Council Meeting of
April 5, 2011

SUPPLEMENTAL #1 TO ITEM 13B

Honorable Mayor and Members
of the Torrance City Council
City Hall
Torrance, California

Members of the Council:

SUBJECT: SUPPLEMENTAL #1 TO COUNCIL AGENDA ITEM 13B
MOD10-00008 (CUP68-32, PRE05-00047 & MOD05-00014): Robert Sadeghi

The attached correspondence was received after the item was completed.

Respectfully submitted,

JEFFERY W. GIBSON
COMMUNITY DEVELOPMENT DIRECTOR

By _____
Gregg D. Lodan, AICP
Planning Manager

CONCUR:

_____
Jeffery W. Gibson
Community Development Director

NOTED:

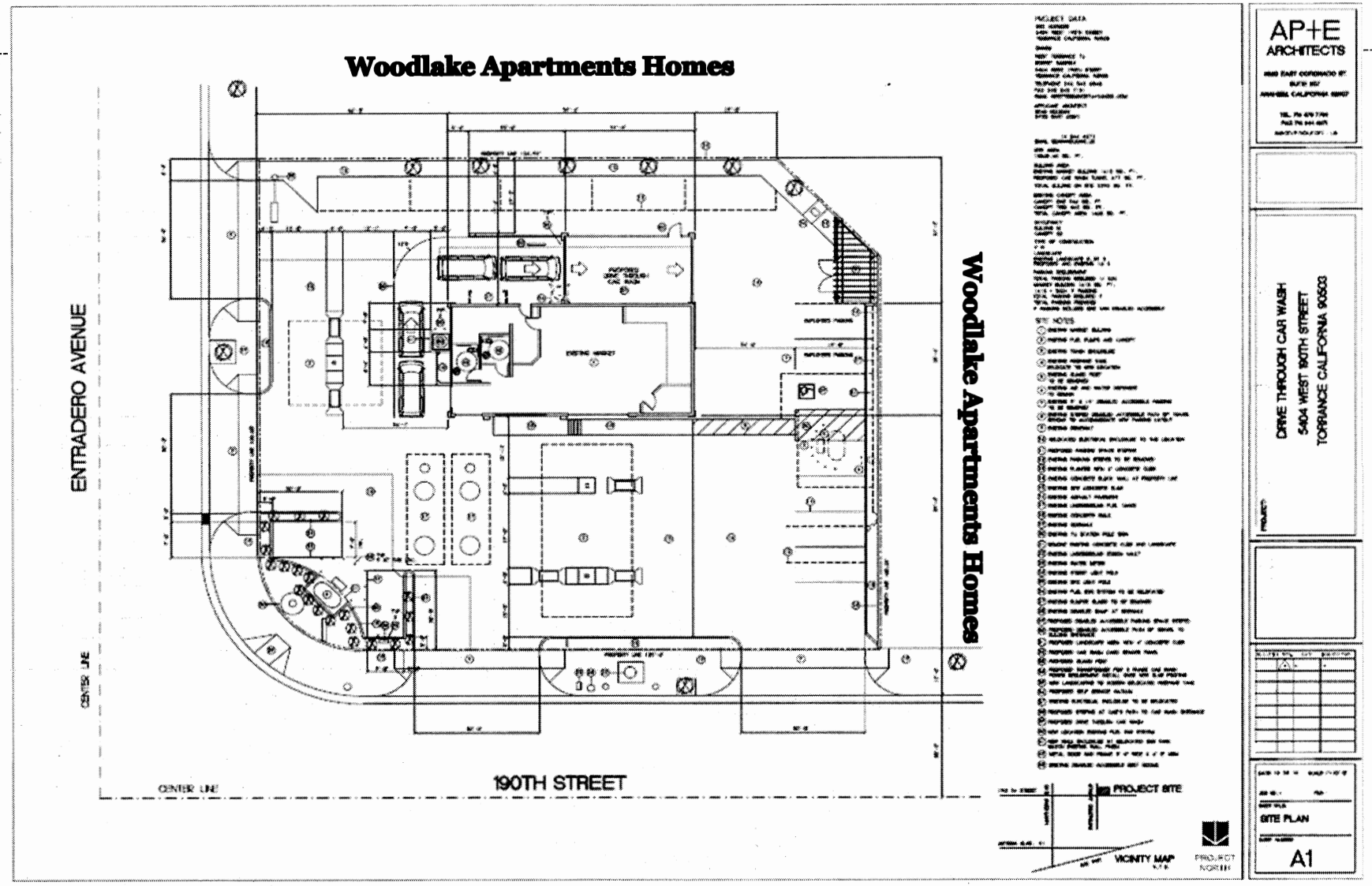
_____
LeRoy J. Jackson
City Manager

Attachments:
A. Correspondence

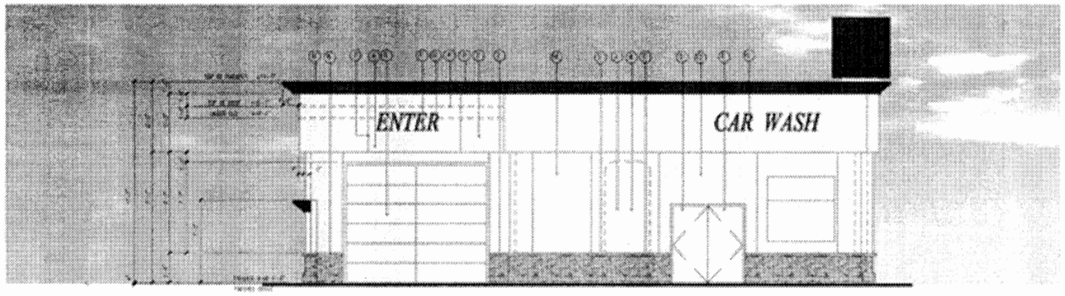
West Torrance 76 Drive-Thru Project

MOD10-00008: ROBERT SADEGHI
PLANNING COMMISSION CONSIDERATION FOR APPROVAL OF A MODIFICATION OF
PREVIOUSLY APPROVED CONDITIONAL USE PERMIT (CUP68-32) AND PRECISE PLAN
OF DEVELOPMENT (PRE05-00047) TO ALLOW THE ADDITION OF A DRIVE-THRU CAR
WASH ON PROPERTY LOCATED IN THE C3-PP ZONE AT 5404 190TH STREET.
(RES. NO. 10-059)

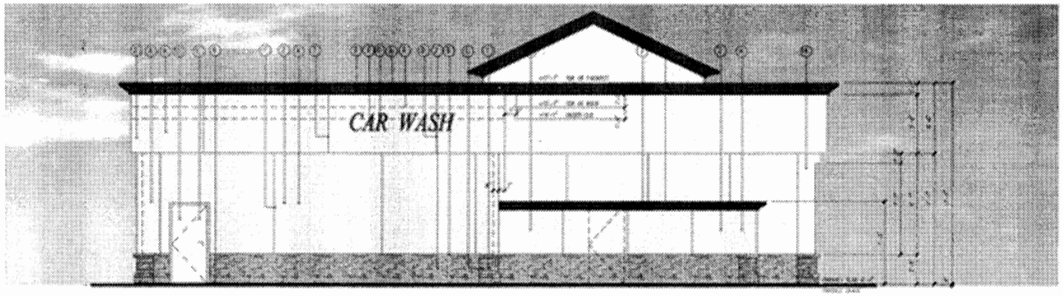
PROPOSED SITE PLAN LAYOUT



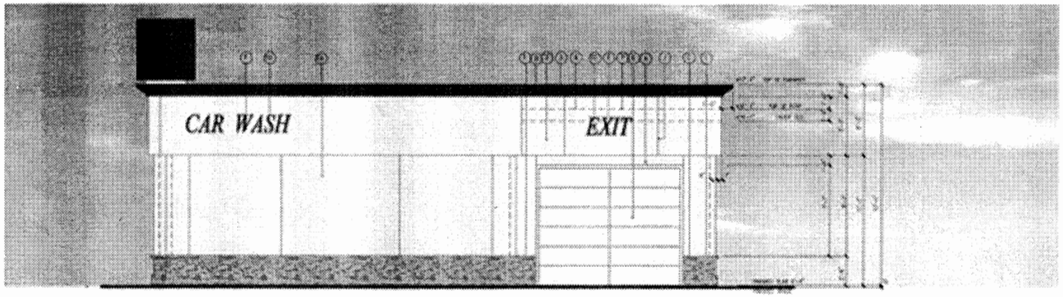
PROPOSED ELEVATIONS



CAR WASH EAST ELEVATION



CAR WASH SOUTH ELEVATION



CAR WASH WEST ELEVATION

AP+E
ARCHITECTS

DRIVE THROUGH CAR WASH
5404 WEST 190TH STREET
TORRANCE CALIFORNIA 90503

ELEVATIONS

A3

SOUND STUDY CONDUCTED BY DAVY & ASSOCIATES INC.

WIELAND ACOUSTICS

WIELAND ACOUSTICS, INC.
1371 Warner Avenue, Suite A
Tustin, CA 92780
Tel: 949.474.1222

www.wielandacoustics.com

December 15, 2010 Project File 10.051.00

Mr. Richard Welter
Don Wilson Builders
23705 Crenshaw Boulevard, Suite 200
Torrance, CA 90510-3188

Subject: Peer Review of the Acoustical Study for the Carwash at 5404 W. 190th Street in Torrance, CA

Reference: *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. October, 2010.

