# Wash N' Go Appeal


## Should one project put at risk the health and safety of the occupants of the 61,271 vehicles utilizing Telegraph Canyon Road every day?

- There is a potential traffic hazard from project traffic merging with freeway on-ramp traffic directly onto Telegraph Canyon Road.

  - Rich Zumwaldt, AICP, Associate Planner 2/11/15

- Potential Spillback blocking Westbound Telegraph Canyon.

  - Justin Rasas, P.E., PTOE 11/27/18

CITY OF
CHULA VISTA

**Development Services Department Memorandum**

Date: February 11, 2016

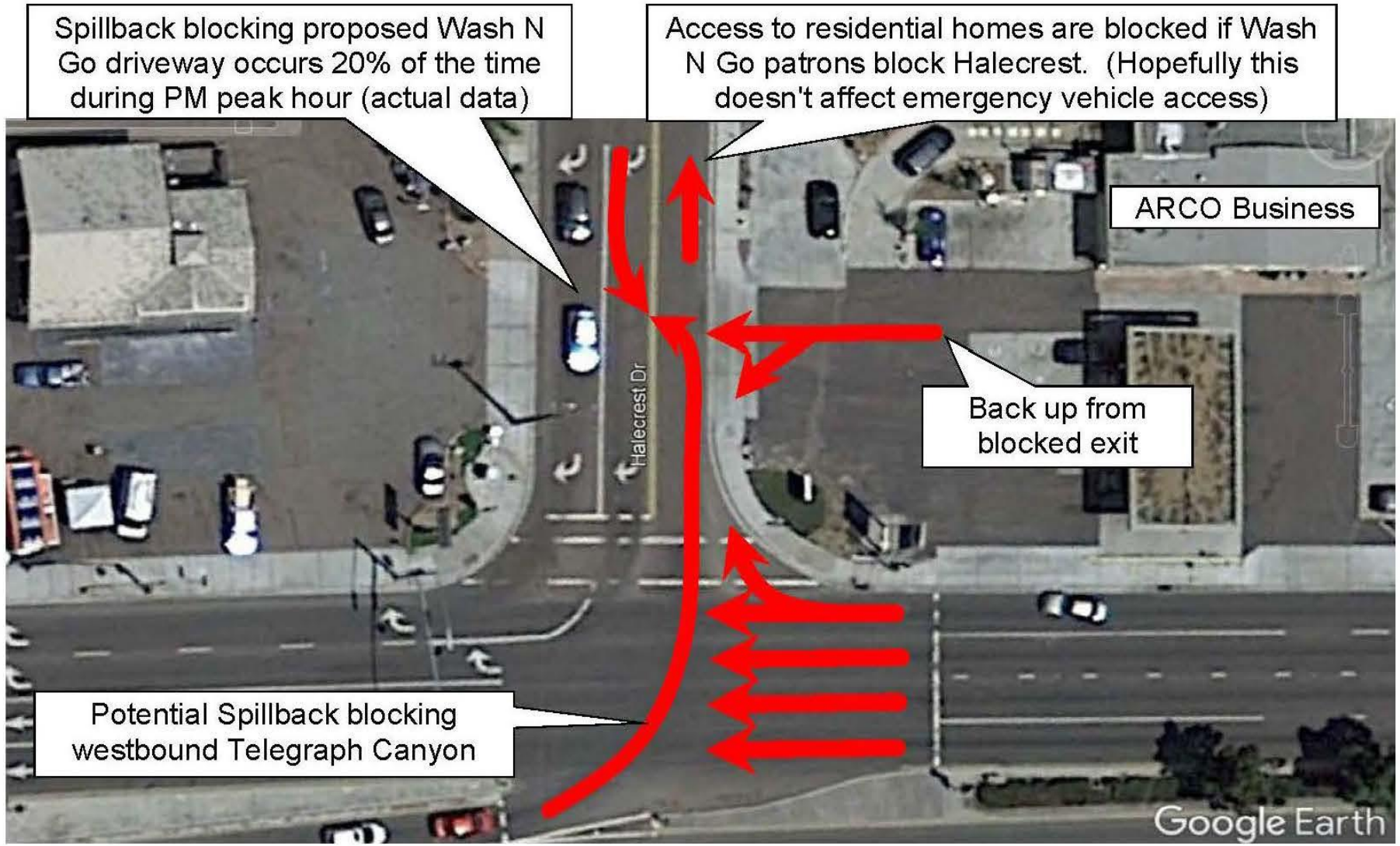
To: Miguel Tapia, Senior Planner

From: Rich Zumwalt, AICP, Associate Planner

Subject: Planning Comments on Wash 'N Go, CUP-15-0023/DR15-0037:

12. There is a potential traffic hazard from project traffic merging with freeway on-ramp traffic directly onto Telegraph Canyon Road. The Land Development Division recommends that the driveway access to Telegraph Canyon Road be reviewed and approved by Caltrans and the City Traffic Engineer.
13. Because the site is adjacent to the on–ramp to I-805, and the driveway opens onto the freeway on-ramp, Caltrans review is required. As of the date of this letter, Caltrans has not completed their review of the plans. Staff will provide their comments once they are available.

