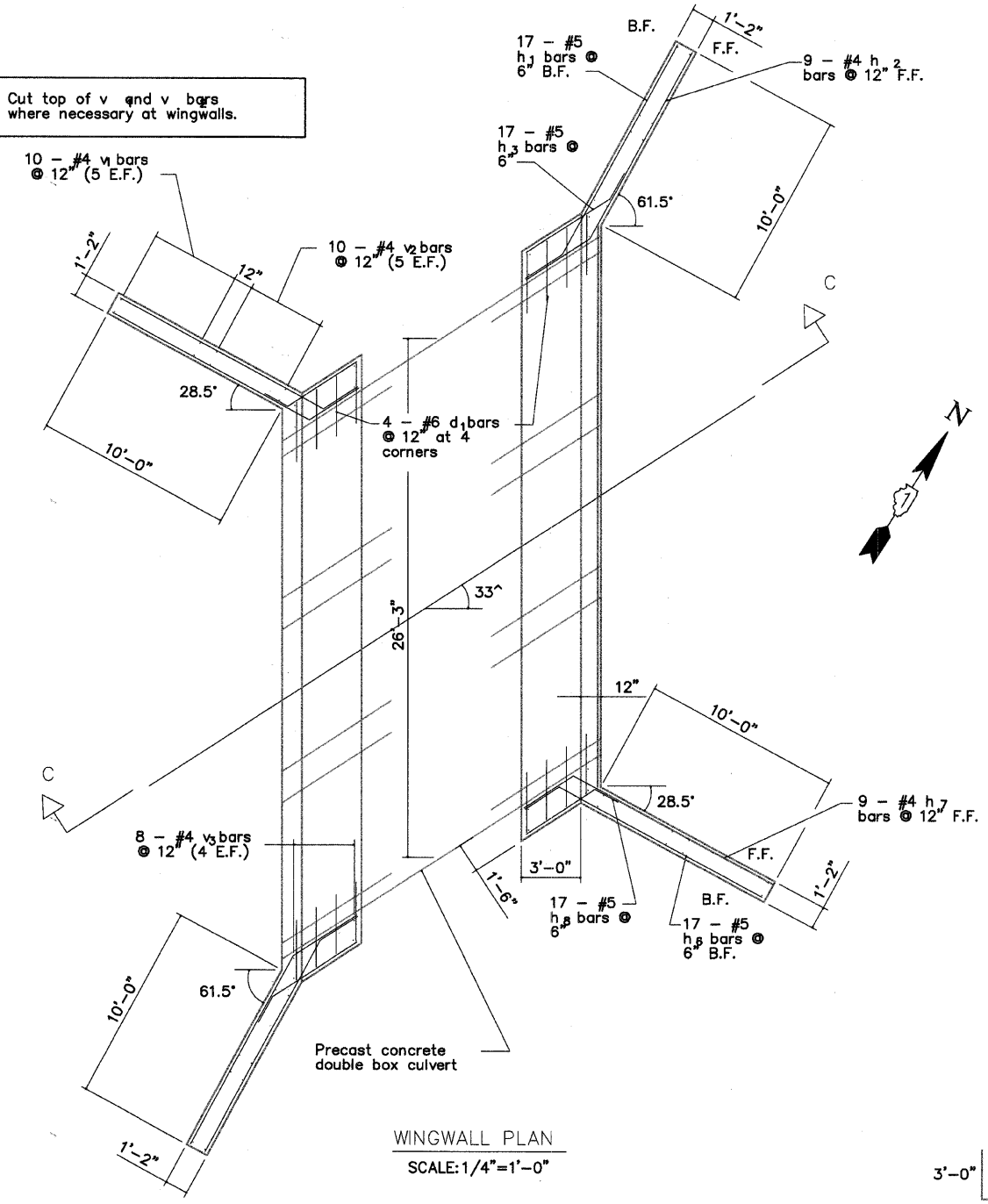
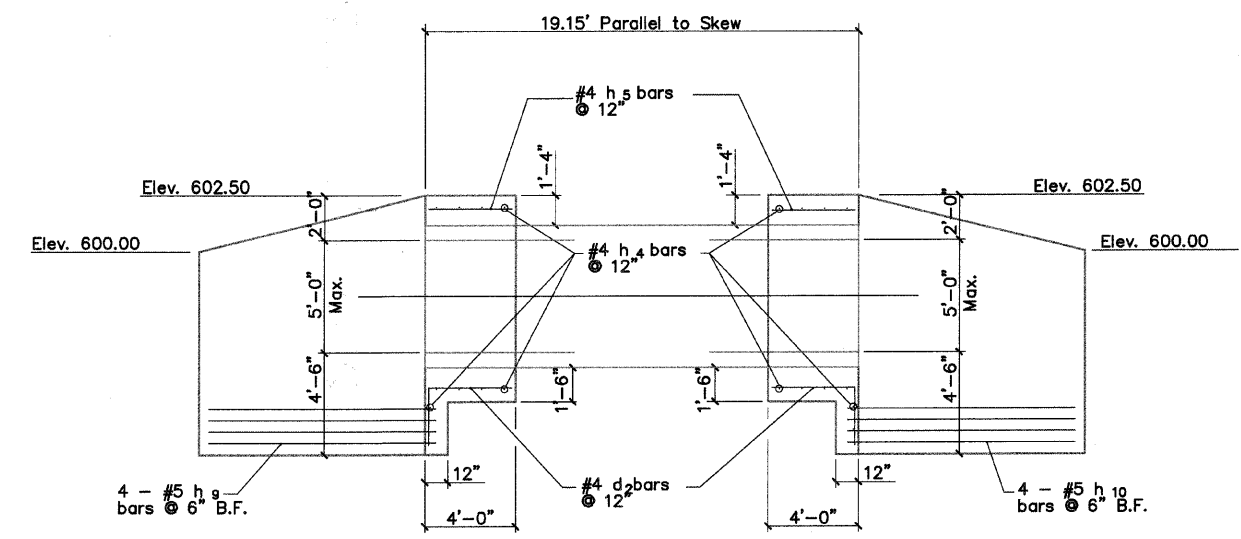


