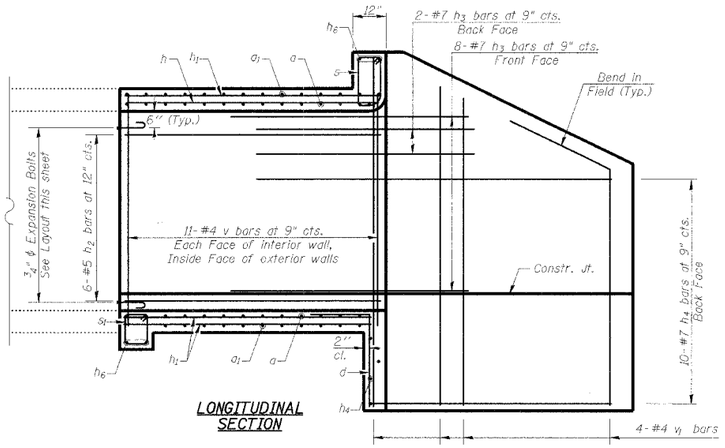
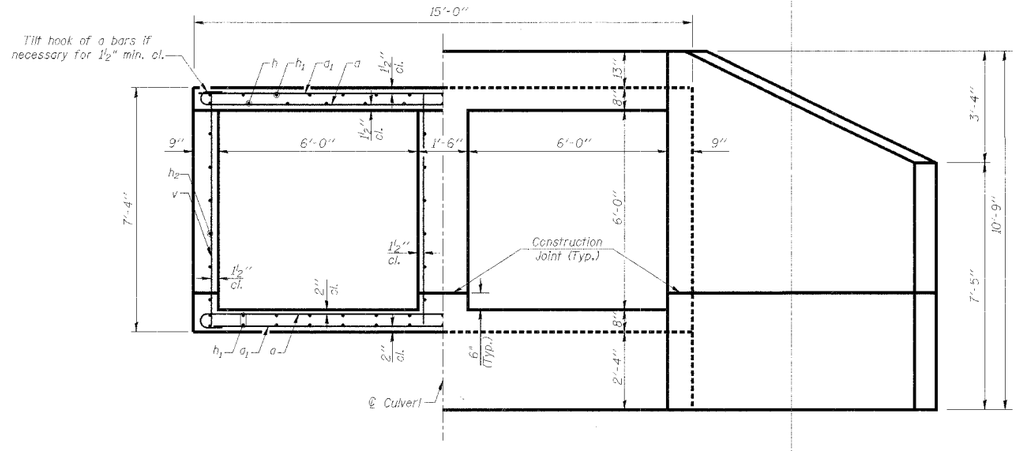
COUNTY HIGHWAY	FISCAL YEAR	TOTAL SHEETS	SHEET NO.
	2005	30	28
SEC 03-00001-06-BT		DUPAGE COUNTY	

