SMITH ENGINEERING & MANAGEMENT

December 5, 2017

Mr. Benjamin R Levinson, Esq.
Law Offices of Benjamin R. Levinson
46 N. Second Street, Suite A
Campbell, CA 95008

Subject: South Bascom and Woodard Gas Station, Convenience Store, Carwash and Office Project, File No. CP16-035

P17019

Dear Mr. Levinson:

This report supplements my comment letter of October 7, 2017 on the above referenced Project. It reflects my personal observation of traffic activity on and near the site during the AM peak hour and further thoughts on the implications of the site plan on traffic, parking and pedestrian safety considerations.

My qualifications to perform this review were thoroughly documented in my October 7, 2017 letter and my professional resume was attached hereto. All of the comments in that prior letter remain in force.

Details of my supplemental review follow.

Unusual Circumstances on and in the Vicinity of the Project Lead to Traffic Operational Complexities that Would Be Exacerbated By the Project

As noted above, I had the opportunity to observe traffic operations on and near the Project site during a recent morning peak period. I observed many complexities of operation that would be compounded by the Project. The complexities include:

- The restriction of left turns from southbound Bascom into the site and to the building immediately to the south of the Project site and the restriction of left turns from the site's driveways to proceed southbound on Bascom.

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- The difficulty of making left turns from the Project's driveways on Woodard.
- Width limitation of Woodard's westbound approach toward Bascom.
- Existence of a 25-foot easement on the easterly side of the Project site that provides access to a parking/loading area at the rear of the property to the south.
- The proximity of the site to Farnham Elementary School and in particular the proximity to the school parking and drop-off/pick-up areas and to the school crosswalk at the intersection of Woodard with Starview Drive that is controlled by crossing guards during the school assembly and dismissal periods. Also, the prevalence of foot traffic and drop-off/pick-up traffic to/from the school during the assembly and dismissal periods.

The following paragraphs describe how the above circumstances combine to create traffic operational and safety problems that are not well described in theoretical *Highway Capacity Manual* level-of-service/delay calculations and that render such calculations irrelevant to assessment of the Project.

Left turns from southbound Bascom into the Project site and the building immediately south of it that houses a liquor/food store, a laundromat, a barber shop and a sports clinic are prohibited by a raised median close to the intersection with Woodard and by a painted median further south. So people southbound on Bascom wishing to access the Project site or the uses in the building to the south of it make a left turn onto Woodard then a right onto or across the Project site. Turns out of the site to continue southbound on Bascom are even more problematic. It is very difficult to weave across three northbound through lanes on Bascom to the turn pocket at Woodard that provides for U-turns to southbound Bascom. It is also very difficult to make a left turn out of the site's driveway(s) to Woodard to then make another left to proceed southbound on Bascom because of either oncoming traffic on Woodard or queued westbound traffic on Woodard. Because of these difficulties making legal movements to get off the site to proceed southbound on Bascom, many drivers can be readily observed solving their problem by making illegal left turns across the painted median from the site's southerly driveway to Bascom.

There is considerable pedestrian and drop-off/pick-up traffic on Woodard associated with morning assembly and afternoon dismissal times at Farnham Elementary school. Substantial queuing on both directions of Woodard occurs because of a combination of factors. The crossing guards who, equipped with hand-held STOP signs, control and protect the school crosswalk across Woodard at Starview Drive, stop traffic more or less whenever there are pedestrians wanting to cross with no intention of coordinating with the signal at Woodard and Bascom. As a result, often there is no traffic on westbound Woodard when this approach receives a green phase - it is all stopped back at Starview by the crossing guards. Or, sometimes when the crossing guards decide to process

traffic through the crosswalk, the signal on the westbound Woodard approach is in red phase so the platoon of traffic released by the crossing guards just forms a substantial queue at the Bascom signal. On eastbound Woodard, queues build and sometimes extend almost into the Bascom intersection, sometimes because the crossing guards stop traffic and also because eastbound traffic attempting to turn left into the schools parking and drop-off areas cannot do so because of flowing or queued westbound traffic.

The above may seem as an indictment of the crossing guards but that is not the intent. They are just focusing on their primary and necessary job of protecting child pedestrians walking to and from school. Our intent is to bring into focus that this is an environmental condition in the immediate area of the Project that creates a circumstance where even relatively small increases in traffic at the Project site would be significantly detrimental.

As noted above, the westbound approach of Woodard from Starview to Bascom is narrow - about 17 feet wide. However, because the north curb of Woodard is posted NO STOPPING ANY TIME, it functions as a de-facto two-lane approach to Bascom with one lane feeding left turns and one right turns - but not all of the time. If a driver intending to make a left does not squeeze over very close to the centerline or a driver intending to make a right is timid and unwilling to squeeze between the left turning queue and the curb or a driver making a left turn from the Project site onto Woodard gets crosswise in the lane (as they tend to do), then the de-facto two lane approach turns into a single lane approach until the signal clears out the queue.