Dear Mr. Welter:

As requested, we have conducted a review of the referenced acoustical study and have the following comments:

1. In Section 3.0, the report implies that the project has to comply with either the residential standards of 55 dBA daytime and 50 dBA nighttime or the commercial property line standard of 60 dBA daytime and 55 dBA nighttime. However, Section 46.7.2 of the City's Municipal Code states twice that both standards must be met, not one or the other.
2. In Section 3.0, the report fails to note that Section 46.7.2(c) of the Municipal Code also applies corrections for the character of the noise. Specifically, the standards are to be reduced by 5 dB for sources that contain a "steady, audible tone such as a whine, screech or hum". Tones are common in noise produced by carwash blowers and vacuums, and this correction should have been considered when assessing the impact of the project on the adjacent apartments.
3. In Section 3.0, the report fails to note that Section 46.7.2(c) of the Municipal Code also requires a 5 dB reduction for noise that is generated on a Sunday between midnight and noon. Since the carwash and other new equipment at the gas station (refer to Comment #11) will operate during these hours the correction must be applied.
4. Taking Comments #2 and #3 together, the corrected standards from Section 46.7.2 of the Municipal Code that should be applied to the proposed project are as follows:

Code Section	Base Noise Standard	Correction for Tone	Correction for Operations on Sunday Morning	Corrected Noise Standard
46.7.2(a)(1)	55 dBA (daytime)	-5 dBA	-5 dBA	45 dBA (daytime)
46.7.2(b)(4)	60 dBA (daytime)	-5 dBA	-5 dBA	50 dBA (daytime)

1

Davy
& Associates, Inc.
Consultants in Acoustics

2100 Sepulveda Blvd, Suite 42, Manhattan Beach, CA 90266, Tel: (310) 802-8990, Fax: (310) 802-8082, e-mail:davyassoc@aol.com

JN2010-48D

March 22, 2011

Mr. Greg Lodan
City of Torrance
3031 Torrance Blvd
Torrance, CA 90503

SUBJECT: ACOUSTICAL ANALYSIS
West Torrance 76 Car Wash, Torrance, California

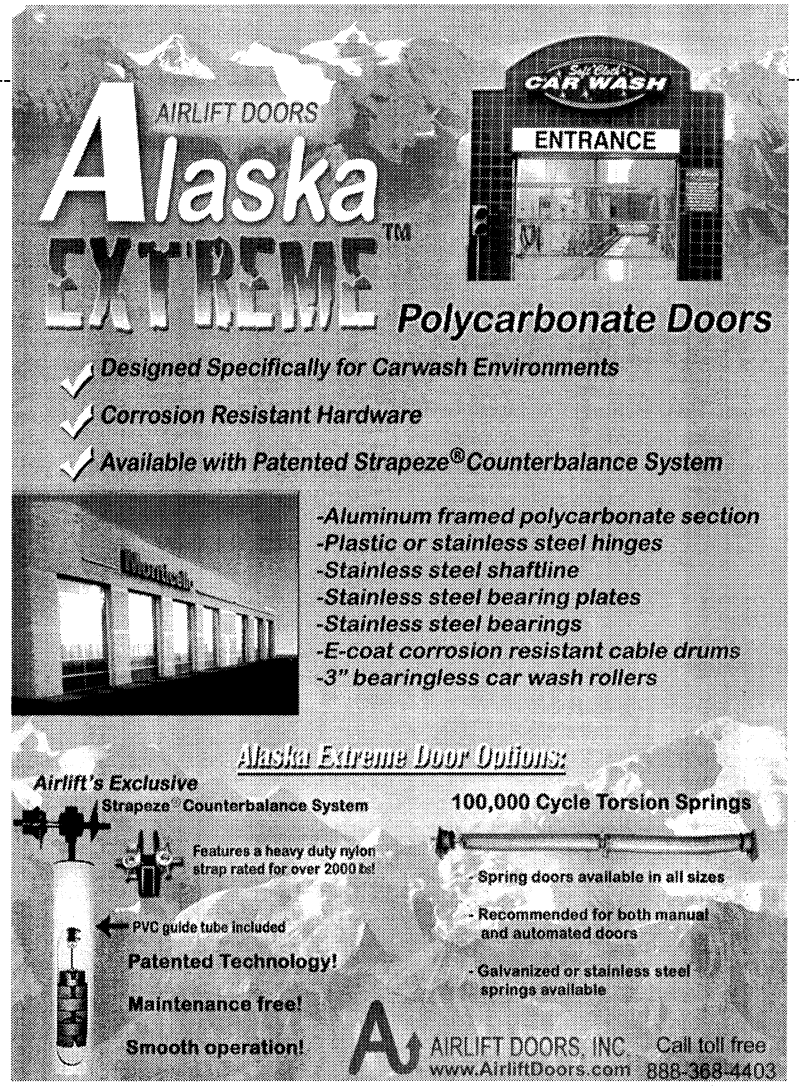
Dear Gregr:

This letter is in response to your request for information concerning the proposed West Torrance 76 Car Wash in your e-mail to Robert Sadeghi dated February 16 , 2011.

The corrected standards from Section 46.7.2 of the Municipal Code that apply to the Car Wash are as follows:

Code Section	46.7.2(a) (1)	46.7.2(b)(4)
Base Standard (Daytime)	55 dBA	60 dBA
Tone Correction	-5 dB	-5 dB
Sunday Correction	-5 dB	-5 dB
Corrected Standard	45 dB	50 dB

PROPOSED AIRLIFT DOORS ENTRANCE AND EXIT



AIRLIFT DOORS POLYCARBONATE SPECIFICATIONS

SOUND SPECS

SDP Polycarbonate*

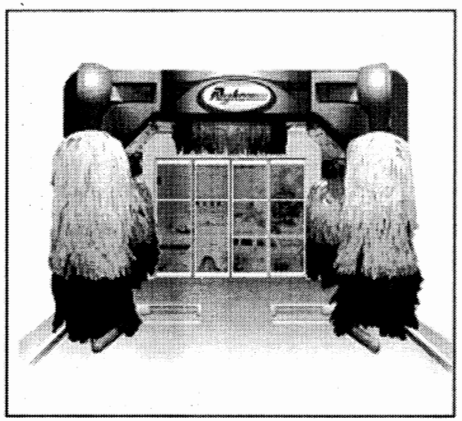
Overall Thickness		16 mm +- 1 mm (0.63" + 0.04")	
Skin Thickness (approx.)		1.3 mm (0.05")	
Rib Thickness		0.8 mm (0.03")	
Area Weight		Approximately 4 kg/m2 (.92 psf)	
Heat Transfer Coefficient,1 USI (U) -Summer conditions 3.2 W/m^2/^{o}C -Winter conditions 3.2 W/m^2/^{o}C		**Heat Transfer Coefficient** 3.2 W/m^2/^{o}C(0.55BTU/hour sq. ft./^{o}F) 3.3 W/m^2/^{o}C(0.58 BTU/hour sq. ft./^{o}F)	
Thermal resistance, RSI (R) value -Summer conditions/^{o}F/ -Winter conditions/^{o}F/		**Thermal resistance,** 1.82/^{o}F/BTU/hour sq. ft. (10.3R) 1.72/^{o}F/BTU/hour sq. ft. (9.7R)	
Maximum service temperature without load		116°F (50%^{o}F)	
Polycarbonate Colours	**Light transmittance**	**Solar transmission**	**Shading coefficient**
Clear	73%	74%	0.91
Light Bronze	50%	56%	0.78
Dark Bronze	21%	29%	0.54
Average sound reduction		24 dB	

Fire Precaution: SDP double skinned sheets are produced from molding compounds which are combustible thermoplastics. Precautions used to protect combustibles from flames and high heat sources should also be observed with these materials. SDP sheets usually burn rapidly to completion if not extinguished. The products of combustion, if sufficient air is present, are carbon dioxide and water. However, in many fires, sufficient air will not be available and toxic carbon monoxide will be formed, as it will form other common combustible material. We urge good judgment in the end use of these versatile materials and recommend that building codes be followed carefully to assure they have been used properly. Access panels may be required for evacuation and venting of rooms glazed with SDP sheets. SDP sheets burn more rapidly than their solid counterparts. Noncombustible end caps must be used to prevent flame from contacting the open ends of SDP sheets.

Important Notice: The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own

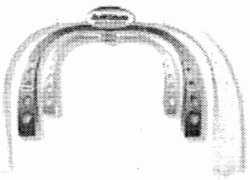
PROPOSED CAR WASH UNIT
Ryko Soft Gloss Maxx

Designed for all sized vehicles and high throughput for maximum profitability, the SoftGloss MAXX has enjoyed great success in the car wash industry. The combination of FoamBrite wash material and technical advancements makes the SoftGloss MAXX a car wash industry icon when it comes to automatic vehicle wash systems



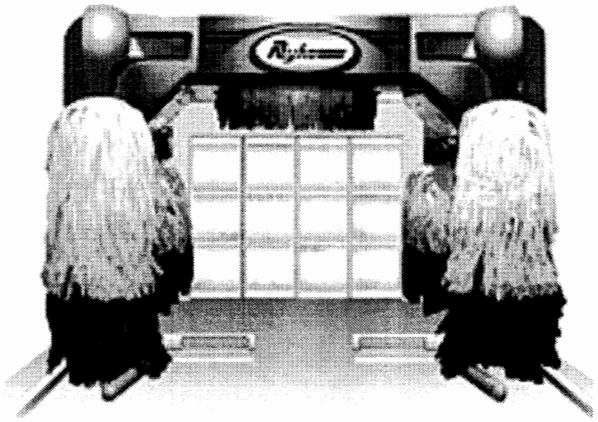
OFF BOARD ARCHES

NEWLY DESIGNED OFF-BOARD ARCHES PROVIDE INCREASED THROUGHPUT AND SPEED, REDUCING THE TIME A CAR IS POSITIONED UNDERNEATH THE GANTRY. THE OFF-BOARD ARCHES AESTHETIC DESIGN COMMUNICATES VALUE TO THE CUSTOMER AND PROVIDES THE ABILITY TO ADD RINSE/SEALANT OPTIONS TO THE WASH PACKAGE. ARCHES ARE AVAILABLE IN RED, BLUE OR GREY



SOFTGLOSS MAXX FEATURES

- FoamBrite Brushes
- Tall Front Arms
- Split Hub Arm Design
- Foam Bath
- Aluminum Frame
- Soft Rear Oscillation
- Dual Bay Plates
- Mirror Rinse
- Variable Wash Speed
- Top Brush Interrupt
- Electric Motors
- Large Vehicle Opening
- Amp Sensing Sensors
- Ultrasonic Mapping
- In-Bay Touch Screen Control Box



