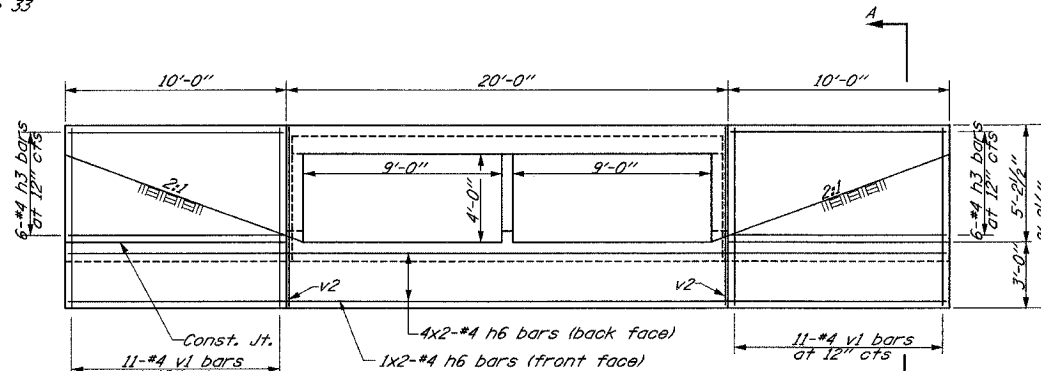
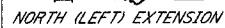
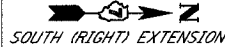


