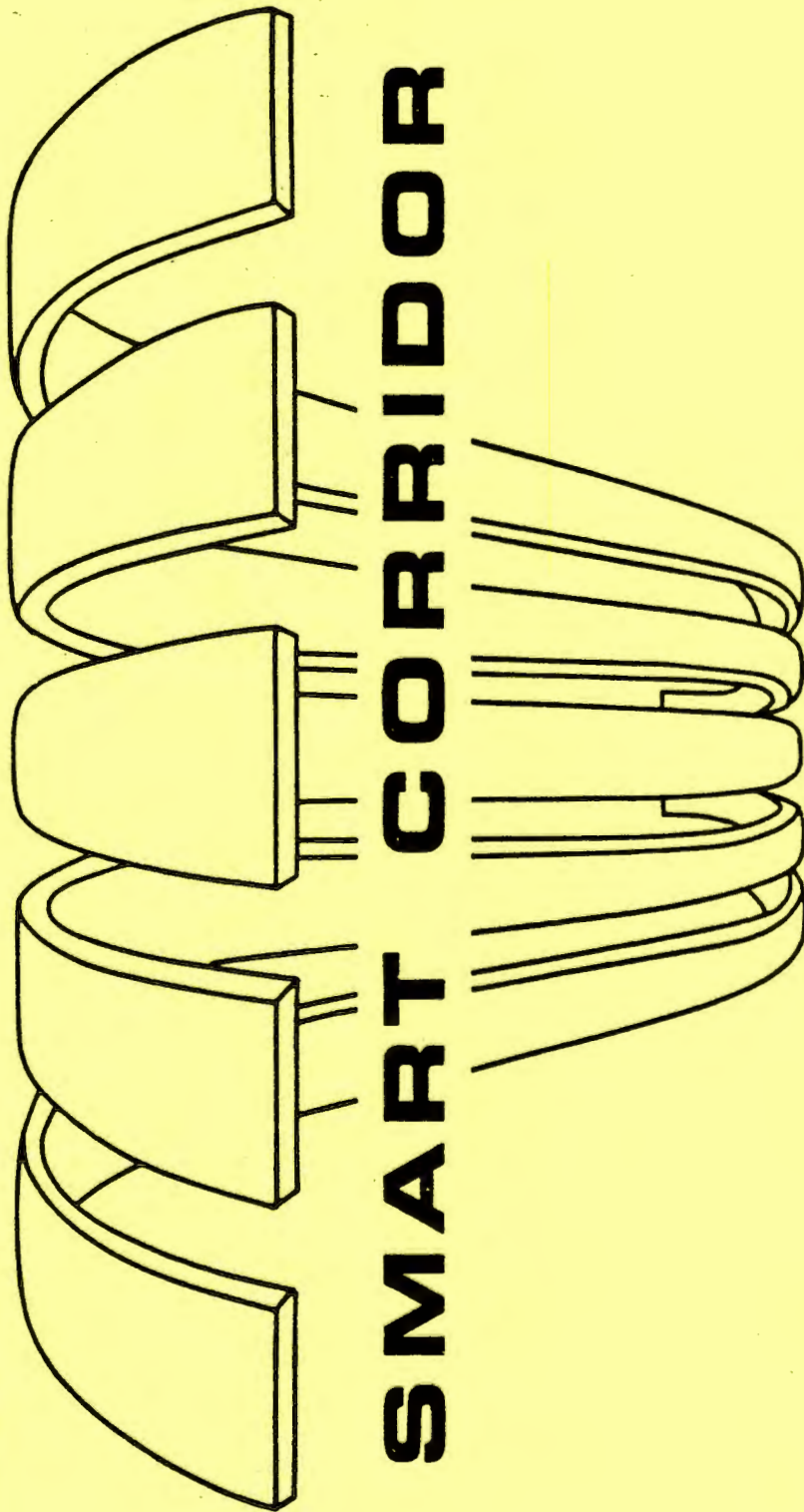
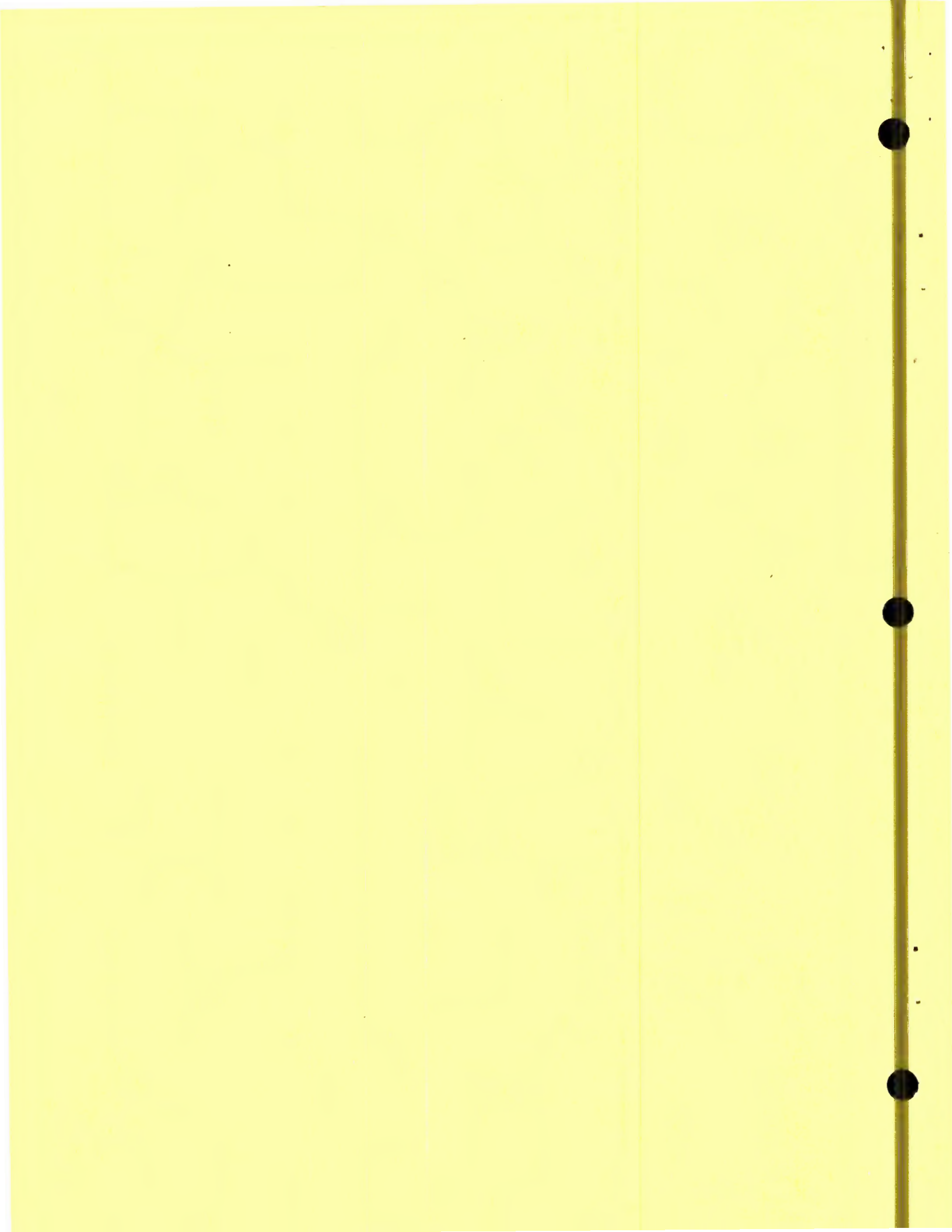


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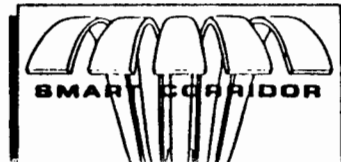


DEMONSTRATION PROJECT
CONCEPTUAL DESIGN STUDY



REPRESENTED AGENCIES

- STEERING COMMITTEE
 - Los Angeles County Transportation Commission
 - California Department of Transportation
 - Los Angeles Department of Transportation
 - California Highway Patrol
 - Los Angeles Police Department
- Other Involved Agencies
 - Southern California Rapid Transit District
 - Culver City & Beverly Hills
 - Federal Highway Administration



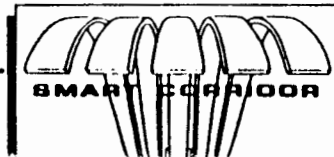
CONSULTANT TEAM

- JHK & ASSOCIATES (PRINCIPAL)
 - Kaiser Engineers
 - Kaku Associates
 - Sharon Clark Associates
 - Expert Panel
 - Professor Adolf D. May
 - Dr. Stephen A. Ritchie
 - Mr. Daniel Brand
 - Dr. Panos A. Michalopoulos
 - Mr. Scott Stewart



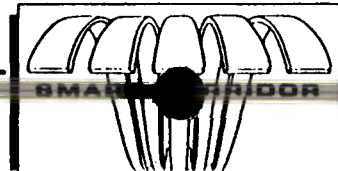
PROGRAM POSITIONING

- STATE FUNDING (AB 471)
 - Traffic System Management
 - Congestion Management Program
- NATIONAL POLICY ON INTELLIGENT VEHICLE & HIGHWAY SYSTEMS
 - Mobility 2000
 - U. S. Department of Transportation
 - AASHTO



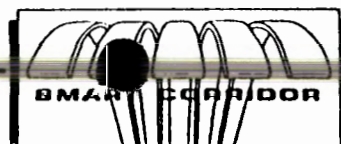
PROJECT GOALS

- IMPROVE CORRIDOR FLOW
 - Reduce Delays
 - Balance Network
 - Incident Handling
 - Coordinated Response
- APPLY ADVANCED TECHNOLOGIES
- TRAVEL TIME RELIABILITY



RECOMMENDED PROGRAM (CAPITAL, \$M)

ELEMENT	PROGRAM	INITIAL PHASE	AGENCY
Central & Expert Systems	3.3	3.3	LA/CT
Traffic Signals & Oper. Impr.	26.7	8.0	LA
Freeway Operation Impr.	6.2	5.6	CT
CCTV Surveillance	2.3	1.6	LA/CT
Motorist Information	6.0	4.4	LA/CT
Technology Development	0.5	0.3	LA/CT
Culver City/Beverly Hills	2.5		Cities
Operations Planning	2.0	1.5	LA/CT/CHP
Public Ed./Evaluation	0.8	0.5	LACTC
TOTALS	50.3	25.2	



PROJECT BENEFITS

- Reduction in Travel Time (11-15%)
3.8 - 5.2 Million Veh. Hours

- Reduction in Emissions

Hydrocarbons	8%
Carbon Monoxide	15%

- Intersection Delay 20% Reduction
- Intersection Stops 35% Reduction

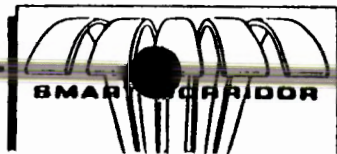
Annual Savings \$24 - 32.5 Million



OPERATION & MAINTENANCE ANNUAL COSTS

AGENCY	PROGRAM	INITIAL PHASE
CALTRANS	\$ 950,000	\$ 650,000
LADOT	1,020,000	680,000
CHP*	710,000	710,000
TOTAL	\$2,680,000	\$2,040,000

* Includes Service Patrol



SANTA MONICA SMART CORRIDOR COMPONENTS

**A) Traffic Control and Monitoring
Systems**

B) Motorist Information

C) Accident/Incident Management

A) Traffic Control and Monitoring Systems:

- Expansion of the Automated Traffic Surveillance and Control (ATSAC) System in Los Angeles and Culver city.
- Ramp and Connector Ramp Metering.
- Coordination of Traffic Signals and Freeway Ramp Meters.
- Expert Systems.
- Interagency Computer Linkage.
- Closed Circuit TV (CCTV).

B) MOTORIST INFORMATION:

- Real Time Changeable Message Signs (CMS).
- Highway Advisory Radio.
- In-Vehicle Navigation Systems (PATHFINDER).
- Cellular Call-in/Telephone Call-in.

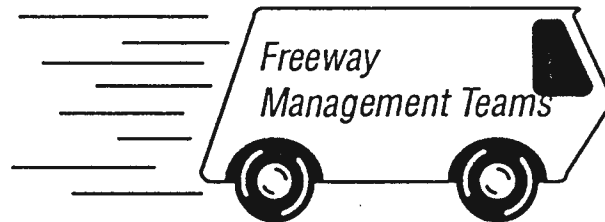


C) ACCIDENT AND INCIDENT MANAGEMENT:

-Freeway Service Patrols



-Freeway and Surface Street Incident Management Teams



-Accident Investigation Sites.

INDIVIDUAL DRIVER BENEFITS

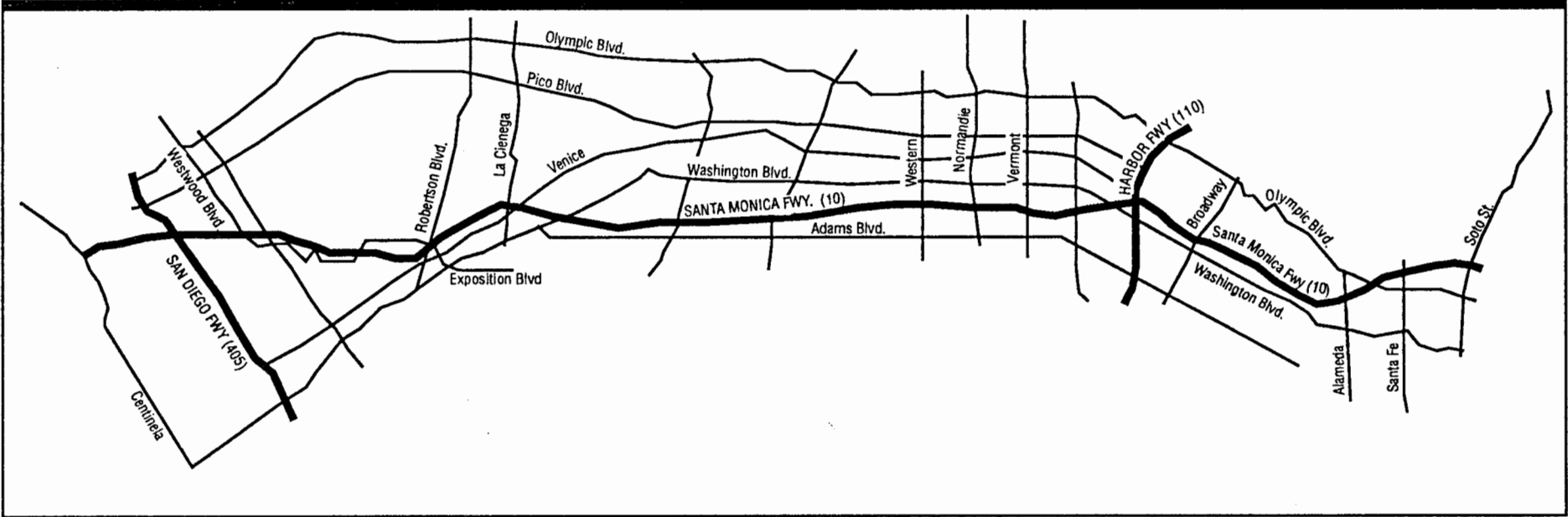
- Increase in average freeway speeds during peak periods.
- 12% decrease in average freeway trip duration.
- 11% increase in average surface street speeds during peak periods.
- 13% reduction in average surface street trip duration.

