

ITEM	1
MANAGER'S REPORT NO.	26
COUNCIL MEETING	92/04/13

TO: ACTING MUNICIPAL MANAGER DATE: 1992 04 06
 FROM: DIRECTOR ENGINEERING FILE: 60-06-06
 SUBJECT: 7500 BLOCK WINSTON STREET NOISE STUDY
 PURPOSE: To outline to Council the results of a consultant's study of noise and its mitigation along 7500 block Winston Street. That study and subsequent staff review has focused on the Bettiol residence at 3957 Lozells Avenue.

RECOMMENDATION:

1. THAT a copy of this report be forwarded to:
 - a) Mr. & Mrs. Bettiol, 3957 Lozells Avenue, Burnaby, B.C., and
 - b) Mr. Milosavljevic, 7580 Dorchester Drive, Burnaby, B.C.

REPORT

1.0 BACKGROUND

The matter of urban noise in the vicinity of Winston Street and Lozells Avenue has been before Council on several occasions previously. Mr. & Mrs. Bettiol, 3957 Lozells Avenue and Mr. Milosavljevic, 7580 Dorchester Drive have appeared as delegations to Council on this issue. The purpose of this report is to provide Council with information on the recent activities regarding noise mitigation measures.

The Bettiol family home, at 3957 Lozells Avenue, flanks Winston Street as shown on Exhibit 1. Lozells Avenue north of Winston Street is a cul-de-sac serving the immediate residential area with no access to Winston Street. Lozells Avenue south of Winston Street carries industrial traffic between the Winston Street truck route and the industrial area to the south.

The environmental effects of the Winston Street truck route and the flanking industrial area have been a concern to the Bettiols since the early 1970's when Winston Street was constructed to serve and define the emerging industrial area. The more recent round of Council consideration (1990 November 05) of the noise issue was prompted by a petition circulated by Mr. Milosavljevic of 7580 Dorchester Drive, the Bettiol's immediate neighbour since 1979. The particular focus of the staff report arising addressed the concerns regarding Dairyland Foods Ice Cream Plant which is sited across from the residential area in the 7500 block. In response to further correspondence and discussion, Council received another staff report at its meeting of 1991 July 16. That report concluded as follows:

"With respect to traffic noise as it relates to the Bettiols, it is difficult to know how much it has increased over the years. However, it is quite clear that traffic noise is a considerable problem to the Bettiols. The levels exceed Burnaby's outdoor criteria for "normally acceptable" noise in a 24-hour period. It is understood the Bettiols are in an unique situation given their location with respect to Winston Street, their occupancy predates the construction of the road and more recent residents would have purchased their properties with full awareness of Winston Street and traffic on it.

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Staff are of the opinion that the options for resolving the Bettiol's noise problems are limited. However, it is appropriate that Burnaby retain an acoustical consultant to see what measures can be implemented adjacent to the Bettiol's property to reduce the impact of vehicle noise. Upon receipt of the consultant's report, a further report will be submitted dealing with possible solutions, associated cost, implications and responsibilities."

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This report addresses the commitment of the last paragraph quoted above.

For convenience, a copy of the previous Council report is enclosed with Council's agenda together with a copy of the consultant study discussed below.

2.0 CONSULTANT STUDY

Barron Kennedy Lyzun & Associates, Acoustical Consultants, were selected to carry out the review proposed. The consultant's report was submitted late in 1991 and its conclusions were summarized as follows.

