

WHERE CAN I PARK MY MOTORCYCLE?



PURPOSE

This report addresses the procedures used by the City of San Luis Obispo Public Works Department's Parking Services to restrict and limit motorcycle parking within the city of San Luis Obispo.

AUTHORITY

The California Penal Code grants the Grand Jury authority to investigate and report on the method or system of operation used by any incorporated city or joint powers agency located in the county. The Grand Jury may then make recommendations based on their findings. The involved parties are then required by penal code¹ to respond to the Superior Court.

¹ Penal Code: §933.05, (a), (b), (c), (d), (e), (f)

METHOD

As part of its investigation, Grand Jurors did the following:

- Interviewed the City of San Luis Obispo Deputy Director of Public Works
- Interviewed the City of San Luis Obispo Parking Services Manager
- Inspected the public parking structures in the city
- Inspected motorcycle parking spaces in the city
- Researched parking barrier gate manufacturer's specifications
- Reviewed AMA report on motorcycle parking

(<http://www.amadirectlink.com/index.asp>)



NARRATIVE

The popularity of motorcycles as a daily form of transportation is greatly increasing due to congestion and the rise in fuel costs. The number of motorcycle registrations for local counties is²:

- San Luis Obispo County - 9,704
- Santa Barbara County - 10,647

² Based on State DMV Office of Statistics for 2006 registrations

- Monterey County - 7,528
- Kern County - 16,432

The city owns and operates three public parking facilities within the downtown area. There are 1,027 parking spaces in the structures that motorcycles are banned from. This seriously limits the number of weather resistant parking spaces for motorcycles. The auto drivers are not charged for parking on Sundays and after various evening hours. According to the Parking Services Manager, since the gate arms are up during times of non-operation, the motorcyclist can also park in the structure without charge. This would seem to allow equal access for motorcycle parking, except there are signs posted that state “No Motorcycle Parking.” There are no signs posted that would allow motorcycle access during certain days or times. The Marsh Street structure has four spaces on the street level for motorcycles, but unlike the autos that go into the structure, the motorcyclist has to pay the meter in advance. The auto drivers take a ticket and pay for the time used when exiting the structure.

The City of San Luis Obispo originally issued its “Motorcycle Parking in Parking Structures Policy” in 1984, and updated it in 1996. The policy states:

PURPOSE: “To reduce the City’s liability and protect the public from bodily injury or property damage.”

POLICY: “Motorcycles are restricted from parking in the City’s parking structures. This decision is based upon the manufacturers’ recommendation to prohibit motorcycles from using the structures, given the potential of motorcycle users to be injured by the gate arms. This restriction of motorcycles from the parking structures reduces the City’s liability and protects the motorcycle user from bodily injury. This policy also reduces the risk of property damage to the user and the City.”

According to the City staff interviewed by the Grand Jury, this decision is based upon the manufacturers’ recommendation to prohibit motorcycles from using the structures, due to the potential injury of motorcycle users by the **gate arms**. They also stated that restriction of motorcycles from the parking structures reduces the City’s potential liability. The American

Motorcyclist Association (AMA) has reviewed these restrictive motorcycle parking issues for numerous cities. The AMA legislative affairs specialist, Imre Szauter, stated, “Any publicly funded parking facility should have provisions for motorcycle parking.”³

One of the ways the AMA assists motorcyclists is to work with cities that have implemented restrictive parking for motorcycles. The AMA worked with the City of Sacramento and motorcyclists regarding a municipal parking garage. The City’s liability concerns were addressed by reducing the length of the gate, and by creating free parking areas for motorcycles by utilizing space that could not be used for automobile parking.

Another issue the City has raised regarding allowing motorcycles into the parking structures was the possible inability of motorcycles to properly trigger the loop sensors for the gate arm. The loop sensor lowers the parking gate after the driver pays and the vehicle leaves the structure. During the Grand Jury interview with the Parking Services Manager (PSM), the adjustments of this system were discussed. The PSM agreed that the sensitivity for the loop has been adjusted in the past.

The Deputy Director of Public Works (DDPW) stated the City did not have engineering data that reviewed any safety issues regarding gate usage by motorcyclists. The DDPW suggested finding the information at the manufacturers’ web site. The Grand Jury researched the product and specifications⁴ for the parking barrier gate used by the City of San Luis Obispo. The specifications, while addressing the abilities of the gate electronics to diagnose, test and adjust the loop detectors do not address any exclusion for motorcycles.

³ AMA web article Parking Gates vs. Motorcycles (<http://www.Amadirectlink.com/roadride/rideresrc/Gates.asp>)

⁴ See Attachment A

CONCLUSIONS

The City of San Luis Obispo issued a policy twenty-four years ago based on liability concerns. Their main concern was to protect the motorcyclist from being injured by the exit gate in the parking structures. In interviews with the DDPW and the PSM there was no data presented that documented injuries or litigation resulting from a motorcyclist being struck by a gate because motorcycles are not allowed in the structures. The gates used in parking structures in San Luis Obispo are of a short design that may facilitate motorcycle entrance and exit. The City has been excluding motorcycles based on a policy that references the gate manufacturers' recommendation to restrict motorcycles. The Grand Jury did not receive any data from the DDPW or the gate manufacturer that would support banning motorcycles for safety issues.

