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TECHNOLOGY APPLICATIONS FOR TRANSPORTATION MANAGEMENT:

OUR GOAL IS TO PROVIDE INNOVATIVE TECHNOLOGY SOLUTIONS TO MAKE SAFER, COORDINATED, AND EFFICIENT ROADWAY SYSTEMS.

- ACTIVE TRAFFIC MANAGEMENT (ATM)
- INTEGRATED CORRIDOR MANAGEMENT (ICM)
- CONNECTED AND AUTONOMOUS VEHICLES (CAV)

PROJECTS UNDERWAY:

- ARROYO SECO PARKWAY (SR-110) PROJECT
- McCLURE TUNNEL SAFETY ENHANCEMENT AND QUEUE WARNING SYSTEM (QWS) PROJECT
- CONNECTED VEHICLES RESEARCH STUDY WITH UCLA
- SOUTH BAY/LAWA SUB-REGIONAL INTEGRATED CORRIDOR MANAGEMENT (SRICM) FRAMEWORK
- SOUTH BAY AMS AND DSS
- I-210 CONNECTED CORRIDOR
- I-405 DCRMS/DSS PROJECT

I-210 CONNECTED CORRIDOR (CC) ARTERIAL SYSTEMS IMPROVEMENTS

Bluetooth Installations for City of Arcadia	Bluetooth Installations for Pasadena, Monrovia, Duarte, LAC	Install New Controller Cabinets for Cities of Pasadena and Arcadia	Comm. Upgrades for Monrovia and Duarte, and LAC	Firmware, Timing Plan and Controller Upgrade	New Video System
Advanced Traveler Information Systems	Environmental Impact Evaluation and ODS Development	Data Comm Module & Video Detection Software Upgrade	C2C Interface between LA County and CC's I-210 DSS	C2C Interface between Pasadena and CC's I-210 DSS	I-210 CC Procurement Support

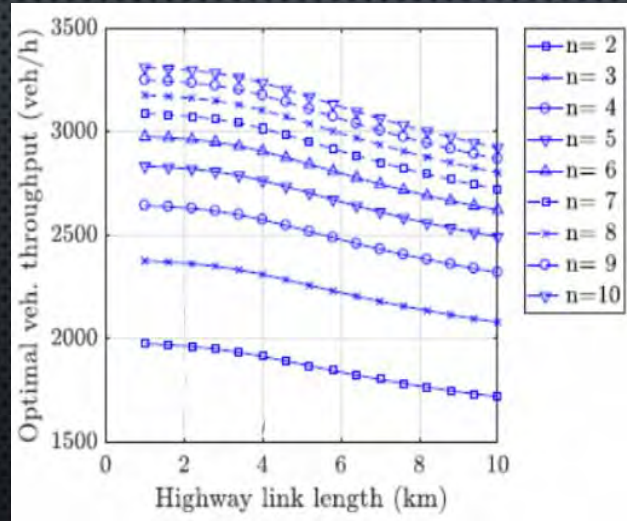
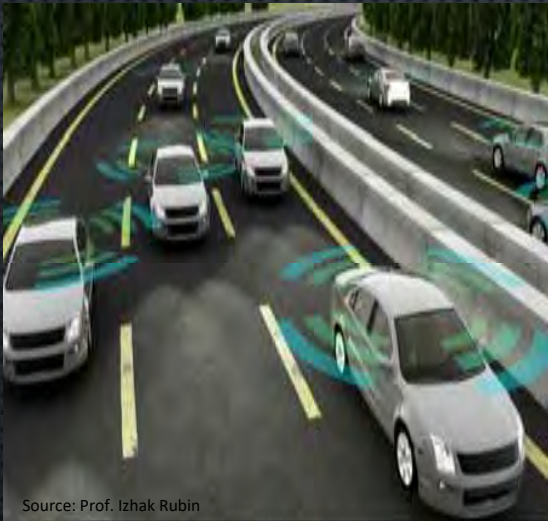
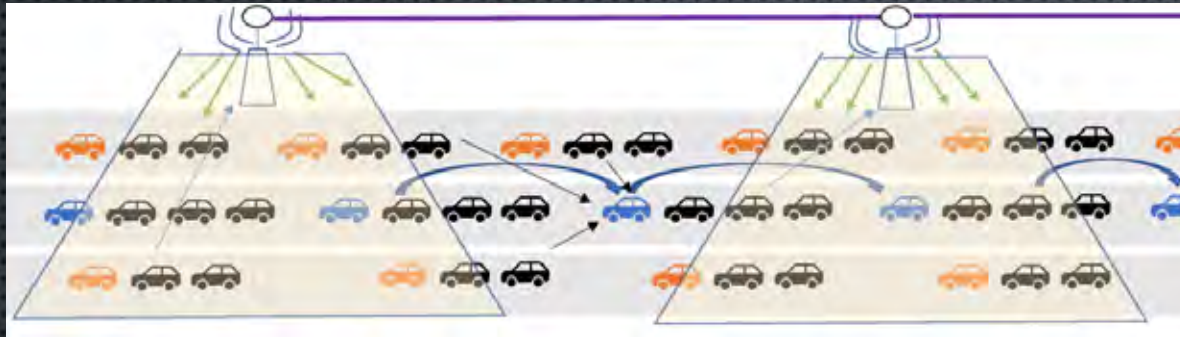
- CONSISTS OF SEVERAL SYSTEMS CONSULTING SERVICES WHICH WILL IMPROVE REGIONAL ARTERIAL TRAFFIC FLOWS IN COORDINATION WITH FREEWAY CONGESTION MANAGEMENT BY DEPLOYING A SYSTEM TO ENHANCE OPERATIONS AND PROVIDE REAL-TIME TRAVELER INFORMATION.



