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JAN 03 2012  
PLANNING DIVISION

December 29, 2011

Mr. Mark Rowan  
Cutting Edge Concrete  
c/o Merrell Johnson Companies  
22221 Highway 18  
Apple Valley, California 92307

**RE: Traffic Study – APN 0468-281-26 (San Bernardino County Project Number P201100453)**

Dear Mr. Rowan:

Pursuant to your request, and to our subsequent conversation with Ed Petre, San Bernardino County Public Works Department, Albert Grover and Associates is pleased to present to you the following Letter Report, which discusses our findings, conclusions and recommendations relative to access and circulation issues for the proposed modifications to the Cutting Edge Concrete site at 18020 National Trails Highway near Oro Grande, California in unincorporated San Bernardino County.

As determined earlier, the existing and proposed trip generation of this small facility is well below the threshold of conducting a formal traffic study. Therefore, this brief Letter Report will address the relevant traffic access and circulation issues at the site.

**Traffic Counts:** Traffic counts were conducted on National Trails Highway adjacent to the Cutting Edge Concrete site. The counts were collected on two consecutive mid-week days (Wednesday, December 14 and Thursday, December 15, 2011 – days on which school was in session), broken down by travel direction every 15 minutes. On the highest of the two count days, there were 8,806 vehicles per day (ADT). The Peak Hour volumes were 667 and 737 vehicles per hour for the AM and PM, respectively (see attached traffic counts).

**Site Review & Evaluation:** Field observations were conducted during the PM period at the site over a two-hour period on a typical week day. The following was observed:

- The traffic flow on National Trails Highway at the site's driveway was evaluated during the PM peak period, which coincides with the normal school traffic activities for the nearby Oro Grande Elementary School, located approximately one mile north of the driveway.

TRANSPORTATION CONSULTING ENGINEERS

211 E. Imperial Hwy., Suite 208, Fullerton, CA 92835  
(714) 992-2990 FAX (714) 992-2883 E-Mail: [aga@albertgrover.com](mailto:aga@albertgrover.com)

- Although the traffic flow, including school buses and other trucks, was steady during this peak period, ample and frequent gaps were observed, with gaps measuring up to 32 seconds. The great majority of these gaps are more than adequate for trucks to ingress/egress the subject driveway without any significant delays to site traffic or concern to passing traffic on National Trail Highway. During non-peak traffic conditions, even more gaps are expected to be available.
- Observed sight distance at the proposed driveway is sufficient on both the north and south of the driveway.
- An existing "SLOW TRUCKS" sign is posted in advance of the site for southbound traffic.
- The proposed street improvements shown on the Conditional Use Permit Site Plan are reasonable and appropriate to enhance traffic safety at the site.

**Conclusion:** Based on our review of the traffic counts, and on our observation of traffic flow, available gaps and sight distance, and on the proposed street improvements, we conclude that the vehicular and truck traffic to and from the Cutting Edge Concrete site should not cause any significant impact to traffic operations on National Trails Highway.

Should you have any questions regarding this matter, please contact me.

Respectfully submitted,

ALBERT GROVER & ASSOCIATES



*for* Mark Miller  
*Executive Vice President*

**Transportation Studies, Inc.**

2640 Walnut Avenue, Ste H  
Tustin, CA. 92780

City: : ORO GRANDE  
Location: : 18020 NATIONAL TRAILS HIGHWAY  
Segment: :

