ITEM NO. J.3

February 14, 2015

RECEIVED
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Mr. Masto Ambrose

President Capistrano Bay District

35000 Beach Road,

Capistrano Beach CA 92624

Mr. Don Russell

Manager Capistrano Bay District

35000 Beach Road,

Capistrano Beach CA 92624

Per your request I looked at the location of the triangular Island location near the entrance to CBD. I examined both the drawings provided by Manager Don Russell, have also taken actual measurements as I have done for over 30 years, in my profession as an accident reconstruction expert. During my tenure, I was also examining roadways as a potential causative factor to an accident. In open court, have testified many times in areas that included traffic engineering and highway design on behalf of states, counties, cities and other governmental agencies A copy of my CV is enclosed.

Currently I am not practicing, thus not insured, therefore all my recommendations shall be strictly as a resident of CBD.

Mr. Russell provided me with a set of drawings to the entrance to CBD. (see attached original drawing) This drawing is to scale of 1''=20'

For ease of work, I enlarged this drawing to 1"=10' (see original drawing Enlarged)

I then produced a copy of the enlarged drawing, highlighting the important features and measurements.

Original drawing places the lateral (easterly) tip of the triangular island at approximately 8 feet, and its northerly tip measured on the scale drawing to be 32 feet south of the southerly tip of Gate Island.

Actual measurements reveal that the easterly tip of the triangular island is 9'9" east (instead of8'), and northerly tip of the island is only 29'10" south of the southerly tip of gate island. (See Actual Measurements Attachment)

Therefore the easterly tip of the island is actually located a minimum 1'9' east of its intended location, and the northerly tip of said triangular island is located 2'2" northerly of its intended location. (See actual location attachment)

It is recommended to relocate the easterly tip of this triangular island 2 feet west of its current location, and the northerly tip of this island 2 feet south of its current location. (New locations will be well within typical roadway construction tolerances.) It is also recommended to remove all shrubbery from triangular island (except tall trees) for increased visibility.

After completing work suggested herein, CBD needs to monitor traffic flow just south of the guard shack. If traffic conflicts still prevail, the undersigned has additional recommendations for improved safety, by the entrance to CBD and will share them with the board if asked.

I shall be happy to meet with you and all district board members, to further discuss the proceeding recommendations, and provide additional details if desired.

spectfully submitted,

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35283 Beach Road

Capistrano Beach CA 92624

Attachments:

Klein CV

Original Drawing

Original Drawing Enlarged

Measurements per Design

Actual Construction Drawing

Collision Research & Analysis, Inc. Accident Reconstruction Specialists

2209 W. 190th Str. Torrance, CA 90504 (310) 400-7559

ERNEST Z. KLEIN CURRICULUM VITAE

POSITION:

Research engineer, specializing in accident analysis and reconstruction. Research activities include conducting collision experiments, instrumented vehicle handling and performance tests and performing basic research in the areas of automotive collision safety, including fuel system analysis, seat and seatbelt performance, door latch studies, tire failure studies, filament analysis, night visibility studies, and related activities.

CONSULTING ACTIVITIES:

Analysis and reconstruction of vehicular, other transportation, and industrial accidents; these activities also include court appearances as an expert witness.

EXPERIENCE:

From 1978 to present has participated in and been responsible for analysis, reconstruction and trial preparation for over 1,000 vehicular and industrial accidents. Involvement also includes the following:

<u>Automotive Safety</u>- Examined and evaluated hundreds of vehicles to determine alleged vehicular failure as a potential cause for accidents, including, but not limited to trucks, passenger vehicles, motorcycles, bicycles and industrial machinery. Has participated in and has been responsible for planning, conducting, and analysis of data from several hundred full-scale and component tests. Human interactions including those of pedestrians under a variety of conditions examined as potentially causing or contributing to accident experience.

<u>Highway Safety</u>- For nearly ten years while associated with Severy Incorporated and working closely with the late Derwyn Severy, conducted over 500 field trips to various states, counties, and municipalities to examine and evaluate the design and related conditions of streets and highways as they pertain to vehicular accidents. Allegations of design defects, deficiencies, conflicts and oversights which are alleged to have induced an accident, are studied and when required, evaluated by full-scale testing.

<u>Visibility & Night Visibility-</u> Conducted numerous visibility and night visibility reconstructions and analysis. Performed night light measurements and related evaluations during dawn, dusk and evening. Activities also include line-of-sight evaluations.

<u>Industrial Safety- Provided consultation and supervision for construction of an automotive components manufacturing plant.</u> Activities also included research and evaluation of other similar manufacturing plants within the United States and abroad. Has provided consultation and analysis relating to a variety of industrial accidents.

<u>Human Factors</u>- Examined and evaluated human performance under various situations and as potentially causing or contributing to accident causations; some of these efforts have been published. See below.

EDUCATION: Bachelor of Science, Engineering, University of California, Los Angeles, 1978. Attended seminars in the fields of traffic engineering and Biomechanics of Impact Trauma.

PROFESSIONAL AFFILIATIONS:

Society of Automotive Engineers (SAE-AIP)-Member SAE Publications Review Committee-Member Association for the Advancement of Automotive Medicine-Member Human Factors Society-Member

PUBLICATIONS AND LECTURES:

"Anatomy of Accidents Following Tire Disablements", Ernest Klein and Thomas Black, Ph.D., SAE 99B-13, March 1999 Principal Organizer/Speaker: High Speed Rear Impact Collision TOPTEC, presented by SAE International, October 1997 Principal Organizer/Speaker: Low Speed Rear Impact Collision TOPTEC, presented by SAE International, August 1994 "Visibility Study-Methodologies and Reconstruction", Ernest Klein and Gregory Stephens, SAE 921575, August 1992 University-sponsored lecture on accident reconstruction before the National Committee for Motor Fleet Training