Source: Kimley-Horn

Active Traffic Management (ATM)

- HISTORICAL ARROYO-SECO PARKWAY:
 - CULTURAL, AND ENVIRONMENTAL IMPACTS, TYPICAL STANDARD SOLUTIONS DON'T WORK.
 - INADEQUATE ACCELERATION/DECELERATION DISTANCE ASSOCIATED WITH ON AND OFF-RAMPS
 - HIGH RATES OF ACCIDENTS ATTRIBUTED TO GEOMETRIC CONSTRAINTS
- TYPICAL ATM STRATEGIES:
 - HARD SHOULDER RUNNING
 - FLEX LANE
 - REDUCED SPEED LIMIT
 - RAMP MODIFICATIONS



CONNECTED AND AUTONOMOUS VEHICLES (CAV)

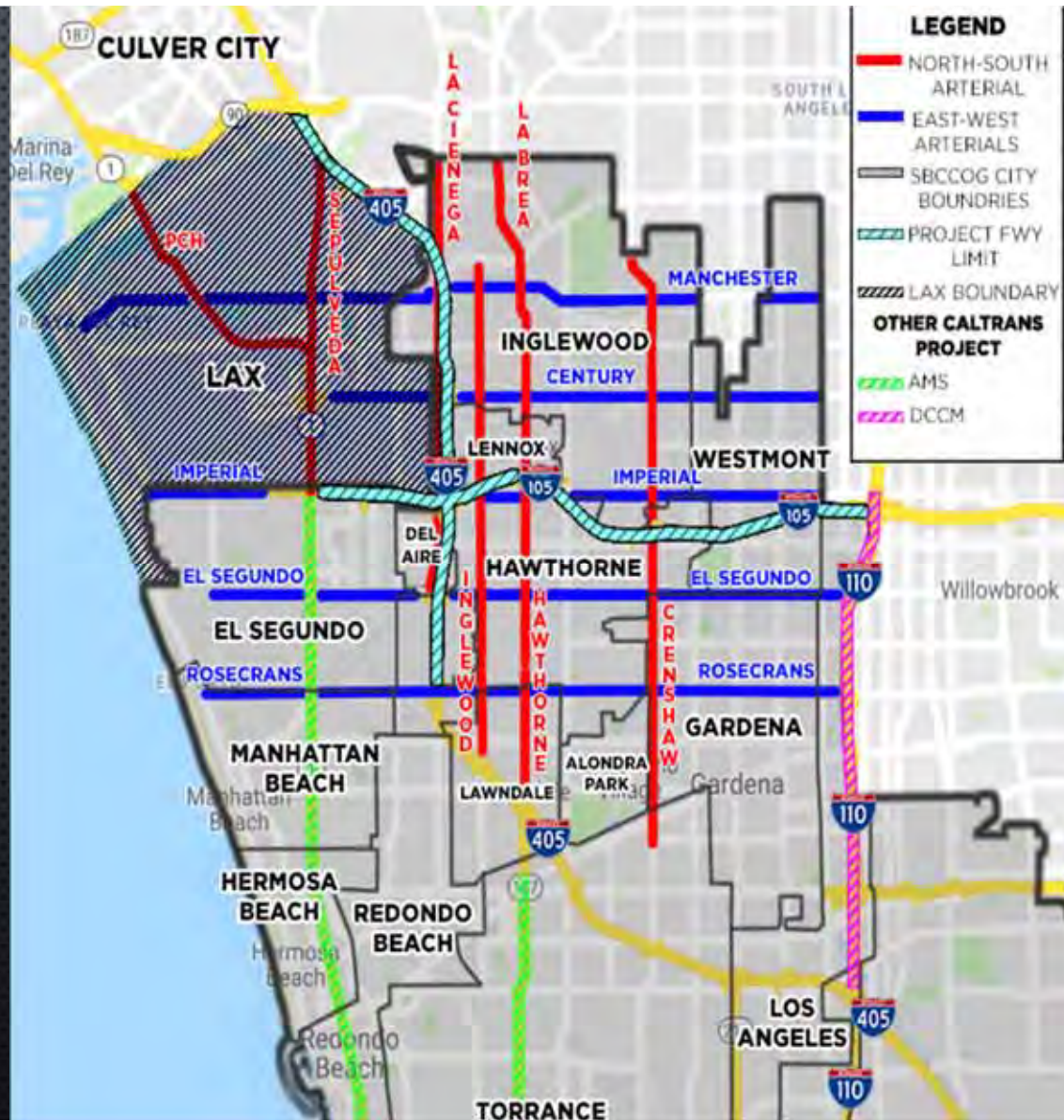
- TIGHT REGULATION AND SYNCHRONIZATION
- RAPID ADAPTATION FOR SAFETY
- CALTRANS IS CURRENTLY SUPPORTING VEHICLE-TO-VEHICLE (V2V) AND VEHICLE-TO-INFRASTRUCTURE (V2I) RESEARCH
- OPTIMISTIC FUTURE PREDICTIONS: 3000 AUTONOMOUS VEHICLES/HOUR THROUGHPUT AT OPTIMAL VELOCITIES.*

SUB-REGIONAL INTEGRATED CORRIDOR MANAGEMENT (SRICM)

- CALTRANS IS PROPOSING TO DEVELOP A SUB-REGIONAL INTEGRATED CORRIDOR MANAGEMENT (SRICM) SYSTEM AIMED AT EFFECTIVE AND EFFICIENT MANAGEMENT OF SPECIAL EVENTS AND INCIDENTS AND RELIEVING BOTH RECURRING AND NON-RECURRING CONGESTIONS ALONG INTERSTATE 105 (I-105)/ INTERSTATE 405 (I-405).
- THIS SYSTEM WILL UTILIZE ATM STRATEGIES TO OPTIMIZE FREEWAY SYSTEM OPERATIONS AND WILL ENABLE INTEGRATED CORRIDOR MANAGEMENT TO EFFECTIVELY MANAGE TRAVEL AND TRANSPORTATION DEMAND ON THE AFOREMENTIONED CORRIDORS THAT PROVIDE MAJOR ACCESSES TO AND FROM THE LOS ANGELES INTERNATIONAL AIRPORT (LAX), AND THE CITY OF INGLEWOOD ENTRAINMENT CENTER

PROPOSED IMPROVEMENTS:

