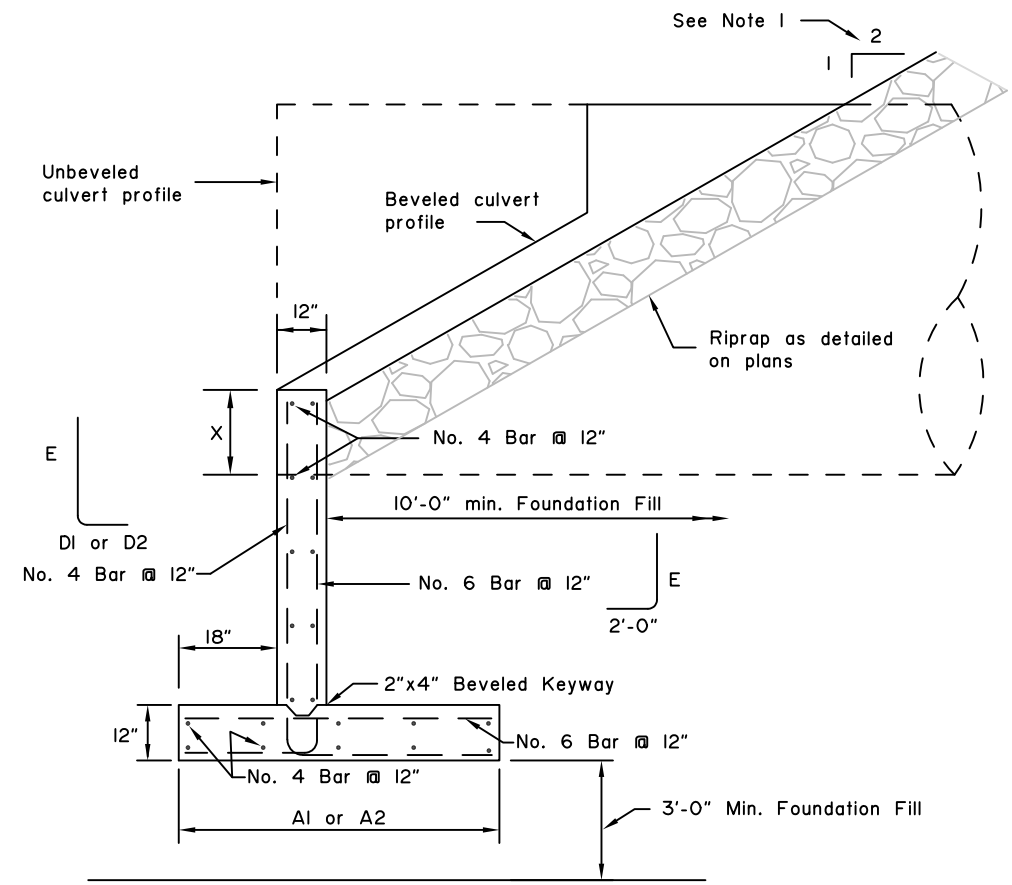
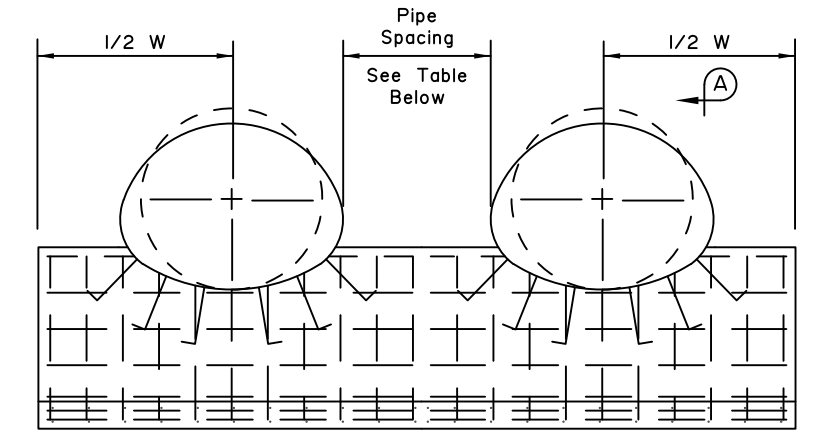


ELEVATION



SECTION A-A



MULTIPLE INSTALLATION

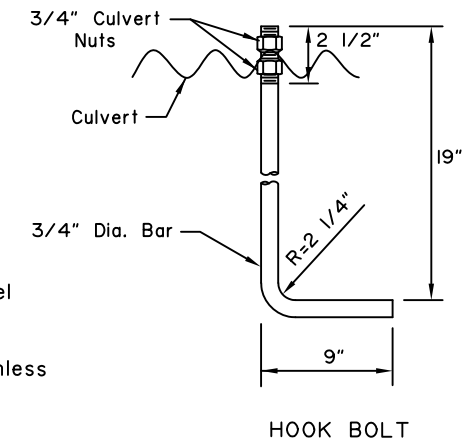
Minimum Space Between Pipes
1/2 Dia. of Pipe or 1/2 Span of Pipe Arch, 24" Min.