FINDINGS

1. The City does not allow motorcycles to park in city public parking structures.
2. The City has stated there are technical concerns in allowing motorcycle access into the parking structures.

RECOMMENDATION

1. The City should review its procedures to accommodate safe and equal access for motorcycles in City parking structures. (Finding 1)

REQUIRED RESPONSES

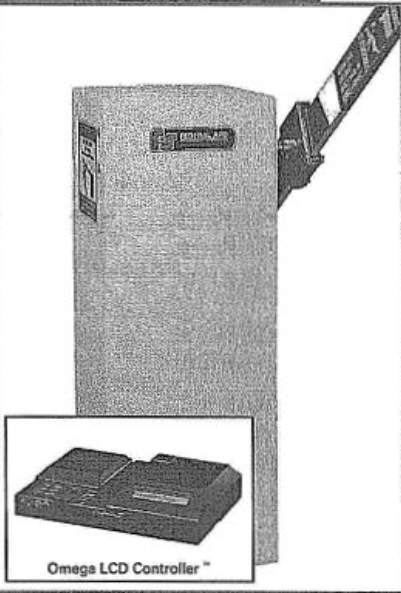
1. San Luis Obispo City Council
2. San Luis Obispo City Administrator

All responses shall be submitted to the Presiding Judge at the Superior Court of California by **October 28, 2008**. Please provide a copy to the Grand Jury as well. The mailing addresses for delivery are:

Presiding Judge	Grand Jury
Presiding Judge Martin Tangeman Superior Court of California 1035 Palm, Room 385 San Luis Obispo, CA 93408	San Luis Obispo County Grand Jury P.O. Box 4910 San Luis Obispo, CA 93403

ATTACHMENT A

PARKING BARRIER GATE SPECIFICATIONS



Omega LCD Controller™

P

Parking Barrier Gate Model G-90 CD Series

Design and Function
The Model G-90 CD Series Barrier Gate provides microcomputer intelligence, multiple programming options, and on-board controls for a complete and user-friendly information center providing total lane management.

Protect Your Investment
The Model G-90 CD Series Gate continues the outstanding tradition of high quality that you depend on from Federal APD. The gate is extremely durable, protected from the harshest environments with a heavy-gauge aluminum cabinet armored with an element-resistant finish which keeps your installation looking clean and new for years of rust-free service.

Omega LCD Controller™
The heart of this gate is the Omega LCD Controller. This fully integrated controller provides a systems approach for convenient, accurate and cost-effective lane management.

Lane Configuration
The Model G-90 CD Series Gate can handle any type of lane configuration possible - including reversing lanes and lanes with three vehicle detectors - with software options embedded into the unit's Configuration Module. The Configuration Module is an encapsulated pc board that utilizes surface mounted technology. This factory programmed microcontroller plugs into the power board and defines the software options used in the gate.

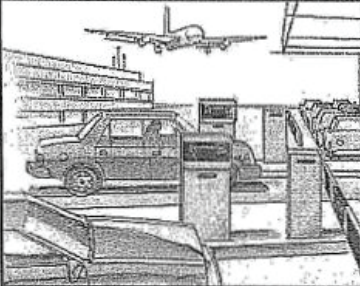
Counts You Can Count On
The Model G-90 CD Series allows you to design an on-board information center with counting functions packaged in one self-contained device. The controller's software logic integrates optional counting functions such as resettable and non-resettable totalizing counts, single and dual differential counts, hourly counts, and a host of statistical counts. These counts are displayed on the controller's visual display and are accessed by the user-friendly, menu driven keypad.


Vehicle Detectors
Three built-in and automatically self-tuning vehicle detectors are available. These high-speed detectors provide a sensitive tailgate recognition system that is capable of recognizing two separate vehicles traveling over a detector loop simultaneously. Diagnostics and metering tools are also built into the controller.

Sensitive Reversing Logic™
An advanced, maintenance-free safety and monitoring system is designed into every gate: the Sensitive Reversing Logic (SRL). This system provides safer gate operations by instantly sensing gate arm obstructions, limit switch failures, and gate arm position—without the use of electromechanical systems. The SRL sensing system also features self-tuning capabilities.

Features:
Advanced Omega LCD Controller with visual display
Power Supply Board provides multiple input/output terminals
Total lane management with:
• Two built-in vehicle detectors
• Sensitive Reversing Logic
• Built-in diagnostics
• Event history report
• Back-out timer
• 7 day memory & data storage

Options:
Configuration Module
Third built-in vehicle detector
Totalizing & differential counts
Automatic time zone controls
Hourly statistical reports
Directional logic
Communications interface





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Specifications

Parking Barrier Gate Model G-90 CD Series

1. Purpose

The Model G-90 CD Series Barrier Gate shall be a microprocessor-based parking control device that shall restrict access within a vehicle traffic lane by means of a wooden gate arm. The gate shall be activated by a vend signal from an access or revenue control device. The Model G-90 CD Series Barrier Gate shall additionally act as a programmable lane controller, generate and store counts, monitor lane operations, and provide reporting capabilities.

