

THE RIVER STREET BOLLARDS CONTROLLING TRAFFIC FLOW AND IMPROVING PEDESTRIAN SAFETY AT FESTIVALS

SAVANNAH POLICE DEPARTMENT, GEORGIA, 1995

- THE PROBLEM:** A growth in tourism and festivals and events can directly measure the increasing popularity of the area. Prior to 1960, crowds on River Street were minimal, but with the growth of the St. Patrick's Day Parade and tourism in general, crowd size at events on the River began to grow. Around 1970, crowd size at certain events dictated that, vehicular traffic be restricted in the area. Heavy pedestrian traffic, compounded by the fact that many of the pedestrians were consuming alcohol, made public safety a major concern.
- ANALYSIS:** Several public and private agencies were consulted and a survey was conducted with the River Street merchants and business operators. In general, it was believed a permanent self-reliant mechanical system to close the ramps should be found and installed to close the area for special events. The new system would have to prohibit vehicular traffic, allow an unhindered flow of pedestrian traffic, and be easily removed to allow immediate access to emergency and service vehicles. The number of police calls to the River Street area made it clear that River Street should be made a permanent one-way street.
- RESPONSE:** A system was devised in which single posts spaced at intervals across the ramps would completely stop vehicular traffic, while at the same time allowing unhindered pedestrian access. Keys to remove the barricades in emergency situations were given to all appropriate emergency responders.
- ASSESSMENT:** The new bollard system was installed and saved the taxpayers thousands of dollars in police man-hours, while ensuring safe and unhindered pedestrian access, while totally eliminating vehicle traffic.
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INTRODUCTION

The problem addressed in this project was identified in March of 1990. At that time, data collection and the search for a solution to the problem of traffic restriction and flow and the safe passage of pedestrians at large public events was begun. Sergeant Charles D. Brown was told early on by some of his supervisors and fellow officers that he was wasting his time; that ideas from the ranks, whether good or bad, were never given serious consideration. Sergeant Brown continued to collect

information and push to find an acceptable, but less expensive way of managing the problem, because the problem was so very dangerous to citizens and expensive for the department and taxpayers.

On October 1, 1991, Chief David Gellatly officially promoted the use of Community Oriented Policing (COP) and the Savannah Police Department entered into a new era. After receiving some very basic training in COP, Brown realized that he had unknowingly been working on a Problem-Oriented Policing (POP) Project. After organizing his findings

into what he felt was viable solution, a presentable package was submitted. On February 1, 1993, he hesitantly turned his project in and was surprised to find that the Project was given serious and immediate attention. In one day Brown's project went from the Major, to the Chief of Police, to the City Manager and, finally, to the Savannah Development and Renewal Authority for action.

Working with the Development Authority the presented project was altered slightly, but was improved. The original cost estimate of \$5,940.00 was increased to a final actual cost of \$11,480.00. The concept that was developed in the project was purchased, installed, and put into action early in 1994. On July 4, 1994, the new "BOLLARD" system was successfully tested and used for the first time. The system has now paid for itself and with each additional use saves money and frees six police officers to assume other, more productive duties.

SCANNING

Savannah, Georgia is a name that is recognized worldwide. The word SAVANNAH allows one to create visions of moss-covered oaks, beautiful squares filled with blooming azaleas, and a vast history have all contributed to make Savannah one of the most popular tourist cities in the South. Savannah's waterfront, called River Street, has surfaced as the City's showplace. Trendy shops and restaurants serve tourists during the day and at night offers the tourists, as well as residents, a stylish nightlife.

Savannah's St. Patrick's Day Parade, the third largest in the country, brings hundreds of thousands to our City in March. Many of the St. Patrick's Day revelers find their way to River Street and to one of the biggest cocktail parties anywhere.

In addition to St. Patrick's Day, many other festivals and public events bring thousands of people into the River Street area. Some of these festivals and events are:

- Fourth of July Fireworks Display
- River Street Christmas Parade
- First Saturday Celebrations (12 per year)
- Oktoberfest

- Maritime Festival
- Seafood Festival
- Jazz Festival
- Savannah Symphony Concert on the River

In 1992, President Bush's visit and the Olympic Flag Arrival Ceremony were centered on the waterfront. In 1996, the Olympic Yachting Award Ceremonies will be held on River Street. As each year passes, more and more large events are drawn to the waterfront. The number of people that attend the many festivals and events can directly measure the increasing popularity of the area.

