TRACOM MONTANA FLUME INSTALLATION INSTRUCTIONS

1. Follow all instructions provided by the project engineers in the form of specifications, blue prints, etc.

2. Upstream channel should rise just before entering the flume at a 1:4 slope (OPTIONAL).

3. The upstream floor of the flume (the crest) should be level from side to side and from front to back. The crest should be upstream and the sidewalls should be vertically plumb. The widest section of the flume should be upstream.

4. The approaching flow should be well distributed across the channel and relatively free from turbulence or waves.

5. There should be no drops, bends, flow junctions, etc. immediately upstream of the flume location. The flume should be located in a straight section of the open channel.

6. Do not use cables or chains to unload larger flumes. Unload flumes with fabric slings in conjunction with a spreader bar.

7. Wingwalls, if required, should either conform to the guidelines found in the United States Department of the Interior, Bureau of Reclamation's Water Measurement Manual (preferred), or should enter the flume at a 45 ° angle.

8. The flume should be secured from flotation. One of the following methods may be used:

    a. Wire should be run from the anchor clips to rebar, or
    b. Rebar should be run through the anchor clips.

9. Brace the flume internally to ensure that the sidewalls do not distort during backfill.

10. Sandbags may be placed inside the flume to prevent it from floating in wet concrete.

11. The use of a vibrator should be minimized as excessive use may bulge or distort the flume sidewalls and bottom.

12. It is recommended that an oversized channel be initially roughed in before the flume is installed. Grout the flume in place after the first pour has set.

Document: M-I
Revision: 0
Date: 6/27/2001
By: Jon Wachter