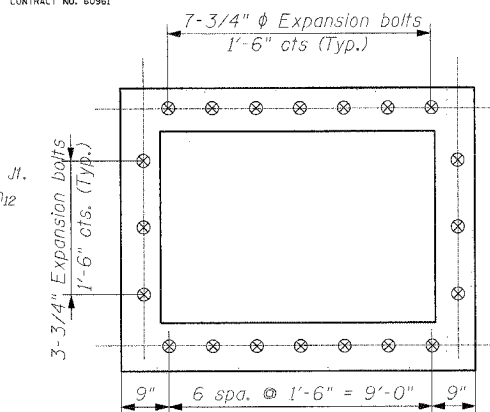
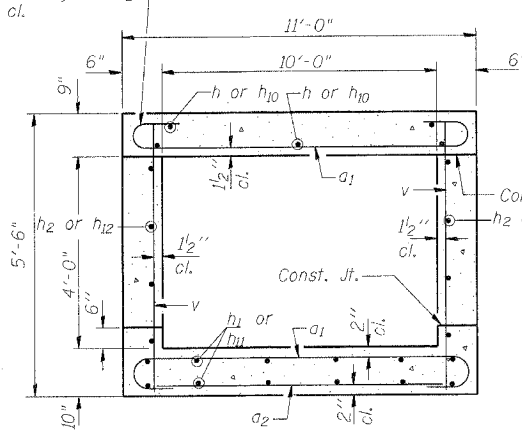
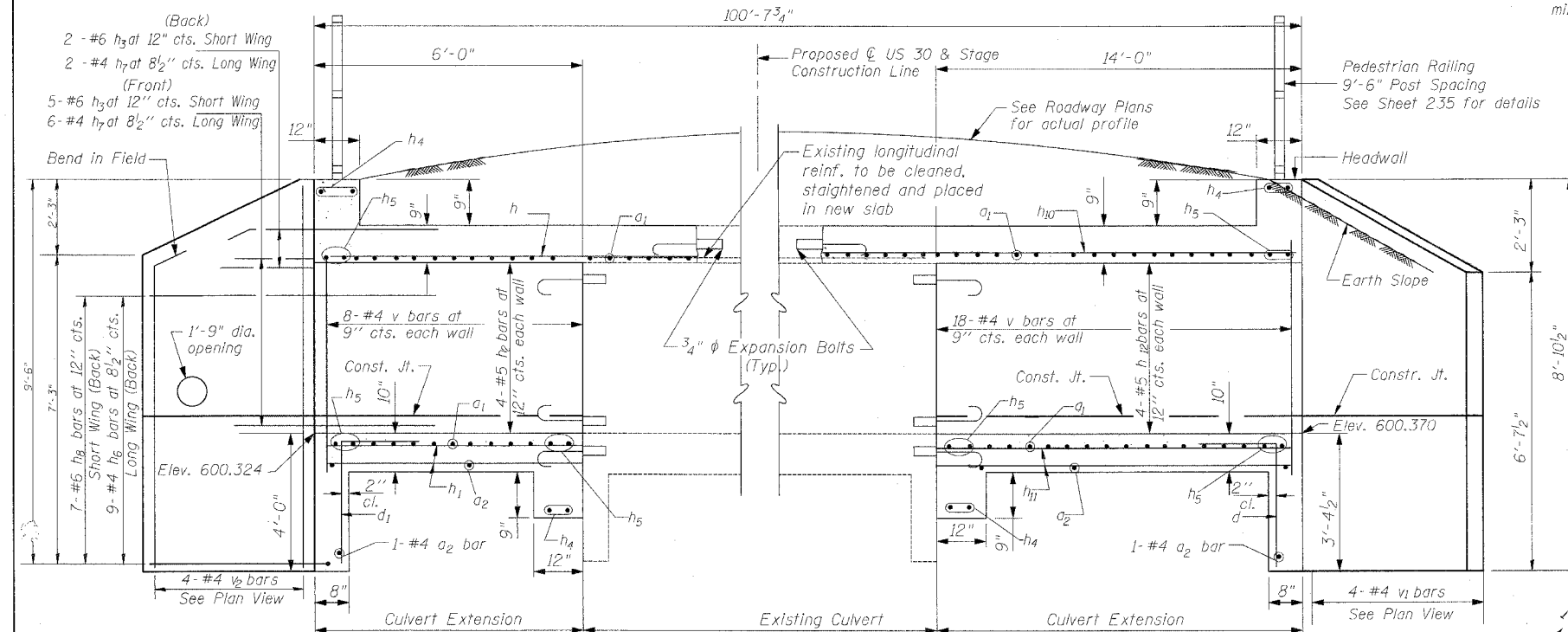


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

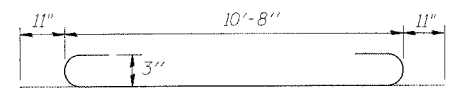
P.L. DATE	SECTION	COUNTY	SHEET NO.	SHEET NO.
575	18-141 R-3	WILL	350	236
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
CONTRACT NO. 60961				