CORRIDOR WIDE SMART BENEFITS

- 20% reduction in intersection delay.
- 1.3 million gallon annual reduction in fuel consumption.
- 35% reduction in number of vehicles stopped at intersections.
- 11-15% reduction in total travel time.
- 15% reduction in carbon monoxide emissions.
- 8% reduction in hydrocarbons emissions.
- Overall annual savings of \$24 to 32 million.

SANTA MONICA

Smart Corridor Project







Making Travel Better Through Intelligent Transportation Systems

SANTA MONICA FREEWAY SMART CORRIDOR DEMONSTRATION PROJECT The Public Connection

Innovative technologies employed by the Santa Monica Freeway Smart Corridor Demonstration Project enable the public to gain access to real-time traffic and incident information from home, office or vehicle.

Traffic and incident information is gathered via roadway sensors, closed circuit television cameras, cellular 911 calls, and reports from field personnel. This information is analyzed by a network of expert systems to determine the optimum traffic management strategy and appropriate traffic advisories. Traffic and incident information is then made available to the public and the traffic media through a variety of services and communication sources.

Motorists driving the Corridor are advised of travel conditions and alternate routes through the freeway and arterial changeable message signs as well as "Trailblazer" dynamic arterial routing signs. Anyone with a touch-tone phone can retrieve current traffic and incident information through the automated "Smart Corridor Road Info Line" at (213) 89-SMART 24-hours a day. Traffic advisories are broadcast on AM 1620 in the Mid City area and on AM 1510 along Washington Boulevard from Vermont Avenue to La Cienega Avenue. Traffic and Incident Data is also available via an Internet Web Page that is updated every minute. The traffic media is provided with current traffic and incident data via the Caltrans Traffic Vision system commonly referred to as the "Freeway Scanner".

In early 1997 the Smart Corridor motorist information system will be expanded to include a new Highway Advisory Radio station in the City of Santa Monica and the broadcasting of real time traffic condition maps during peak travel times on the City of Los Angeles' cable television channel.







Making Travel Better Through Intelligent Transportation Systems

SANTA MONICA FREEWAY SMART CORRIDOR DEMONSTRATION PROJECT Computer and Communication Advancements

Innovative computer and communication technologies implemented by the Santa Monica Freeway Smart Corridor Demonstration Project enable multiple transportation agencies to coordinate traffic operations to maximize roadway efficiency.

A multi-agency shared fiber optic communications network links Caltrans' Traffic Management Center (TMC) and the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) Operations Center. This network provides data, video, and voice communications between control centers and field equipment such as traffic signals, ramp meters, camera, and signs. By early 1997 the shared communication network will be extended to include the California Highway Patrol's Los Angeles Communications Center, the City of Beverly Hills and the City of Santa Monica.

The Smart Corridor system is not a replacement of existing traffic and motorist information control systems at the participating agencies, but rather, it incorporates new and existing systems into a single coordinated management system which can be accessed by any agency operator on the communications network.

The Smart Corridor computer system is comprised of eleven Sun SPARC stations and nine Personal Computer (PC) based graphical user interface workstations. The Sun SPARC stations located at Caltrans' TMC and the ATSAC Operations Center are the "backbone" of the system providing data processing, storage, and analysis as well as the command and control functions. Agency operators interact with each other and the "backbone" system through PC based workstations running customized graphical software. The City of Los Angeles has three workstations, Caltrans has two, and the California Highway Patrol, the Los Angeles County Metropolitan Transportation Authority, Beverly Hills, and Culver City have one workstation each.

The Smart Corridor Incident Management software includes two revolutionary traffic management advances: Automated Arterial Incident Detection (AAID) and Automated Decision Support and Incident Response (ADSIR). The AAID system uses expert system technology to continuously monitor congestion levels from 2300 arterial street traffic detectors to automatically determine potential incident locations. Once incident locations are confirmed by an operator, the ADSIR system uses expert system technology to recommend actions such as dispatching on-site management, identifying alternate routes, changing signal timing and ramp metering rates, and issuing motorist advisory messages. The ADSIR system continuously monitors incident conditions and congestion levels across the entire project area to recommend new or modified actions based on changing conditions. The ADSIR system also implements response actions approved by operators and logs all incident activities.



October 11, 1996

CONTACT: CLARA POTES-FELLOW/JIM SMART
MTA PRESS RELATIONS
(213) 922-2712, 922-2700
FOR IMMEDIATE RELEASE

LOS ANGELES OPENS NATION'S FIRST SMART TRANSPORTATION CORRIDOR

Santa Monica Freeway, the nation's busiest, is getting smarter—and so are the streets that parallel it such as Olympic, Pico, Venice, Adams and Washington boulevards.

Thanks to the integration of new and existing computer systems, video cameras and roadway sensors, traffic operators at Caltrans, CHP and the LADOT, as well as millions of motorists who travel along the Santa Monica Corridor every week, now will get up-to-the-second information that should increase the average speed on the Santa Monica Freeway by 15 percent.

This \$48 million high-tech communications system has been installed between Centinela Avenue to the west of the 405 Freeway and Soto Street to the East of downtown Los Angeles along 17.3 miles of the Santa Monica Freeway as well as streets parallel and perpendicular to it.

When traffic is diverted off the freeway onto major bordering thoroughfares, signals on the service streets will be timed and controlled to keep traffic moving parallel to the freeway.

"Traffic information is gathered through an automated network of closed-circuit cameras and thousands of roadway sensors," said Larry Zarian, MTA chairman. "We have termed the system the Smart Corridor because it will use all these electronic intelligence gathering devices to help keep traffic moving more quickly."

Information obtained by video cameras and roadway sensors will be integrated with other traffic management devices such as ramp meters, traffic lights and call boxes, giving those in Caltrans, CHP and LADOT control centers the latest traffic information. The same information will be forwarded to radio and television traffic reporters who can use it to update their listeners and viewers with the latest information about traffic conditions on the Santa Monica Corridor.

(more)

LOS ANGELES OPENS NATION'S FIRST SMART CORRIDOR

Page 2

Motorists will receive Smart Corridor information through changeable message signs, cellular phones and on two radio stations. Traffic and incident information can be retrieved with a touch-tone phone by calling the automated Smart Corridor Road Information Line at (213) 89-SMART, 24-hours a day. Traffic advisories are broadcast on radio stations 1620 AM and 1510 AM. Also before leaving their home or office, motorists can check an Internet Web Page, which is updated every minute.

The automated information system is complemented by immediate response by traffic management agencies that will dispatch the CHP, city police or Freeway Service Patrol to help clear the cause of congestion. Once an incident is cleared the automated response is terminated and the message disappears from the changeable message signs as well as from the radio and phone systems.

"The Smart Corridor applies the most modern technology available for the management of traffic conditions and speeds," said Joseph E. Drew, MTA's chief executive officer. "We anticipate an increase of 15 percent on the average speed of the Santa Monica Freeway and even greater gains along surface streets."

Expected benefits of the Smart Corridor will be faster traffic flow, improved travel time, improved air quality, reduced fuel consumption and fewer stops at traffic signals.

The Smart Corridor is a joint effort of the MTA, Caltrans, the California Highway Patrol, Los Angeles Department of Transportation and the cities of Culver City, Beverly Hills and Santa Monica. Funding has been provided as follows: 36% federal, 55% state and 9% local dollars.

#

The logo features a stylized 'ET' in a bold, italicized font on the left, followed by the words 'newsrelease' in a lowercase, sans-serif font. The 'news' part is in a lighter weight, while 'release' is in a bolder weight.

October 11, 1996

Contact: Patricia Reid

(213) 897-4432

"SMART CORRIDOR DEBUT"

**TECHNOLOGY ADVANCES LINK THE SANTA MONICA FREEWAY AND
SURROUNDING STREETS INTO ONE COHESIVE UNIT**

Los Angeles - With the push of a button, John Barna, Deputy Secretary for Transportation for the California Business, Transportation and Housing Agency officially initiated the Santa Monica Freeway Smart Corridor "Demonstration" Project today activating the high-tech "expert" systems during a media event held at Los Angeles Public Library in downtown Los Angeles.

"This project is truly a prototype for corridor management in the future. Los Angeles is the testing ground -- the new technology will be evaluated and may prove to be useful for reducing traffic congestion not only in California, but all across America."

The \$48 million Santa Monica Freeway Smart Corridor two-year demonstration project is an innovative Intelligent Transportation Systems (ITS) project and among the first of its kind in the nation.

"This is exactly the type of public/private partnership Governor Pete Wilson endorses," Barna said. He praised the agency and private partners that have combined efforts to create this innovative project.

Joint partners include Caltrans, the Los Angeles County Metropolitan Transportation Authority, the Los Angeles City Department of Transportation, the Federal Highway Administration, the California Highway Patrol, the Los Angeles Police Department and Culver City, Beverly Hills and Santa Monica. JHK and Associates of Pasadena was the project's technical consultant.

Barna praised the dedicated efforts of Jim Borden from Sacramento who is Caltrans Traffic Operations Program Manager for the project. The Smart Corridor project was one of the innovative projects that came out of a high-tech conference in 1986 which Borden put together.

Borden helped formulate the scope and objectives of the project, including inter-agency coordination and the concept of operating the corridor as cohesive unit.

When asked why the Santa Monica Freeway is so smart, Borden likened it to a sleek, new car that comes "fully loaded" with every possible feature designed to smooth out and speed up the trip for all motorists.

"The new and improved Smart Corridor has it all -- transportation engineers have taken the laboratory onto the freeway -- the latest high-tech traffic management devices and motorist information tools will be tested on that freeway," Borden said.

In addition to traffic management, the goal of the project is to provide congestion relief and accident reduction along the freeway and five major parallel arterial streets. It is anticipated the project will also help to reduce fuel consumption and improve air quality.

Preliminary engineering studies indicate that the project's quick incident detection and response system could result in a five-mile-an-hour increase in the average freeway speed during rush hour, a 12 percent decrease in the time of the average freeway trip, an 11 percent increase in the average surface street speeds during rush hour, and a 13 percent drop in the average surface street trip duration.

Special features include advising motorists of current traffic conditions, providing available alternate routes and real time traffic management by use of the following:

- Connector and ramp metering
- Closed Circuit Television (CCTV)
- Changeable Message Signs (CMS)
- Highway Advisory Radio (HAR)
- Highway Advisory Telephone (HAT)
- Internet Web Page

Many features of the Santa Monica Freeway Smart Corridor Project have been in use for sometime, however, the "electronic links" that were activated today join the Smart Corridor Central Computer located at the Los Angeles Traffic Management Center (TMC) in the Caltrans building with the City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) system. The Smart Corridor Central Computer will gather traffic data from both the freeway and the surrounding streets and will integrate the information into one cohesive unit known as an "expert system." The activity of sharing traffic data makes each center "smarter." The effectiveness of the combined interagency action of running the total facilities of both the freeway and local streets together as one unit will be evaluated at the end of the demonstration project.

By tuning into the new Highway Advisory Radio (HAR) at 1620 AM as they drive along the freeway corridor, and by calling the new Highway Advisory Telephone (HAT) at 213-897-SMART, motorists may quickly obtain a constant flow of updated traffic information about traffic conditions on the Santa Monica Freeway. Traffic information on the local arterial streets may be obtained by tuning into 1510 AM.

The Smart Corridor Project is a work in progress -- today marks the implementation of the first phase. The second phase, which includes activation of the traffic management center in the City of Santa Monica and other features, will come on board at a later date.

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Making Travel Better Through Intelligent Transportation Systems

SANTA MONICA FREEWAY SMART CORRIDOR DEMONSTRATION PROJECT Background

Project

The Santa Monica Freeway Smart Corridor Demonstration Project is one of the most visionary Intelligent Transportation Systems (ITS) projects ever developed and implemented in the nation. The project represents a first-time attempt to electronically connect and coordinate freeway and arterial data gathering, develop and implement computer generated action plans, and provide motorists with accurate, real-time congestion information within a corridor.

Location

The project area extends from downtown Los Angeles, to the City of Santa Monica along the Santa Monica Freeway, one of the busiest stretches of roadway in the United States. This 17.3 mile long corridor also encompasses Washington, Adams, Venice, Pico and Olympic Boulevards within the Cities of Los Angeles, Culver City, Beverly Hills and Santa Monica.

Purpose

The fundamental goal of the Smart Corridor system is to increase the efficiency and throughput of the freeway and adjacent surface street network thereby reducing roadway congestion and motorist delay.

To achieve this goal, the project relies on a three-pronged approach:

- 1) Maximizing the efficiency of the existing traffic control systems operated by Caltrans, LADOT, and CHP through a coordinated database and "expert systems" software,
- 2) providing timely and effective incident/accident management, and
- 3) providing accurate, real-time traffic information through a variety of motorist information media.

