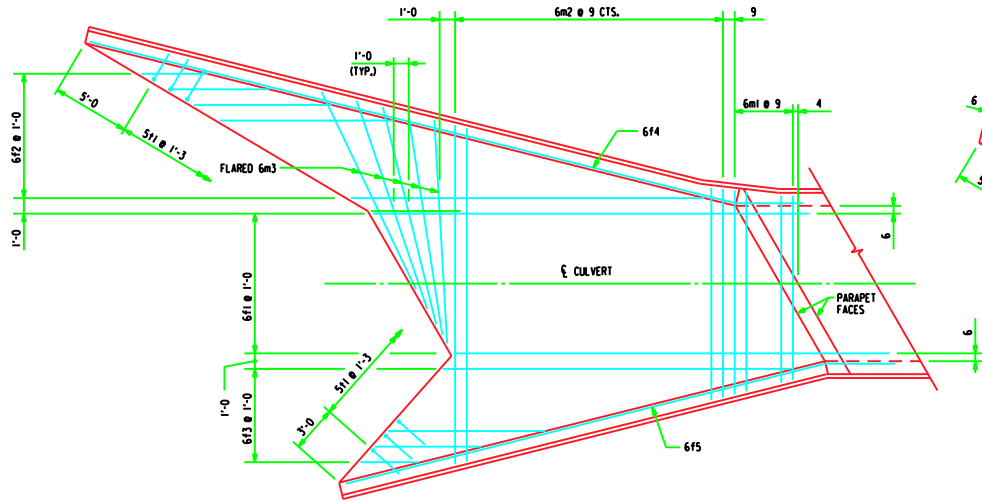
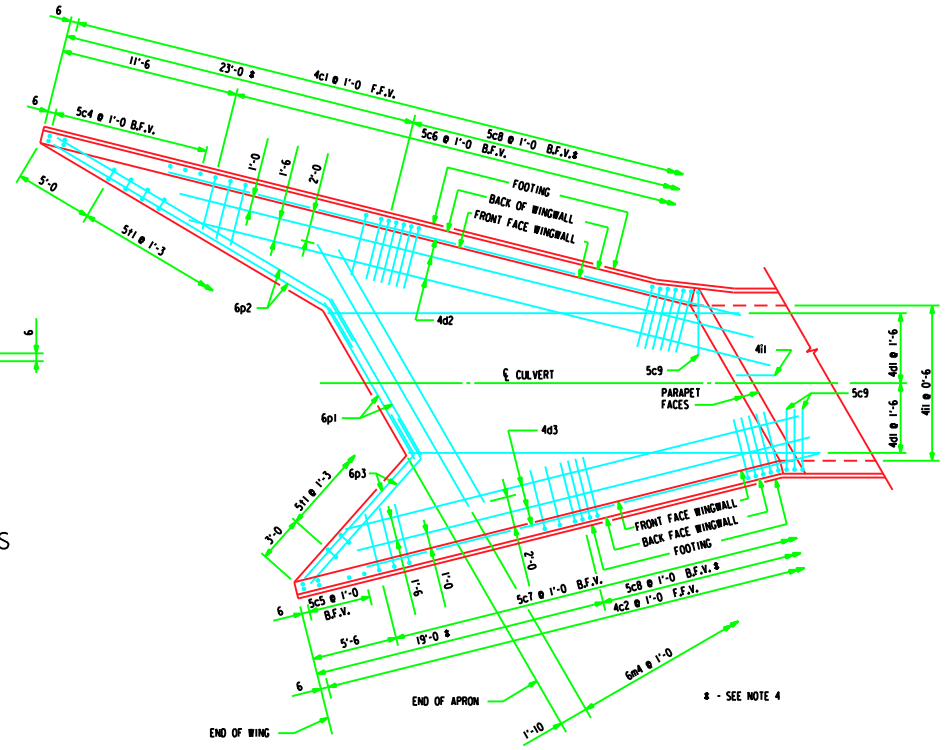


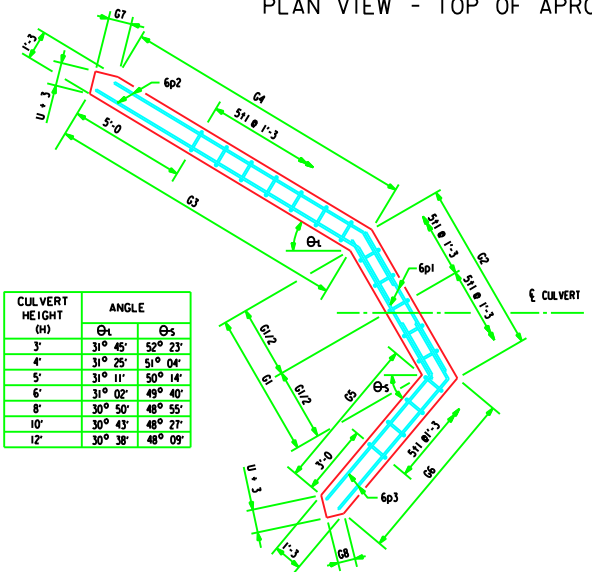
REVISION - 04-07 - ADDED PERMISSIBLE CONSTRUCTION JOINT IN CURTAIN WALL.
FWH 30-5-87



PLAN VIEW - TOP OF APRON REINFORCING BARS

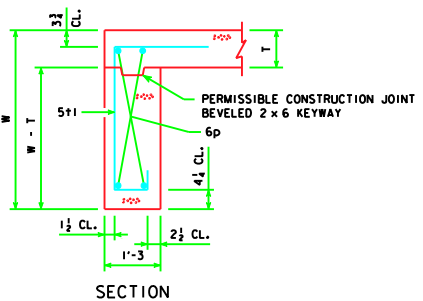


PLAN VIEW - BOTTOM OF APRON REINFORCING BARS



PLAN CURTAIN WALL DETAILS

CULVERT HEIGHT (H)	ANGLE	
	Θ_1	Θ_2
3'	31° 45'	52° 23'
4'	31° 25'	51° 04'
5'	31° 11'	50° 14'
6'	31° 02'	49° 40'
8'	30° 50'	48° 55'
10'	30° 43'	48° 27'
12'	30° 38'	48° 09'



SECTION

- NOTES :
1. BAR SPACINGS AND POSITIONS SHOWN ARE SIMILAR FOR ALL SIZES OF HEADWALLS IN THIS STANDARD.
 2. WINGWALL BARS CONSISTENTLY REFERENCED FROM END OF WING FOR ALL HEADWALLS.
 3. TOP TRANSVERSE FLOOR BARS ARE REFERENCED APPROXIMATELY 4" FROM THE BACK OF THE PARAPET FOR ALL HEADWALLS.
 4. THERE ARE NO 5c8 BARS IN THE 3', 4', 5' AND 6' HEIGHT HEADWALL.
 5. FOR REINFORCING IN CURTAIN WALL SEE CURTAIN WALL DETAILS THIS DWG.
 6. FOR DIMENSION TABLE SEE DWG. FWH 30-4-87.

LATEST REVISION DATE :
04-07
Thomas E. McQuinn
APPROVED BY :

STANDARD DESIGN
FLARED WING HEADWALLS
FOR
REINFORCED CONCRETE BOX CULVERTS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
MAY , 1987

FWH 30-5-87