# One Car Away From Catastrophe



HALECREST DRIVE

Access to the proposed car wash driveway on Halecrest Drive requires northbound vehicles to cross two oncoming lanes of traffic. If southbound cars block the proposed car wash driveway, then the vehicle will either stop in the travel lane and hope someone will let them turn left, or will have to travel into the residential neighborhood to the north to find a place to turn around. To get an idea of how much the proposed car wash driveway would be blocked, traffic data was collected from 4 to 6 PM on Tuesday, September 11, 2018. The data recorded the frequency and duration of when the blockage started, ended, and duration of blockage (**Attachment D**). The area in question was blocked 37 times between 4-6 PM for a total of 23 minutes and 11 seconds – this is about 19% of study period. The PM peak hour (4:45 to 5:45 PM) had about 12 minutes of blockage or about 20% of the peak hour. If one car wash patron stops and waits to turn left, they will block the sole northbound travel lane creating a potential spillback to Telegraph Canyon Road and create additional delay to your patrons. The area on Halecrest Drive with the documented blockage can be striped with "Keep Clear"; however, it is unknown if this would be 100% effective (without a proper analysis) and it will require approval by the City of Chula Vista.

# Spill Back onto Telegraph
# Caused by Blockage of Driveway

# Wash N’ Go Rosecrans Spill Back onto Road

# Guidelines for Traffic Impact Studies: Need for a Study

- A traffic Impact Study should be prepared for all projects which generate traffic greater than 1,000 total average daily trips or 100 peak hour trips.

  - SANTEC, ITE 3/2/2000

- Actual data collected from Rosecrans Wash N' Go establishes 144 PM peak hour trips grater than the threshold that requires a Traffic Impact Study.

  - LOS Engineering 10/4/12

# SANTEC / ITE GUIDELINES FOR TRAFFIC IMPACT STUDIES [TIS] IN THE SAN DIEGO REGION

## IV. NEED FOR A STUDY

A TIS should be prepared for all projects which generate traffic greater than 1,000 total average daily trips (ADT) or 100 peak-hour trips. If a proposed project is not in conformance with the land use and/or transportation element of the general or community plan, use threshold rates of 500 ADT or 50 peak-hour trips. Early consultation with any affected jurisdictions is strongly encouraged since a "focused" or "abbreviated" TIS may still be required – even if the above threshold rates are not met.

The geographic area examined in the TIS must include the following:

- All local roadway segments (including all State surface routes), intersections, and mainline freeway locations where the proposed project will add 50 or more peak-hour trips in either direction to the existing roadway traffic.

- All freeway entrance and exit ramps where the proposed project will add a significant number of peak-hour trips to cause any traffic queues to exceed ramp storage capacities (see Figure 1). (NOTE: Care must be taken to include other ramps and intersections that may receive project traffic diverted as a result of already existing, or project causing congestion at freeway entrances and exits.)

# Rosecrans Wash N Go Data Collection

- Actual data collected on October 4, 2018
- This is a high-volume budget type car wash (doesn't match current book rates)
- PM Peak Hour = 144 Vehicles
  - 69 inbound
  - 75 outbound
- Queuing into street occurred for 8 minutes and 37 seconds over a 2 hour period

| | |
|---|---|
| City: | San Diego |
| Location: | Wash N Go Express Carwash |
| Count Type: | Driveway Counts - Driveway Off Cauby Street |
| Date: | 10/4/2018 |

Cauby St Driveway

| | Entering | Exiting |
|---|---|---|
| 16:00 | 16 | 22 |
| 16:15 | 16 | 16 |
| 16:30 | 17 | 15 |
| 16:45 | 20 | 22 |
| 17:00 | 14 | 13 |
| 17:15 | 20 | 8 |
| 17:30 | 12 | 12 |
| 17:45 | 21 | 21 |
| **TOTAL** | **136** | **129** |

| | Entering | Exiting | TOTAL | |
|---|---|---|---|---|
| 16:00-17:00 | 69 | 75 | **144** | **Peak Hr** |
| 16:15-17:15 | 67 | 66 | 133 | |
| 16:30-17:30 | 71 | 58 | 129 | |
| 16:45-17:45 | 66 | 55 | 121 | |
| 17:00-18:00 | 67 | 54 | 121 | |