Participants and Funding

The Smart Corridor enjoys the partnership of many agencies at varying levels of government. The Federal Highways Administration, the Department of Energy, Caltrans, CHP, LACMTA, the City of Los Angeles Department of Transportation, Culver City, Beverly Hills, and Santa Monica have all joined their technical expertise and financial resources to participate on this project.

The \$48 million project has been funded through federal, state, and local funds.

History

The 1984 Olympic games held in Los Angeles served as a precursor to this project by demonstrating that coordination of the system of the local operating and enforcement agencies could actually increase throughput and decrease delay, even in light of heightened traffic congestion.

To this end, after the Olympics, the Smart Corridor agencies pooled their resources together to develop a system which through the development of customized software, would **automatically** provide coordinated field data and recommend and implement appropriate response for all agencies on the same network. This represented a first time attempt on the part of the operating agencies to share their data and responsibilities for a roadway network.

1994 Northridge Earthquake: A Preliminary Test

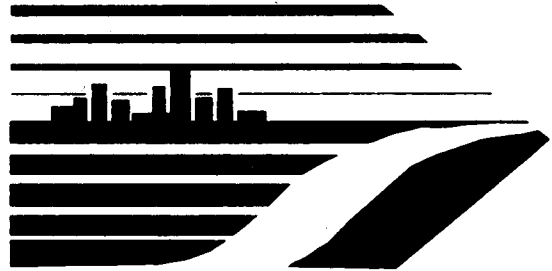
The success of the vision of the Smart technologies was tested during the 1994 Northridge earthquake which rendered a portion of the Santa Monica freeway unusable. The unprecedented level of cooperation and coordination among the agencies and the implementation of preliminary Smart Corridor facilities and software which eased traffic congestion, was a testament to the anticipated success of the project.

The project will become operational on October 11, 1996, with several refinements and enhancements to be phased in thereafter.

SANTA MONICA FREEWAY

SMART

CORRIDOR



FACT SHEET

The Santa Monica Freeway Smart Corridor is an innovative Intelligent Transportation Systems (ITS) project utilizing advanced technologies to test the effectiveness of specific ATMS and ATIS strategies in improving the flow of traffic and decreasing congestion and delay. The project covers a 14.5 mile stretch of one of the most heavily travelled freeways in the nation as well as five parallel arterials located in the cities of Los Angeles, Culver City and Beverly Hills.

The fundamental objective of the project is to maximize the efficiency and throughput of the existing freeway and surface street network. The project relies on the following three-pronged approach to attain this objective:

- To coordinate and maximize the efficiency of existing monitoring and control systems of the participating agencies,
- To provide dynamic, real-time traffic information to motorists in the corridor, and
- To provide timely and effective

accident/incident management within the corridor

Some of the elements and techniques used are:

- Development and utilization of coordinated and integrated software to provide automated freeway and arterial incident detection, correlation and confirmation as well as multi-agency database development and response plan generation.
 - Detectorization of the freeway and arterials for automated monitoring and dynamic modification and coordination of ramp metering rates and signal timing plans.
 - Utilization of automated motorist information systems elements such as Highway Advisory Radio, Highway Advisory Telephone, Changeable Message Signs, dynamic routing Trailblazer signage, computer bulletin boards and cable television.
 - Provision of Accident Investigation Sites which allow motorists the
-

opportunity to exchange information in the event of an accident in separate and secure areas adjacent to the freeway.

- Provision of emergency response teams and roving service patrols which assist in removing disabled vehicles.
- Provision of comprehensive Closed Circuit Television coverage which enables agency personnel to dynamically view conditions on the freeway and arterials.

PARTICIPANTS

The significance of this project to the region is reflected in the unprecedented level of interagency and cross-jurisdictional coordination and support.

The following agencies are directly involved in the development and operation of the Smart Corridor project:

- ▶ The Federal Highway Administration (FHWA)
- ▶ The California Department of Transportation (Caltrans)
- ▶ The California Highway Patrol (CHP)
- ▶ The Los Angeles County Metropolitan Transportation Authority (LACMTA)
- ▶ The Los Angeles Department of Transportation (LADOT)
- ▶ The Los Angeles Police Department (LAPD)
- ▶ The City of Culver City
- ▶ The City of Beverly Hills
- ▶ The City of Santa Monica

BENEFITS

The Santa Monica Freeway Smart Corridor Demonstration project is expected to benefit the motorists travelling in the corridor in a number of ways. The project is expected to result in an approximate 20% reduction in intersection delay, a 35% reduction in the number of vehicles stopped at intersections, and an 11 to 15% reduction in total travel time. The overall annual savings to the motorists in reduced travel time, fuel consumption and vehicle maintenance is estimated at \$24-32 million. The project will also help to improve air quality by reducing carbon monoxide and hydrocarbon emissions.

TIMELINE

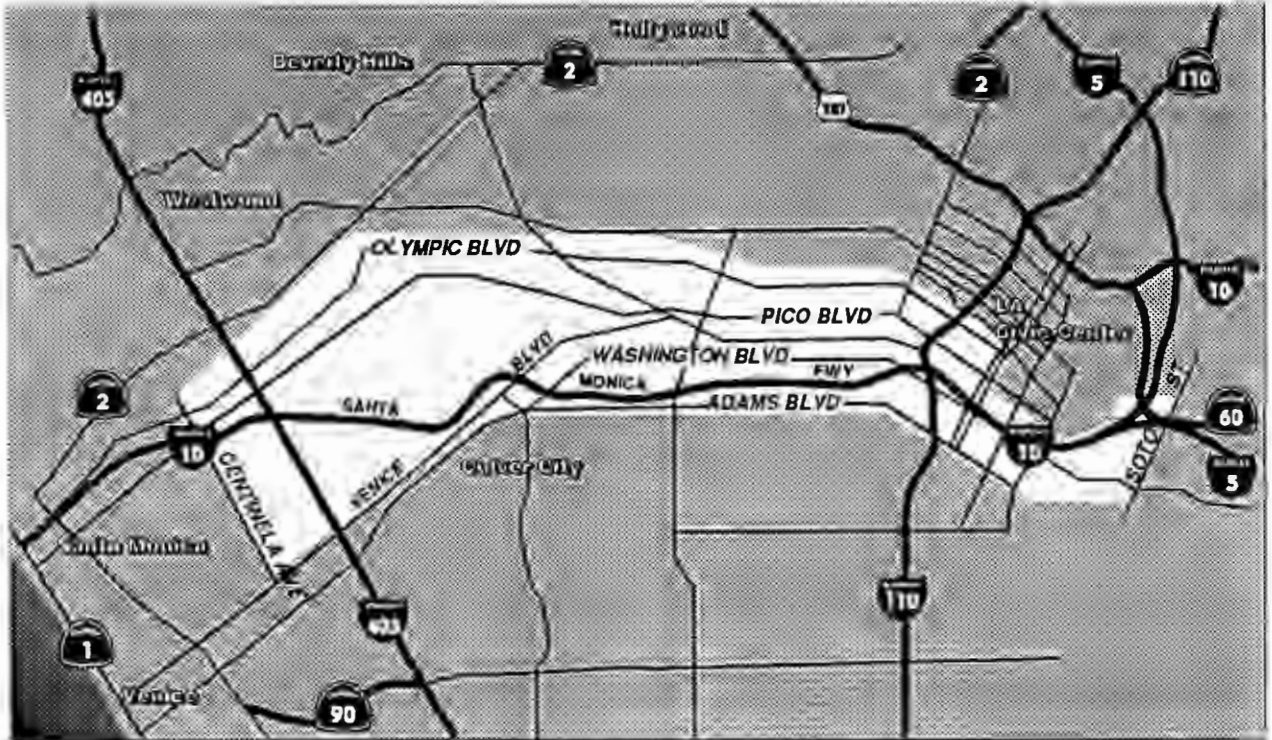
Project implementation began in 1990. Most of the construction and infrastructure improvements have been completed. With a majority of the elements online, the project is expected to be fully operational by June 1995. Upon completion, the project will go through an extensive evaluation phase which will assess the effectiveness of project elements and the applicability of smart concepts to other corridors.

COST

The total cost of the project is approximately \$48 million which has been provided through federal, state and local sources.

SANTA MONICA FREEWAY SMART CORRIDOR

The \$50 million SANTA MONICA FREEWAY SMART CORRIDOR will be operational in 1994. This unique, state-of-the-art traffic management demonstration project was designed to improve the flow of traffic and decrease congestion along the freeway and five major parallel arterials. The project is jointly funded by federal, state and local sources.



The primary objective of the SANTA MONICA FREEWAY SMART CORRIDOR Demonstration Project is to better balance traffic flow on all corridor facilities.

The SMART CORRIDOR concept involves heavy detectorization on streets and highways where traffic data can be transmitted to the traffic control centers and appropriate traffic management can be implemented.

The project will test advanced technology methods of improving regional mobility on freeways and major parallel arterials as an alternative to incurring the dramatic environmental and economic costs of building new freeways and streets. To achieve this goal, motorist information must be managed and disseminated.

GOALS:

- Improve traffic flow
- Provide faster emergency response
- Help motorist make smarter driving decisions
- Save time and fuel for motorists
- Improve air quality



LOCATION:

The corridor consists of the Santa Monica Freeway (I-10) plus five major parallel streets (arterials).

Parallel Streets:

- Olympic Blvd.
- Pico Blvd.
- Venice Blvd.
- Washington Blvd.
- Adams Blvd.

The corridor covers a 14.5 -mile stretch of the Santa Monica Freeway and is bounded by Olympic Blvd. to the north, Soto Street to the east (East L.A. Interchange), Adams and Washington Blvds. to the south, and Centinela Avenue to the west (Los Angeles/Santa Monica City Boundary).

AGENCIES INVOLVED:

- FEDERAL HIGHWAY ADMINISTRATION (FHWA)
- CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)
- CALIFORNIA HIGHWAY PATROL (CHP)
- LOS ANGELES METROPOLITAN TRANSPORTATION AUTHORITY (MTA)
- CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION (LADOT)
- CITY OF LOS ANGELES POLICE DEPARTMENT (LAPD)
- CITY OF BEVERLY HILLS
- CITY OF CULVER CITY
- CITY OF SANTA MONICA

**SANTA MONICA FREEWAY SMART CORRIDOR KEY ELEMENTS
MONITORING AND CONTROL SYSTEMS****CONGESTION MONITORING:**

Traffic conditions will be continuously monitored by Smart Corridor (SC) computers located at Caltrans' TOC and LADOT's ATSAC Center. Electro-magnetic sensors in freeway lanes, freeway on/off ramps and surface streets detect vehicle presence and will report this information to the joint-agency database located in the Smart central computers.

Based on traffic conditions determined by the SC computers, adjustments will be made to balance the system flows. The timing plans of surface street traffic signals, freeway ramp meters, and freeway connector meters may be changed to improve traffic flow on city streets and to alleviate congestion on the freeway. Closed Circuit Television cameras as well as field observations will be used to monitor effects of timing changes.

ACCIDENT AND INCIDENT MANAGEMENT

(DETECTION, CORRELATION, VERIFICATION and RESPONSE)

In the traffic monitoring process, the SC computers will be looking for significant changes in traffic speed between detection stations and correlate them with incident information from the field reported by CHP officers, Freeway Service Patrol tow truck drivers, Caltrans maintenance workers, private citizens using cellular phones, and stranded motorists using call boxes.

**Smart Corridor**

Page

When the SC computer suspects an incident, it notifies Caltrans and/or LADOT operators. These suspected incidents will be confirmed by TOC/ATSAC operators through the use of Closed Circuit Television cameras and/or through field personnel. If the incident is verified, the SC Central Computer will propose response plans that will include notifying the appropriate agencies/organizations (ambulance, fire, police, Hazardous Materials teams, etc.) as well as timing changes to surface street traffic signals, freeway ramp meters, and freeway connector meters to alleviate congestion. Messages to be disseminated to the public through Changeable Message Signs and Highway Advisory Radio/Highway Advisory Telephone messages will also be suggested. Operators will decide whether or not to use one of the computer's response plans or a generate a plan of their own.

Caltrans, LADOT, CHP, LAPD activities will be coordinated by a unified operations plan. This plan will provide improved emergency response which will minimize incident duration and thus reduce non-recurrent congestion.

CHP officers will help clear congestion on freeways and LAPD officers/traffic control officers will help clear streets.

Continuously roving Freeway Service Patrol tow trucks will reduce congestion normally resulting from delays in removing stalled or damaged vehicles.

MOTORIST INFORMATION

The Traffic Information Management System is a component of the Smart Corridor computer system which will provide current traffic condition information & rerouting advice to motorists through:

- Changeable Message Signs (CMS) on freeways and streets
- Highway Advisory Radio (HAR) broadcasts
- Highway Advisory Telephone (HAT) call-in service
- Traffic channels on public access programs of cable TV stations
- Computer generated traffic condition map & text displays in office buildings
- Media traffic reports

BACKGROUND:

California's New Technology program built the foundation for working partnerships with public and private interests, academia, federal and local agencies and non-profit organizations.

In 1986 Caltrans and the Institute of Transportation Studies (ITS) launched Partners for Advanced Transit and Highways (PATH) to tackle today's most pressing traffic problems while developing technologies for tomorrow's highways. The goal of PATH research is to develop more efficient highways by making vehicles and roadways "smarter", and by communicating traffic and roadway conditions to drivers to make drivers "smarter". These are also goals of Intelligent Vehicle/Highway Systems (IVHS).

On-going cooperative traffic management efforts with various agencies led to an opportunity for Caltrans to demonstrate the "SMART CORRIDOR" concept. AB 1239 (9/26/88) provided funds to Caltrans to coordinate the project.



Smart Corridor

The Santa Monica Freeway Corridor is a logical location for this cooperative demonstration. The project would link the City of Los Angeles' successful Automated Traffic Surveillance and Control (ATSAC) system with Caltrans' surveillance system.