FoamBrite Wash Systems

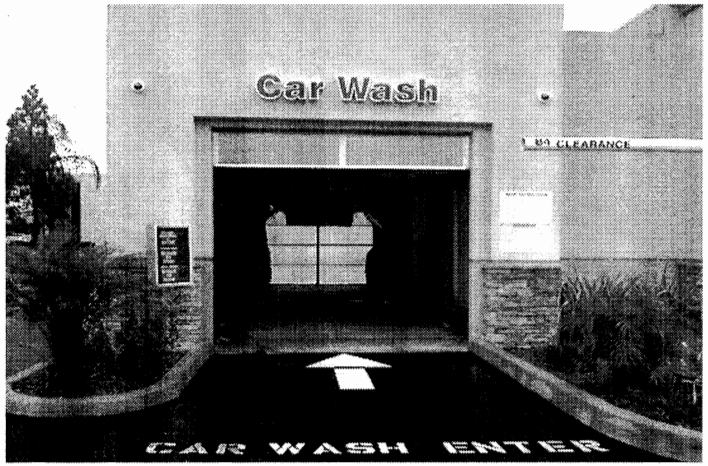
SPECIFICATIONS

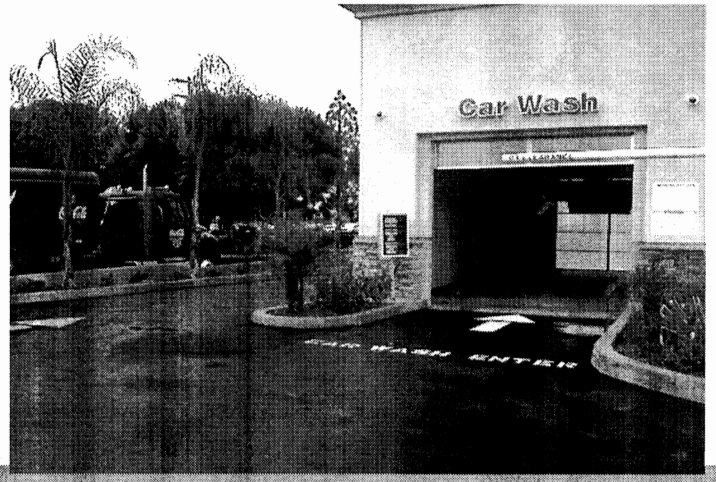
Maximum Vehicle Height	84in.
Maximum Vehicle Width (body)	95in.
Water (min)	40 psi @ 40 gpm, 1in.
Air (min)	100 psi @ 3 cfm, 3/8 in.
Electrical (basic)	208/230V AC, 60 HZ, 3 Phase, And 120V AC, 60 HZ, 1 Phase
OR	460V AC, 60 HZ, 3 Phase, And 120V AC, 60 HZ, 1 Phase

SIMILAR 76 LOCATION IN LA PALMA, CA. WITH AIRLIFT DOORS

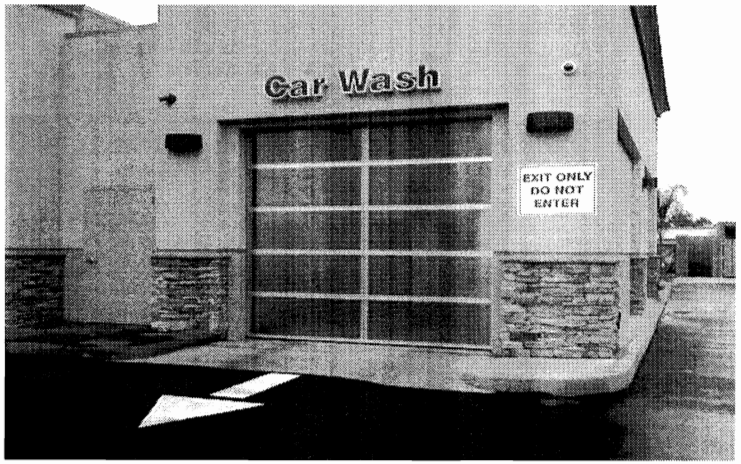
5482 La Palma Ave
La Palma, CA 90623-1705
(714) 527-4040