Driveway Blockage

| | Beginning | Ending | Duration |
|---|---|---|---|
| 1 | 16:52:48 | 16:53:35 | 0:00:47 |
| 2 | 16:55:49 | 16:56:28 | 0:00:39 |
| 3 | 17:12:54 | 17:14:41 | 0:01:47 |
| 4 | 17:16:08 | 17:19:44 | 0:03:36 |
| 5 | 17:26:29 | 17:27:05 | 0:00:36 |
| 6 | 17:56:40 | 17:57:52 | 0:01:12 |
| 7 | | | 0:00:00 |
| 8 | | | 0:00:00 |
| | | TOTAL | 0:08:37 |


# Incorrect Data Input Gives You a Wrong Result:

## Traffic

- 80-Foot Car Wash tunnel processes 90 cars per hour, not 40 to 50 cars.

  -Sonny's- The Tunnel Experts

- Traffic Effect- car wash generates more vehicle traffic in 12 hours than the 10 –year old gas station did in 24 hours.

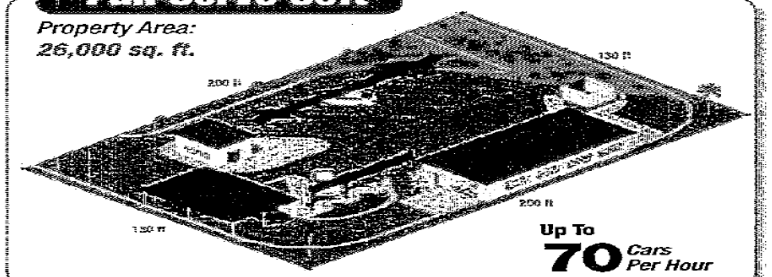
  -Supplemental Information, Pg. 7, 1/18/19