The ATSAC system was first operational in June, 1984, just prior to the Summer Olympic Games. ATSAC provides a flexible tool for improved traffic signal system management. ATSAC signals are on-line at 800 intersections. By 1998, some 4,000 intersections throughout the entire City of Los Angeles will be equipped with signal, with 100 cameras at major street crossings throughout the city. There are 401 signalized intersections, with 89 currently under ATSAC control in the Santa Monica Freeway Corridor.

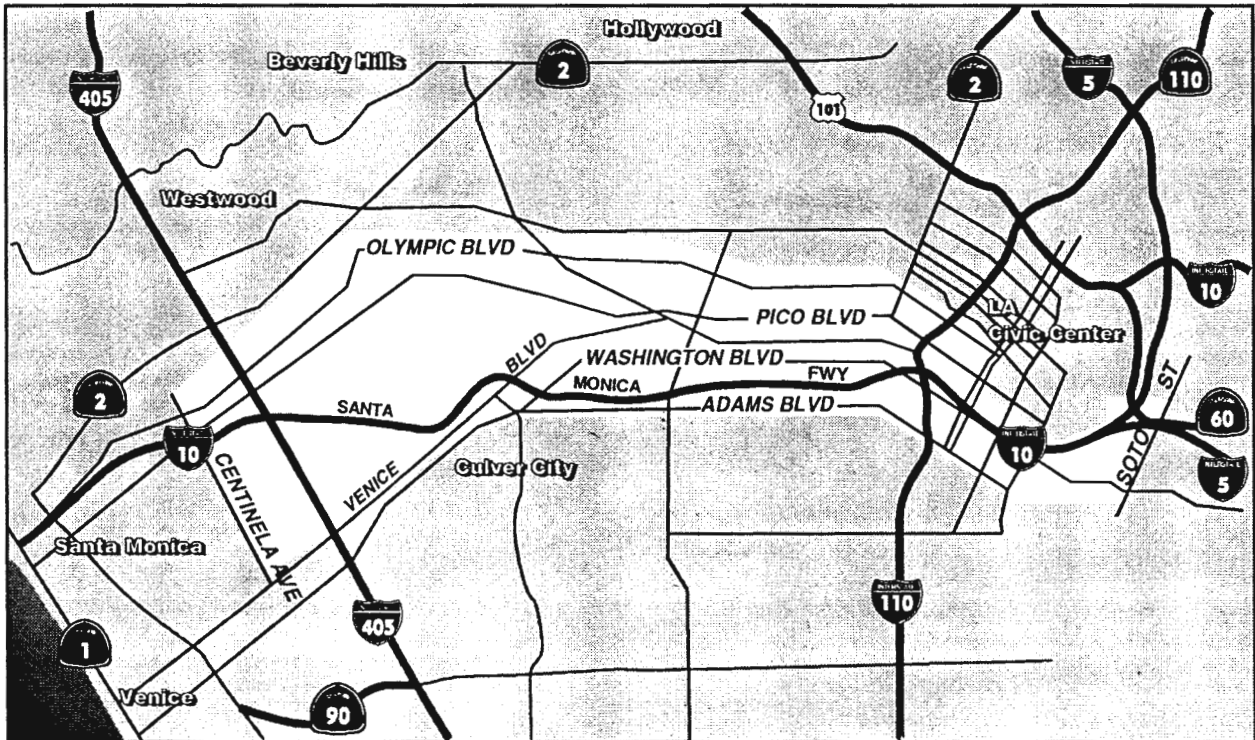
The Caltrans Traffic Operations Center (TOC) was inaugurated by Governor Ronald Reagan on November 23, 1971. The original center consisted of a basic surveillance system covering 42 miles of the freeway system (a loop that consisted of the Santa Monica, Harbor and San Diego freeways). As of March, 1993, the District 7 TOC monitors 577 directional miles of freeway and operates 18 closed circuit TV (CCTV) cameras, 48 fixed Changeable Message Signs (CMS), and 4 Highway Advisory Radios (HAR). The ramp metering system in District 7 is the largest in the state with 722 metered ramps.



SANTA MONICA FREEWAY SMART CORRIDOR

- The \$50 million SANTA MONICA FREEWAY SMART CORRIDOR will be operational by the Spring, 1994. This unique, state-of-the-art traffic management Demonstration Project is designed to improve the flow of traffic and decrease congestion along the freeway and its major arterials. The project is jointly funded by federal, state and local sources.

- The primary objective of the SANTA MONICA FREEWAY SMART CORRIDOR Demonstration Project is to better balance traffic flows on all corridor facilities.



- The SMART CORRIDOR concept involves heavy detectorization of the streets/highways where traffic data can be transmitted to the traffic control centers and appropriate traffic management can be implemented.

- The project will test advanced technology methods of improving regional mobility on freeways and major parallel arterials rather than incurring the dramatic environmental and economic costs of building new freeways and streets. To achieve this goal, motorist information must be managed and disseminated.

GOALS:

- Improve traffic flow
- Provide faster emergency response
- Help motorists make smarter driving decisions
- Save time and fuel for motorists
- Improve air quality



Smart Corridor

LOCATION:

- The corridor consists of the Santa Monica Freeway (I-10) plus five major parallel streets (arterials).
- The corridor covers an approximately 14.5-mile stretch of the Santa Monica Freeway and is bounded by Olympic Blvd. to the north, Soto Street to the east, Adams and Washington Blvds. to the south, and Centinela Avenue to the west.

Parallel Streets:

- Olympic Blvd.
- Pico Blvd.
- Venice Blvd.
- Washington Blvd.
- Adams Blvd.

AGENCIES INVOLVED:

- FEDERAL HIGHWAY ADMINISTRATION (FHWA)
- CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)
- CALIFORNIA HIGHWAY PATROL (CHP)
- LOS ANGELES METROPOLITAN TRANSPORTATION AUTHORITY (MTA)
- CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION (LADOT)
- CITY OF LOS ANGELES POLICE DEPARTMENT (LAPD)
- CITY OF BEVERLY HILLS
- CITY OF CULVER CITY
- CITY OF SANTA MONICA

ELEMENTS:

- Sensors in roadway report traffic conditions to SMART CORRIDOR computers located at Caltrans and LADOT
- Coordination of Caltrans, LADOT, CHP, LAPD activities (unified operations plan)
- Traffic signal & ramp meter timing changes (by computer and/or operator) to alleviate congestion
- CHP & LAPD officers help clear congestion on freeways and streets
- Freeway Service Patrols
- Connector Metering
- Closed Circuit television and other demand management tools used to ascertain problems
- Traffic control officers
- Up-to-the minute traffic conditions rerouting advice is made available to motorists through:
 - Changeable message signs on freeways/streets
 - Traffic Advisory Radio Station (highway advisory radio - HAR)
 - Traffic Advisory Telephone (highway advisory telephone HAT)
 - Traffic Channels on Public Access programs of cable TV stations)
 - Computer displays in office buildings



BACKGROUND:

- On-going cooperative traffic management efforts with various agencies led to an opportunity for Caltrans to demonstrate the "SMART CORRIDOR" concept. AB 1239 (9/26/88) provided funds to Caltrans to coordinate the project.
- In 1986 Caltrans and the Institute of Transportation Studies (ITS) launched Partners for Advanced Transit and Highways (PATH) to tackle today's most pressing traffic problems while developing technologies for tomorrow's highways. The goal of PATH research is to develop more efficient highways by making vehicles and roadways "smarter," and by communicating traffic and roadway conditions to drivers to make drivers "smarter" which is the goal of Intelligent Vehicle/Highway Systems (IVHS).
- California's new technology program built the foundation for working partnerships with public and private interests, academia, federal and local agencies and non-profit organizations.
- The following elements are included in the project:
 - a. Linking and continually monitoring the network of traffic monitoring devices on the freeways & surface streets.
 - b. Interactive signal control system for central control.
 - c. Traffic information management system to allow commuters to access current traffic information.
 - d. Improved emergency response
 - e. Tow service to reduce congestion caused by delays in removing stalled or damaged vehicles
 - f. Joint-agency database system.
 - g. An in-vehicle motorist information and navigation system.
- The Santa Monica Freeway Corridor is a logical location for this cooperative demonstration. The project would link the City of Los Angeles' successful Automated Traffic Surveillance and Control (ATSAC) system with Caltrans' surveillance system.
- The SMART CORRIDOR is bounded on the west by the Los Angeles/Santa Monica City boundary, on the east by the East Los Angeles Interchange and includes 5 major arterials. There are 401 signalized intersections, with 89 currently under ATSAC control.
- The ATSAC system was first operational in June, 1984, just prior to the Summer Olympic Games. ATSAC provides a flexible tool for improved traffic signal system management. ATSAC signals are on line at 800 intersections. The system is currently being installed at an additional 400 intersections. By 1998, some 4,000 intersections throughout the entire City of Los Angeles will be equipped with signals, with 100 cameras at major street crossings throughout the city.





FACT SHEET



LOS ANGELES COUNTY TRANSPORTATION COMMISSION 818 West 7th. St., Suite 1100, Los Angeles, Calif. 90017 (213) 623 1194

WHAT IS THE SANTA MONICA SMART CORRIDOR PROJECT?

The Santa Monica Smart Corridor is an innovative, "hi-tech" demonstration project of national significance designed to improve the flow of traffic and decrease congestion and delay experienced by motorists.

The corridor covers a 12.3 mile stretch of the Santa Monica freeway and is bounded by Olympic Blvd. to the north, Soto Street to the east, Adams and Washington Blvds. to the south, and Centinela Street to the West.

The project relies on advanced traffic control and monitoring systems, motorist information systems, and accident/incident management techniques.

HOW WILL TRAFFIC CONGESTION BE REDUCED?

The techniques used in accomplishing the goal of the project are as follows:

- 0 Sensors embedded in the roadways will report traffic conditions to computers located in the Central traffic control offices.
- 0 The computers automatically change the timing of traffic signals and freeway ramp meters to alleviate congestion.
- 0 California Highway Patrol and Los Angeles Police Department officers will help clear traffic congestion on streets and freeways.
- 0 Traffic control personnel at the central offices will ascertain the causes of bottlenecks by scanning problem locations with closed circuit televisions.
- 0 Emergency response teams and roving service trucks assist motorists with disabled vehicles.
- 0 Through the use of motorist information systems such as real time Highway Advisory Radio and Changeable Message Signs on freeways and major arterials, traffic control personnel will advise the motorists to exit the freeway or to avoid entering the freeway.
- 0 On major streets parallel to the freeway, the traffic signals are adjusted to remain green for longer periods, allowing motorists to drive smoothly across the corridor.

WHICH AGENCIES ARE INVOLVED?

The significance of this project is reflected in the unprecedented level of interagency and cross-jurisdictional coordination which it currently enjoys.

The following agencies are directly involved in the project:

- The California Department of Transportation (Caltrans)
- The City of Los Angeles Department of Transportation (LADOT)
- The California Highway Patrol (CHP)
- The Los Angeles County Transportation Commission (LACTC)
- The City of Los Angeles Police Department (LAPD)
- The City of Culver City

HOW WILL THE MOTORIST BENEFIT?

The Santa Monica Smart Corridor Project is expected to benefit the motorist in a number of ways. First, the Project will result in an approximate 20% reduction in intersection delay, a 35% reduction in the number of vehicles stopped at intersections, and a 11-15% reduction in total travel time. The overall annual savings to the motorist, in reduced travel time, fuel consumption and car maintenance, is estimated at \$24-32 million. In addition, the Santa Monica Smart Corridor Project will help improve air quality by reducing carbon monoxide and hydrocarbon emissions.

WHEN WILL THE SANTA MONICA SMART CORRIDOR PROJECT BE "ON-LINE"?

By the Spring of 1993, all of the project elements should be in place and the project fully operational. The Project will then be evaluated for its effectiveness and applicability to other corridors.

WHAT IS THE COST OF THE PROJECT?

The total project cost is approximately \$48 million which has been provided through federal, state and local sources.



News

February 24, 1993

CONTACT: CLARA POTES-FELLOW/STEPHANIE BRADY
LACTC/MTA NEWS BUREAU
(213)244-6566

FOR IMMEDIATE RELEASE

**CTC ALLOCATES FUNDS TO IMPROVE TRAFFIC FLOW
ON LOS ANGELES' SURFACE STREETS**

The California Transportation Commission allocated today \$23.3 million to expand the Automatic Traffic Surveillance and Control system in the City of Los Angeles. Once installed, the system will adjust traffic signals to speed up rush hour traffic on congested intersections.

This computerized traffic control system allows motorists to drive through a succession of green lights, with no red-light interruptions, expediting the traffic flow.

"Synchronization of these signals will greatly improve the efficiency of Los Angeles' surface streets," said Mayor Tom Bradley, a member of the Los Angeles County Metropolitan Transportation Authority. "This project will save approximately \$60 million annually and 10 million hours of travel time and delays to Los Angeles residents."

Funds for the project were allocated to the LACTC and Caltrans, from the Flexible Congestion Relief account and the State Traffic Systems Management Projects account respectively. Both are funded by State Proposition 111, the gasoline tax initiative approved in 1990.

(MORE)

CTC ALLOCATES FUNDS TO IMPROVE TRAFFIC FLOW ON LOS ANGELES' SURFACE STREETS

February 24, 1993

Page 2

"Completion of this project has been a priority for the City of Los Angeles and the Los Angeles County Transportation Commission," said Neil Peterson, LACTC executive director. "To provide much needed congestion relief, the LACTC requested an acceleration of the Flexible Congestion Relief funds, which originally were projected for allocation in fiscal years 1996 and 1997."

The project includes the replacement of obsolete traffic signal controllers and communications equipment; and installation of new traffic signals, vehicle loop detectors, traffic surveillance cameras, and computer equipment at the ATSAC central computer facility.

Traffic signals will be synchronized in the following areas:

Downtown Los Angeles:

- 26 intersections on Temple street and First Street from the Harbor Freeway to Vermont Avenue;
- 31 intersections on Sunset Boulevard from the Harbor Freeway to Silver Lake Boulevard.
- 103 intersections in the western portion of the central business district bounded by the Hollywood Freeway on the north, Figueroa Street on the east, Olympic Boulevard on the south and Vermont Avenue on the west; and on Vermont Avenue from Beverly Boulevard to Melrose Avenue.