SHOWING REINFORCEMENT

SHOWING EXPANSION BOLTS

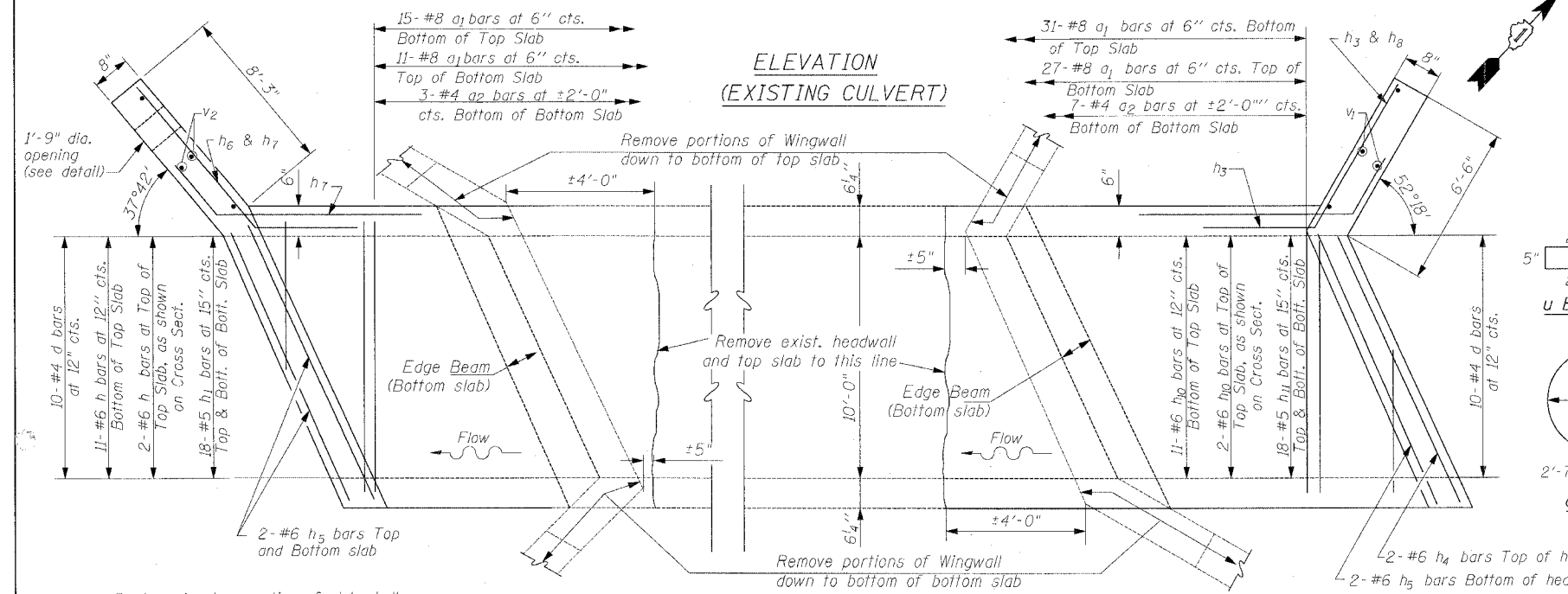
SECTION THRU BARREL



BAR a1

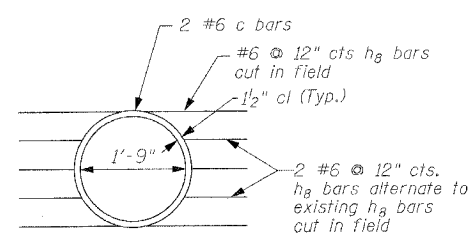
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	84	#8	12'-6"	U
a2	12	#4	10'-3"	—
c	2	#6	8'-10 3/4"	O
d	10	#4	4'-11"	—
d1	10	#4	5'-6"	—
h	13	#6	9'-8"	—
h1	18	#5	5'-8"	—
h2	8	#5	5'-8"	—
h3	7	#6	8'-0"	—
h4	8	#6	11'-1"	—
h5	12	#6	11'-11"	—
h6	9	#4	9'-6"	—
h7	8	#4	8'-0"	—
h8	9	#6	11'-3"	—
h10	13	#6	17'-8"	—
h11	18	#5	13'-8"	—
h12	8	#5	13'-8"	—
u	12	#6	5'-7"	—
v	52	#4	5'-3"	—
v1	4	#4	8'-6"	—
v2	4	#4	9'-1"	—
Concrete Box Culvert	Cu. Yd.		20.1	
Reinforcement Bars	Pound		5085	
Pedestrian Railing	Foot		22	

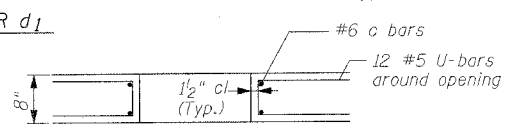


PLAN (EXISTING CULVERT)

BAR d



OPENING DETAIL
SOUTHWEST LONG WING



DISTRIBUTION OF U-BARS

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

LOADING HS 20-44

Note:
Expansion bolts shall be 3/4" diameter hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete.
See Sheet Box Culvert Details for Wingwall and Headwall details.

DESIGNED	ATB/SL
CHECKED	PKC/JRS
DRAWN	CBR/RV
CHECKED	ATB/SL



KAM ENGINEERING, INC.
CONSULTING ENGINEERS
707A Davis Road, Suite 205
Evanston, Illinois 60223-1369

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US ROUTE 30 AT SUNNYLAND DRAIN
STA. 813+00.56
BOX CULVERT EXTENSION
DETAILS
SHEET 3 OF 3
SCALE: NONE
DATE: MARCH 2005
DRAWN BY: CBR/RV
CHECKED BY: SL/PKC