- "1. The noise exposure of the residents adjacent to the 7500 block Winston Street is in excess of both the HUD criteria (used by the Corporation of the District of Burnaby) and the Canada Mortgage and Housing Corporation criteria (used by several other municipalities in the Lower Mainland).*
- 2. The dominant noise source for these residents is vehicular traffic on Winston Street.*
- 3. Noise from industrial sources to the south of Winston Street is much less significant when compared to the road traffic noise and when considered in the absence of traffic noise would usually fall within both the HUD and CMHC criteria for "normally acceptable" exposure.*
- 4. A barrier of approximately 3 to 4 meters in height installed along the north edge of the right-of-way on Winston Street would attenuate traffic noise by 7 to 11 dBA and would result in levels adequate to meet the Municipality's criteria at all residences considered.*
- 5. Provided that the barrier is acceptable to the residents, a barrier offering shielding to the Bettiol residence is recommended.*
- 6. There are many non-acoustical considerations to be evaluated prior to committing to a barrier."*

A copy of the consultant's report was forwarded to the Bettiols who, together with their neighbour Mr. Milosavljevic, have maintained a continuing dialogue with staff, principally from the Health Department. Subsequently, staff met on a number of occasions with the Bettiols. The objective of the meetings was to determine the extent to which the study addressed their concerns and to determine what resolution, if any, could be forwarded to Council.

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3.0 POLICY CONSIDERATION

Our understanding is that when the Winston Street truck route was built, explicit consideration was given to the buffering of the residential area to the north. To that end the subsequent subdivision pattern has deep lots that back onto the truck route. As shown by Exhibit 1 attached, the Bettiol's property is therefore unique in that it flanks the roadway. Apparently, at the time of road construction, a solid wood fence and landscaping were installed across the Lozells Avenue right-of-way on the north side. Mr. Bettiol has told us that he did not want a wood fence adjacent to his property but would have accepted a berm. Unfortunately, right-of-way constraints precluded any berm option.

We note that the consideration given to buffering the road is in harmony with subsequently adopted Council policy which has, for example, resulted in noise attenuation fencing along Boundary Road. This policy of environmentally buffering of residential areas from arterials whenever possible has been applied to new construction but not retroactively. Arguably, there is unique precedence in this case because a fence was initially offered but not constructed at the Bettiol's. Also within the immediate area the Bettiol's property is uniquely sited, closely flanking Winston Street. As one of the few remaining original residents of the area, the Bettiol's benefitted from the construction of Winston Street only to the extent that it moved industrial traffic from the front of their property to the side.

On the other hand, notwithstanding the uniqueness of the Bettiol's situation, retroactive installation of noise mitigation measures particularly on a major collector creates a precedent which may potentially lead to a wider significant financial commitment. We also note that the barrier design which the Bettiol's find acceptable may be unacceptable to subsequent residents. As the barrier fence exceeds 2m, it certainly contravenes the spirit if not the letter of the Zoning Bylaw.

4.0 DESIGN CONCEPT

With these preceding considerations in mind, staff prepared an initial concept design for a wood fence adjacent to the Bettiol's. The design plan which is on display in the Council Chamber (and enclosed with Council's agenda package) sought to integrate the fence with existing and new landscaping. At 3m, the height shown is at the lower end of the consultant's recommendation but very much at the upper end of conventional fence design. The cost of the wood fence and landscaping has been estimated at \$20,000.

As indicated by their letter attached as Exhibit 2, the Bettiol's have concluded that the wood barrier design is unacceptable. The cost of installing a concrete or metal fence as preferred by the Bettiol's is estimated to be \$50,000. Because of its height, such a fence would require elimination of the hedge currently planted on the Bettiol's property line. Significant restorative landscaping would be required. It should be noted that a sound absorptive design fence would be \$10,000 more expensive. The Bettiol's neighbour Mr. Milosavljevic has expressed concern that a non-absorptive fence would cause sound to echo although consultant's study discounts this as a problem.

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5.0 SUMMARY

Staff have prepared and presented to the Bettiols, a noise mitigation design proposal which is consistent in terms of materials (albeit higher in overall height) with the existing noise attenuation treatment on the residential north side of Winston Street. The Bettiols rejected this proposal and have indicated a preference for a 4m high concrete or metal structure with landscaping at an estimated overall cost of \$50,000. Staff cannot support this suggestion for reasons of cost and precedent.

