



San Diego Harbor
Police

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Shelter Island Fixed
ALPR

Recommendations
January 5, 2018

Fixed Wide Lane ALPR Camera (P492)

FEATURES:

- On-board PIPS Technology OCR engine
- Dual cameras – 2048 X 720 pixels in both infrared and color
- Triple flash technology and Intelligent and dynamic system adjustment
- U.S. traffic lane coverage of 14.0 ft (4.3m)
- 44 high power LEDs with various beam width options
- High definition sensor and increased processing power
- IR Illuminator and processor within a single sealed IP67-rated enclosure
- Automatic trigger or external trigger mode
- Single cable used for power, Ethernet, serial, trigger, and streamed color video
- Supports 3.5G, GPRS, and EDGE wireless connectivity (optional)

BENEFITS:

- Superior customer service and accountability with a single vendor for both camera and OCR
- Integrated LED camera and on-board OCR reduces system design, integration, and installation costs
- High quality image resolution and accurate performance OCR improves accuracy and reduces operating costs
- Improved system redundancy in tolling applications with direct license number output from each individual camera
- Metal housing for longevity in a variety of operating environments

Fully integrated, web-enabled camera with added power for a wider field of view

OVERVIEW:

The PIPS Technology™ P492 camera sets itself apart with its unique performance capabilities. Developed in-house, the embedded Optical Character Recognition (OCR) engine offers customers high performance and accuracy with a single point of accountability. This fully-integrated ALPR camera captures multiple license plates in the same field of view across 14 feet of US freeway traffic lanes. It is designed to utilize smaller, high power LEDs and provides the best color overview image resolution offered by PIPS ALPR cameras.

P492 uses a multi-exposure technique, commonly referred to as “Triple-flash” technology, to effectively suppress ambient light such as headlights and bright sunlight. This helps to reduce the image exposure differences caused by plate-to-plate quality variations. It is fully web-enabled and can be configured and monitored from a standard web-browser while the flexible interface allows external devices such as radar, weigh-in-motion or ticketing systems to trigger the camera.

Target applications for the PIPS P492 camera include: Public Safety, Tolling, High Occupancy Toll (HOT), and Urban Congestion Zone Charging.





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The P492's on-board OCR engine actively analyzes just received images, using those results to intelligently and dynamically adjust camera settings for improved image quality. The P492 also supports selected external illuminators to provide high quality color images of passing vehicles after sunset. Customers can use these high quality color images for further review, feed into vehicle signature software, or pass through a separate OCR engine supporting color images.

The 492 is Web-enabled. The camera can be configured and monitored from a standard Web browser. The flexible interface allows external devices such as loop-based vehicle classification systems, laser, radar, weigh-in-motion, or ticketing systems, to trigger the camera—outputting images and associating license plate numbers.

This fully embedded camera system helps customers reduce time and costs associated with their ALPR system design, integration, and installation. Customers who value redundancy in their system will appreciate that P492's on-board OCR reads license plates directly, independent of network or back-end system availability or workload. This high performance OCR enables tolling agencies and operators to automatically generate license plate data for billing, reducing the need for labor-intensive and costly human review. On-board OCR also adds increased redundancy in the system design as any failure of the OCR software or hardware will only impact that particular camera, not a group of cameras. This further enables tolling agencies to minimize revenue leakages and strengthen their bottom line. High quality data from OCR also leads to decreased customer complaints, in turn reducing call center costs.

SPECIFICATIONS

Dimensions (L x W x H)	15.7" x 7.9" x 4.7" (39.9 cm x 20 cm x 11.9 cm) (including hood) 8.7" or 9.8" x 6.5" x 3.6" (22 cm or 16.5 cm or 9.1 cm) (dependent upon focal length of lens) (excluding hood)
Weight	5.62 lbs (2.5 kg) (including hood) 3.64 lbs (1.7 kg) (excluding hood)
Resolution	2048 x 720 pixels (IR and color channels)
Field of view	13.6 feet/4 meters
Frame rate	50 frames/second
Power consumption	40 Watts (typically) 36 to 48 Vdc
Operating system	Embedded Linux
Operating temperature	-40C to +60C
Enclosure	IP67
Illumination	Effective range: up to 60ft (18.2 m) Wavelength: 850 nm, 940 nm, 810 nm, 750 nm
Video output	Hardware MJPEG streaming of the video