All of the foregoing are operational considerations that demonstrate why conditions at the subject intersection are not adequately measured by normal traffic engineering computation measures for Level-Of- Service and why the Department of Public Works theoretical calculations that the intersection of Bascom and Woodard operates at LOS B and that the Project would only cause delay to increase by 0.2 seconds are irrelevant.

The Limitations of the Project Site and the Extensiveness of Uses Proposed Has Numerous Implications for Traffic Circulation and Safety

The limited size of site, its positioning and configuration and the amount of uses proposed to be jammed onto it have a number of implications for traffic circulation and traffic and pedestrian safety that are not addressed in the City's analysis. These include:

- By Section 20.90.060 of the City's zoning ordinance, the Project is required to provide 19 parking spaces to support the air/water station,

employee parking and information stop functions of the gas station, the retail use and the office space of the Project. The City's review of the Project claims that a total of 21 spaces are provided. But this total is only achieved by counting the 8 spaces at the fuel dispensers. In other words, almost 32 percent[1] of the parking spaces required for non-fuel-dispensing uses proposed on the site is to be met by spaces intended for the fuel dispensers. Because of this, a chaotic situation of queuing is likely to develop during peak times because the fuel dispenser spaces are occupied by vehicles whose drivers are doing something else. This could be particularly problematic because there is insufficient space for vehicles at the three most westerly pairs of fueling positions to maneuver around stopped vehicles in front of them. Only the most easterly pair of fueling positions has sufficient maneuvering space to go around a vehicle stopped in the other position of the pair. This situation could lead to a high incidence of hazardous backing maneuvers. Furthermore, the bypass lane around the fuel position islands is only 15 feet wide. There are only 4 non-fueling parking positions visible on the west side of the building for the predominant northbound traffic entering off South Bascom and one of them is a handicapped stall. When those parking positions are full, as they will be, drivers will park in the bypass lane between the fueling lanes and the retail building , creating a complete blockage and creating queuing chaos. The fundamental layout on the west side of the proposed building is a formula for gridlock.

- As noted previously, there is a 25 foot access easement along the back (easterly) side of the Project site that is intended to service access to and from the building immediately south of the Project site. However, six of the Project's parking stalls at the east side of the carwash extend into this easement, reducing the effective traversable width of the easement to 20.5 feet. Moreover, the parking stalls indicated on the site plan in this area are only 18 feet in length. But some larger pick-ups, vans and SUVs exceed 20 feet in length so when one or more such vehicles is/are parked there, the effective width of the access easement would be reduced by another foot. Furthermore, a masonry wall is to be constructed on the easterly side of the access easement. Except for an insert detail of the masonry wall itself, the site plans show the masonry wall as a thin pencil line. But the detail shows that the wall's footing is 2 feet wide and the face of the wall interior to the Project site is about 1.3 feet west of the easterly limit of its footing. If the entirety of the wall including excavation for the footing and the forms for constructing it are kept outside the property lines of the neighboring properties to the east, then the effective traversable width of the access easement would be further reduced by another 2 feet bringing its net effective traversable width down to about 17.5 feet or less.

[1] Six of the required nineteen spaces.

This is less than the normal width of a two-way parking aisle. The businesses in the building immediately south of the proposed Project site depend on the common access easement to have convenient access for patrons accessing those sites from southbound South Bascom Avenue via a left turn at Woodard and a right turn onto the access easement roadway or approaching and departing via Woodard alone. The configuration of the Project's parking in this area, the closure of one the other existing driveway to Woodard and the angle of the proposed Project parking in the easement and the alignment of the proposed Project's carwash flow from south to north effectively make the easement a one-way northbound passage.

- At present numbers of school parents/caregivers briefly park in the access easement while dropping-off or picking-up their children at Farnham Elementary. If these temporary parkers are displaced, they will add to the problematic congestion and queuing on Woodard described previously.
- Vehicles parked in the parking stall closest to the door at the southwest corner of the building must back into or very close to the pedestrian walkway to/from that same door. This is an undesirable and potentially hazardous configuration, perhaps particularly so since this is a handicapped stall.

Conclusion

This concludes my supplemental comments on the subject Project.

Sincerely,

Smith Engineering & Management
A California Corporation

[redacted]

Daniel T. Smith Jr., P.E.

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil)
California No. 938 (Traffic)
Nevada No. 7969 (Civil)
Washington No. 29337 (Civil)
Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS
Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS
Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.
Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.
Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.
Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.
Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.
Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.
Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.