

11. Intersection01

(Vehicular Intersection)

Shot Description: Shot at the intersection of La Jolla Village Drive and Villa La Jolla Drive over the course of several days during mid-summer. The three angles observed were **(1)** Front - *ground-level center facing west*, **(2)** Side - *ground-level facing south*, and **(3)** Oblique - *birds eye view facing east*.



Filming Status:

Still Shots -

- (1) Front Angle - *Complete*
- (2) Side Angle - *Complete*
- (3) Oblique Angle - *Complete*

Panning Shots -

- (1) Front Angle - *Complete*
- (2) Side Angle - *Complete*
- (3) Oblique - *Complete*

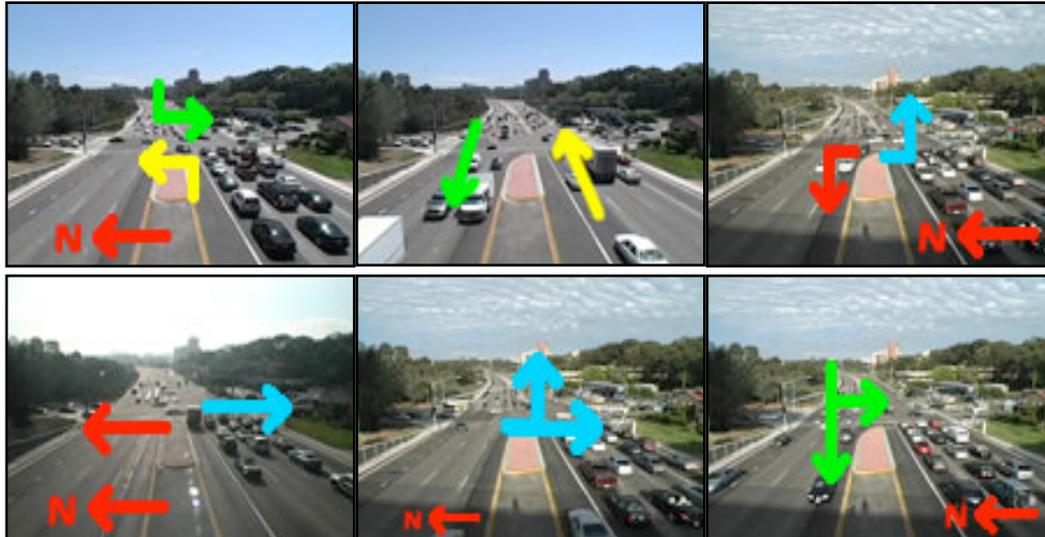
Traffic-Level Classifier Description: Initially we attempted to create a congestion level classifier for Intersection01. This was unsuccessful due to several reasons. (1) there may be many many cars in the interection, however if they are not moving then the intersection congestion is classified as low. (2) no clear definition of 'high', 'medium', and 'low' - lack of language to describe intersection congestion.

Experimental results: ~60% accurate.

Intersection State Classifier Description: Discriminates between six states of the intersection using only the *Oblique* angle. **Eight States:** **(1)** East-West-Thru (EWT) - *initially east bound and west bound cars are continuing straight through intersection*, **(2)** East-West-Left-Turn (EWLT) - *initially east and west bound vehicles are turning left through intersection*, **(3)** North-South-Thru (NST) - *initially north and south bound vehicles continue straight through intersection*, **(4)** North-South-Left-Turn (NSLT) - *initially north and south bound traffic are turning left through interseciton*, **(5)** South-Both-Left-Thru (SBLT) - *initially south bound vehicles are turning left and continuing through interseciton* , **(6)** West-Both-Left-Thru (WBLT) - *initially west-bound vehicles are turning left and continuing straight through intersection*, **(7)** East-Both-Left-Thru (EBLT) - *initially east-bound vehicles are turning left and continuing straight through in-*

tersection, and (8) North-Both-Left-Thru (NBLT) - initially north-bound vehicles are turning left and continuing straight through intersection.

Shown below are depictions of the first six states.



(1) Oblique - Initial Experiment Results:

md_error_mean	=	0.1676	=	83% Accurate
kl_error_mean	=	0.1579	=	84%
kl_svmerror_mean	=	0.1809	=	82%
ikl_error_mean	=	0.3234	=	68%
ikl_svmerror_mean	=	0.2713	=	73%