Cut top of v and v₃ bars where necessary at wingwalls.



WINGWALL PLAN
SCALE: 1/4"=1'-0"

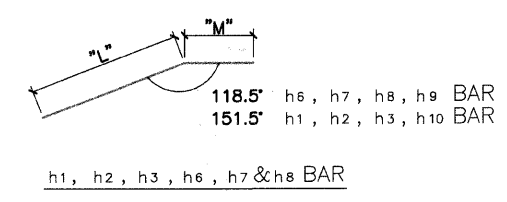
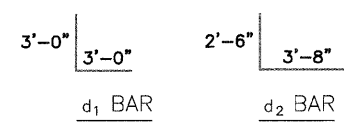


SECTION C-C
SCALE: 1/4"=1'-0"

BAR	"L"	"M"
h ₁	12'-0"	2'-2"
h ₂	10'-8"	3'-8"
h ₃	5'-0"	1'-0"
h ₆	11'-6"	2'-0"
h ₇	11'-2"	2'-10"
h ₈	4'-1"	1'-0"
h ₉	10'-1"	3'-0"
h ₁₀	9'-5"	3'-0"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h ₁	34	# 5	14'-2"	
h ₂	18	# 4	14'-4"	
h ₃	34	# 5	6'-0"	
h ₄	20	# 4	28'-9"	
h ₅	58	# 4	4'-2"	
h ₆	34	# 5	13'-6"	
h ₇	18	# 4	14'-0"	
h ₈	34	# 4	5'-1"	
h ₉	8	# 5	13'-1"	
h ₁₀	8	# 5	12'-5"	
v ₁	40	# 4	9'-9"	
v ₂	40	# 4	11'-0"	
v ₃	32	# 4	8'-6"	
d ₁	32	# 6	6'-0"	L
d ₂	58	# 4	6'-2"	L
CONCRETE STRUCTURES			CU. YD.	60.0
REINFORCEMENT BARS			POUND	3,680



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO Standard Specifications for Highway Bridges.

Kelly Jo Hoffmann
 KELLY JO HOFFMANN
 Illinois Licensed Structural Engineer Number 4192
 License Expires 11/30/10



USER NAME =	DESIGNED -- KJH	REVISED --
PLOT SCALE =	DRAWN -- KJH	REVISED --
PLOT DATE =	CHECKED -- JF	REVISED --
	DATE -- JANUARY, 2010	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST NORMAN BOX CULVERT
END SECTION DETAIL
SCALE: 1/4"=1'-0" SHEET NO. 1 OF 1 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	01-P4015-01-BT	WILL	41	32
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 63325	