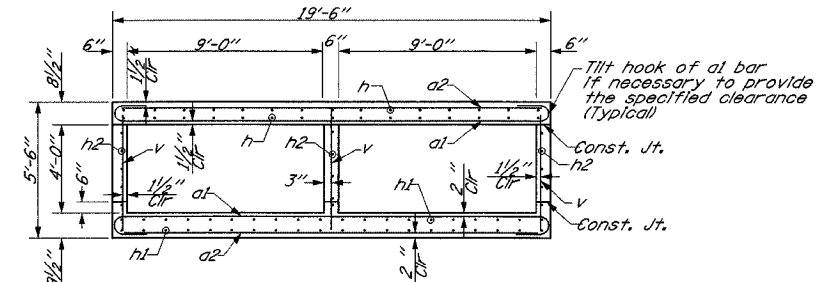
HALF LONG SECTION

Dimensions at Rt L to & Roadway

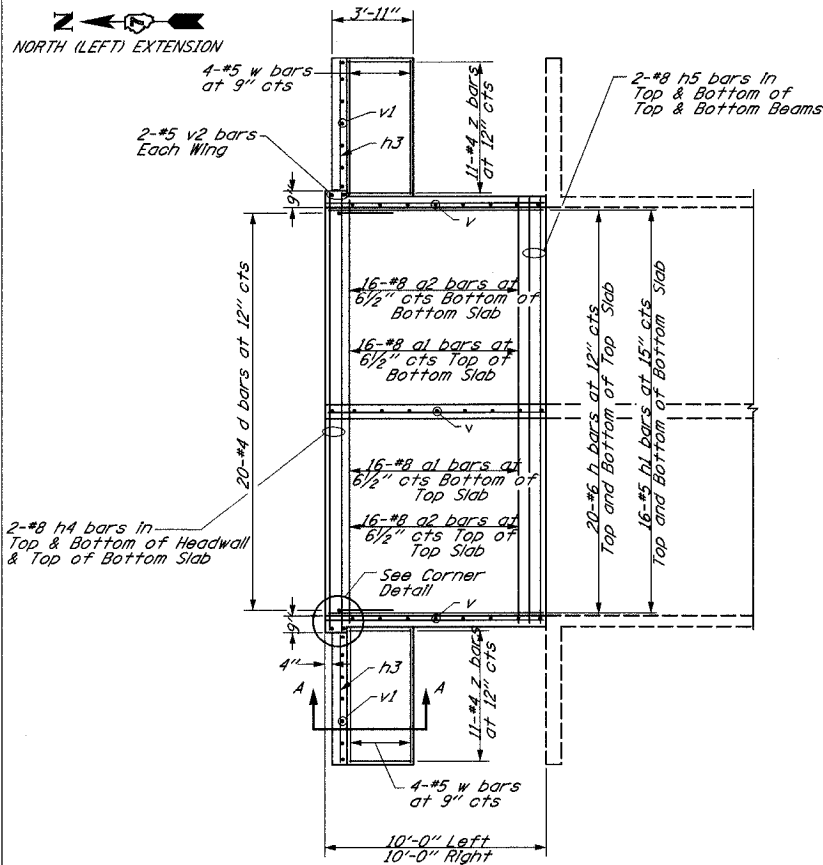


END ELEVATION

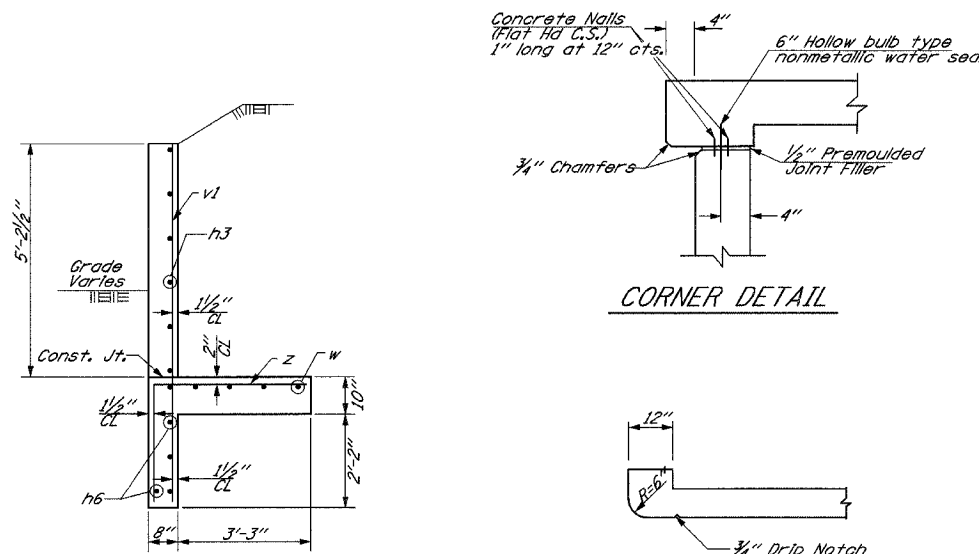
Dimensions Parallel to & of Roadway



SECTION THRU BARRELS



PLAN SHOWING REINFORCEMENT

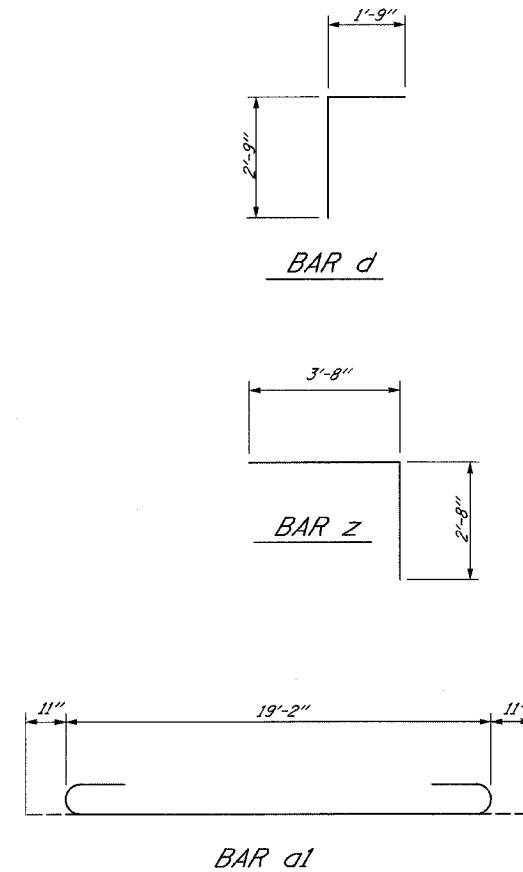


CORNER DETAIL

SECTION THRU HEADWALL

(Up Stream End Only)

SECTION A-A



BAR d

BAR z

BAR a1

BILL OF MATERIAL
(For Two Extensions, 1 Lt. & 1 Rt.)

Bar	No.	Size	Length
a1	64	#8	21'-0"
a2	64	#8	19'-2"
d	40	#4	4'-6"
h	80	#6	9'-8"
h1	64	#5	9'-8"
h2	30	#5	9'-8"
h3	24	#4	9'-8"
h4	12	#8	19'-8"
h5	16	#8	19'-2"
h6	20	#4	21'-6"
v	84	#4	5'-2"
v1	44	#4	7'-11"
v2	8	#5	7'-11"
w	16	#5	9'-11"
z	44	#4	6'-4"
Concrete Structures	Cu Yd		45.2
Reinforcement Bars	Pound		23,848
Expansion Bolts 3/4"	Each		60

NOTES:

- Bench Mark: & IL Route 33 at & Cluvert (Sta. 268+85.25), Elev. 586.63.
- Design Fill Height 2' Lt & Rt.
- Exposed edges shall be chamfered 3/4".
- Class SI Concrete shall be used throughout.
- Reinforcement Bars shall conform to the requirements of AASHTO M31 or M322, Grade 60.
- Bars indicated thus 12x4-#5 etc. indicates 12 lines of #5 bars with 4 lengths per line.
- Nonmetallic water seal used in the wingwall joints shall extend from the top of the footing to within 6" of the top of the headwall.
- For Backfilling and Embankment, see Standard Specifications.
- Expansion Bolts shall consist of self-drilling expansion shields and hooked bolts. Hooked Bolts shall extend a minimum of 9" into new concrete.

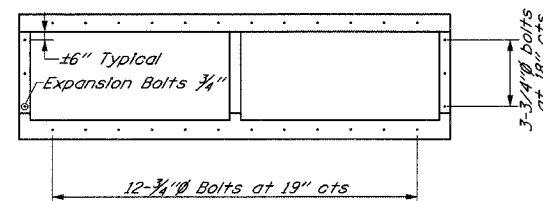
SPECIFICATION

1996 AASHTO with 1997, 1998, 1999, 2000 and 2002 Interims

DESIGN STRESSES

$f_y = 60,000 \text{ psi}$
 $f'_c = 3,500 \text{ psi}$

LOADING HS 20-44



EXPANSION BOLT PLACEMENT DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CULVERT EXTENSION DETAILS
& STA. 268+85.25
SHEET 3 OF 5

DATE 9/01

DRAWN BY BDM
CHECKED BY SJK