Prior to 1960, crowds on River Street were minimal, but with the growth of the St. Patrick's Day Parade and tourism in general, crowd size at events on the River began to grow. Around 1970, crowd size at certain events dictated that, vehicular traffic be restricted in the area. Heavy pedestrian traffic, compounded by the fact that many of the pedestrians were consuming alcohol, made public safety a major concern.

It did not take long to find out that the River Street party-goers did not respect an unmanned barricade, so to properly and safely close the River Street area, eight police officers were needed to man wooden gates at seven locations. These seven locations are the primary access points to River Street and are:

- Martin Luther King (MLK) Blvd. at River Street
- Barnard Ramp at Bay Street
- Bull Ramp at Bay Street
- Abercorn Ramp at Bay Street
- Lincoln Ramp at Bay Street
- East Broad Ramp at Bay Street
- McIntosh Blvd. at Bay Street
- One Supervisor/Relief Person

The approximate cost to the city to close the River Street area in 1991 was \$7,056.00. The 1992 cost rose to \$11,760.00. The projected overtime cost for 1996 could run as high as \$30,000.00. In addition to the cost for the Police Department, the Traffic Engineering Department expended numerous straight time and overtime hours building, delivering and picking up the wooden gates and barricades needed to block the ramps. As tourism and public

interest in the area grows, the overtime cost of manning the ramps will never go down, but will continue to increase. This substantial manpower investment could be put to better use at any one of the events that occur.

Another, item that needed to be addressed with this problem addressed was the system of allowing traffic to flow in two directions on River Street. The system of two-way traffic was compounded by the fact that a working railroad track runs down the center of this narrow street. A music-playing train, known as the “River Street Rambler” traverses the street twice daily. The narrowness of the street, allowable two-way traffic, and a music-playing train make the street a driving nightmare on any given day.

ANALYSIS

In reviewing and researching this problem, authorities were contacted.

Savannah City Government:

- Traffic Engineering, Mike Weiner
- Street Maintenance, Billy Jones
- Parking Services, Eddie Tyler
- Development and Renewal Authority, Ed Wolverton

Other Agencies:

- Savannah Waterfront Association, Rick Lott and Stan Strickland
- River Association, James Brown
- Georgia Department of Transportation River Street Association, Nick Gardner
- Norfolk Southern Railroad, Alan Harvey
- H & H Steel Fabrication, Eddie Pasco

In addition to the input from the above resources, a survey was done among the River Street merchants and business operators. Generally, feelings were that some type of permanent self-reliant mechanical system to close the ramps should be found and installed. A system of this type could be used, not only to close the area for large events, but also for the numerous smaller events such as the “First Saturday” festivals. The concerns that had to be

addressed were that whatever system was considered must totally prohibit vehicular traffic and at the same time allow an unhindered flow of pedestrian traffic.

The system should also have the ability to be easily removed to allow immediate access to emergency and service vehicles. It was also obvious from the number of police calls to the River Street area to clear traffic for the music-playing train (Total calls = 66, 10-1-91 to 7-18-92) that River Street should be made a permanent one-way street.

RESPONSE

The cheapest and most obvious solution would be to simply chain off each entrance to the River Street area however, chains would greatly hinder the pedestrian traffic flow. In fact, the City has faced civil charges in the past resulting from auto accidents where chains were used to block streets.

Billy Jones of the City’s Street Maintenance Department advised that on a recent trip to New Orleans, LA, he observed a barricade system where metal posts were inserted into sleeves which were permanently embedded into the roadway. A flat threaded metal cap covers the sleeves when the posts are not in use. This system appeared to be ideal and ideal solution for the River Street problem. Single posts spaced at intervals across the ramps would completely stop vehicular traffic while at the same time allowing unhindered pedestrian access. Without the threat of vehicular traffic, a mall promenade type atmosphere could be established along the entire River Street area similar to the plaza in our City Market area. Most importantly, pedestrian safety would be ensured.