CORRUGATED METAL PIPE * SEE NOTE II							
Dia.	W	H	A1*	A2*	D1*	D2*	E
5'-0"	9'-0"	4'-0"	4'-0"	4'-0"	2'-0"	2'-0"	3'-6"
5'-6"	10'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
6'-0"	11'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
6'-6"	12'-0"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
7'-0"	12'-6"	4'-6"	4'-0"	4'-0"	2'-0"	2'-0"	4'-0"
7'-6"	13'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-0"	14'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
8'-6"	15'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"
9'-0"	16'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
9'-6"	17'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
10'-0"	18'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
10'-6"	19'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
11'-0"	20'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
11'-6"	21'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
12'-0"	21'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
12'-6"	22'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
13'-0"	23'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"
13'-6"	24'-6"	6'-0"	5'-6"	4'-0"	3'-6"	2'-0"	5'-6"
14'-0"	25'-6"	6'-6"	6'-0"	4'-0"	4'-0"	2'-0"	6'-0"
14'-6"	26'-0"	6'-6"	6'-0"	4'-0"	4'-0"	2'-0"	6'-0"
15'-0"	27'-0"	6'-6"	6'-0"	4'-0"	4'-0"	2'-0"	6'-0"

CORRUGATED METAL PIPE ARCH * SEE NOTE II									
SPAN	RISE	W	H	A1*	A2*	D1*	D2*	E	
6'-1"	4'-7"	14'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
6'-4"	4'-9"	14'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
6'-9"	4'-11"	15'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
7'-0"	5'-1"	15'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
7'-3"	5'-3"	16'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
7'-8"	5'-5"	16'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
7'-11"	5'-7"	17'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
8'-2"	5'-9"	17'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
8'-7"	5'-11"	18'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
8'-10"	6'-1"	18'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
9'-4"	6'-3"	19'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
9'-6"	6'-5"	19'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
9'-9"	6'-7"	20'-0"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
10'-3"	6'-9"	20'-6"	5'-0"	4'-6"	4'-0"	2'-6"	2'-0"	4'-6"	
10'-8"	6'-11"	21'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
10'-11"	7'-1"	21'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
11'-5"	7'-3"	22'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
11'-7"	7'-5"	22'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
11'-10"	7'-7"	23'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
12'-4"	7'-9"	23'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
12'-6"	7'-11"	24'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
12'-8"	8'-1"	24'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
12'-10"	8'-4"	25'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
13'-5"	8'-5"	25'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
13'-11"	8'-7"	26'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
14'-1"	8'-9"	26'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
14'-3"	8'-11"	27'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
14'-10"	9'-1"	27'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
15'-4"	9'-3"	28'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
15'-6"	9'-5"	28'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
15'-8"	9'-7"	29'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
15'-10"	9'-10"	29'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
16'-5"	9'-11"	30'-0"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	
16'-7"	10'-1"	30'-6"	5'-6"	5'-0"	4'-0"	3'-0"	2'-0"	5'-0"	

GENERAL NOTES:

- For use on 2:1 or flatter backfill slopes only.
- See plans for pipe beveling requirements. See Std. Dwg. D-07 for "X" dimension and culvert beveling geometry.
- Use Class A concrete.
- Use epoxy-coated ASTM A706, Grade 60 reinforcing steel $f_y=60,000$ psi.
- Place reinforcement 3" clear from surface of concrete unless otherwise noted.
- Chamfer all exposed concrete corners 3/4".
- If unsuitable foundation material is encountered, remove and backfill with Foundation Fill as directed by the Engineer.
- Furnishing and installing hook bolts in place is incidental to Class A concrete.
- Use galvanized ASTM A307 hook bolts and nuts. Torque culvert nuts to 140 ft-lbs.
- Headwalls for skewed culverts to be parallel to road centerline. See plans for dimensions of openings in headwalls for skewed culverts.
- For backfill soil with:
 $\phi=30^\circ, \gamma=130$ pcf
Use A1 and D1
 $\phi=34^\circ, \gamma=135$ pcf
Use A2 and D2



State of Alaska DOT&PF
ALASKA STANDARD PLAN
HEADWALLS
CAST-IN-PLACE
TYPE I

Adopted as an Alaska Standard Plan by: *Kenneth J. Fisher*
Kenneth J. Fisher, P.E.
Chief Engineer

Adoption Date: 02/08/2019

Last Code and Stds. Review By: _____ Date: _____

Next Code and Standards Review date: 02/08/2029