2. Features/Functions

The Model G-90 CD Series Barrier shall contain an Omega LCD Controller that shall provide all logic control and monitoring functions of the gate.

- a. The Omega LCD controller shall provide 11 inputs which shall be activated by the Omega LCD logic. It shall provide 14 outputs that shall be dry contact closures that can be used to switch currents through terminal pairs. The output contacts shall be rated at one ampere at 24 VDC/VAC. The Omega LCD shall provide a 16-character LCD display and a 6-button keypad to perform programming, send commands, and monitor lane operations.
b. The Omega LCD shall provide two detectors of a self-tuning type with the capability of activating a third internal loop detector.
c. The Omega LCD shall contain logic for one-way lanes, two-way lanes, operations with automatic ticket dispensers, push-button ticket dispensers, card locks, token units, and shall be easily field programmable through the use of DIP switches or keypad buttons.
d. Lane count signals shall not be issued until the vehicle has moved under the gate arm for maximum accuracy.
e. The Omega LCD controller shall be capable of storing successive vend inputs of any type and of sequentially processing each vend.
f. The Omega LCD controller shall contain LED indicator lights to provide operational status of the detectors and the controller.
g. The Model G-90 CD Series shall provide a Configuration Module which shall be a factory-programmed microcontroller (an encapsulated pc board that utilizes surface mounted technology). This factory programmed microcontroller

(a 20-pin, 8-bit, fully static, EPROM/ROM-based microcontroller) plugs into the power board and defines the software options used in the gate.

- h. The Omega LCD Controller shall incorporate a diagnostic mode to facilitate on-site testing of loop detectors, LCD keypad buttons, the LCD display, the internal clock, the configuration module, 115 V power supply line voltage maximums and minimums, Omega LCD communication ports, and controller inputs and outputs.
i. The Model G-90 CD Series Barrier Gate shall be UL Listed (Canada/U.S.) and shall be available with the CE Mark.

3. Dimensions

- a. The Model G-90 CD Series Barrier Gate shall be 15 inches W x 40 inches H x 15 inches D (381mm W x 1016mm H x 381mm D) with a flange arm height of 35 1/2 inches (902mm) so as to prevent compact or subcompact type vehicles from passing under the arm when in the closed position.

4. Electrical

- a. Power input requirements shall be 115 VAC at 15 Amperes as standard. Other power requirements shall be available as specified.
b. The power supply shall consist of a Power Board and a power supply cover.
c. All 115 VAC connections shall be made on the Power Board. Main power, motor contact, heater, and high voltage interface relays shall be located and terminated on the Power Board.
d. One high voltage plug-in relay with two form C contacts shall be provided on the Power Board. A second high voltage relay is optional.
e. A 115 VAC convenience outlet shall be provided on the power board for standard 115 VAC units.
f. An "AUTO-MANUAL" switch shall be provided on the Power Board to test motor and limit switches or to raise the gate arm manually.
g. The Power Board shall provide a three position heater switch with "AUTO", "ON" and "OFF" controls.
h. A Controller Power switch shall be provided with "ON" and "OFF" control.
i. The motor shall have built-in thermal overload switch protection.

5. Construction

- a. The Model G-90 CD Series Barrier Gate

cabinet shall be constructed of heavy-gauge aluminum and finished in a powder coat paint in either Federal APD Safety Yellow or Federal APD White (as specified) for maximum visibility and safety. Other colors shall be available when specified.

- b. All reducers and motors shall be assembled on a single, 1/4 inch (6.25 mm) unibacket weldment for maximum strength in high load applications.
c. The cabinet shall have one gasketed door with flush-mounted, T-handle lock with one gate door key.
d. The Omega LCD Controller shall plug directly into the connection panel via two keyed, 37-pin and 25-pin connectors.
e. The Power Board shall have three switch banks consisting of a total of 24 DIP Switches, which shall define the modes of lane operation, detector sensitivity, tailgate sensitivity, reset loop safety mode, motor current rebound sensitivity, and device number for communicating gates. A fourth switch bank, with a total of eight DIP Switches, shall allow the gate to operate without a Configuration Module.
f. The Power Board shall provide 14 output terminals and 11 input terminals. The terminals shall be designed to accommodate various features of the gate.

6. Mechanical

- a. The Model G-90 CD Series Barrier Gate shall be driven by a 1/2 HP, heavy-duty, high output torque, 115 VAC, single phase instant reversing motor. Other power requirements shall be available as specified.
b. The motor shall be connected by double V-belts to a heavy-duty, 60:1 single reduction speed reducer. The motor shall provide a breakdown torque of 33.6 ounce foot.
c. Adjustable cams shall be provided to allow adjustment of gate arm travel.
d. Mechanical action shall be such that mechanical stops or braking devices are not necessary.

7. Sensitive Reversing Logic (SRL)

- a. The Sensitive Reversing Logic (SRL) shall ensure that the gate arm will automatically reverse its downward motion should any object be struck by the gate arm during its descent and shall immediately return to the upright position and remain up until automatic reset by a variable timer control.



FEDERAL APD Federal Signal Corporation



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