# Full Serve

SampleFull-Serve Layouts
Start Your Planning at SonnysDirect.com

## Full Serve 60ft

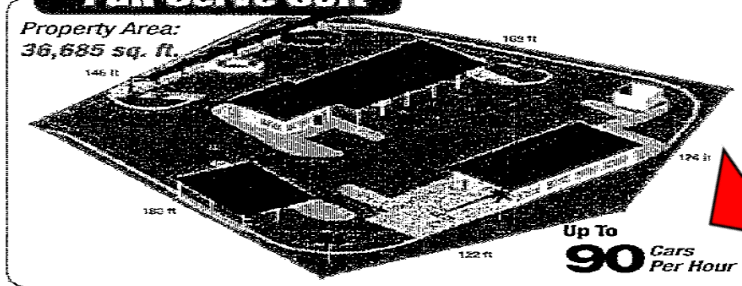
*Property Area:*
*26,000 sq. ft.*




Up To **70** *Cars Per Hour*

## Full Serve 80ft

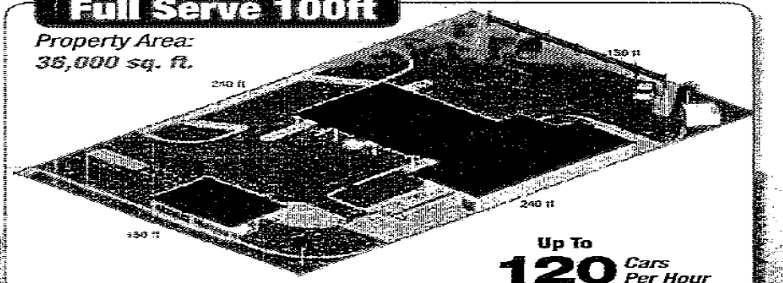
*Property Area:*
*36,685 sq. ft.*




Up To **90** *Cars Per Hour*

## Full Serve 100ft

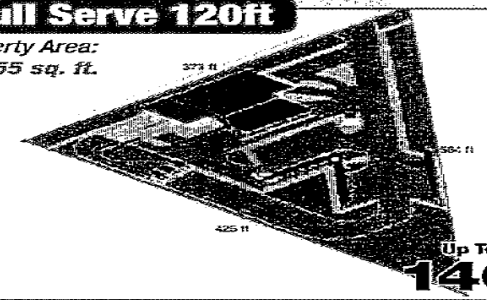
*Property Area:*
*36,000 sq. ft.*



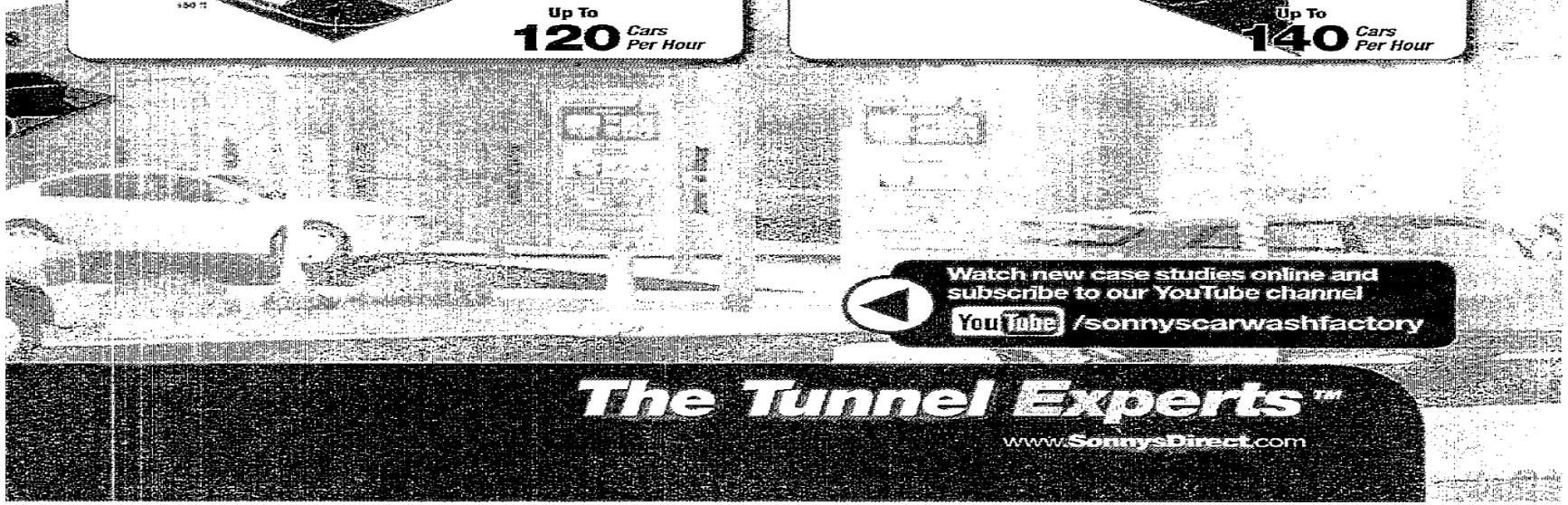

Up To **120** *Cars Per Hour*

## Full Serve 120ft

*Property Area:*
*79,655 sq. ft.*




Up To **140** *Cars Per Hour*



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**The Tunnel Experts™**
www.SonnysDirect.com


# Incorrect Data Input Gives You a Wrong Result:

## Noise

- Worst case: Car wash noise level is NOT nine dryers/ blowers being on at most 67% of the time
- When car wash tunnel is at full capacity, dryers/ blowers remain on 100% of the time

  -Steven Fielder, INCE, dBF Associates

- Noise Impact- at 100% capacity, noise levels increase by 1.7 dBA and exceed the noise limits.

# Noise Analysis Report

## Chula Vista Wash 'N Go

HMMH Project Number 309250
August 7, 2017

Table 5 – Dryer Sound Power Levels

| Source | Octave Band Sound Power Level (LW) dBA | | | | | | | | Total Sound Power Level (LW) dBA |
|---|---|---|---|---|---|---|---|---|---|
| | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1 kHz | 2 kHz | 4 kHz | 8 kHz | |
| 15 HP Dryer | 95 | 92 | 92 | 96 | 93 | 95 | 93 | 88 | 101 |

The carwash is planning on installing two central vacuum systems, however they will be fully enclosed within the carwash building.

The above noise source information was used to calculate the worst-case carwash noise levels at the adjacent noise sensitive land uses. By worst-case, we mean that all of the noise sources were assumed to be operating for the maximum percentage of time that could be expected with the carwash tunnel at full capacity. Each of the nine dryers were determined to be in use at most 67% of time, using a 2 car maximum tunnel capacity, 20 second drying time, and one minute total carwash time.

# Incomplete Data in Sound Study

- Noise levels not evaluated at Arco gas station across Halecrest Drive opposite the 9 dryers/ blowers
- Project and ambient noise not evaluated at the Chase Bank across the street from car wash
- Noise impact- incomplete data and incorrect assumptions render sound study invalid in its current form.

- dBF, Third Party Noise Analysis Review 1/21/19

dBF Associates, Inc.

