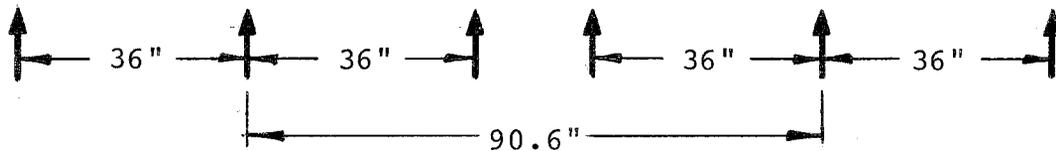
 <b>national accelerator laboratory</b>	<b>Author</b> G. S. Tool O. A. Kerns	<b>Section</b> R. F.	<b>Page</b> 1 of 1
	<b>Date</b> 10 October 1968	<b>Category</b> 0330	<b>Serial</b> TM-71

**Subject**

DECISION ON BOOSTER TUNNEL PENETRATIONS TO THE RF CAVITIES

- 1) Each duct is 6-1/4" x 6-1/4" inside. There is a radius of  $\sim 3/8$ " radius on each inside corner of the duct.
- 2) Each cavity has three (3) penetrations of type 1) above.
- 3) The center penetration of each group of three (3) is aimed directly at the cavity center.
- 4) The three (3) penetrations of each set of three (3) are spaced 36" apart on centers, as in the figure below:



The following power and signal loads utilize these penetrations:

- 1) Ferrite bias busbars
- 2) RF drive to amplifier
- 3) Anode supply to amplifier
- 4) Grid bias to amplifier
- 5) Screen supply to amplifier
- 6) Filament supply to amplifier
- 7) Filament supply to cascode driver
- 8) Cavity pickup signal cable
- 9) Interlock cable
- 10) Miscellaneous small signal cables

No water is piped via penetrations, inasmuch as there are separate water manifolds in the machine tunnel and in the gallery above.