

### Sound Mitigation

**Please provide any available information on what the County considered for sound mitigation for the centre grass median on Clover Bar Road between Baseline Road and Heritage Drive (e.g. the addition of trees or other landscaping to assist with the higher decibel ratings from the fire station and widening of the road).**

#### Original Design

The Traffic Noise Policy SER-027-009 was adopted by Council on January 8, 1992, and all residential lots backing on to arterial roadways and highways in Sherwood Park were thereafter modelled with the use of the County-supplied Stampson traffic noise prediction model, utilized by both Strathcona County and land developers & their consulting engineers. Prior to the policy and software tool, Strathcona County's Engineering Servicing Standards of the day noted noise attenuation, but there were no formal methods of evaluation, thus the variation throughout neighbourhoods built prior to 1992.

The process for noise modelling that was developed and used with the Stampson model was based on the theoretical lane capacity of either 40,000 vehicles per day on a 6-lane arterial roadway or 27,000 vehicles per day on a 4-lane arterial, or subject to Alberta Transportation documentation of projected traffic volumes on Highway 21, and was undertaken for the peak hour as represented by 10% of the daily volume. As the software was DOS-based, it is no longer a viable prediction model, and the Policy and accompanying Procedure documents have allowed for approved third-party noise modelling software to be used.

The Stampson software did not provide any consideration for traffic noise attenuation until a depth of trees reached a minimum of 30.0 metres between the source and receiver. Thereby, no additional attenuation benefits could be modelled by a single row of trees or other landscaping in the median and were not considered as part of the original design. As per Strathcona County's Engineering Servicing Standards of the day (now known as the Design & Construction Standards), only grass and/or concrete surfaces were utilized in arterial road medians.

#### Recent Considerations

TPE is not aware of any plantings that were considered in the centre median for the purpose of noise mitigation. As part of road right-of-way beautification projects, tree and shrub plantings are occasionally undertaken. Replacement of dead or dying boulevard trees are undertaken by the County on an annual basis as budget permits. We would further advise that tree plantings in the centre median would provide very limited noise mitigation with respect to traffic noise, and even less to the fire station equipment emergency sirens.

Activities at Fire Hall #5 are site-related and do not fall within the guidelines of [Traffic Noise Policy SER-009-027](#). Construction of Fire Hall #6 has relieved some of the activities at Fire Hall #5.