3129 Tiger Run Court, Suite 202
Carlsbad, CA 92010
619-609-0712

January 21, 2019

Raed Bisharat
R. T. Bish, Inc.
501 Telegraph Canyon Road
Chula Vista, CA 91910

Re: Chula Vista Wash 'N Go
Noise Analysis Review

Mr. Bisharat:

At your request, dBF Associates, Inc. has reviewed the noise analysis of the proposed Chula Vista Wash 'N Go at 495 Telegraph Canyon Road in Chula Vista, California.

The most recent noise analysis of the subject project is understood to be documented within the Noise Analysis Report (NAR) prepared by HMMH dated August 7, 2017. The following items were noted during the review.

1. The HMMH NAR states, in paragraph 4 on page 9: "Each of the nine dryers were determined to be in use at most 67% of the time, using a 2 car maximum tunnel capacity, 20 second drying time, and one minute total carwash time."

   The proposed 80-foot-long car wash tunnel can process one vehicle in three minutes, and the typical distance between vehicles is 5 feet or less [Bisharat 2019]. Assuming a standard vehicle length of 15 feet, vehicles would be less than 10 seconds apart when the car wash is operating at full capacity. Under these conditions, to maximize efficient electricity and equipment use, it is likely that the dryers would be continuously operational rather than cycled off and on.

   I observed the blower cycle at the Wash 'N Go Express car wash at 7959 Balboa Avenue in Kearny Mesa on Monday, January 21, 2019. This facility is an automated car wash similar to the proposed project. During the observations, the entrance queue ranged from one to four vehicles. Vehicles were observed exiting the tunnel as fast as every 30 seconds. 13 blowers were installed in the facility. The blowers were observed to be manufactured by Sonny's The CarWash Factory. All of the blowers remained on, at full speed, when the time between vehicle exits was less than one minute. Over a 20-minute observation period, the fans were observed to turn off once, for less than two minutes. Each blower included a damper, which occasionally closed between vehicles; however, no noise level difference was observed. When at full capacity, the blowers would never turn off.

I observed the blower cycle at the Soapy Joe's car wash at 740 San Marcos Boulevard on Friday, January 18, 2019. This facility is an automated car wash, similar to the proposed project. During the observations, the entrance queue ranged from three to seven vehicles. Vehicles were observed exiting the tunnel as fast as one per minute. The spacing between vehicles varied; the distance was typically one-half or one full car length, but entrance delays occasionally caused wider gaps. All of the blowers remained on, at full speed, during gaps of one car length or less. When at full capacity, the blowers would never turn off.

As such, the operational assumption of 67% described in paragraph 4 on page 9 of the HMMH NAR is not accurate. If the model is revised to remove this incorrect assumption, the noise levels would increase by roughly 1.7 dBA, and would exceed the noise limits.

2. Project noise levels were not evaluated at the ARCO filling station across Halecrest Drive to the east, at 501 Telegraph Canyon Road. The filling station property is a commercial land use zoned CCD (Central Commercial Design District). The daytime (7:00 a.m. to 10:00 p.m.) noise limit at the west ARCO property line is 65 dBA Leq unless a higher ambient noise level is documented.

   The west ARCO property line is approximately 65 feet from the east project property line, and the project car wash exit would be approximately 25 feet west of its east property line. Using standard sound level propagation (6 dBA per doubling of distance), one dryer producing 86 dBA at 5 feet corresponds to approximately 60.9 dBA at 90 feet. Using logarithmic addition, nine dryers producing 60.9 dBA combine to produce approximately 70.4 dBA at the west ARCO property line. This exceeds the allowable level of 65 dBA Leq at this location.

   Similarly, project (and ambient) noise levels were not evaluated at the Chase Bank at 503 Telegraph Canyon Road or single-family residential properties along Douglas Street and beyond.

3. The HMMH NAR does not describe the noise modeling technique used to model the tunnel geometry. The appendix shows that the tunnel roof was modeled using a "floating screen," but the north tunnel wall does not appear to have been modeled. The material and sound transmission characteristics of the tunnel are not discussed; certain materials can allow noise to permeate. A noise contour graphic would be effective to illustrate modeling techniques and results.

The Chula Vista Wash 'N Go Noise Analysis Report prepared by HMMH dated August 7, 2017 is incomplete, is based on incorrect assumptions, and should be considered invalid in its current form.

Please contact me at 619-609-0712 ×101 if you have any questions.

Sincerely,

dBF ASSOCIATES, INC.

Steven Fiedler, INCE
Principal

References

Bisharat, Raed. 2019. Conversation with Brad Sorenson at Sonny's The CarWash Factory. January 17.