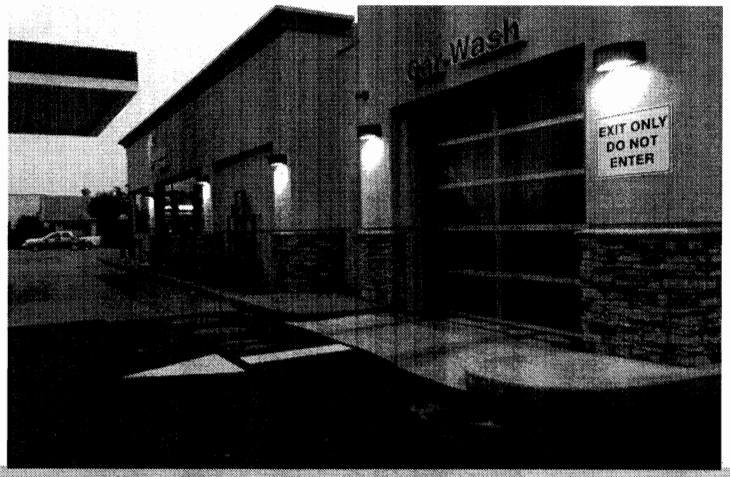
Car Wash Entrance

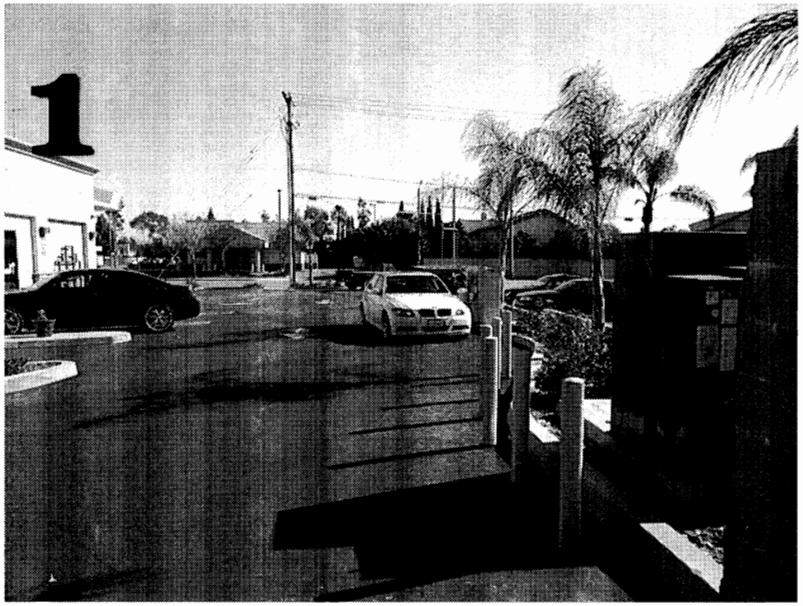




Car Wash Exit



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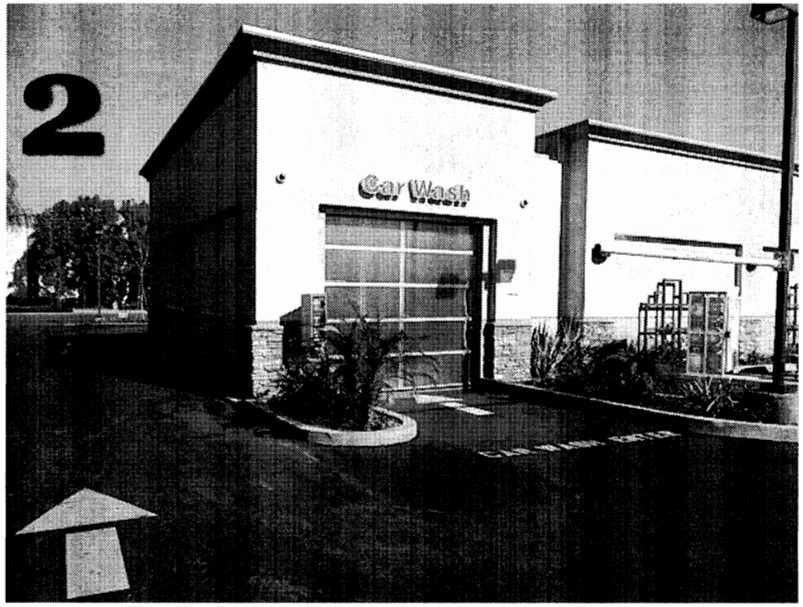
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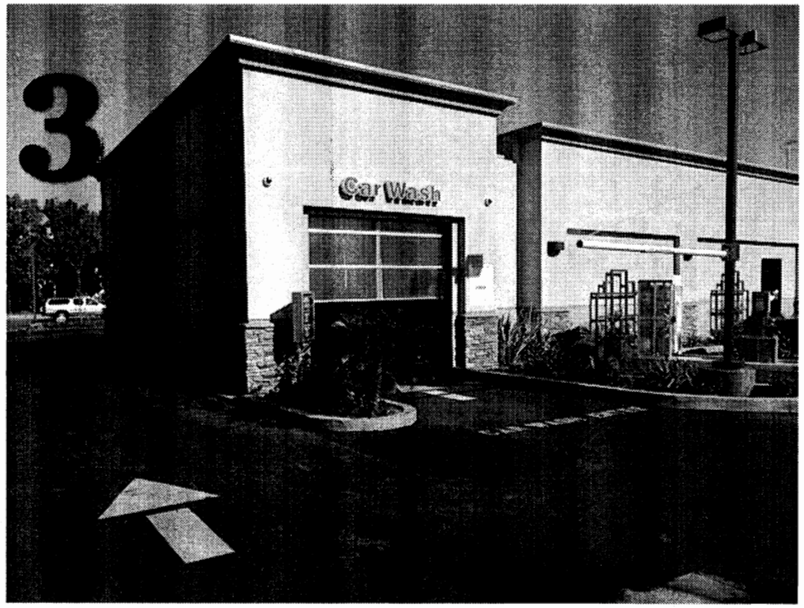
Car Wash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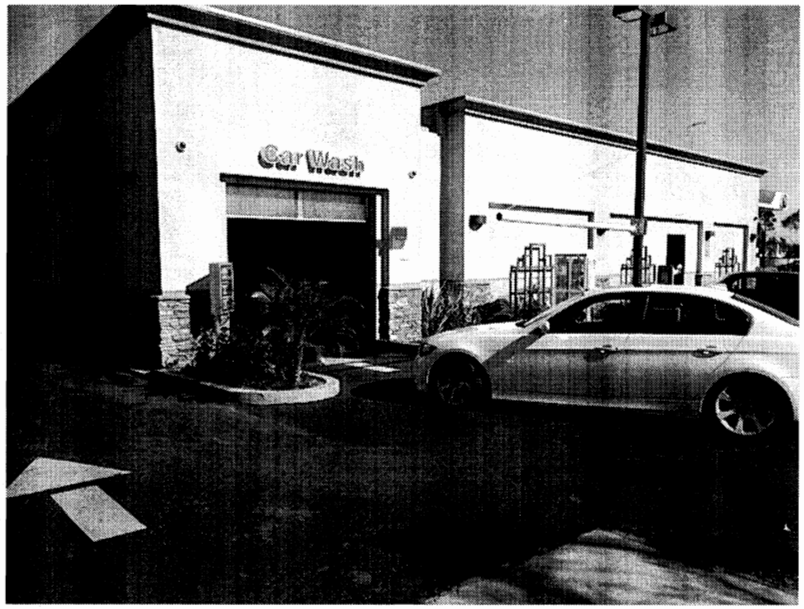
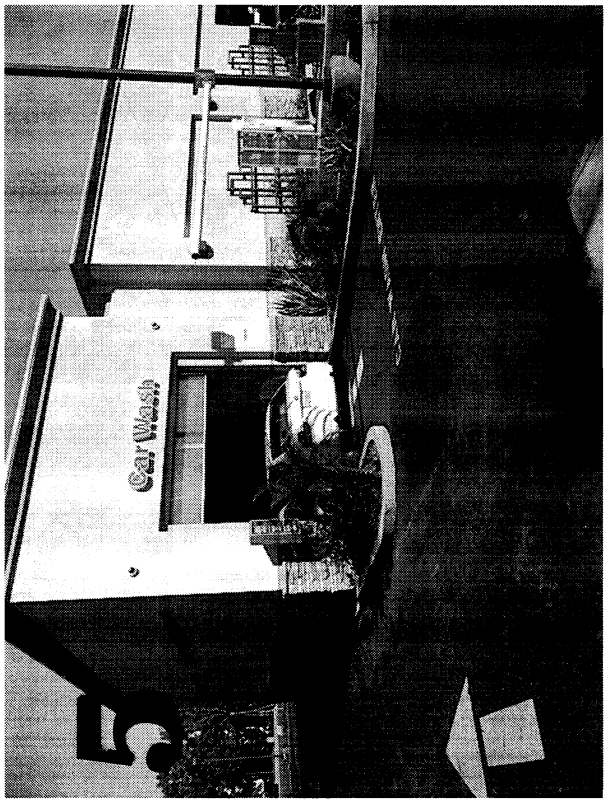
Car Wash


Car Wash



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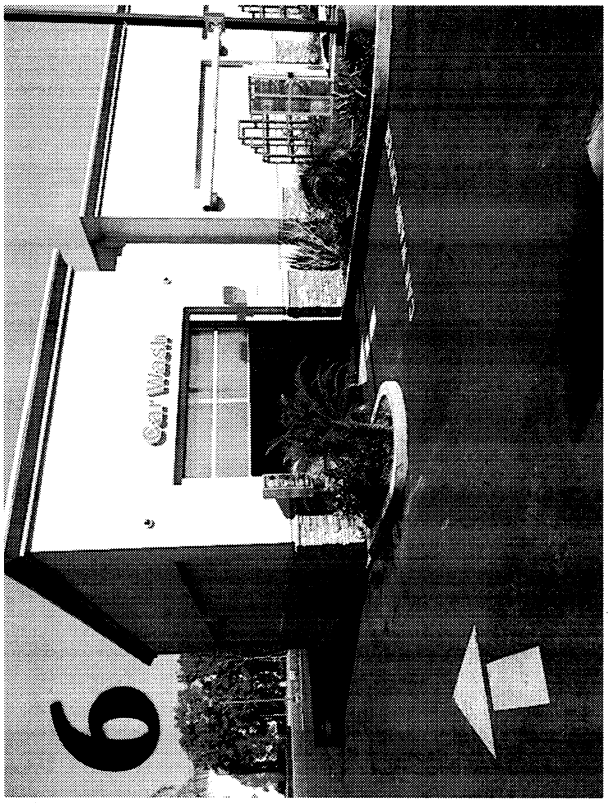

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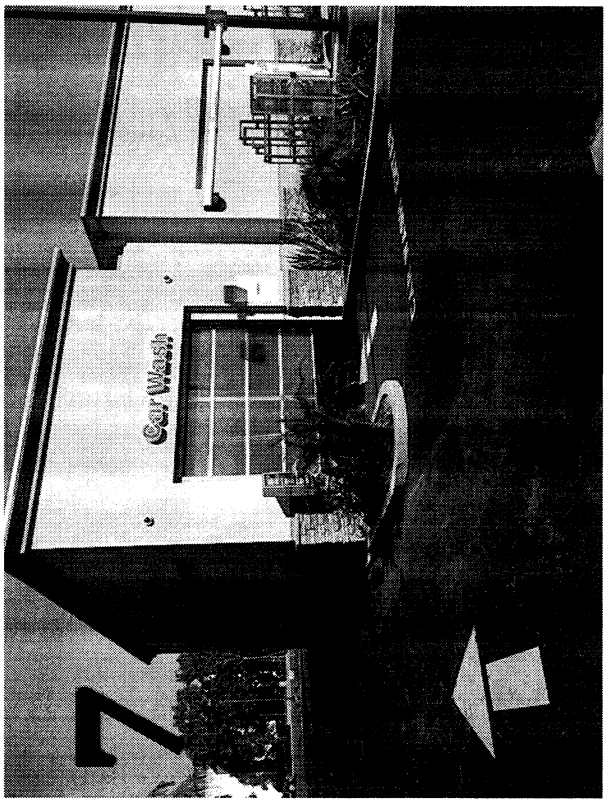

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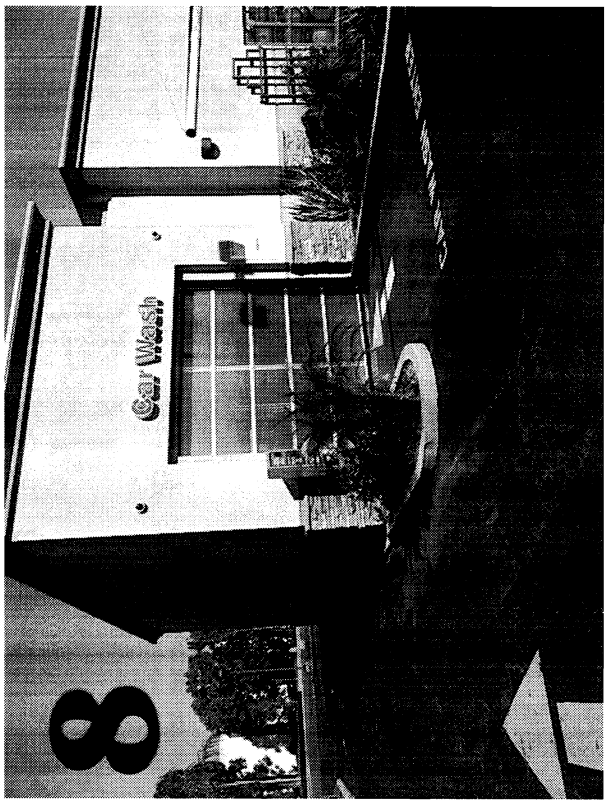