Site: SANTIAGO  
Date: 12/14/11

Interval	SB				NB				Combined				Day:	Wednesday
	AM		PM		AM		PM		AM		PM			
12:00	10	23	62	244	12	30	54	233	22	53	116	477		
12:15	4		68		8		66		12		134			
12:30	3		64		3		52		6		116			
12:45	6		50		7		61		13		111			
01:00	4	18	79	275	6	21	68	270	10	39	147	545		
01:15	6		68		4		82		10		150			
01:30	6		68		4		54		10		122			
01:45	2		60		7		66		9		126			
02:00	2	25	65	278	7	38	61	295	9	63	126	573		
02:15	9		74		6		76		15		150			
02:30	7		80		16		78		23		158			
02:45	7		59		9		80		16		139			
03:00	8	29	61	340	4	33	78	331	12	62	139	671		
03:15	6		110		4		72		10		182			
03:30	7		99		13		92		20		191			
03:45	8		70		12		89		20		159			
04:00	14	81	80	406	7	38	132	417	21	119	212	823		
04:15	15		95		12		120		27		215			
04:30	24		132		13		85		37		217			
04:45	28		99		6		80		34		179			
05:00	19	107	108	298	16	110	74	332	35	217	182	630		
05:15	35		56		16		102		51		158			
05:30	26		64		30		88		56		152			
05:45	27		70		48		68		75		138			
06:00	33	220	50	162	28	260	60	205	61	480	110	367		
06:15	55		52		44		57		99		109			
06:30	46		30		60		42		106		72			
06:45	86		30		128		46		214		76			
07:00	90	338	22	105	102	262	38	173	192	600	60	278		
07:15	88		28		48		52		136		80			
07:30	90		38		38		39		128		77			
07:45	70		17		74		44		144		61			
08:00	103	414	16	65	98	263	38	174	201	677	54	239		
08:15	104		18		93		51		197		69			
08:30	121		17		34		45		155		62			
08:45	86		14		38		40		124		54			
09:00	64	288	16	34	40	159	33	113	104	447	49	147		
09:15	68		8		40		30		108		38			
09:30	88		6		51		28		139		34			
09:45	68		4		28		22		96		26			
10:00	79	292	12	32	48	201	24	75	127	493	36	107		
10:15	76		6		42		16		118		22			
10:30	72		8		50		19		122		27			
10:45	65		6		61		16		126		22			
11:00	69	273	10	39	43	217	12	37	112	490	22	76		
11:15	70		4		54		16		124		20			
11:30	58		14		52		4		110		18			
11:45	76		11		68		5		144		16			
<b>Totals</b>	<b>2,108</b>		<b>2,278</b>		<b>1,632</b>		<b>2,655</b>		<b>3,740</b>		<b>4,933</b>			
<b>Split%</b>	<b>56.4</b>		<b>46.2</b>		<b>43.6</b>		<b>53.8</b>							
<b>Day Totals</b>		<b>4,386</b>				<b>4,287</b>				<b>8,673</b>				
<b>Day Splits</b>		<b>50.6</b>				<b>49.4</b>								
<b>Peak Hour</b>	<b>08:00</b>		<b>04:15</b>		<b>06:30</b>		<b>03:30</b>		<b>07:45</b>		<b>04:00</b>			
<b>Volume</b>	<b>414</b>		<b>434</b>		<b>338</b>		<b>433</b>		<b>697</b>		<b>823</b>			
<b>Factor</b>	<b>0.86</b>		<b>0.82</b>		<b>0.66</b>		<b>0.82</b>		<b>0.87</b>		<b>0.95</b>			

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City: : ORO GRANDE  
Location: : 18020 NATIONAL TRAILS HIGHWAY  
Segment: :

Site: SANTIAGO  
Date: 12/15/11

Interval	SB				NB				Combined				Day:	Thursday	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM					
12:00	2	17	68	285	16	36	60	256	18	53	128	541			
12:15	4		85		10		64		14		149				
12:30	9		73		8		74		17		147				
12:45	2		59		2		58		4		117				
01:00	4	21	71	263	8	29	66	284	12	50	137	547			
01:15	2		56		6		76		8		132				
01:30	8		62		9		74		17		136				
01:45	7		74		6		68		13		142				
02:00	4	29	82	309	4	36	88	337	8	65	170	646			
02:15	0		68		12		76		12		144				
02:30	13		76		10		88		23		164				
02:45	12		83		10		85		22		168				
03:00	6	40	62	337	6	19	85	331	12	59	147	668			
03:15	16		110		6		84		22		194				
03:30	6		86		1		72		7		158				
03:45	12		79		6		90		18		169				
04:00	3	51	77	376	10	48	109	361	13	99	186	737			
04:15	12		103		6		95		18		198				
04:30	12		131		20		74		32		205				
04:45	24		65		12		83		36		148				
05:00	16	107	62	273	12	103	72	324	28	210	134	597			
05:15	22		70		17		92		39		162				
05:30	36		71		26		86		62		157				
05:45	33		70		48		74		81		144				
06:00	48	225	52	151	32	254	69	209	80	479	121	360			
06:15	39		45		46		42		85		87				
06:30	72		28		62		64		134		92				
06:45	66		26		114		34		180		60				
07:00	106	378	22	71	96	263	47	180	202	641	69	251			
07:15	95		15		48		48		143		63				
07:30	83		18		52		39		135		57				
07:45	94		16		67		46		161		62				
08:00	100	369	12	48	80	298	44	163	180	667	56	211			
08:15	106		14		99		37		205		51				
08:30	97		12		60		38		157		50				
08:45	66		10		59		44		125		54				
09:00	67	324	15	44	38	196	38	123	105	520	53	167			
09:15	80		9		48		39		128		48				
09:30	81		12		58		22		139		34				
09:45	96		8		52		24		148		32				
10:00	88	297	6	36	46	197	26	96	134	494	32	132			
10:15	69		10		38		32		107		42				
10:30	81		6		49		20		130		26				
10:45	59		14		64		18		123		32				
11:00	54	297	8	31	54	229	18	55	108	526	26	86			
11:15	93		5		63		16		156		21				
11:30	80		13		54		9		134		22				
11:45	70		5		58		12		128		17				
Totals	2,155		2,224		1,708		2,719		3,863		4,943				
Split%	55.8		45.0		44.2		55.0								
Day Totals		4,379				4,427				8,806					
Day Splits		49.7				50.3									
Peak Hour	07:45		03:45		06:30		03:45		07:45		03:45				
Volume	397		390		320		368		703		758				
Factor	0.94		0.74		0.70		0.84		0.86		0.92				