**For additional information, assistance or
maintenance questions please contact
Neology ALPR/ANPR Support at:**

833-PIPS-LPR (833-747-7577)

- Option 1 for Sales
- Option 2 for Support



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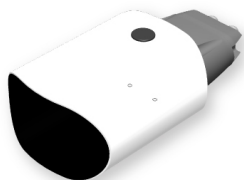
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P492

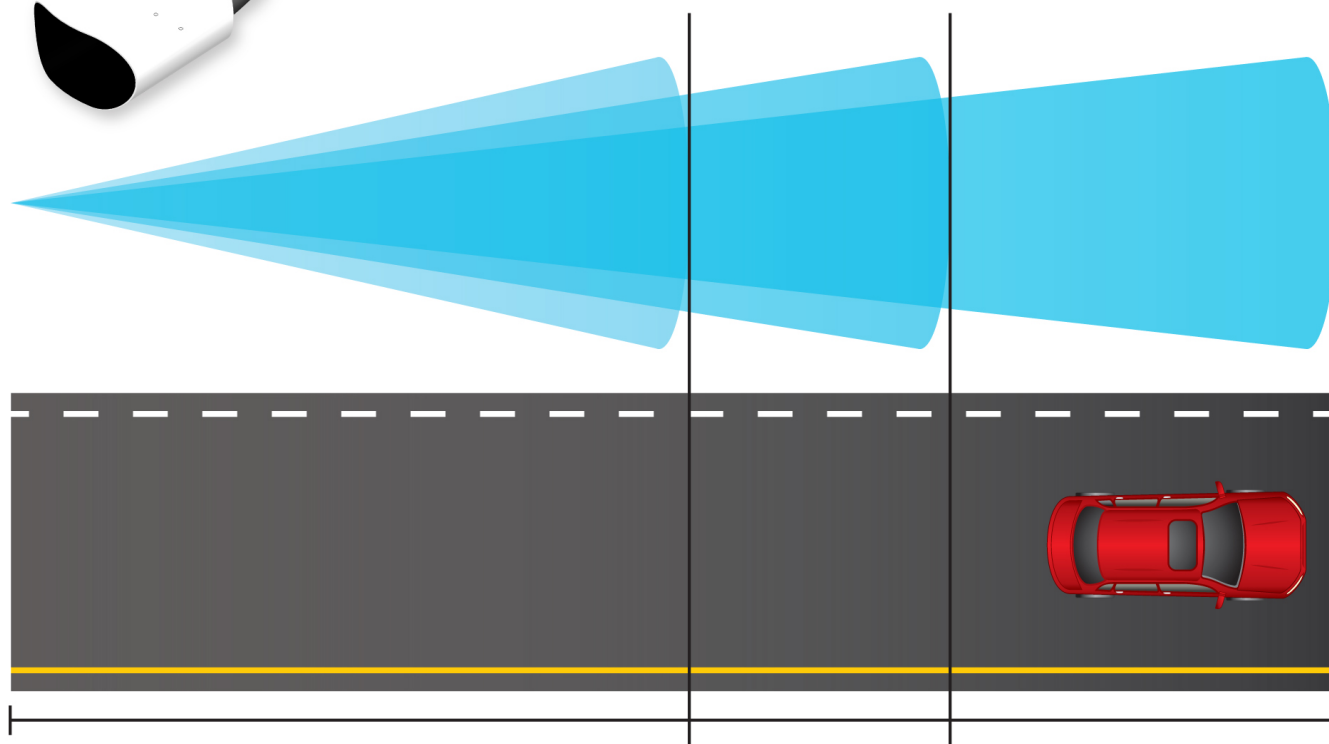


FOCAL DISTANCE
for US Plates

30.3 ft

42.5 ft

60.6 ft



13.66 ft
Width
Coverage

12 ft
Standard
US Highway
Lane Length

25mm

35mm

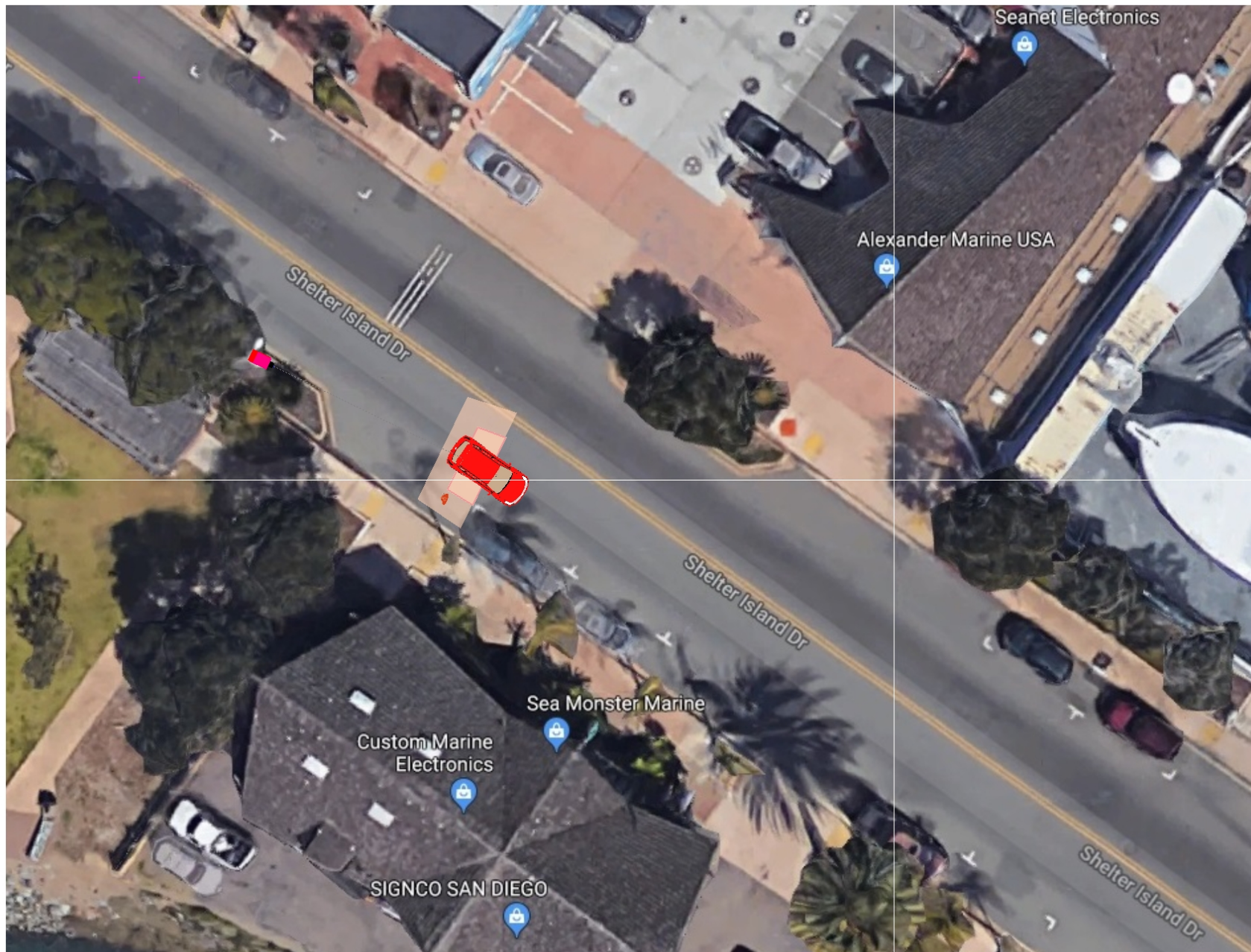
50mm

Lens Focal Length



Port of San Diego PD
Shelter Island Drive, SE Bound