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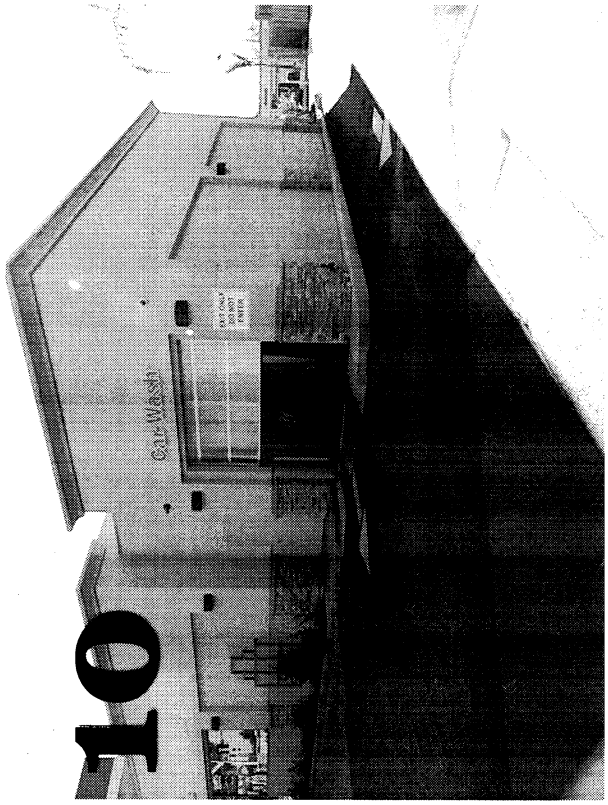
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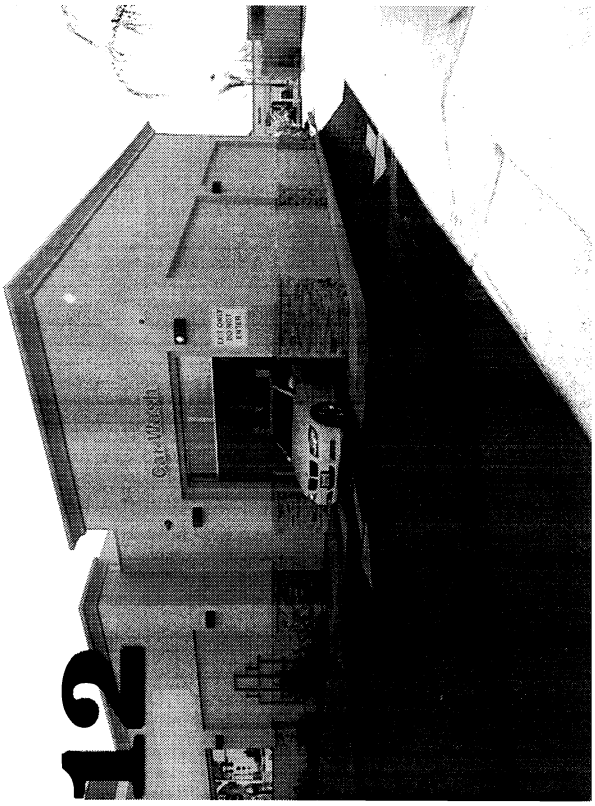
Car Wash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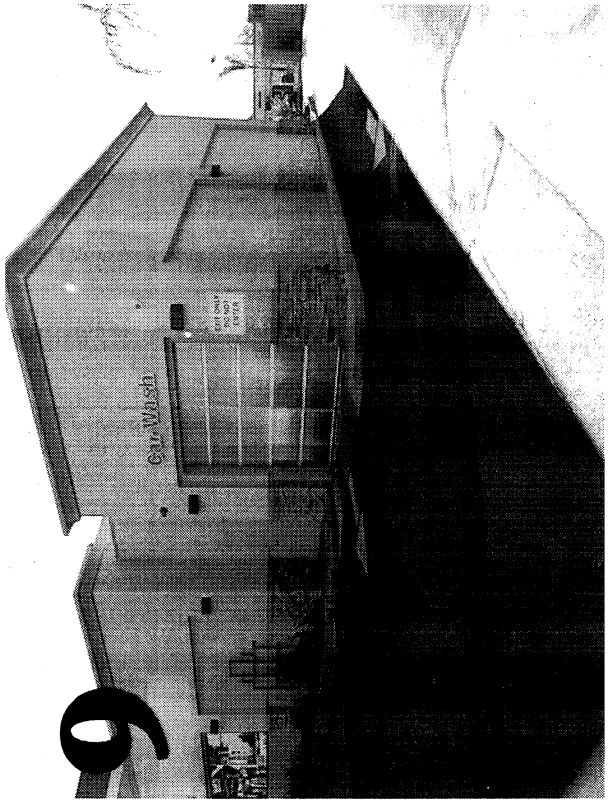
Car Wash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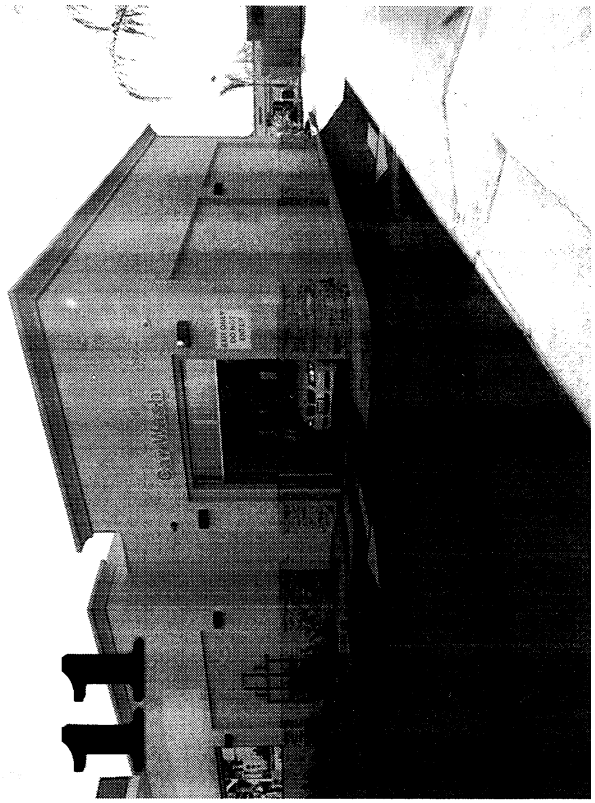
Car Wash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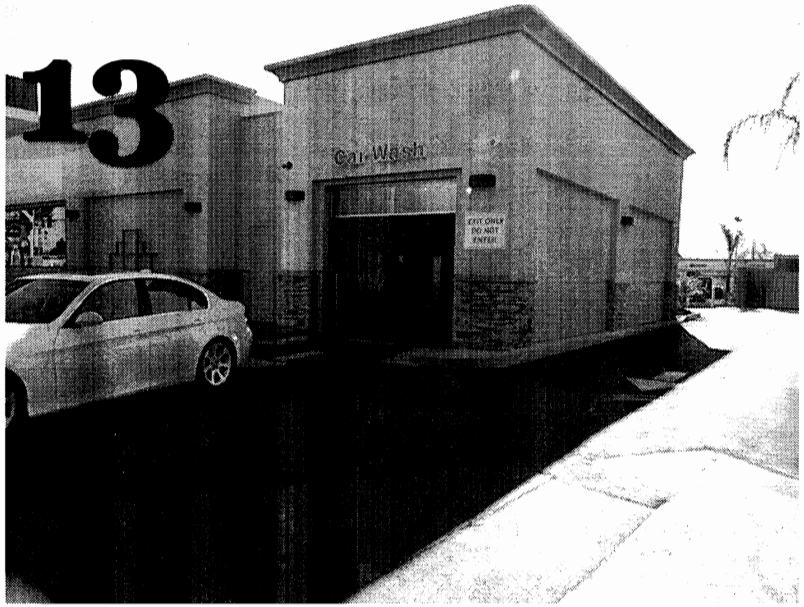
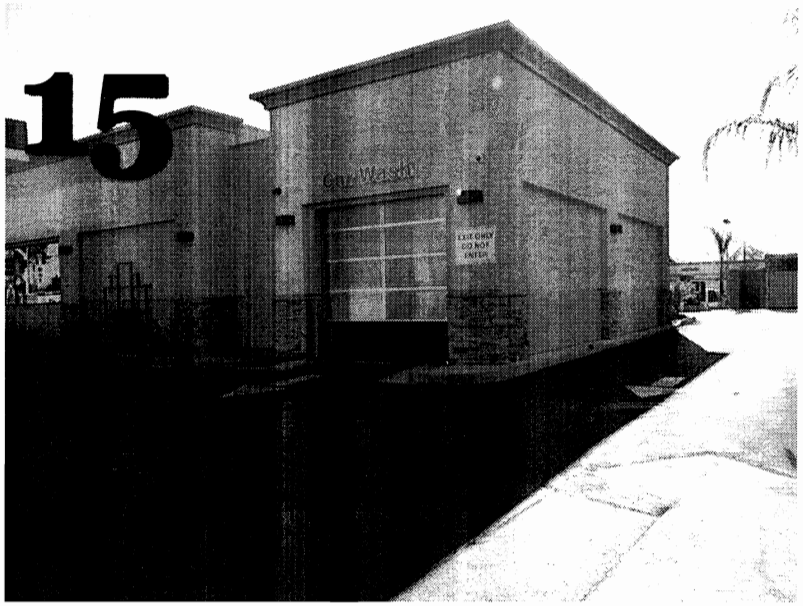
Car Wash


13
Car Wash
EXIT ONLY
DO NOT
ENTER

14
Car Wash
EXIT ONLY
DO NOT
ENTER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Car Wash
EXIT ONLY
DO NOT
ENTER

16
Car Wash
EXIT ONLY
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ENTER

Davy
& Associates, Inc.
Consultants in Acoustics

2100 Sepulveda Blvd, Suite 42, Manhattan Beach, CA 90266, Tel: (310) 802-8900,Fax: (310) 802-8002, e-mail:davyassoc@aol.com

JN2010-48D

March 22, 2011

Mr. Greg Lodan
City of Torrance
3031 Torrance Blvd
Torrance, CA 90503

SUBJECT: ACOUSTICAL ANALYSIS
West Torrance 76 Car Wash, Torrance, California

Dear Gregr:

This letter is in response to your request for information concerning the proposed West Torrance 76 Car Wash in your e-mail to Robert Sadeghi dated February 16 , 2011.

The corrected standards from Section 46.7.2 of the Municipal Code that apply to the Car Wash are as follows:

Code Section	46.7.2(a) (1)	46.7.2(b)(4)
Base Standard (Daytime)	55 dBA	60 dBA
Tone Correction	-5 dB	-5 dB
Sunday Correction	-5 dB	-5 dB
Corrected Standard	45 dB	50 dB

Ambient noise levels were measured on Sunday, January 9, 2011. The hours of Car Wash operation on Sundays will be from 9:00 a.m. to 8:00 p.m. Ambient noise measurements were made at the south property line and at the west property line between 9:00 a.m. and 10:00 a.m. and again between 7:00 p.m. and 8:00 p.m. All measurements were made with a calibrated Type 1 Larson Davis sound level meter. The results of these measurements are as follows:

Measured Ambient Noise Levels in dB

Time	Property Line	LEQ
7:00 - 8:00 p.m.	West	60.7 dBA
7:00 - 8:00 p.m.	South	57.4
9:00 -10:00 a.m.	West	62.6
9:00 -10:00 a.m.	South	57.4

The owner of the La Palma Car Wash that utilizes the exact equipment that will be used in the proposed Car Wash was required by the City of La Palma to make noise measurements of his Car Wash. The noise measurements taken at the La Palma site were completed by Colia Acoustical Consultants which is a Torrance approved acoustical consulting firm. Their report is dated December 1, 2010.