The posts and sleeves would need to be installed at the top of the following ramps:

<u>Ramps</u>	<u>Ramp Width</u>	<u># of Posts</u>
Lincoln	19’	4
Abercorn	20’10”	5
Bull	31’	6

Each of the above ramps would be properly signed with, "CLOSED, ENTER RIVER STREET AT MLK BLVD ONLY", when the system is in operation. Keys to remove the barricades in emergency situations would be given to all appropriate emergency responders in the area.

Traffic would be allowed to flow only east bound. River Street traffic would enter at MLK Blvd and exit on East Broad Street Ramp or McIntosh Blvd., River Street would be signed, "ONE-WAY, DO NOT ENTER" for all west bound traffic.

Using this system, the River Street area could be controlled by one police officer manning a gate at MLK Blvd and River Street. This officer would allow entry to the area on an as-needed basis (i.e., emergency or service vehicles). During peak pedestrian time periods a second officer could be added to ensure the prevention of unlawful wrong-way west bound entry of vehicles at River Street and at the foot of the East Broad Street Ramp.

Storage of the posts when they are not in use would not present a problem, as there is ample secure storage space in the old Police Garage. Pickup and delivery of the posts to and from the area could be handled in two ways:

- 1) When this system is put into operation, the Traffic Engineering Department will no longer have to transport and build the wooden barricades and gates that are currently being used to close the area. The new system is much lighter in weight and numbers than the old gates and barricades. Traffic Engineering could continue to deliver, pick up, and install the new system using much less time and effort to reach the same objective.
- 2) If an immediate need or emergency arose, the Traffic Division's Mounted Patrol has two pickup trucks that could be utilized to deliver and pick up the posts.

ASSESSMENT

Currently H & H Steel Fabrication has the City contract for metal work. On January 19, 1993 a meeting took place with the owner, Mr. Alan Harvey, concerning this project. Mr. Harvey viewed the diagram of the proposed barricade and quoted an approximate cost of \$225.00 per unit.

Installation of the barricades could be handled by-the in-house Parking Services, who had recently purchased a machine to drill parking meter holes. After speaking with Parking Services Director Eddie Tyler concerning use of their machine and manpower on the project, Mr. Tyler advised that the machine could be made available and that he had personnel already trained to operate it. After describing the work that needed to be done, Mr. Tyler felt that his machine was ideal for the job and that the installations could be done at a minimum expense.

Material Cost:

Unit cost	\$225.00
Units needed	20
Total unit cost	\$4500.00

Installation Cost:

Cost per man-hour	\$12.00/hr.
Operators required	2
Total manpower cost per hour	\$24.00/hr.
Hours to install each unit	3
Per unit installation total	\$72.00
Number of units to install	20
Total installation cost	\$1440.00

Total Project Cost:

Total Material and Fabrication Cost	\$4500.00
Total Installation Cost	\$140000
Total Project Cost	\$5940.00

(approximate one time expenditure)

Savings:

1991 Cost of Closing River Street (6 ramps)	\$5742.00
1992 Cost of Closing River Street (6 ramps)	\$8820.00

The manpower cost to close the area in 1991 would have paid for all but \$200.00 of the entire project cost. If the project had been put into action in 1992, \$2,880.00 would have been saved. If the system had been installed in 1991, the City would now show an additional \$8,620.00 in savings. A ten-year savings would amount to a minimum of \$51,480.00 and a possible maximum of \$82,260.00 or more according to the number of additional events that require closing the area.

NOTES

When the Savannah Development and Renewal Authority received this project for action, worked with Mr. Ed Wolverton to slightly alter and improve the final product. Instead of a locally made iron pipe

barricade, it was decided that a state-of-the-art high security protective barricade should be used. A satisfactory system was located and ordered. The Delta Scientific corporation barricade, (called a "Bollard") which is only produced in England, was purchased and installed.

When the River Street Merchants were surveyed all agreed that River Street should be made a one-way street; however, which way the street should run has become a major sticking point. Merchants on the west end want the street to run east. Merchants on the east end want the street to run west. In other words, the merchants all want to get first shot at the tourists. To date, River Street is still a two-way street except when completely closed down using the new bollard system.