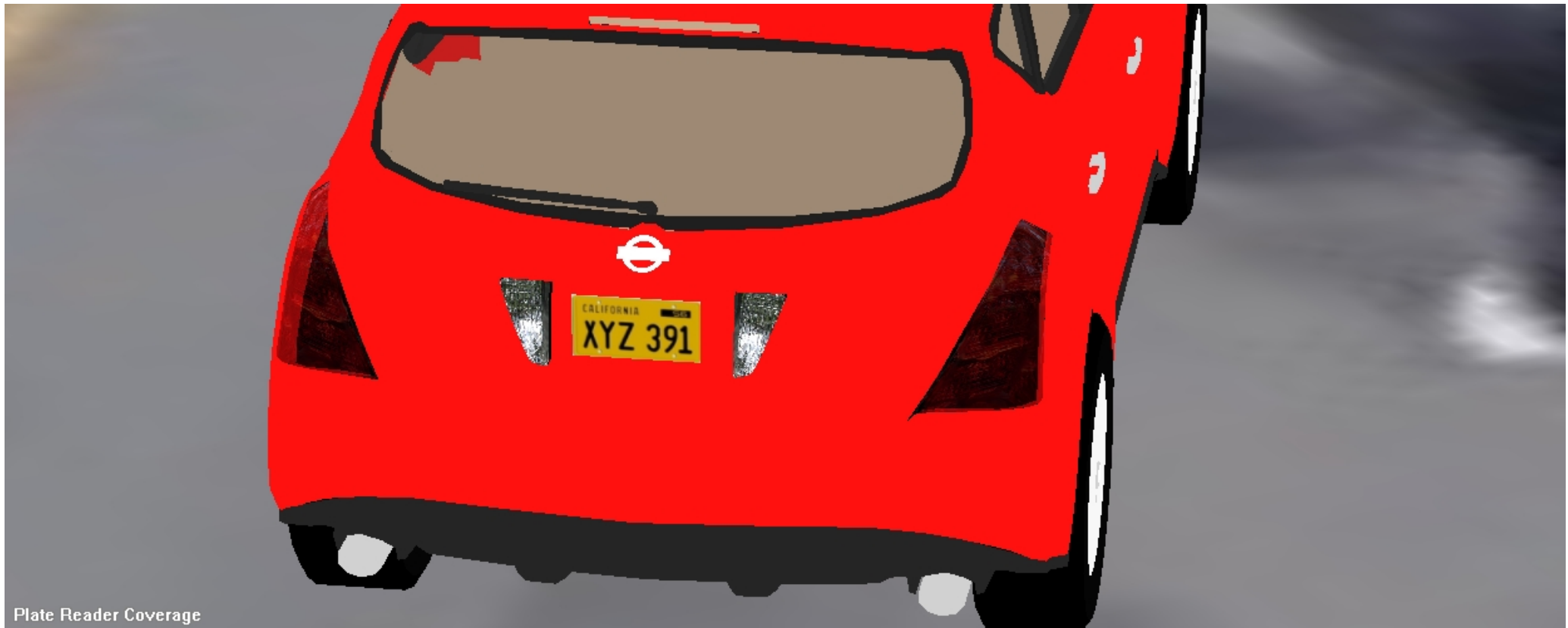
Site Plan. Port of San Diego PD Shelter Island Drive, SE Bound



Camera ID	Description	Installation Height	Resolution	Focal Length	
Plate Reader Coverage	PIPS P492 with 35mm IR Lens @ 44 feet	18	2048x720	35mm	
Color Overview Coverage	PIPS P492 with 16mm Color Lens @ 44 feet	18	2048x720	16mm	