CONTRACT NO.: 83805

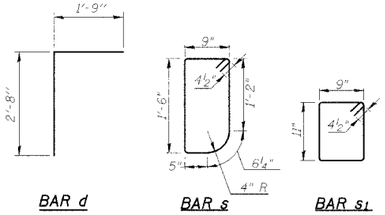


LONGITUDINAL SECTION

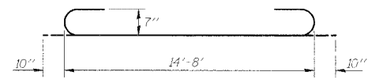


HALF SECTION THRU BARREL

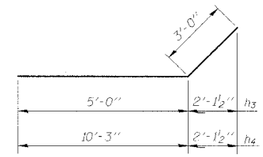
HALF END ELEVATION



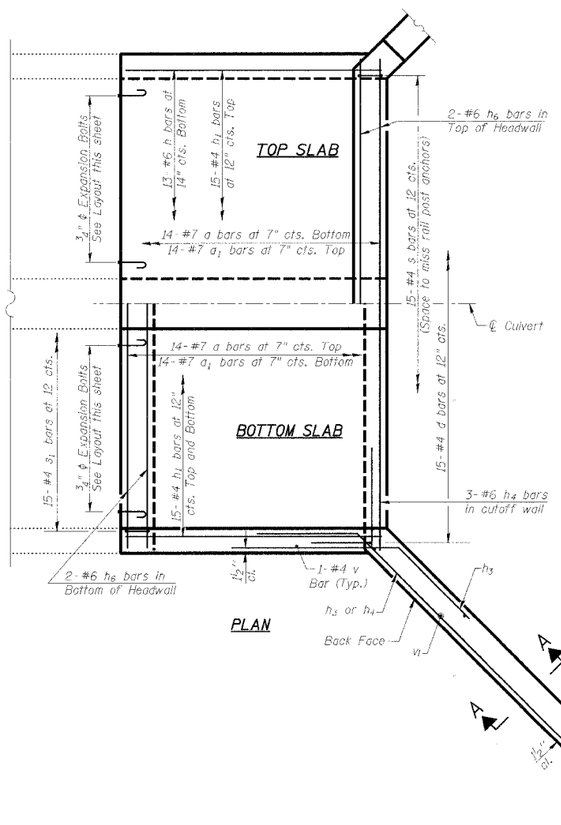
BAR d BAR s BAR s_1



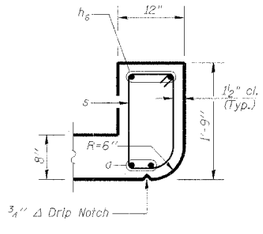
BAR a



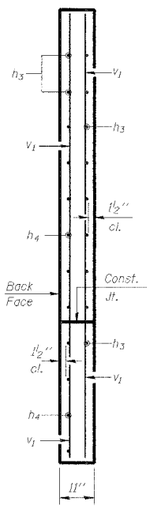
BARS h_3 & h_4



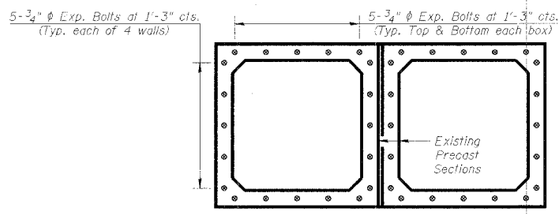
PLAN



HEADWALL DETAILS

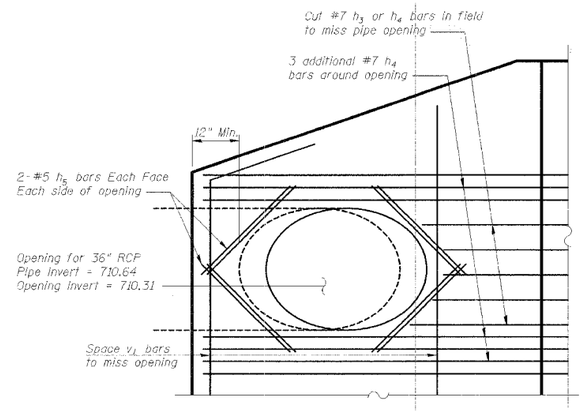


SECTION A-A



EXPANSION BOLT LAYOUT

*Expansion Bolts shall be ¾" ϕ hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete.



PIPE OPENING DETAIL

(East Wingwall elevation)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	28	#7	16'-4"	
a_1	28	#7	14'-8"	
d	15	#4	4'-5"	
h	13	#6	7'-9"	
h_1	15	#4	7'-9"	
h_2	24	#5	7'-9"	
h_3	20	#7	8'-0"	
h_4	23	#7	13'-3"	
h_5	8	#5	3'-9"	
h_6	4	#6	14'-7"	
s	15	#4	5'-1"	
s_1	15	#4	4'-1"	
v	46	#4	7'-0"	
v_1	8	#4	10'-6"	
Concrete Box Culverts			Cu. Yd.	19.2
Reinforcement Bars			Pound	3830
Expansion Bolts 3/4 Inch			Each	40

NO.	DATE	BY	REVISION	NO.	DATE	BY	REVISION

SCALE	N/A		
DRAWN BY	LCM	DATE	
CHECKED BY	WJV	DATE	
APPROVED BY		DATE	

RJN GROUP

RJN GROUP, INC.
CONSULTING ENGINEERS

PROJECT: Southern DuPage County Regional Trail
101st Street Connector – Waterfall Glen Spur

TITLE: CULVERT EXTENSION DETAILS

DATE: JUNE 9, 2005
PROJECT No.: 11-1900-01
SHEET: 2 of 3

6/10/2005 8:45:16 AM K:\1190001\culver\culvert.dgn