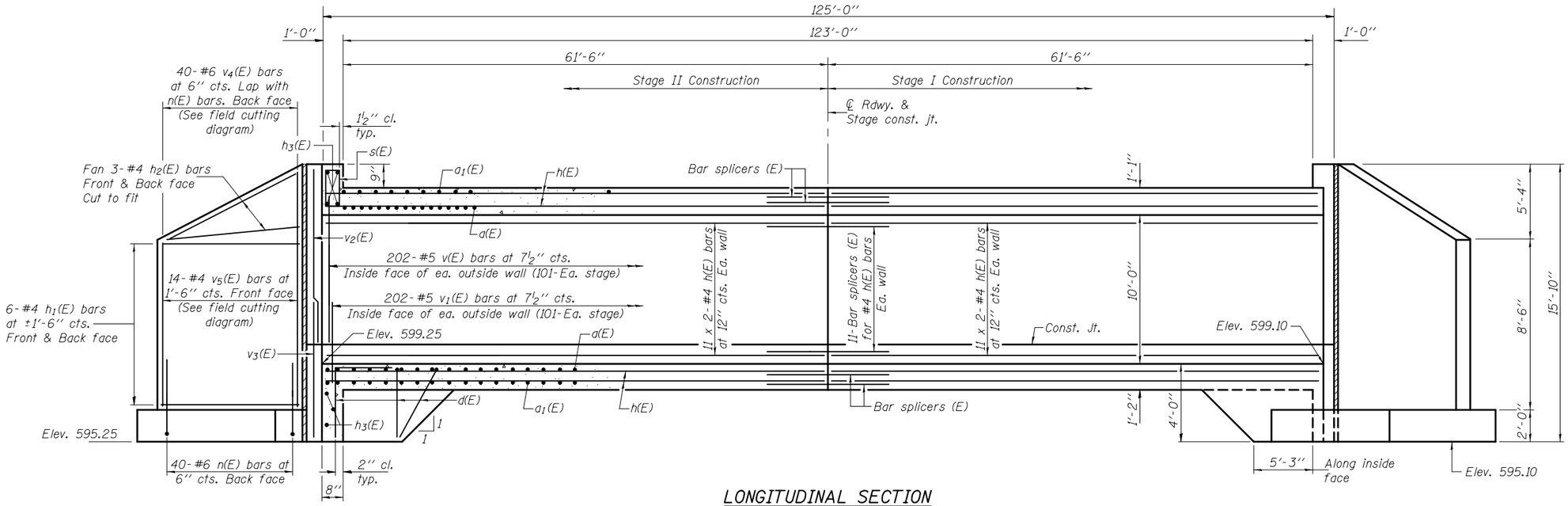
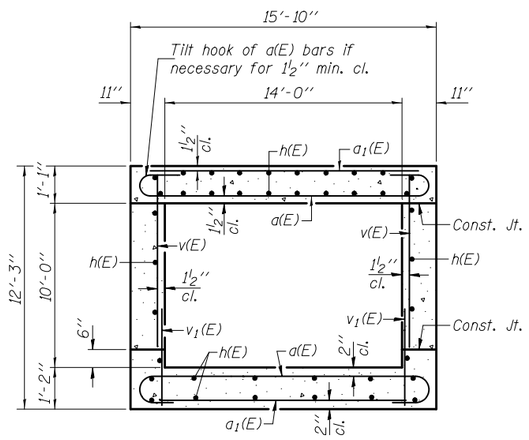


LONGITUDINAL SECTION

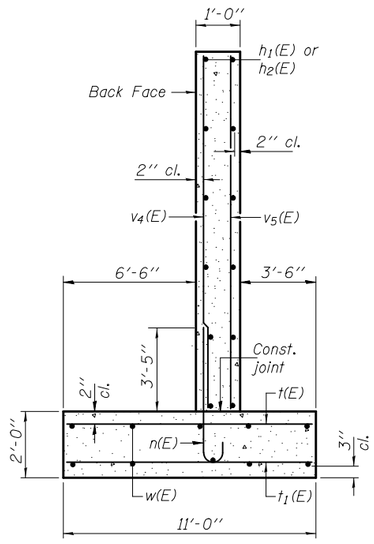
(Looking south)

MIN. BAR LAP

#4 bar = 2'-1"
#5 bar = 2'-7"

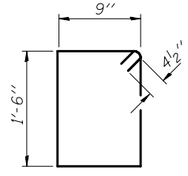


SECTION THRU BARREL

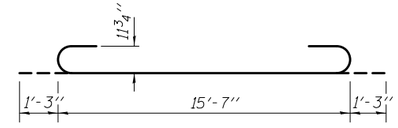


SECTION A-A

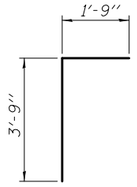
Maximum Applied Service Bearing Pressure = Q_{max} = 2.21 Ksf



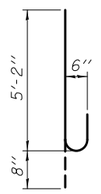
BAR s(E)



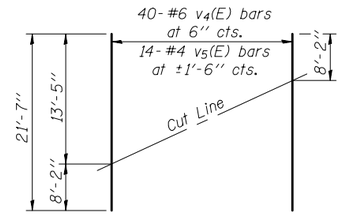
BAR d(E)



BAR d(E)



BAR n(E)



FIELD CUTTING DIAGRAM

Order v_4(E) & v_5(E) full length. Cut as shown and use remainder of bars in adjacent wingwall.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	454	#9	18'-1"	
a1(E)	128	#4	15'-7"	
d(E)	64	#4	5'-6"	
h(E)	280	#4	32'-2"	
h1(E)	48	#4	19'-5"	
h2(E)	24	#4	20'-1"	
h3(E)	14	#6	15'-6"	
n(E)	160	#6	5'-10"	
s(E)	32	#4	5'-3"	
t(E)	120	#7	10'-8"	
t1(E)	80	#5	10'-8"	
v(E)	404	#5	10'-3"	
v1(E)	404	#5	4'-3"	
v2(E)	8	#5	11'-0"	
v3(E)	8	#5	7'-1"	
v4(E)	80	#6	21'-7"	
v5(E)	28	#4	21'-7"	
w(E)	64	#4	19'-5"	
Concrete Box Culverts			Cu. Yd.	353
Reinforcement Bars, Epoxy Coated			Pound	51880

DESIGNED - PEC/ADY	EXAMINED	DATE - OCTOBER 4, 2013	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CULVERT DETAILS STRUCTURE NO. 046–2552**	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - ADY/PG					57	(140)BR, BR-1 & I(1)	KANKAKEE	183	126
DRAWN - h.t. duong	PASSED	REVISED					CONTRACT NO. 66750		
CHECKED - ADY/PG	ACTING ENGINEER OF BRIDGE DESIGN / ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 7 OF 9 SHEETS			ILLINOIS FED. AID PROJECT		