IR Camera Coverage: PIPS P492 with 30mm IR Lens @ 44 feet



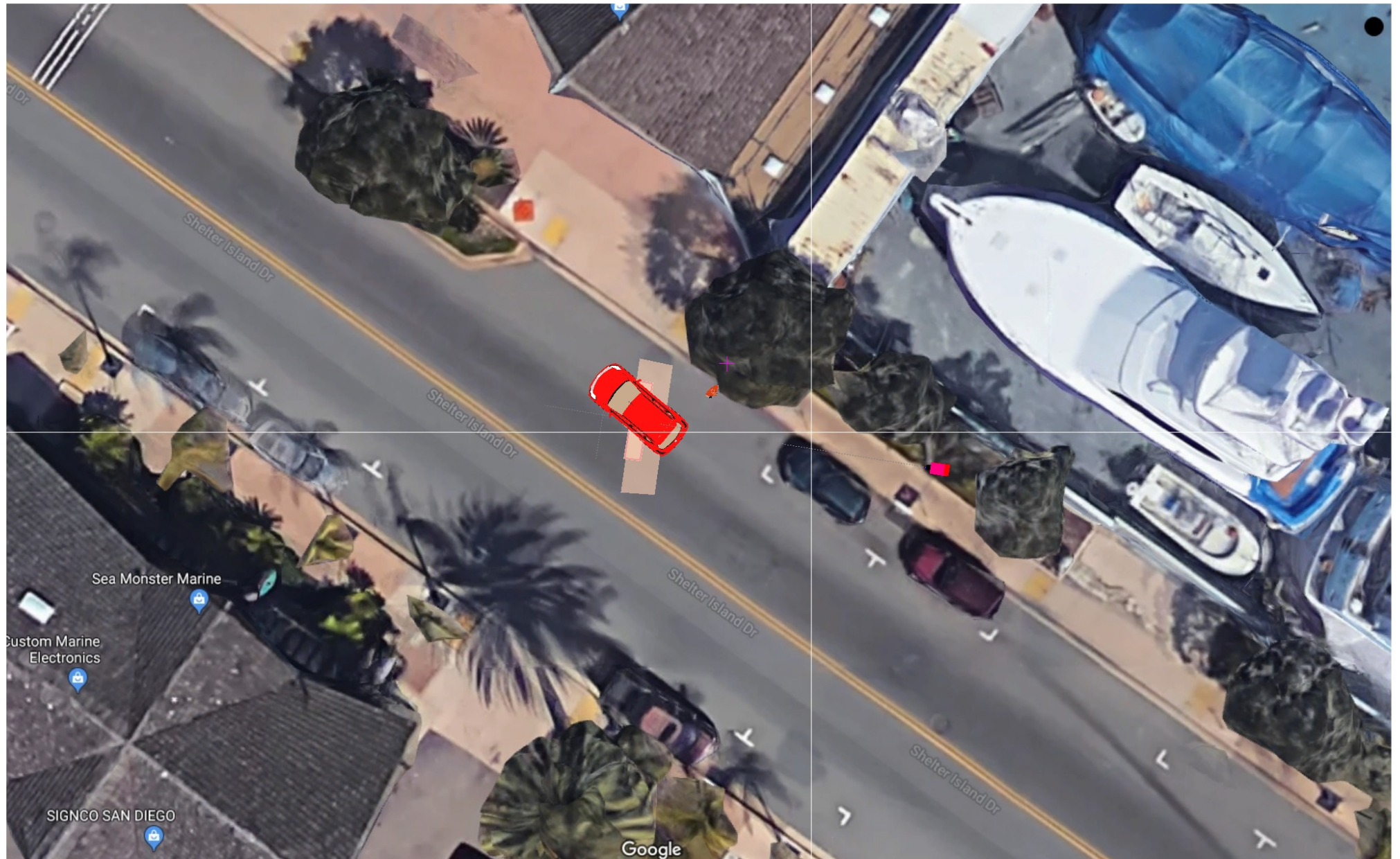
Color Overview Coverage: PIPS P492 with 16mm Color Lens @ 44 feet





Port of San Diego PD
Shelter Island Drive, NW Bound

Site Plan. Port of San Diego PD Shelter Island Drive, NW Bound



Camera ID	Description	Installation Height	Resolution	Focal Length	Sensor Size
Plate Reader Coverage	PIPS P-492 with 30mm IR Lens @ 44 feet	18	2048x720	35mm	1/3 " 5:2
Color Overview Coverage	PIPS P-492 with 16mm Color Lens @ 44 ft	18	2048x720	16mm	1/3 " 5:2



IR Camera Coverage: PIPS P-492 with 30mm IR Lens @ 44 feet



Color Overview Coverage: PIPS P492 with 16mm Color Lens @ 44 ft



