

ACOUSTICAL ANALYSIS AND DESIGN FOR THE
DOLPHIN GREEN CAR WASH AT 2190 EL CAMINO REAL
IN OCEANSIDE, CALIFORNIA

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ACOUSTICS

Reports, Testing and Research

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SUMMARY:

An Acoustical Environmental Study was performed in order to determine the noise levels at the site of the planned Dolphin Green Car Wash and at the adjacent commercial and residential properties (Sheets A-1 through A-5, Sheet 1 and Photos 1 through 5). For the Car Wash, the "Air One Profiler" with 3-10 HP Drying System (Ref. 1) for top of car drying and 2-10 HP Dryers for side of car drying are planned to be installed inside at approximately 20 Ft from the exit of the 127 Ft Car Wash Tunnel (Sheet A-1, Sheet 1). Based on the Noise Level Calculations presented in this study, the application of the Dryer system and the other car wash equipment (including vehicle traffic on the site), the Noise Levels in L_{equ.} from the car wash at Property Lines of the adjacent properties are below the Noise Limits required by the Noise Ordinance of the City of Oceanside (Ref. 2). The Noise Levels are below the Noise Ordinance Limit of the City of Oceanside of 50 dBA in L_{equ.} for Day Time hours (7:00 AM - 10:00 PM, Ref. 2), at the Property Lines for Residences and 65 dBA in L_{equ.} for Commercial properties. The Car Wash and Business Operations shall cease at 10:00 P.M..

The Maximum Possible Hourly Noise Level generated by the Cars at the West Property Line (Commercial) is 53.2 dBA in L_{equ.} between 7:00 A.M. and 10:00 P.M. (Noise Ordinance Limit 65 dBA in L_{equ.}).

The Maximum Possible Hourly Noise Level generated by the Cars at the South Property Line (Commercial) is 42.5 dBA in L_{equ.} between 7:00 A.M. and 10:00 P.M. (Noise Ordinance Limit 65 dBA in L_{equ.}).

The Maximum Possible Hourly Noise Level generated by the Cars at the North Property Line (Commercial) is 59.1 dBA in L_{equ.} between 7:00 A.M. and 10:00 P.M. (Noise Ordinance Limit 65 dBA in L_{equ.}).

The Maximum Possible Hourly Noise Level generated by the Cars at the East Property Line (Residential) is 41.0 dBA in L_{equ.} between 7:00 A.M. and 10:00 P.M. (Noise Ordinance Limit 50 dBA in L_{equ.}).

The plans and other required information were supplied by Dr. Kenneth Wang, Principal Broker for Metro Properties and provided the design for the Car Wash Project (Sheets A-1 through A-5, Sheet 1 and Ref.'s 1 and 12). It has been indicated that the Noise Level results of this study comply with the Noise Ordinance of the Municipal Code of the City of Oceanside (Ref. 2). Experience in past Acoustics Studies involving Car Washes have been applied in this study (Ref.'s 7 through 11)

RECOMMENDATIONS:

- . The "Air One Profiler" Drying System provided by Motor City Wash Works, (Ref. 1) will be used for the DOLPHIN GREEN CAR WASH. The installation of this Equipment is mandatory.
- . It is also mandatory, that the Blowers will be placed by a minimum of 20 Ft inside from the Exit of the Car Wash Building (Sheet 1).
- . No mitigation will be required at the West, North, South and East Property Lines (Sheet A-1).
- . Based on the Noise Ordinance Limits of the City of Oceanside (Ref. 2), the Car Wash can only be operated during Day Time and Evening Hours from 7 AM to 9:59 PM (Ref. 2).
- . The north side Door of the Vacuum Equipment Room must remain closed during Vacuum Cleaning operations (Sheet A-2). No additional Mitigation will be required for the Vacuum Cleaner System.
- . The purpose of measuring and simulating the Ambient Noise Levels at various locations at the site was to show the accuracy and creditability of the Analysis. The Analysis also shows the Noise Level of the Car Wash is well below the Ambient Noise.

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