



ENVIROTECH SYSTEMS PVT. LTD.

(An ISO 9001:2008 Company)

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ISO 9001:2008 CERTIFIED ORGANISATION

CLIENT: - M/S Zuari Cement Limited

PROJECT: - Supply & Installation of Polycarbonate Noise Barrier

Envirotech Systems Pvt. Ltd. has received an order of design, manufacture, supply, installation & commissioning of **275 mtrs long Polycarbonate Noise Barrier for boundary wall** from Zuari Cement Limited., for cement grinding unit-Attipattu plant, Chennai location.

SITE SITUATION: - Client was setting up a cement grinding unit of 120 tph capacity, where the clinker will be ground in a ball mill. This ball mill was housed in a RCC building which is 3 side opened. The noise level at 1 mtr distance would be 120 db while mill running empty and 100 db in loaded condition. The mill building was located at a distance of 200 mtrs from the nearest habitat and 100 mtrs from the boundary. Apart from the above, railway wagons will be moving at a distance of 10 mtrs from the nearest habitat. Client request us to suggest the suitable system to control noise.

Size: -

Description	size
Length of Polycarbonate Noise Barrier	275 Rmtrs
Average Height	2.95 mtrs

DESIGN: -

- Vertical pipes distance was at 1050 c/c for achieving strong structure to take the wind load.
- All vertical pipes started from ground for better gripping and grouted 600-800 mm deep.
- Though the height of boundary wall was different at different place, the top of noise barrier was in same level.
- As per lab test, 15 mm thick polycarbonate sheet have 22 STC rating & to be achieved 30 dB(A)
- Polycarbonate sheet was fitted on GI pipe structure with aluminum pressure pad profile which has rubber gasket for Polycarbonate sheet gripping and to control noise leakage from joints.
- Polycarbonate Noise Barrier was warranted for 10 years.

PERFORMANCE: - After successful installation of Polycarbonate Noise Barrier, noise emission was reduced by 28 dB (A) outside the compound wall, behind noise barrier.