The noise levels measured at the La Palma site were done with the blowers operating and the car wash doors open. These measured noise levels were utilized to calculate exit noise levels at the west property line and the south property line. At the west property line, the measured noise level was corrected for distance and the noise reduction of the exit door in a closed position. Noise levels for a car wash tunnel decrease at a rate of 6 dB per doubling of distance. This is calculated with the formula 20Log (d1/d2) where d1 is the distance that the measurements were taken at and d2 is the distance to the property line. For the south property line distance effects, the noise reduction of the door in a closed position and a factor for directivity were utilized. For a car wash tunnel, noise levels projected to the side (90 degrees) are less than the noise levels projected straight ahead. The directivity effect (DI) has been shown to be 8 dB. The results of these calculations are listed below.

Calculated Exit Noise Levels in dB at the West Property Lines for Ryko Equipment

Colia Measured Noise at 61.8 feet	=	65.0 dBA
West property line is at 43 feet		
20 log (61.8/43)	=	+ 3.1
Noise Reduction of Door	=	-24
Noise level at Property Line	=	44.1 dBA

Calculated Exit Noise Levels in dB at the South Property Lines for Ryko Equipment

Colia Measured Noise at 61.8 feet	=	65.0 dBA
South property line is at 19.2 feet		
20 log (61.8/19.2)	=	+ 10.2
Directivity effect	=	-8
Noise Reduction of Door	=	-24
Noise level at Property Line	=	43.2 dBA

As can be seen from the calculated results noise levels from the Car Wash Exit at the west property line and at the south property line are in compliance with both Section 46.7.2.(a)and Section 46.7.2.(b) the Torrance Municipal Code - Chapter 6 - Noise Regulation.

The noise levels that were analyzed were for the Exit of the Car Wash. Noise levels from the Entrance Side of the Car Wash will be less than the Exit noise levels since the blowers are closer to the Exit. Additionally, the distance to the West property line is greater.

The noise generated by the proposed vacuum was analyzed. Measured noise levels at 40 feet were provided by JE Adams Industries. This noise level was extrapolated to the west property line which is a distance of 118 feet. Only distance effects were utilized for this calculation. The result of this analysis is listed below.

Calculated Noise Levels in dB at the West Property Lines for the JE Adams Vacuum

Property Line	Noise Level
West	54.2 dBA

This noise level exceeds the allowable noise levels in Section 47.6.2. The owner agreed to not allow the vacuum to operate on Sunday morning which would increase the allowable noise level to 50 dBA. but that would still be a violation. A shielding wall was proposed that would reduce the noise level to below 50 dBA. However, the owner felt that a wall would block his main street Price Sign. Therefore, he has decided to not have a vacuum system as part of the Car Wash.

Sincerely,

DAVY & ASSOCIATES, INC.

Bruce A. Davy

Bruce A. Davy, P.E.
President

BD/kbd

Martinez, Oscar

From: Herbers, Sue
Sent: Friday, April 01, 2011 1:49 PM
To: Martinez, Oscar
Subject: FW: April 5th City Council Meeting, Supplement Acoustical Studies, Item 13B
Attachments: 10 051 00 Final Executive Summary.pdf; Proposed Car Wash on 190th Street - Flowchart 2.7.11.pdf; 10.051.00 Final Review of Davy 3-22 Report.pdf

Oscar, this has been submitted for the record.
Sue

Sue Herbers
City Clerk
City of Torrance | 3031 Torrance Blvd. | Torrance CA 90503 |
310.618.2864 voice | 310.618.2931 fax | SHerbers@TorranceCA.gov | www.TorranceCA.gov

From: Rich Welter [mailto:richw@donwilsonbuilders.com]
Sent: Friday, April 01, 2011 1:47 PM
To: Herbers, Sue
Cc: 'asako ota'; 'patio creek 1'; 'patio creek 2'; 'maria jacques'
Subject: RE: April 5th City Council Meeting, Supplement Acoustical Studies, Item 13B

Dear Ms. Herbers,

New Submittal
Attached please find our rebuttal (see Wieland Acoustics analysis dated April 1, 2011) to applicant's acoustical letter dated March 22, 2011 listed on page 205 of the staff report.

Previously Submitted Documents (but erroneously not included in the staff report for the April 5th meeting)
Additionally, the staff included the applicant's acoustical letter dated January 19, 2011(page 209 of the staff report); however, did not include the Wieland Acoustics analysis dated February 7, 2011 and the related flow chart which rebuts the findings of the applicant's study. I have attached these documents as well (previously submitted to staff on February 7, 2011).

If you would be so kind, please forward these documents to the City Council, planning staff, and make them available as part of the public record. We greatly appreciate your time and attention in this matter.

Sincerely,

Richard Welter
Vice President
Don Wilson Builders
23705 Crenshaw Blvd, Suite 200
Torrance, CA 90510-3188

Office: 310.539.9902
Direct: 310.602.5200
Fax: 310.539.2876
Mobile: 310.803.7479
richw@donwilsonbuilders.com

From: Herbers, Sue [mailto:SHERBERS@TorranceCA.gov]
Sent: Thursday, March 31, 2011 6:39 PM

To: 'Rich Welter'
Subject: RE: Here's my contact info

Rich,

The agenda is being posted right now and should be "live" within the hour at the website - http://www.torranceca.gov/2372.htm#

Any additional documents that you submit once received will be printed and delivered in hard copy to the City Council and will be posted on the website as well.

If you have any questions you may contact the Community Development Department or I can forward for you .

Sue Herbers

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February 7, 2011 Project File 10.051.00

Mr. Richard Welter
Don Wilson Builders
23705 Crenshaw Boulevard, Suite 200
Torrance, CA 90510-3188

Subject: Review of Acoustical Report for the Carwash at 5404 W. 190th Street in Torrance, CA

References:
1. *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. October, 2010.
2. *Peer Review of the Acoustical Study for the Carwash at 5404 W. 190th Street in Torrance, CA*. Wieland Acoustics, Inc. December 15, 2010.
3. *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. January 19, 2011.

Dear Mr. Welter:

As you know, we previously reviewed the acoustical report prepared by Davy & Associates (Reference 1) for the subject carwash and issued our comments (Reference 2) which identified 13 areas in which we disagreed with Mr. Davy's assumptions, analysis and conclusions. Mr. Davy has since responded (Reference 3). While his responses are appreciated, they do not resolve all of the concerns expressed in our comments. Rather than continue in this vein of comments and responses, we would like to summarize our concerns.

1 Applicable Noise Standards

The purpose of any acoustical study should be to demonstrate that a project will either comply with the City's Municipal Code noise standards as designed, or to provide appropriate recommendations to ensure compliance with the standards. In the case of the proposed carwash, the project has to comply with three noise standards identified in the Municipal Code:

1. *Section 46.2.6, Machinery, Equipment, Fans and Air Conditioning*. This section makes it unlawful for the carwash equipment to cause the noise level at a residential property line to exceed the ambient noise level by more than 5 dB.

2. *Section 46.7.2(a)(1), Noise Limits on Residential Land*. This standard states that it is unlawful for the project to produce noise levels in excess of 55 dB during the daytime hours of 7 a.m. to 10 p.m. when measured on a residential property in Region 4. (This paragraph also identifies a nighttime standard, but it will not be addressed in this letter since the proposed carwash will not operate during nighttime hours.) It is important to note that this standard applies anywhere on a residential property; it does not apply at the residential property line.

   Section 46.7.2(c), Corrections to the Noise Limits, identifies adjustments that shall be applied to the noise standards of Section 46.7.2*(a)(1)*. These adjustments raise or lower the noise standards depending on the character and duration of the noise. For example, if the noise contains a steady, audible tone such as a whine, screech or hum, the noise standards are lowered (i.e., made more stringent) by 5 dB. If the noise occurs less than 5 hours per day, the noise standards are raised (i.e., made less stringent) by 5 to 15 dB depending on the duration of the noise. Lastly, the noise standards are lowered by 5 dB if the noise occurs between 12:01 a.m. and 12:01 p.m. on a Sunday (i.e., on a Sunday morning).

3. *Section 46.7.2(b)(4), Noise Limits at Industrial and Commercial Boundaries.* This standard states that it is unlawful for a commercial use to generate noise levels in excess of 60 dB during the daytime at its property lines. (Again, this paragraph also identifies a nighttime standard, but it will not be addressed in this letter.)

   Section 46.7.2(c), Corrections to the Noise Limits, identifies adjustments that shall be applied to the noise standards of Section 46.7.2*(b)(4)*. These are the same adjustments discussed in Paragraph 2, above.

As indicated above, the Municipal Code requires that adjustments be made to the standards identified in Sections 46.7.2(a)(1) and 46.7.2(b)(4) to account for the character and duration of the noise, as well as for operations on a Sunday morning. It is our opinion that the following adjustments apply to the proposed carwash:

1. The noise standards should be lowered by 5 dB to account for the character of the noise produced by the blowers and the vacuums. Based on our measurements for similar projects, these sources can produce audible tones. No data has been provided in either the acoustical report (Reference 1) or in the response to comments (Reference 3) to indicate that the proposed equipment will not produce a tone.

2. No change to the noise standards should be provided for the duration of the noise. In the response to comments (Reference 3), it was indicated that there will be approximately 67 car washes per day, each lasting 6 minutes. Therefore, the total duration of the noise will be 6 hours and 42 minutes. (Mr. Davy contends that the only noise source of concern will be the blower, which runs for 1 minute during a car wash, but we disagree.) The Municipal Code provides no adjustments for a noise source of this duration. (It should be noted that the total duration of 6 hours and 42 minutes cited above is only for the carwash operation; it does not include the duration that the vacuums will be running or the cars will be idling in line.)