San Fernando Valley:

- 162 intersections in the San Fernando Valley area of the City of Los Angeles delimited by Victory Boulevard on the north, Ventura Boulevard on the south, Reseda Boulevard on the west and Cahuenga Boulevard on the east.

1
2 960 An act to add Article 4 (commencing with Section 130290) to Chapter 4
3 of Division 12 of the Public Utilities Code, relating to transportation,
4 and making an appropriation therefor.
5 Approved by Governor October 13, 1991
6 . Filed with Secretary of State October 14, 1991.

7
8 LEGISLATIVE COUNSEL'S DIGEST
9

10 AB 590, Moore. Smart freeway corridor telecommunications demonstration
11 project.

12 (1) Existing law does not provide for smart freeway corridor
13 demonstration projects.

14 This bill would impose a state-mandated local program by requiring a
15 county transportation commission to coordinate smart freeway corridor
16 telecommunications demonstration projects within the county, which would
17 be comprised of specified elements related to vehicular traffic
18 monitoring and management within segments of the state highway system.

19 The bill would require the county transportation commission to make
20 the results of the demonstration projects available to state and local
21 public agencies for possible application throughout the state.

22 The bill would require the county transportation commission to prepare
23 and transmit a report on the demonstration projects to the Legislature.

24 The bill would require the Department of Transportation to reimburse
25 the county transportation commission, from funds appropriated to the
26 department for the demonstration projects, for the costs incurred by the
27 commission under those provisions.

28 The bill would prohibit the use of money from the General Fund to
29 operate a smart freeway corridor telecommunications project after the
30 demonstration project is completed.

31 (2) Under existing law, funds in the Petroleum Violation Escrow
32 Account, as defined in federal law, have been disbursed to this state by
33 the federal government and deposited in the Federal Trust Fund.

34 The bill would, to the extent permitted by federal law, appropriate
35 \$1,000,000 of those funds to the department for allocation for purposes
36 of the demonstration projects.

37 (3) The California Constitution requires the state to reimburse local
38 agencies and school districts for certain costs mandated by the state.
39 Statutory provisions establish procedures for making that reimbursement,
40 including the creation of a State Mandates Claims Fund to pay the costs
41 of mandates which do not exceed \$1,000,000 statewide and other procedures
42 for claims whose statewide costs exceed \$1,000,000.

43 This bill would provide that no reimbursement shall be made from the
44 State Mandates Claims Fund for costs mandated by the state pursuant to
45 this act, but would recognize that local agencies and school districts
46 may pursue any available remedies to seek reimbursement for
47 these costs.

48 Appropriation: yes.

49
50 The people of the State of California do enact as follows:

DELETED MATERIAL IS IN BRACKETS []. ADDED MATERIAL IS CAPITALIZED.

1
2 SECTION 1. Article 4 (commencing with Section 130290) is added to
3 Chapter 4 of Division 12 of the Public Utilities Code, to read: Article
4 4. Smart Freeway Corridor Telecommunications Demonstration Projects
5 130290. As used in this article:

6 (a) "Smart freeway corridor" means a segment of a state highway
7 route in an urban area selected for a smart freeway demonstration
8 project.

9 (b) "Project" means a demonstration project which applies
10 telecommunications and computer systems to reduce congestion and improve
11 the flow of traffic.

12 130291. A smart freeway demonstration project shall be comprised of
13 the following elements:

14 (a) A linked traffic monitoring network of traffic monitoring devices
15 placed in freeway lanes, surface street travel lanes, turn lanes, and on
16 ramps within the freeway corridor to continuously monitor traffic speeds
17 and volumes to identify congestion and traffic incidents.

18 (b) An interactive signal control system to allow central control
19 personnel or systems
20 to override regular signal cycles in order to expedite traffic flow of
21 congested freeways and surface street intersections and to facilitate the
22 diversion of traffic around congested areas.

23 (c) A traffic information management system providing commuter access
24 to current traffic information through telephones, radio and television,
25 home computers, terminals in office buildings, in-vehicle motorist
26 information systems, computer-activated changeable message signs placed
27 on freeways, at on ramps, at parking garages, and on major arterials
28 within the freeway corridor.

29 (d) An improved emergency response system to accelerate the dispatch
30 of emergency vehicles, traffic control officers, and signal maintenance
31 crews, thus reducing the time needed to clear an incident causing traffic
32 congestion.

33 (e) Tow service to reduce traffic congestion caused by delays in
34 removing stalled or damaged vehicles from the freeway in accordance with
35 plans developed by the Department of the California Highway Patrol in
36 consultation with the Department of Transportation.

37 (f) A joint-agency data base system to coordinate construction and
38 maintenance which impact traffic flow in the freeway corridor.

39 130292. (a) The project shall be coordinated by the statutorily
40 created county
41 transportation commission in whose jurisdiction the project is located.
42 The county transportation commission shall consult with local traffic and
43 law enforcement agencies, the Department of Transportation, and the
44 Department of the California Highway Patrol on all aspects of the project
45 in order to provide necessary coordination of the project with existing
46 plans and programs.

47 (b) The county transportation commission shall make preliminary and
48 final results of the demonstration project available to state and local
49 public agencies for possible application throughout the state.

50 (c) The county transportation commission shall prepare and transmit

1 to the Legislature a report of its findings, conclusions, and
2 recommendations.

3 (d) The Department of Transportation shall reimburse the county
4 transportation commission, from funds appropriated for projects pursuant
5 to this article, for the costs incurred by the commission under this
6 article.

7 (e) No money from the General Fund shall be used for the operation of
8 a smart freeway corridor telecommunications project established as a
9 demonstration project pursuant to this article after the demonstration
10 project is completed.

11 SEC. 2. (a) Notwithstanding Sections 13340 and 16361 of the
12 Government Code, and to the extent permitted by federal law, the sum of
13 one million dollars (\$1,000,000) of the money in the Federal Trust Fund,
14 created by Section 16360 of the Government Code, received by the state
15 from federal oil overcharge funds in the Petroleum Violation Escrow
16 Account, as defined by Section 155 of the Further Continuing
17 Appropriations Act of 1983 (P.L. 97-377) or other federal law, and
18 received by the state from federal oil overcharge funds available
19 pursuant to court judgments or federal agency orders, is hereby
20 appropriated to the Department of Transportation for allocation for smart
21 freeway corridor demonstration projects pursuant to Article 4 (commencing
22 with Section 130290) of Chapter 4 of Division 12 of the Public Utilities
23 Code.

24 (b) Funds appropriated by this act from the Petroleum Violation
25 Escrow Account shall be disbursed by the Controller, subject to approval
26 by the Director of Finance as to which court judgment or federal agency
27 order is the proper source of those funds.

28 SEC. 3. No reimbursement shall be made from the State Mandates Claims
29 Fund pursuant to Part 7 (commencing with Section 17500) of Division 4
30 of Title 2 of the
31 Government Code for costs mandated by the state pursuant to this act. It
32 is recognized, however, that a local agency or school district may pursue
33 any remedies to obtain reimbursement available to it under Part 7
34 (commencing with Section 17500) and any other provisions of law.
35 Notwithstanding Section 17580 of the Government Code, unless otherwise
36 specified in this act, the provisions of this act shall become operative
37 on the same date that the act takes effect pursuant to the California
38 Constitution.





OCTOBER 29, 1991

CONTACT: ROBERTA TINAJERO/STEPHANIE BRADY
LACTC TRANSPORTATION NEWS BUREAU
(213) 244-6565, 244-6792

FOR IMMEDIATE RELEASE

EAST/WEST "SMART CORRIDOR" PROJECT BOOSTED BY \$1 MILLION

High tech equipment capable of making "smart" decisions for traffic control along the Santa Monica Freeway corridor recently got a financial boost of \$1 million from the state. The funds were allocated to the Santa Monica Freeway Smart Corridor Project -- an innovative plan to improve the flow of traffic and decrease congestion along the freeway and its major parallel arterials.

"Smart corridor" techniques include sensors embedded in the roadways that report traffic conditions to computers in a central traffic control office and can adjust the timing of traffic signals and freeway ramp meters accordingly. Improved information to motorists through "real time" Highway Advisory Radio and Changeable Message Signs will alert motorists to traffic conditions along the corridor. The system is aided by emergency response teams and the Tow Truck Service Patrol.

"Through the combined efforts of Assemblymember Gwen Moore and State Senator Diane Watson, we were able to secure the governor's approval of these additional funds for the Smart Corridor project", said Neil Peterson, executive director of the Los Angeles County Transportation Commission. "We estimate that the project will result in a 35% reduction

(MORE)

EAST/WEST "SMART CORRIDOR" PROJECT BOOSTED BY \$1 MILLION

October 29, 1991

Page 2

in the number of vehicles stopped at intersections, and a 1.3 million gallon annual reduction in fuel consumption", he said. Air quality would benefit from an estimated 15% reduction of carbon monoxide emissions and an 8% reduction in hydrocarbon emissions.

The "smart corridor" project will cover a 12.3 mile stretch of the Santa Monica Freeway and is bounded by Olympic Boulevard, Soto Street, Adams and Washington boulevards, and Centinela Street.

AB590, authored by Moore, was signed into law by the governor, providing the \$1 million. The total project cost is \$48 million, funded by federal, state and local sources. All of the project elements should be in place by the Spring of 1993.

#

CITY OF LOS ANGELES

CALIFORNIA

SE (ED) ROWE
GENERAL MANAGER



TOM BRADLEY
MAYOR

DEPARTMENT OF
TRANSPORTATION

Action		ROOM 1200, CITY HALL LOS ANGELES, CA 90012 (213) 485-2245 FAX (213) 237-0960
Date 10/18	To RMS	
<input type="checkbox"/>	Note and return	
<input type="checkbox"/>	Note and file	
<input type="checkbox"/>	Return with information	
<input type="checkbox"/>	Please advise (send me a copy)	
<input type="checkbox"/>	Prepare for my signature	
<input type="checkbox"/>	Please reply quickly	
<input type="checkbox"/>	For your information	
<input type="checkbox"/>	Take appropriate action	
<input type="checkbox"/>	Investigate and report	
<input type="checkbox"/>	See me about this	
Due Date	Control	
cc: NP	No. 45	

October 16, 1989

Honorable Richard Katz
Assemblyman, Thirty-Ninth District
California State Assembly
9140 Van Nuys Boulevard, Suite 109
Panorama City, CA 91402

Dear Assemblyman Katz:

You have expressed concern regarding the degree of attention that the Los Angeles Department of Transportation is giving to the ATSAC projects in the Ventura/Victory Corridor. In addition, you would like to complete these projects faster than is currently scheduled and have suggested that greater use of consultant design might help achieve this goal.

Since we have not as yet had an opportunity to personally discuss the Ventura/Victory Corridor ATSAC projects and your concerns, I am writing this letter to bring to your attention a number of facts that bear on the issues you have raised.

Construction work has begun on the Ventura 2A project, which is partially funded through a Caltrans agreement for \$1.6 million. This implementation will bring under ATSAC centralized computer operation, on an interim basis, 51 signalized intersections along Ventura Boulevard between Reseda Boulevard and Lankershim Boulevard. Completion of this work is scheduled to coincide with the next phase of the Ventura Freeway Rehabilitation Project in January of 1990, and will provide for the expected diversion of traffic to Ventura Boulevard. The permanent construction work on the Ventura 2A project will be completed between July and October of 1990.

I believe that our goals are basically the same. It is very important to me that the ATSAC Program be completed as quickly as can be practically achieved. One of the prime missions of my Department is to move traffic as efficiently as possible. The ATSAC System provides one of the few traffic engineering measures that has not already been widely implemented throughout the City. Consequently, I requested and the Council approved for the 1989/90 fiscal year, a major restructuring of the Department so that more management attention can be given to the ATSAC Program. With this organizational change, I can guarantee you that the ATSAC projects in the Valley will be getting a very high level of management attention.

54

As I previously reported to the City Council's Transportation Committee, the entire ATSAC design staff has been allocated to the Ventura/Victory projects. In order to expedite the design work even further, I will be recommending to the City Council that another ATSAC design team be added to the Department.

In determining the need for another design team, we analyzed the option of contracting out the design work such as we are doing on the Smart Corridor ATSAC Project. It was concluded that using this approach would actually delay completion of the design work, given the time it takes to advertise, select a contractor, and process contracts. Based on the unit costs in our current design contract, we would also incur higher design costs than would be the case with the City design team option.

We have received a favorable response from the Bureau of Engineering with regard to our request to implement a faster plan processing procedure. This will allow us to shave at least three months from the normal plan processing time.

We are also continuing to explore ways in which construction time can be reduced. This goal has to be approached carefully, since a crash construction program could result in much higher project costs.

In my report to the Council Transportation Committee dated August 30, I mentioned that a typical 100 intersection project takes 33 months from beginning of design to completion of construction. I did not make clear in the report that the proposed accelerated schedule, incorporating the various recommended changes, would reduce project delivery time to approximately 27 months.

You have raised the question as to the reasonableness of project durations of this length. In order to answer this question from a different perspective, we undertook a survey of other computer signal control projects. A summary of the results of this survey of twelve projects is attached. This list provides a mix of projects designed by consultants in eight cases, by public agencies in two cases, and jointly in two cases. While it is difficult to make an exact comparison because of differences in project size and complexity (ATSAC is more complex than virtually all of these projects due to the large number of traffic detectors used), I believe it is fair to say that our Department's project delivery time compares quite favorably with actual experience elsewhere.

It is also important to be aware of the fact that many jurisdictions have had difficulties in operating and maintaining their computerized systems effectively once the implementation was completed under contract. As a result there have been numerous disappointments where the system performance has not lived up to expectations. One of the reasons is that these systems incorporate various types of advanced

October 16, 1989

technology involving computers and high-speed communications that many jurisdictions are not adequately trained to operate and maintain.

In sharp contrast to such negative experiences, the ATSAC project team has earned a nationwide reputation for their ability to design, build, operate, and maintain computer signal systems that establish the current state-of-the-art. Officials at the Federal Highway Administration routinely encourage transportation professionals and elected officials from the U.S. and foreign countries to visit Los Angeles to see ATSAC in operation and to discuss the successful techniques that we are using. I can assure you that this same ATSAC team is dedicated to adding the Ventura/Victory Corridor to their list of successful projects.