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The Bettiols and Mr. Milosavljevic have advised that they wish to reappear before Council to pursue this matter.


DIRECTOR ENGINEERING

PL:jb
Attach.

cc: A/Chief Public Health Inspector
Director Planning & Building Inspection
Director Admin. & Community Services

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EXHIBIT 2 CORRESPONDENCE

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3957 Lozells Avenue
 Burnaby, B.C. V5A 2Z3
 Phone No. 420-3559/420-5448

RECEIVED IN
 ENGINEERING DEPT.

8 March 1992

MAR 9 1992

PL ✓
 WCS wif ✓
 LSC ✓
 NLD JMS ✓
 PL ✓

The Corporation of the
 District of Burnaby
 4949 Canada Way
 Burnaby, B.C. V5G 1M2

ATTENTION: MR. PEETER LIIVAMAGI, P. ENG.
 ASST. DIRECTOR ENGINEERING

Dear Peeter:

RE: NOISE REDUCTION ADJACENT TO OUR PROPERTY

We have given a great deal of thought to your last proposal submitted at a meeting on March 02, 1992 in your offices. We find the following items unacceptable to us and have stated the reasons why:

- 1) HEIGHT AT 3 METERS - Consultant recommends 3 to 4 meters and stepping down. See report page 8. We would like to see at least 3.5 to 4 meters at highest point. Our cedar hedge is now 3.4 meters.
- 2) WOOD FENCE - Consultant has recommended 3 types. Our preference, as we have stated many times is **NO WOOD**. Reasons:
 - i) NOT SOLID, within in a couple of years it starts shrinking, getting knot holes; therefore making gaps and allowing noise to filter through. (See the fence on the east side of us that the city installed previously.)
 - ii) Looks, on the north side (that is the side facing us) it will grow moss, become green and slimy and will eventually have gaping holes.
 - iii) Must have expensive maintenance done to it annually, power washing, painting etc. See consultant report page 9 item 6.
 - iv) As you stated Peeter "your department does not have the knowledge to design or build beyond a wood fence", it would seem obvious that you should have taken this one step further.

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3) LANDSCAPING - Have given it some thought as to your design presented to us and find the following not acceptable:

i) ADDITIONAL EVERGREEN TREES - These trees will grow above the height of the fence cutting out even more light than the fence. The 3 existing evergreens on city property have already created a serious problem to our roof drains and inevitably will cause serious problems to our drainage system, caused by the needles that falls from these types of trees. As it is now, it is causing us financial hardship getting our gutters cleaned out several times a year. By putting in more trees (which do no good for sound barrier) you would be creating a forest next to our property and in close proximity to our house.

ii) EXISTING CEDAR HEDGE - Your design shows to leave it, which is not acceptable. The hedge will die from the fence down or completely die out and this will create another problem. To see the damage this will cause you only have to look at the hedge now, where the evergreen trees abute it. They are dead and pushing inward to our yard. We have stated previously we are agreeable to have you remove our hedge and replace it with plants that will survive in completely shaded areas.

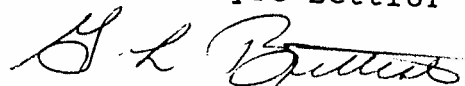
4. I fail to see where this design you have proposed meets with the Barrier Acoustical Design Requirements found on page 9 and how it will bring the noise level down to a Normally acceptable level, page 5 of the report.

5. On the design nothing was mentioned about maintenance and I would like to see this in writing prior to presentation to council.

I have the impression from talking with you that your number one concern is \$\$\$ "money." The lives of my family, which I remind you have been damaged by this noise, can not be measured in \$\$\$ dollars. I feel that I should be given the best BARRIER ACOUSTICAL DESIGN possible.

Sincerely yours,

Art and Gayle Bettiol



cc: Ken Johnston - Public Health
Mayor and Council c/o Miss M. Pasqua

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