3. The noise standards should be lowered by 5 dB to account for the operation of the carwash on Sunday mornings.

In summary, it is our opinion that the following noise standards apply to the project:

	Section 46.2.6, Equipment Noise Limit at the Property Line	**Section 46.7.2(a)(1), Noise Limit on the Residential Property**	**Section 46.7.2(b)(4), Noise Limit at the Property Line**
Base Daytime Standard	Ambient + 5 dB	55 dB	60 dB
Adjustment for Noise Character	0 dB	-5 dB	-5 dB
Adjustment for Noise Duration	0 dB	0 dB	0 dB
Adjustment for Sunday Operation	0 dB	-5 dB	-5 dB
Applicable Noise Standard	***Ambient + 5 dB***	***45 dB***	***50 dB***

2 Compliance with the Noise Standards

The following sections summarize our opinion that the report and response provided by Davy & Associates (References 1 and 3) do not show that the proposed carwash will comply with the City's noise standards.

2.1 At the Property Lines, per Section 46.2.6 of the Municipal Code

As indicated previously, Section 46.2.6 of the Municipal Code states that the project should not cause the noise level at a residential property line to exceed the ambient noise level by more than 5 dB. Therefore, it is of critical importance that the ambient be properly defined. The acoustical report (Reference 1) and the response to comments (Reference 3) define the ambient to include traffic on the nearby streets and activities at the existing gas station. We respectfully disagree with this approach.

Taking this approach to its logical conclusion, the proposed carwash would be allowed to increase the ambient noise level by up to 5 dB per Section 46.2.6 of the Municipal Code, as discussed previously. Once operational, the carwash noise would then be part of the ambient, and any additional changes at the gas station would be allowed to increase the ambient by yet another 5 dB. Thus, the ambient noise level would be permitted to increase without end. Since the stated purpose of the noise ordinance is to protect citizens from "...any loud, unnecessary or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area" (Section 46.7.1 of the Municipal Code), it is difficult to believe that this is the City's intent.

The carwash is part of a larger commercial use (the gas station) and is not separate from it; therefore, it is our opinion that the combined noise level generated by the proposed carwash and the gas station must comply with the City's noise standards.

For this reason, it is our opinion that neither the acoustical study (Reference 1) nor the response to comments (Reference 3) has demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.2.6 of the Municipal Code.

2.2 On the Residential Property, per Section 46.7.2(a)(1)

As indicated previously , Section 46.7.2(a)(1) of the Municipal Code states that the operation of the carwash should not generate a noise level greater than 45 dB when measured on the adjacent residential properties. However, the acoustical report (Reference 1) doesn't even analyze the noise level that will be experienced on the residential property, and the response to comments (Reference 3) states only that "Obviously, if the standard is met at the property line separating the Car Wash site from the immediately adjacent residential property, the standard will be met on the adjacent residential property." However, without an analysis to verify this claim it isn't obvious at all. Therefore, it is our opinion that neither the acoustical study (Reference 1) nor the response to comments (Reference 3) has demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.7.2(a)(1) of the Municipal Code.

2.3 At the Property Lines, per Section 46.7.2(b)(4)

As indicated previously, Section 46.7.2(b)(4) of the Municipal Code states that the operation of the carwash may not generate a noise level greater than 50 dB (after adjustments) when measured at the property lines. Both the acoustical report (Reference 1) and the response to comments (Reference 3) analyze the noise level at the property lines, but it is our opinion that the analysis is incomplete for the following reasons:

1. The acoustical report (Reference 1) provides no calculations to support its findings that the carwash will produce a noise level of up to 55.8 dB at the west property line and up to 56.6 dB at the south property line. In any event, these levels exceed the City's standard of 50 dB (with adjustments) at the property lines.
2. In the response to comments (Reference 3) the estimated carwash noise levels are revised as follows:

Residential Property Line	Estimated Carwash Noise Level		Reduction in Noise Level from Original Study to Response
	Original Acoustical Study (Reference 1)	Response to Comments (Reference 3)	
South	56.6 dB	40.1 dB	16.5 dB
West	55.8 dB	44.1 dB	11.7 dB

   There is no explanation for this dramatic change in estimated noise levels other than that the two sets of estimates are based on field measurements at two different carwashes. However, this is not a sufficient explanation.

3. Neither the acoustical report (Reference 1) nor the response to comments (Reference 3) included in their analyses the noise that will be generated by the vacuums (i.e., the drop lines and the fan/motor), the carwash doors opening and closing, the carwash entry pad, cars idling at the carwash entrance, or cars driving into and out of the carwash. The noise levels from some of these items were dismissed as irrelevant in the response to comments; however, there is no measurement data or analyses presented to justify this conclusion. These data and analyses should be provided.
4. In the response to comments (Reference 3), it is stated that the carwash doors will provide 24 dB of noise reduction. This is supported by a letter from the door manufacturer. However, based

on our experience this appears to be an unrealistically high level of noise reduction. Another manufacturer with which we are familiar cites typical noise reductions of 11 to 13 dB. This is more in keeping with our experience. Applying this amount of noise reduction, rather than 24 dB, to the analysis of noise levels provided in the response to comments yields estimated carwash noise levels of 55.1 to 57.1 dB at the west property line, and 51.1 to 53.1 dB at the south property line. These estimates exceed the City's standard of 50 dB.

Based on the above, it is our opinion that neither the acoustical study (Reference 1) nor the response to comments (Reference 3) has demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.7.2(b)(4) of the Municipal Code.

3 Conclusion

In conclusion, it is our professional opinion that neither the acoustical report nor the response to comments demonstrates that the proposed carwash will comply with the City's noise standards. Rather, they appear to indicate that the City's standards will be exceeded both on the adjacent residential properties and at the property lines.

Thank you for this opportunity to provide you with acoustical consulting services. If you have any questions, please do not hesitate to call us at 949.474.1222.

Sincerely,

WIELAND ACOUSTICS, INC.

David L. Wieland
Principal Consultant

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April 1, 2011 Project File 10.051.00

Mr. Richard Welter
Don Wilson Builders
23705 Crenshaw Boulevard, Suite 200
Torrance, CA 90510-3188

Subject: Review of Acoustical Report for the Carwash at 5404 W. 190th Street in Torrance, CA

References:

1. *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. October, 2010.
2. *Peer Review of the Acoustical Study for the Carwash at 5404 W. 190th Street in Torrance, CA*. Wieland Acoustics, Inc. December 15, 2010.
3. *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. January 19, 2011.
4. *Review of Acoustical Report for the Carwash at 5404 W. 190th Street in Torrance, CA.* Wieland Acoustics, Inc. February 7, 2011.
5. *Acoustical Analysis, West Torrance 76 Car Wash, Torrance, California*. Davy & Associates, Inc. March 22, 2011.

Dear Mr. Welter:

As you know, Davy & Associates has, to date, issued three acoustical reports for the subject carwash. The latest (Reference 5) was prepared in response to a request for information from the City of Torrance. However, this latest report still leaves several important acoustical issues unanswered, and raises a new issue. These are summarized in the following sections:

1 Applicable Noise Standards

While we are pleased that Mr. Davy agrees with our interpretation of the noise standards contained within Section 46.7.2 of the Municipal Code, there is a third standard that, in our opinion, has not been properly addressed. This standard, found in Section 46.2.6 (*Machinery, Equipment, Fans and Air Conditioning)* of the Municipal Code makes it unlawful for the carwash equipment to cause the noise level at a residential property line to exceed the ambient noise level by more than 5 dB. (Refer to Section 2.1, below, for additional discussion.)

In summary, the noise standards that apply to the carwash, and that have been agreed to by Davy & Associates, are as follows:

	Section 46.2.6, Equipment Noise Limit at the Property Line	**Section 46.7.2(a)(1), Noise Limit on the Residential Property**	**Section 46.7.2(b)(4), Noise Limit at the Property Line**
Base Daytime Standard	Ambient + 5 dB	55 dB	60 dB
Adjustment for Noise Character	0 dB	-5 dB	-5 dB
Adjustment for Noise Duration	0 dB	0 dB	0 dB
Adjustment for Sunday Operation	0 dB	-5 dB	-5 dB
Applicable Noise Standard	***Ambient + 5 dB***	***45 dB***	***50 dB***

2 Compliance with the Noise Standards

The following sections summarize our opinion that the acoustical reports provided by Davy & Associates (References 1, 3 and 5) do not show that the proposed carwash will comply with the City's noise standards.

2.1 At the Property Lines, per Section 46.2.6 of the Municipal Code

As indicated previously, Section 46.2.6 of the Municipal Code states that the project should not cause the noise level at a residential property line to exceed the ambient noise level by more than 5 dB. Therefore, it is of critical importance that the ambient be properly defined. The acoustical reports of Reference 1 and Reference 3 define the ambient to include traffic on the nearby streets and activities at the existing gas station. We respectfully disagree with this approach.

Taking this approach to its logical conclusion, the proposed carwash would be allowed to increase the ambient noise level by up to 5 dB per Section 46.2.6 of the Municipal Code, as discussed previously. Once operational, the carwash noise would then be part of the ambient, and any additional changes at the gas station would be allowed to increase the ambient by yet another 5 dB. Thus, the ambient noise level would be permitted to increase without end. Since the stated purpose of the noise ordinance is to protect citizens from "...any loud, unnecessary or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area" (Section 46.7.1 of the Municipal Code), it is difficult to believe that this is the City's intent.

The carwash is part of a larger commercial use (the gas station) and is not separate from it; therefore, it is our opinion that the combined noise level generated by the proposed carwash and the gas station must comply with the City's noise standards.

For this reason, it is our opinion that none of the acoustical studies (References 1, 3 and 5) has demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.2.6 of the Municipal Code.

2.2 On the Residential Property, per Section 46.7.2(a)(1)

As agreed to by Davy & Associates, Section 46.7.2(a)(1) of the Municipal Code states that the operation of the carwash should not generate a noise level greater than 45 dB (after adjustments) when measured on the adjacent residential properties. However, the acoustical reports of References 1 and 5 don't even analyze the noise level that will be experienced on the residential property, and the acoustical report of Reference 3 states only that "Obviously, if the standard is met at the property line separating the Car Wash site from the immediately adjacent residential property, the standard will be met on the adjacent residential property." However, without an analysis to verify this claim it isn't obvious at all, especially since, as will be discussed in the following section, it is our belief that the estimated carwash noise levels are incorrect. Therefore, it is our opinion that none of the acoustical studies (References 1, 3 and 5) have demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.7.2(a)(1) of the Municipal Code.