I am very appreciative of the support you gave to establishing the financial package for the Ventura/Victory Corridor ATSAC Project and remain open to any suggestions you may have regarding this high priority project. When your schedule permits, you are invited to join me for a tour and demonstration of our currently operational ATSAC System which includes 32 intersections on the west end of Ventura Boulevard. I am sure you will find it a very interesting experience that shows how advanced technology is being harnessed to improve traffic flow, alleviate congestion, and reduce vehicle emissions.

Sincerely,



S. E. ROWE
General Manager

SER:jcv

Attachment

cc: Councilman Hal Bernson
Councilman Nate Holden
Councilman Michael Woo
Mr. Neil Peterson, LACTC ✓

COMPARISON OF SYSTEM DESIGN / CONSTRUCTION SCHEDULES

CITY	# I/S	DESIGNED BY	DESIGN STARTED	DESIGN COMPLETED	CONST. STARTED	CONST. COMPLETED	TOTAL TIME
ANAHEIM, CALIFORNIA	118	City Staff	Nov 1986	Aug 1987	Oct 1987	Dec 1988	25 Months
PORTLAND, OREGON	200	JHK	Nov 1983	Nov 1985	Feb 1986	Jul 1988	56 Months
WASHINGTON D.C.	1300	PRC	Jun 1981	Jun 1984	Jun 1985	Jan 1990	113 Months
DURHAM, N. CAROLINA	240	Storch Engr.	Jun 1975	Jun 1977	Oct 1978	Mar 1988	153 Months
EUGENE, OREGON	80	JHK & State	Jan 1984 Jun 1986	Dec 1984 Jun 1987	Aug 1985 Jun 1987	Jul 1986 Apr 1989	64 Months
WICHITA, KANSAS	200	Fredrick R. Harris	Jun 1988	Jan 1990	Mar 1990	Mar 1991	33 months
SIoux CITY, KANSAS	80	JHK	Sep 1978	Oct 1979	Apr 1980	Aug 1981	34 Months
EUREKA, CALIFORNIA	24	CALTRANS	1979	1980	1980	1981	24 Months
SEATTLE, WASHINGTON	150	JHK	Sep 1984	Jan 1986	Jul 1986	Mar 1989	54 Months
SHREVEPORT, LOUISIANA	192	CITY/SPERRY	1972	1975	1975	1985	156 Months
HONOLULU, HAWAII	300	PRC	Aug 1985	Aug 1986	Jan 1988	Jun 1990	58 Months
SAN DIEGO, CALIFORNIA	150	PRC	Apr 1980	Jul 1981	Jul 1982	May 1984	49 Months

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

L.A.C.T.C.
Received

1989 JUN -5 AM 10:48

Date: June 2, 1989

To: Bill Bicker

From: *Ed*
Ed Rowe

Subject: SMART CORRIDOR PROJECT

Attached is a summary of the responses to issues raised at our recent meeting on the Smart Corridor Project. Please let me know if you feel that any of these responses are not satisfactory or if you have further questions.

The Smart Corridor Project is an important element of the City's overall transportation program, and I believe that it is essential that it not be delayed due to any misunderstandings regarding the nature of the project.

Thank you very much for the assistance and thoughtful comments that you have provided.

SER:jcv

Attachment

cc: Jack Kay
Tom Conner
John Fisher
Anson Nordby
Verej Janoyan

SMART CORRIDOR QUESTIONS AND ANSWERS

QUESTION

Won't the Smart Corridor Project improve traffic flow on the freeway at the expense of increasing traffic congestion on the City's surface streets -- in other words, a "win/lose" solution?

ANSWER

Traffic conditions after the Smart Corridor is implemented will improve on both the City's surface streets and the freeway. While there may be some increase in traffic on underutilized streets, the ability to move traffic efficiently on those streets will improve. Smart Corridor is a "win/win" solution that will reduce delays to motorists, reduce the current extreme fluctuations in travel time, reduce fuel consumption and reduce vehicle emissions.

QUESTION

How can this be, when you will be diverting traffic from the congested freeway to the uncongested City streets?

ANSWER

Traffic diverts now, but in an uncontrolled way. Under Smart Corridor we will have much greater control over the way traffic diverts to City streets.

Average daily traffic should remain about the same or increase only slightly on the City's surface streets, but the overall level of service (travel time, stops, and delay) will improve because ATISAC and TSM improvements will increase the capacity of surface streets in the corridor.

Over half of the delay on the freeways is due to traffic incidents -- accidents, disabled vehicles, spilled loads, etc. Smart Corridor will provide much faster identification and response to these incidents. A major source of congestion on the freeway will be substantially reduced, resulting in less (not more) traffic diverting to City streets.

Also during incidents, Smart Corridor will provide the capability to better control the unavoidable diversion of traffic to surface streets. Currently, traffic diverts to surface streets in a haphazard manner often overloading nearby surface arterial streets and spilling over to local streets. With Smart Corridor motorists will be informed as to the best routes available, which could be the freeway even though uninformed drivers are diverting to surface streets.

During periods of "recurrent" congestion caused by just too much traffic on the freeway, the difference between stop and go conditions and

free flow is only five to ten percent of total traffic. This amounts to about 400 to 800 excess vehicles per hour. When the freeway flow "breaks down", some of this excess traffic currently diverts to surface streets in a random uncontrolled manner, and some traffic that would otherwise get on the freeway stays on surface streets. The Smart Corridor advanced technology will provide a means for controlling these types of traffic redistributions so as not to overload surface streets.

The improved motorist information provided by Smart Corridor will result in some drivers taking other less congested freeways and some drivers deciding to defer their trips until a less congested time of day. The net result will be less peak period traffic congestion in the Smart Corridor.

QUESTION

Won't traffic diverted to surface streets spillover onto local streets in residential areas?

ANSWER

No!

Smart Corridor will allow control of traffic on surface streets so that they operate below capacity. Traffic sensors and remotely controlled TV cameras will be used to constantly monitor surface street traffic conditions.

Spillovers onto local streets currently occur due to the haphazard and uncontrolled diversion of drivers trying to avoid congested conditions on the freeway. With Smart Corridor, drivers will have more accurate up-to-the-minute information about traffic conditions on both the freeway and surface streets. Motorists will not be directed to divert to surface streets that are approaching capacity. When diversion from the freeway does occur, signal timing will be adjusted to prevent overloading intersections near off-ramps.

QUESTION

Won't Smart Corridor result in diversion of more trucks to the surface streets?

ANSWER

No!

Smart Corridor will in all probability reduce the amount of diverted truck traffic on surface streets due to the improved traffic flow on the freeway. Larger trucks usually make longer distance trips and are the

least likely to divert to surface streets. Also, truck drivers prefer the freeway to surface streets. They tend to be familiar with state and national highway networks, but not with local street systems.

QUESTION

Won't Smart Corridor require the City to relinquish control over its streets?

ANSWER

Absolutely not!

In fact, the City will end up with more control over its streets than it currently has. The City will have ATSAC at every signalized intersection in the Smart Corridor. Those intersections will be controlled from the City's ATSAC Operations Center. ATSAC will be able to monitor traffic conditions on a minute-to-minute basis and to immediately respond to surges in traffic demand. The system will also be able to detect any backups onto City streets from existing Caltrans ramp meters and to take immediate remedial actions -- this is not possible today.

Contingency traffic management plans for a large variety of conditions will be pre-approved by all affected agencies. This will provide more City control over corridor traffic management than is currently the case.

QUESTION

As a condition of participating in Smart Corridor, shouldn't the City request long-term funding to cover additional street maintenance costs?

ANSWER

There will be no additional street maintenance costs due to Smart Corridor.

Average daily traffic is expected to remain about the same. Truck traffic will not increase and may decrease slightly.

QUESTION

Won't Smart Corridor require an Environmental Impact Report?

ANSWER

No. A Negative Declaration should be sufficient, since Smart Corridor will improve traffic flow, reduce traffic impacts, and not require acquisition of any right-of-way.

QUESTION

Couldn't the ATSAC System just as well be financed by developer fees in the Smart Corridor?

ANSWER

No.

Most of the Smart Corridor area is not experiencing the level of commercial development required to generate significant developer fees.

The Smart Corridor Project is providing the City with funds which would not otherwise be available for ATSAC construction. Consequently, scarce Capital Improvement funds and developer fees can be used for other traffic mitigation measures.

Without the additional funding, it would be unlikely that ATSAC could be constructed throughout the Smart Corridor area, especially Council District #10, before the year 2002 -- a 10-year delay.

QUESTION

Could the City just build the ATSAC portion of the project and realize most of the project benefits?

ANSWER

No. Instrumentation of the freeway and upgrading of the monitoring and control system to allow Caltrans, the CHP, and the LAPD to quickly respond to traffic problems is an important element of the project. Improved motorist information is another important tool in avoiding traffic congestion as has been repeatedly demonstrated on major projects such as the Olympics. All of these elements must interact with the City's ATSAC system to insure coordination, efficiency and adherence to operating policy agreements.

QUESTION

Will diversion of traffic to City streets prevent future development by absorbing available intersection capacity?

ANSWER

No. Initially, the project will increase the total volume the freeway can handle in the peak hours and will increase the capacity of surface streets. This increase in overall corridor capacity could allow some additional development without adversely affecting traffic flow.

QUESTION

Has anyone else implemented a system similar to Smart Corridor?

ANSWER

The IMIS (Integrated Motorist Information System) has been placed into operation within a 35-mile-long corridor of the Long Island Expressway. IMIS has many of the same functions as the Smart Corridor, but utilizes older technology which was state-of-the-art in the 1970's. Also, in the New York metropolitan area, an intergovernmental agency named TRANSCOM is providing information on congestion and incidents to motorists and the participating organizations.

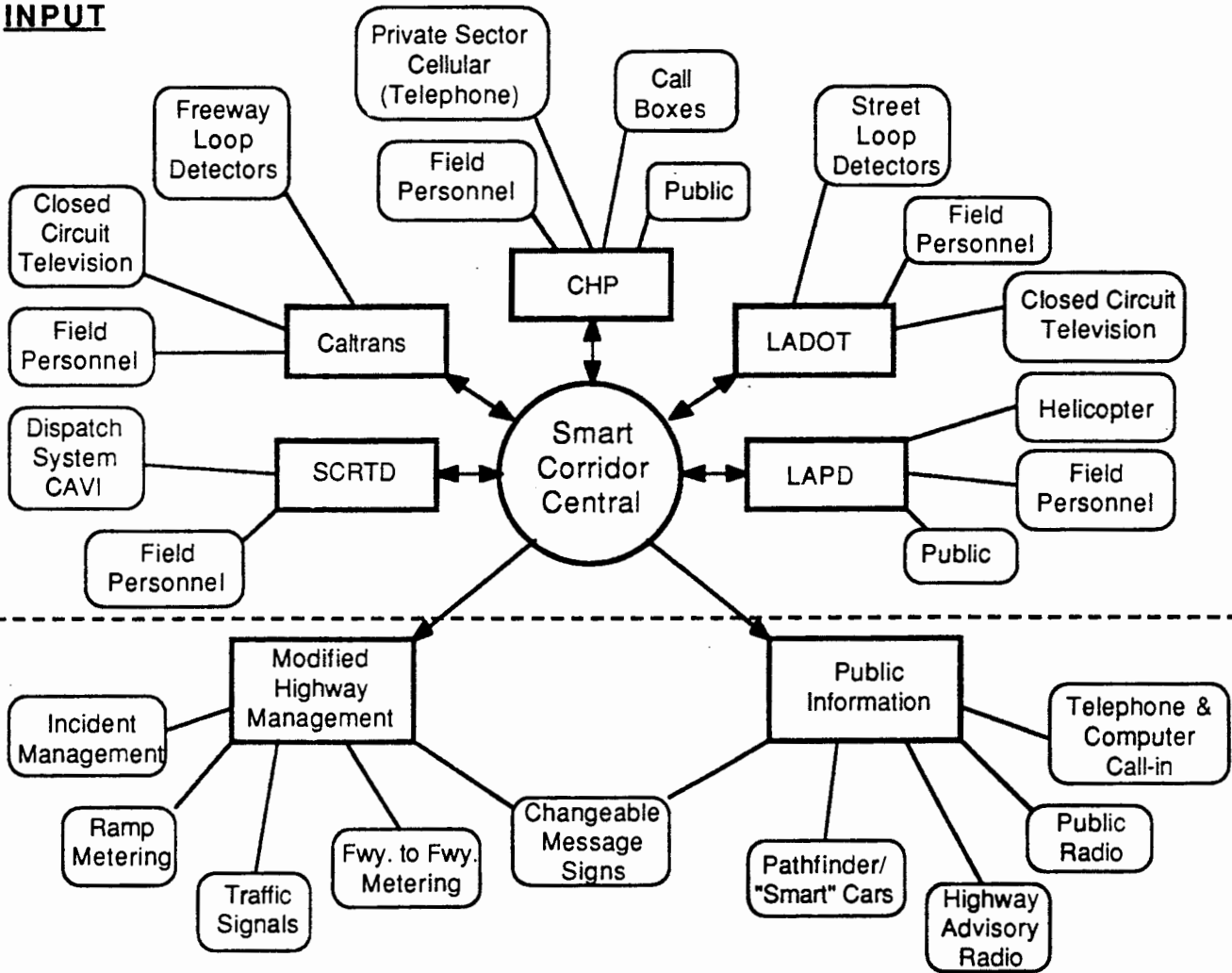
In Houston, Texas, they have just begun work on a 10-year \$96 million program to implement a traffic management system very similar to Smart Corridor. The State of Washington is currently in the early design stage of an advanced traffic management system to be implemented in the Seattle metropolitan area.

Projects in both Europe and Japan are much further advanced than those in the United States. In Europe, the Prometheus project began in 1986 and is a 7-year program with a budget of \$800 million. A related European traffic management project named DRIVE has a budget of \$132 million. Demonstration projects are underway in London and Berlin. Japan also has two very large-scale traffic management and motorist information projects -- AMTICS and RACS. AMTICS is being designed for implementation throughout Japan with the first demonstration project scheduled to begin in 1990.

