	REVISED -
PLOT SCALE =	DATE - 07/23/2020	REVISED -
PLOT DATE =		

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS

DECATUR (217) 422-8544  
SCHAUMBURG (773) 714-0050  
ROCKFORD (815) 489-0050  
184-001397

**CULVERT DETAILS**  
STRUCTURE NO.

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
61	19-00187-00-BR	STEPHENSON	7	6
PROJECT ILLINOIS			CONTRACT NO. 85717	