2.3 At the Property Lines, per Section 46.7.2(b)(4)

As agreed to by Davy & Associates, Section 46.7.2(b)(4) of the Municipal Code states that the operation of the carwash may not generate a noise level greater than 50 dB (after adjustments) when measured at the property lines. The acoustical studies (References 1, 3 and 5) all analyze the noise levels at the property lines, but each arrives at a different answer, as shown in the following table:

Residential Property Line	Estimated Carwash Noise Level		
	Oct. 2010 Acoustical Study (Reference 1)	Jan. 2011 Acoustical Study (Reference 3)	Mar. 2011 Acoustical Study (Reference 5)
South	56.6 dB	40.1 dB	43.2 dBA
West	55.8 dB	44.1 dB	44.1 dBA

As can be seen, there is a dramatic change in estimated carwash noise levels between the October 2010 acoustical study and the January 2011 acoustical study. But there is no explanation for this dramatic change other than that the two sets of estimates are based on field measurements at two different carwashes. However, this is not a sufficient explanation in and of itself. Further, there is no explanation for the difference in estimated carwash noise levels at the south property line between the January 2011 report and the March 2011 report.

There are other issues as well that support our opinion that the analysis is incomplete and improperly done:

1. In the acoustical study of Reference 5, a directivity effect of -8 dBA was included in the analysis of estimated carwash noise levels at the south property line. This directly contradicts the analysis of Reference 3, which states that "There were no directivity corrections included in this analysis since the Colia measurements were made for both the exit and the entrance of the La Palma car wash." If the directivity effect of -8 dBA is removed from the analysis, the estimated carwash noise level at the south property line is 51.2 dBA. This exceeds the City's standard of 50 dBA.

2. None of the acoustical reports (References 1, 3 and 5) included in their analyses the noise that will be generated by the carwash doors opening and closing, the carwash entry pad, cars idling at the carwash entrance, or cars driving into and out of the carwash. The noise levels from some of these items were dismissed as irrelevant in Reference 3; however, there is no measurement data or analyses presented to justify this conclusion. These data and analyses should be provided.
3. In References 3 and 5, it is stated that the carwash doors will provide 24 dB of noise reduction. This is supported by a letter from the door manufacturer. However, based on our experience this is an unrealistically high level of noise reduction. Another manufacturer with which we are familiar cites typical noise reductions of 11 to 13 dB. This is more in keeping with our experience. Applying this amount of noise reduction, rather than 24 dB, to the analysis of noise levels provided in Reference 5 yields estimated carwash noise levels of 55.1 to 57.1 dB at the west property line, and 54.2 to 56.2 dB at the south property line. These estimates exceed the City's standard of 50 dB.

Based on the above, it is our opinion that none of the acoustical studies (References 1, 3 and 5) has demonstrated that the proposed carwash will comply with the noise standard identified in Section 46.7.2(b)(4) of the Municipal Code.

3 Conclusion

In conclusion, it is our professional opinion that none of the acoustical reports demonstrates that the proposed carwash will comply with the City's noise standards. Rather, they appear to indicate that the City's standards will be exceeded both on the adjacent residential properties and at the property lines.

Thank you for this opportunity to provide you with acoustical consulting services. If you have any questions, please do not hesitate to call us at 949.474.1222.

Sincerely,

WIELAND ACOUSTICS, INC.

David L. Wieland
Principal Consultant

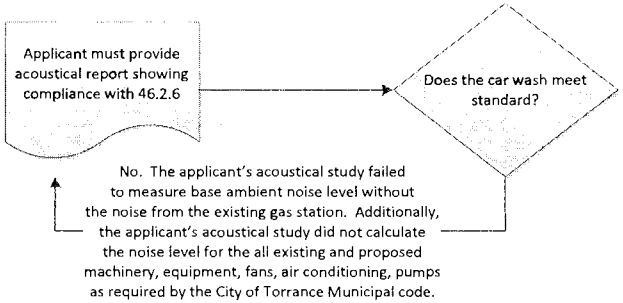
Proposed Car Wash on 190th Street and Entradero Avenue
Noise Study Flowchart

Section 46.2.6

SECTION 46.2.6.

MACHINERY, EQUIPMENT, FANS AND AIR CONDITIONING.

It shall be unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any residential land to exceed the ambient noise level by more than five (5) decibels.



Applicant's proposed car wash must meet all three noise standards per the City of Torrance's municipal Code as follows:

- **Section 46.2.6**
- **Section 46.7.2 (a) (1)**
- **Section 46.7.2 (b) (4)**

Section 46.7.2 (a) (1) As adjusted by Section 46.7.2 (c)

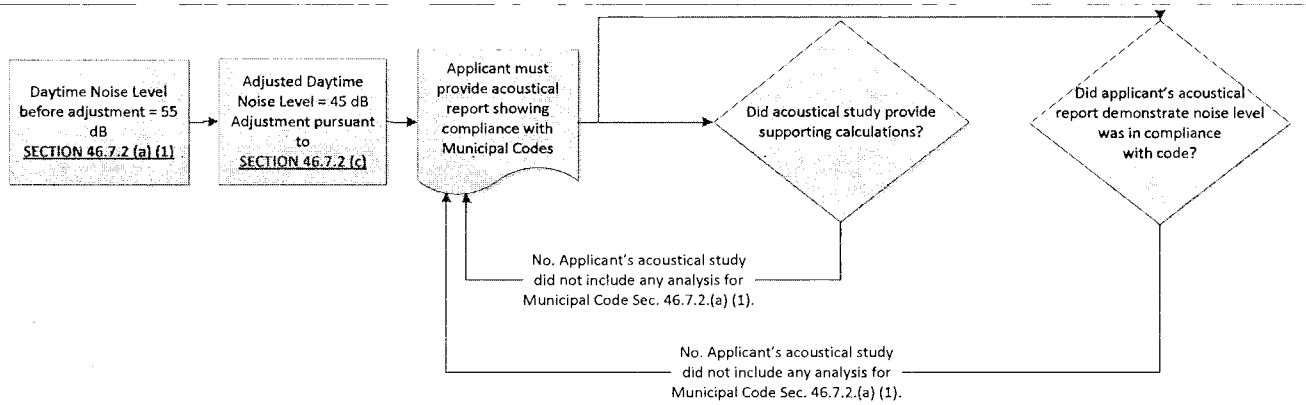
SECTION 46.7.2 (a) (1)

Noise Limits on Residential Land. It shall be unlawful for any person within the City of Torrance (wherever located) to produce noise in excess of the following levels as received on residential land owned or occupied by another person within the designated regions. In addition to the noise limits stated herein, the noise limits set forth in Sec. 46.7.2.b) shall also be complied with.

REGION 4 NOISE LEVEL = 55 dB Day
50 dB Night

SECTION 46.7.2 (c)

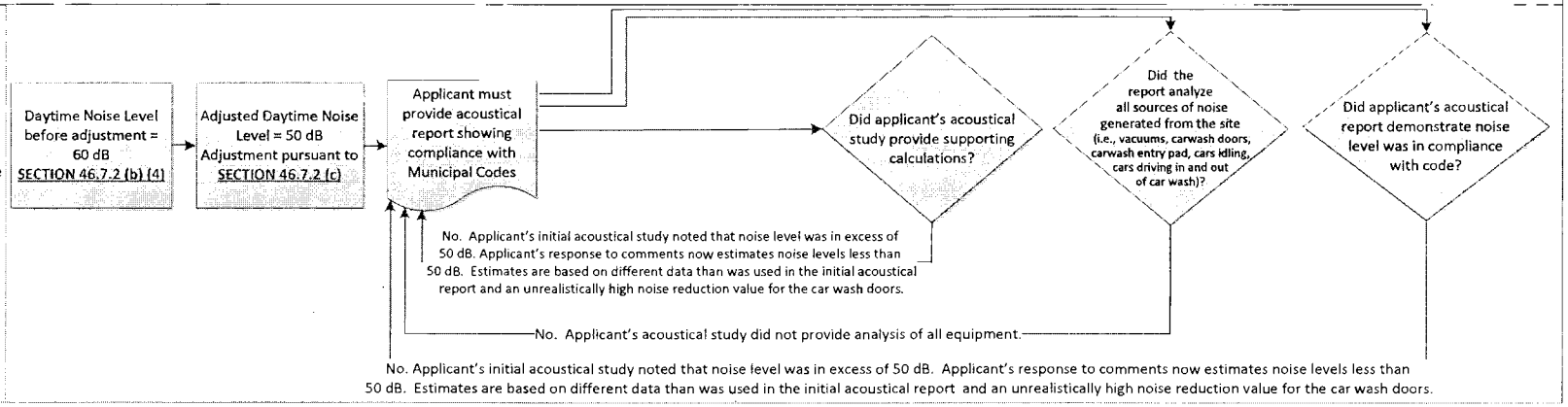
Corrections to the Noise Limits: The numerical limits given in Sec. 46.7.2.(a) and (b) shall be adjusted by addition of the following corrections where appropriate.



Section 46.7.2 (b) (4) As Adjusted by Section 46.7.2 (c)

SECTION 46.7.2 (b) (4)

Noise Sources on All Land Use for Commercial Purposes: It shall be unlawful for any person on land used for commercial purposes to produce noise levels at his own property boundary in excess of 60 dB during the day or 55 dB during the night. In addition to the noise limits set forth herein (Sec. 46.7.2.b), the noise limits set forth in Sec. 46.7.2.(a) shall also be complied with.

SECTION 46.7.2 (c)

Corrections to the Noise Limits: The numerical limits given in Sec. 46.7.2.(a) and (b) shall be adjusted by addition of the following corrections where appropriate.