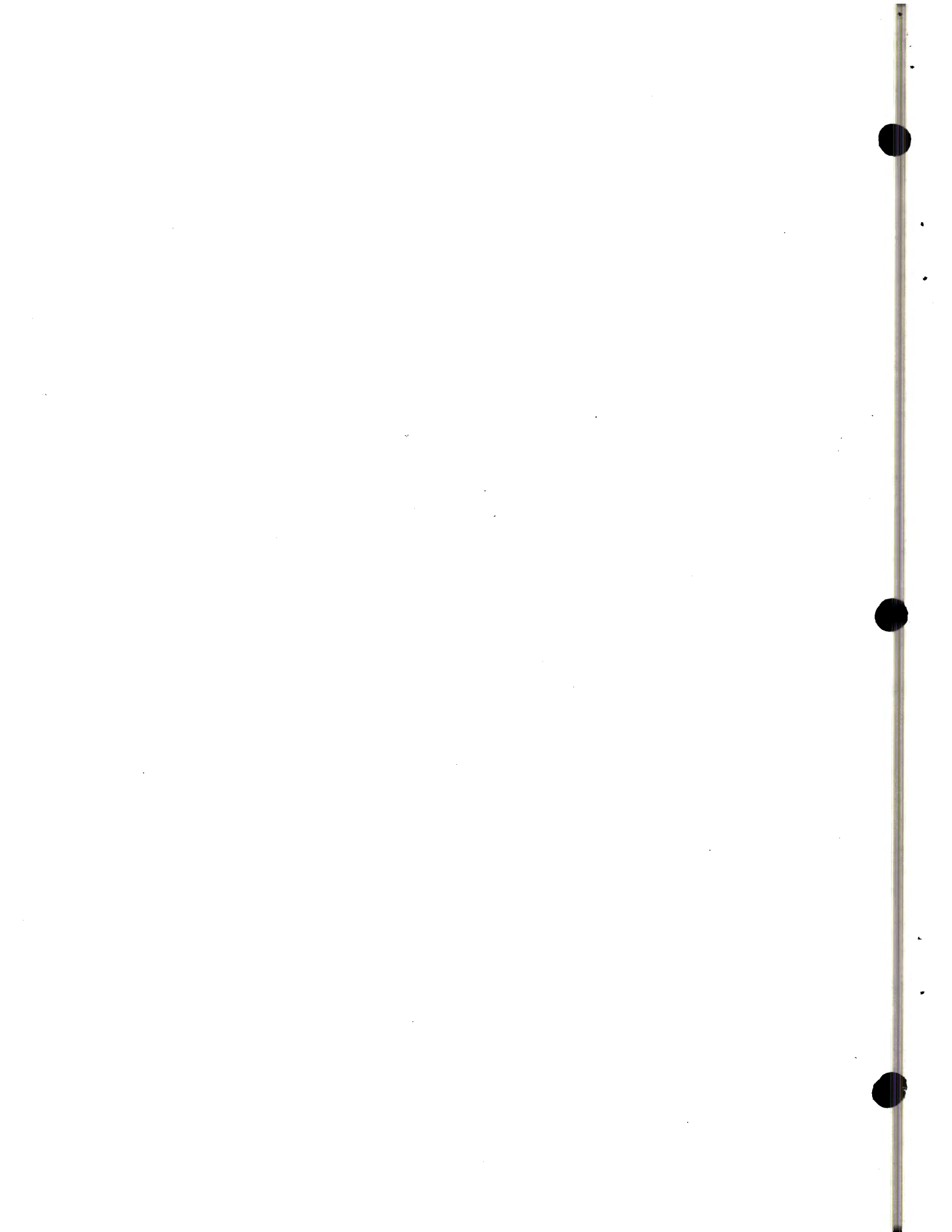
The Europeans and the Japanese are committing large sums to these projects because they see the linkage of "smart vehicles" with "smart highways" as giving them a future competitive edge in the international automotive and electronics markets.

Smart Corridor System Integration

INPUT



OUTPUT



VENTURA COUNTY

Los Angeles Times

FRIDAY, OCTOBER 11, 1996

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Faster Ride en Route for Santa Monica Freeway

■ **Roads:** \$48-million high-tech network linked to nearby streets will help traffic flow more smoothly, officials say.

By RICHARD SIMON
TIMES STAFF WRITER

In what is billed as a freeway for the future, transportation officials today will unveil a "smart corridor" that links high-tech traffic systems on the Santa Monica Freeway and surrounding city streets to help fulfill a commuter's fondest wish: fewer hassles on the nation's busiest roadway.

The \$48-million federal demonstration project will use an assortment of devices, including electronic roadway sensors, TV cameras, freeway-to-freeway ramp meters and changeable message signs. They are designed to help traffic engineers spot problems faster and take steps to relieve congestion by such tactics as guiding freeway motorists to city streets and then adjusting traffic lights to speed their drive.

And, in a city where radio traffic reports every six minutes don't seem frequent enough, commuters now will be able to dial a phone number—from home, work or their car—or tune to a radio station for instant road conditions.

Officials say the smart corridor, under development for several years, could serve as a model for the rest of the nation as traffic engineers focus on better managing what they have, rather than building or expanding highways, because of cost and environmental

and political opposition.

Although the formal dedication is today, commuters may not notice any immediate improvements in their drive time. While much of the system is in place, some elements still must be installed. And engineers emphasize that the project is geared to solving major problems.

Please see **PROJECT, A20**

PROJECT: High-Tech Network

Continued from A1

The sophisticated gadgetry will cover a 65-square-mile area encompassing the Santa Monica Freeway (Interstate 10) and Olympic, Pico, Venice, Adams and Washington boulevards between Soto Street and Centinela Avenue, as well as 15 major cross streets.

Brochures on the project talk about it possibly increasing rush-hour freeway speeds by 5 mph and reducing the average freeway trip by 12%, but the traffic engineers are more cautious, considering that the Santa Monica Freeway is the country's busiest with 335,000 vehicles a day.

But even with its new computer brain, the freeway of the future on some days will still seem like a pain from the past. Officials say the system won't solve all congestion problems but will cut delays between downtown Los Angeles and the Westside.

Traffic officials say that the smart corridor will benefit commuters most when a big accident or unusually heavy congestion occurs on the freeway.

"For the public, it's a little hard

for them to see the improvement," said Tom Conner, assistant general manager of the Los Angeles Department of Transportation. But, he noted, traffic would be even worse if not for the new technology.

"We have termed the system the smart corridor because it will use all these electronic intelligence-gathering devices to help keep traffic moving more quickly," said Larry Zarian, chairman of the Metropolitan Transportation Authority.

Jeff Brooks, deputy regional administrator of the Federal Highway Administration, called the project "the first of its kind in the country. It will help demonstrate the benefits that can be derived from integrating freeway and arterial operations. . . . We think it has a lot of potential not only to reduce vehicular delay but also to decrease energy consumption and pollution."

This will mark the first time that Caltrans' traffic nerve center will be hooked up by computer to the city's Automated Traffic Surveillance and Control war room, allow-

ing the agencies to coordinate their response to problems.

"You have a computer that's watching you as you drive through this area and looking for problems," said Conner. "It's almost like a benevolent Big Brother watching over you."

Here's how it works:

When a truck jackknifes on the freeway at Crenshaw Boulevard, sensors in the pavement signal to the control centers—with beeping computers and a red light flashing on a map—that the freeway is slowing.

The incident manager at Caltrans' center in downtown Los Angeles can rotate the TV cameras and zoom in to check out the trouble. The manager will then put into the computer an estimated duration of the lane blockage.

Within seconds, the computer recommends a course of action, such as advising motorists that they should use the parallel city streets.

Then, with a click of a mouse, traffic engineers at both centers institute countermeasures, which can include making motorists wait

Unveiled on the Santa Monica Freeway

longer at freeway onramps to discourage them from entering the freeway and extending the green time on the traffic lights on city streets.

Drivers steered off the freeway will be guided through city streets and back to the freeway by what are called trailblazer signs.

The smart corridor was patterned after the traffic triumph of the 1984 Olympics, when officials used a number of measures to avoid the nightmare of congested streets by installing computer-controlled traffic signals around the Coliseum.

This will be the latest in a string of new transportation projects undertaken in Southern California in recent years, including the nation's first fully automated toll road on the Riverside Freeway in Orange County, an automated highway test in San Diego County and elevated carpool lanes on the Harbor Freeway in Los Angeles.

Traffic officials will evaluate the smart corridor project for two years before submitting findings to the Federal Highway Administration.

The state is providing \$26.4 million, the federal government is contributing \$17.3 million and Los Angeles, Beverly Hills, Culver City, Santa Monica and the MTA are chipping in \$4.3 million for the project.

Some of the congestion-fighting devices—such as in-road electronic sensors and TV cameras—have been in place on roads for years. Others won't be up and running for a few months.

The phone number—(213) 89-SMART—and freeway radio station 1620 AM are in service. A radio station providing traffic conditions for the city streets is expected to be in operation in about a month on 1510 AM.

Among features not yet working are the metered connectors between freeways. They will control traffic from both directions of the Harbor Freeway to the westbound Santa Monica Freeway and from both directions of the San Diego Freeway to the eastbound Santa Monica Freeway.

But this feature, already in use on the Century Freeway, has irritated some drivers who say it

delays their commute.

Caltrans engineers, however, insist that commuters will benefit from the meters.

"By controlling the amount of people entering from the 405 [San Diego Freeway], for instance, we can control the amount of congestion on that stretch of the Santa Monica," said Dick Murphy, a Caltrans supervising transportation engineer.

"The time you lose at the meter can be made up by the time you gain from the meter on down the freeway," he said.

Transportation officials say the intent is not just to shift congestion from the freeway to the streets.

"We are very sensitive to citizen concerns that we are going to put more traffic on the surface streets," said city transportation engineer Verej Janoyan.

"That will not happen. . . . Right now, we we don't have control over our surface streets. With this project, we will gain that control. We will know how much extra traffic is coming on the surface street network. We will designate where that traffic goes."

The Smart Corridor

A new traffic management system extends along the Santa Monica Freeway and surrounding surface streets. Sensors and cameras feed information to a command center, below left, which then uses a sophisticated computer system to guide motorists to faster routes.



KEN HIVELY/Los Angeles Times

THE SYSTEM INCLUDES:



Metered transitions: Traffic lights will control the flow of cars between freeways.



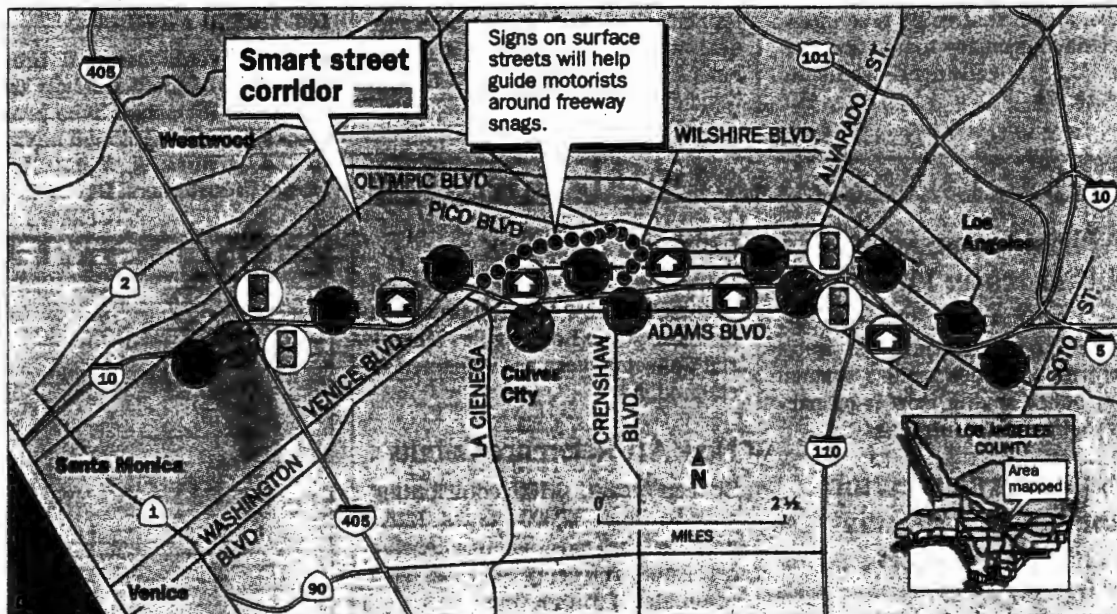
Radio reports: Special channels (1510 and 1620 AM) give traffic updates.



Special signs: Electronic signs suggest alternate routes and guide motorists through them.



Cameras: Closed-circuit video gives command center instant information.



Sources: Caltrans, L.A. Department of Transportation, MTA





The Smart Corridor

A new traffic management system extends along the Santa Monica Freeway and surrounding surface streets. Sensors and cameras feed information to a command center, below left, which then uses a sophisticated computer system to guide motorists to faster routes.



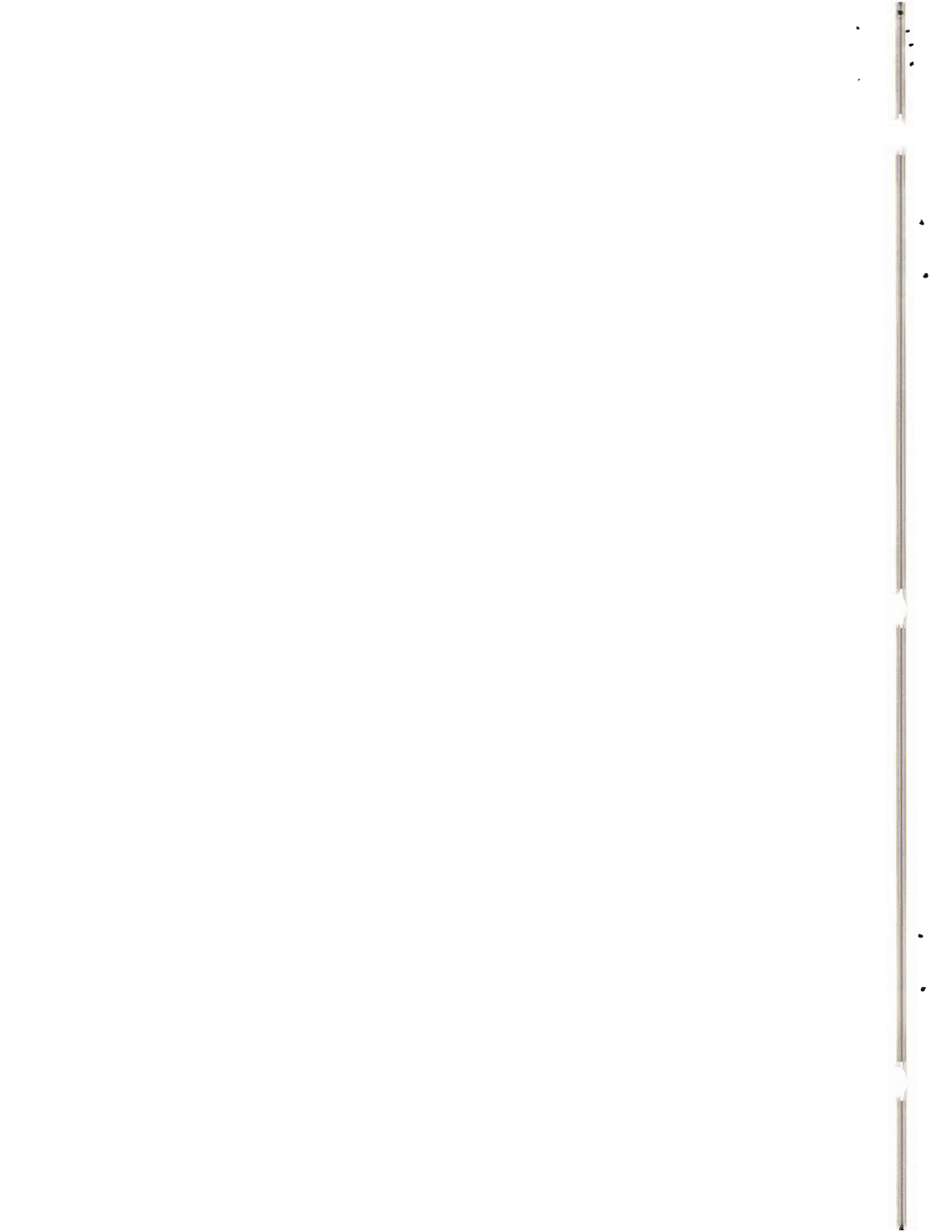
KEN HIVELEY/Los Angeles Times

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Sources: Caltrans, L.A. Department of Transportation, MTA



'Smart corridor' to debut

Sensors to track 10 Freeway

By David Bloom

Daily News Staff Writer

Driving the Santa Monica Freeway should get a lot easier beginning today with a new "smart corridor," a computerized system of road sensors, cameras and traffic lights to control congestion.

The system is designed to speed the process of detecting accidents and other slowdowns, dispatching emergency vehicles, setting up detours, re-timing street lights, and warning drivers, said Shahrzad Amiri, the project manager for the Metropolitan Transportation Authority.

The result should be shorter and smaller traffic jams for motorists traveling between Santa Monica and East Los Angeles, a stretch of 15 of the nation's busiest miles of highway, said Verej Janoyan, a senior transportation engineer in the Los Angeles Department of Transportation.

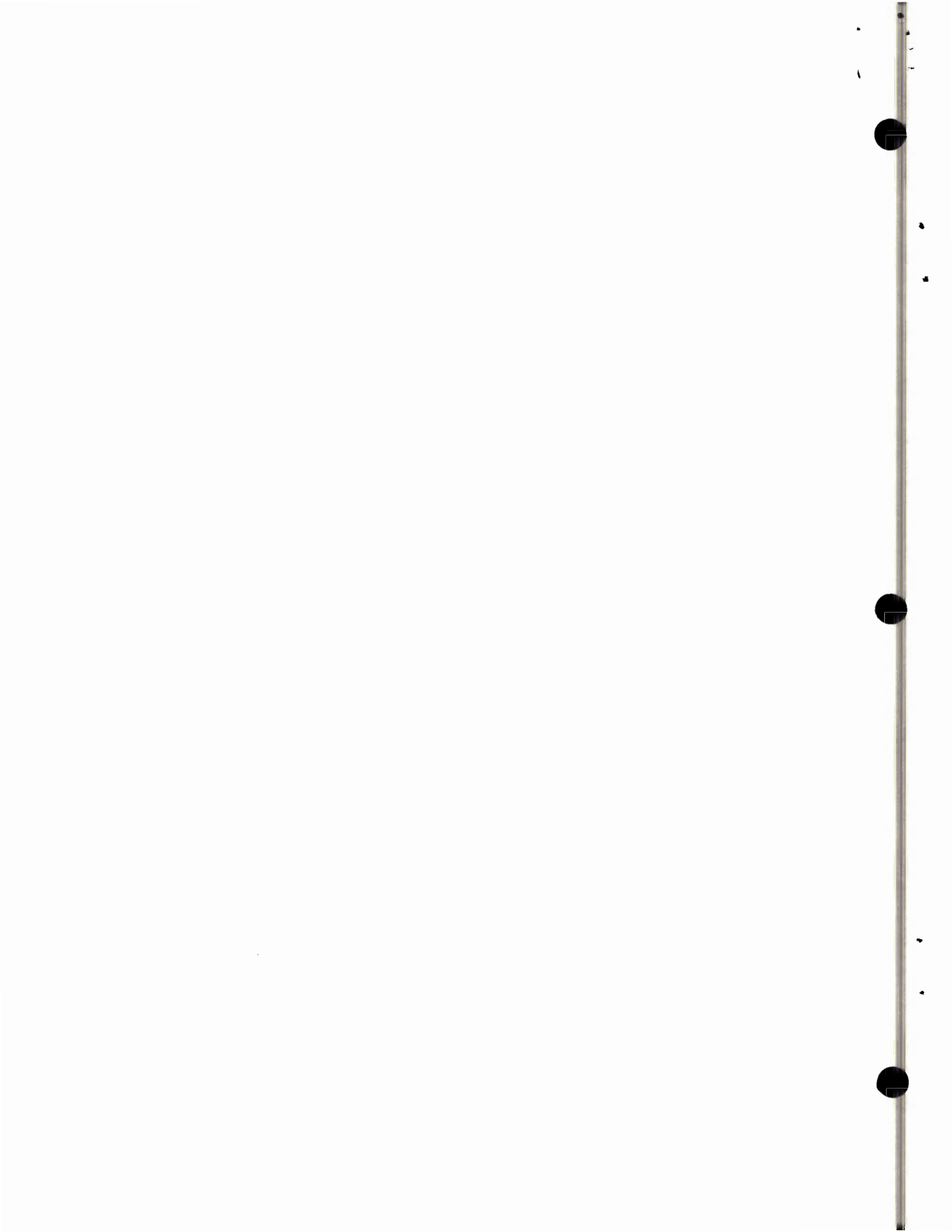
The newly coordinated computer systems also will govern traffic on five parallel surface streets — Washington, Pico, Olympic and Jefferson boulevards and Venice Avenue — and 18 north-south roads that cross them, Janoyan said.

The system will control 639 traffic lights and more than 2,300 street sensors, along with 44 video cameras designed that let traffic operators remotely check on the cause of a slowdown.

In a ceremony downtown scheduled for today, officials from the nine participating agencies will kick off the first stage of a demonstration of the smart corridor project that will last up to two years.

If all goes well, the concept probably will be applied next to the San Fernando Valley, along the Ventura Freeway and parallel major streets, Janoyan said.

There, the city and the California Department of Transportation gradually have built in many of the sensors, cameras and other gadgets that comprise the system's main costs, said Dick Murphy, a supervising transportation engineer for Caltrans. The final step would be integrating state and city computer systems there, and adapting the computer software created for the Santa Monica Freeway project.



Corridor Gets 'Smart'

High-Tech Traffic Project Opens This Friday on 10 Freeway

by Jon Regardie

It is not a benefit instantly noticeable, like, say, an extra lane on the freeway. But as the Santa Monica Freeway Smart Corridor project revs into life this Friday, officials say it could save every driver on the nation's busiest highway, and on surrounding thoroughfares, time and money.

A demonstration project designed to capitalize on the latest traffic technology, the \$48 million Smart Corridor unites traffic man-

DAILY COMMUTE

agement systems now independently operated by the City Department of Transportation (DOT) and Caltrans, the State highway agency. If all goes according to plan, drivers on the 17.3 mile stretch of the 10 Freeway, between the 110 and the 405 freeways, will shave 11-15 percent off their total transit time. Travelers on the principal parallel routes—Washington, Venice, Pico, Olympic and Adams boulevards—will enjoy an estimated 20 percent decline in intersection delays and a 35 percent reduction in the number of vehicles stopped at intersections. Besides improving air quality through lowered fuel emissions, the reduced time, maintenance and fuel consumption will save Los Angeles motorists between \$24 million and \$32 million a year.

"We want to operate this whole corridor on a single traffic-management concept," said Richard Murphy, a supervisor transportation engineer with Caltrans. "In the past there has been no direct tie between what happens on

the city streets and on the freeway."

The Smart Corridor uses a central computer to unite various traffic systems. Caltrans has long been able to monitor freeway traffic through "loops" under the concrete and thereby adjust ramp meters. At the same time the DOT has adjusted traffic light cycles based on the amount of cars using the thoroughfares.

The Smart Corridor, says Murphy, provides the computer hardware and software necessary to monitor and adjust both at once. When a problem occurs, the computer

comes up with a management plan for the integrated system. Ramp meters, traffic lights, electronic signs on the freeway and street and other means will notify motorists of the problem, and detour them around the incident area without creating gridlock.

"Some of the infrastructure, like the meters and signs, have been there before," said Shahrzad Amiri, project manager for the Metropolitan Transportation Authority (MTA), which helped secure funds and acted as a coordinator between Caltrans, DOT and other agencies. "What is different now is synchronization."

Western Ave. Mess

Pretend, for example, that you are leaving Downtown at 5:30 p.m., driving westbound on the 10. Out of nowhere a truck collides with a Mercedes and a Hyundai. The accident blocks two lanes.

Within 30 seconds, says Murphy, a red light will flash on a map in the Smart Corridor computer room at 120 South Spring Street. Officials then turn on a camera—they are placed each mile on the freeway, says Murphy—and verify the incident. The information is entered into the computer.

Within moments the computer will come up with a plan for the whole corridor, said Murphy. Signs will warn motorists of the accident. Meters east of Western Ave. will limit the number of cars merging onto the freeway. In the effort to reduce the backup, the computer will change the cycles at traffic lights on parallel streets.

A further advantage, said Murphy, is quicker emergency vehicle response time. Ambulances or the CHP are dispatched sooner, and the instantaneous traffic shifts will get them to the incident faster.

\$48 Million Smartly Spent?

Drivers stuck at signals on the 10 Freeway access road—signals that until now have been sitting idle for over two years—may wonder if the Smart Corridor project is worth its \$48 million price tag.

The project is partly run by Caltrans, the state transportation mega-bureaucracy that has taken criticism for design flaws on the new and expensive 105 Freeway and for its relatively new and also

FREEWAY DOLLARS

expensive "Accident Inspection Sites" that are mostly accident-free. Caltrans' partner is the MTA, no stranger to cost overruns.

But MTA Project Manager Shahrzad Amiri stresses that despite possible first impressions, the \$48 million cover more than some cameras, freeway signals and computer software. Millions of dollars in construction costs are involved.

Also important, she says, is the project's demonstration status. The links will be turned on incrementally and analyzed over the next two years. Working on arguably the nation's busiest freeway

(10,000 cars per hour in each direction during rush hour, reports one study) could pave the way for a countywide or even nationwide system of Smart Corridors.

"It has to be looked at for what it will do for the corridor. For the motorist it will be very positive," Amiri said. "But it also has to be looked upon as this is one step of using the resources we have. It is a new way of thinking."

The fiber-optic project is 55 percent State funded (about \$26 million), with 36 percent government financing and nine percent local dollars.

Besides freeway and street signs, commuters will learn of traffic travails by calling the Smart Corridor Road Info Line—(213) 89-SMART—or checking updates on an Internet location. Traffic advisories will broadcast on special freeway radio stations, AM 1510 or 1620 depending where on the corridor you are.

Amiri says flyers will arrive in the periodicals of some Downtown companies in the effort to spread the word.

Saturday, Oct. 12, 1996 EC The Star

Traffic system will get tough test

LOS ANGELES (AP) — A section of the nation's busiest highway will be the test site for a new traffic flow system that some engineers say could cut the average commute time by 12 percent.

Calling it the "smart corridor," the system uses metering lights and TV cameras on a section of Interstate 10 and surrounding streets to feed traffic flow information to the California Highway Patrol, according to state and city transportation officials.

When an accident occurs, the system will show its location and, within minutes, show alternate routes and adjust the meter and

traffic lights for the flow of vehicles.

"We're going to be able to divert (traffic) around emergencies, keep it flowing and therefore help us to manage traffic better," said CHP spokesman Ed Gomez.

The system will cover a 65-square-mile area including I-10 and Olympic, Pico, Venice, Adams and Washington boulevards between Soto Street and Centinela Avenue, as well as 15 major cross streets.

It has been touted as possibly increasing rush-hour freeway speeds by 5 mph and reducing the average freeway trip by 12 per-

cent. However, traffic engineers are more guarded in their predictions, considering that the Santa Monica Freeway is the country's busiest with 335,000 vehicles a day.

Officials caution that the system won't solve all congestion problems but will cut delays between downtown Los Angeles and the west side.

The system will mark the first time that Caltrans' traffic nerve center will be linked by computer to the city's Automated Traffic Surveillance and Control room, allowing the agencies to coordinate responses to tie ups.

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