- DEVELOP A CENTRAL DECISION SUPPORT SYSTEM (DSS)
- INTEGRATES SYSTEM INTERFACE TO EACH CITY/COUNTY TRAFFIC SIGNAL CONTROL (TSC) SYSTEM AND TO THE DSS FOR CENTRALIZED MANAGEMENT
- DESIGN/DEVELOP A SUB-REGIONAL COMMUNICATION NETWORK TO SUPPORT THE IMPLEMENTATION
- UPGRADE EXISTING SIGNAL CONTROLLERS, LOOP DETECTORS AND VEHICLE DETECTION SYSTEMS (VDS) AT VARIOUS ON AND OFF RAMPS, FREEWAYS AND ARTERIALS
- INSTALL ADDITIONAL TRAVEL INFORMATION SYSTEMS

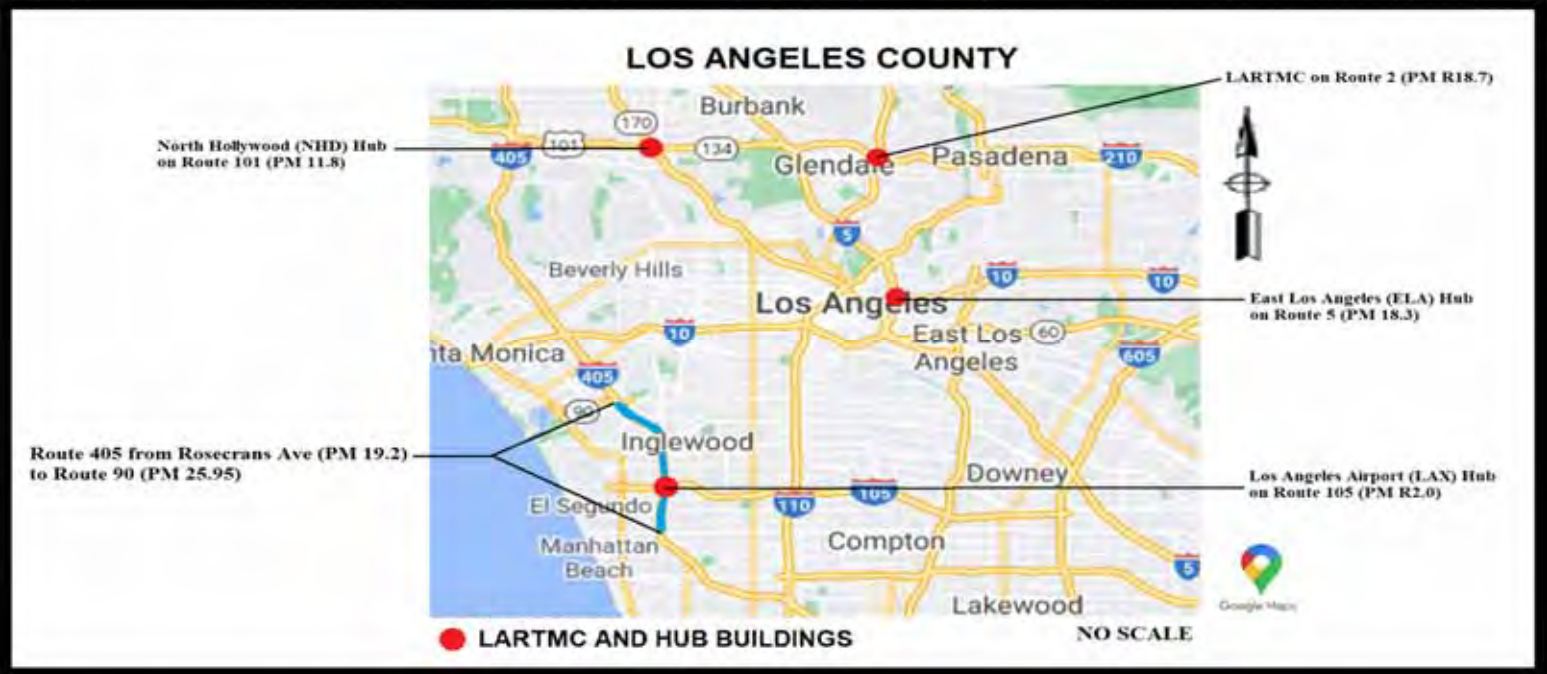


PROJECT PURPOSE

- MAXIMIZE CORRIDOR WIDE SYSTEM PERFORMANCE ON ROUTE 405 FROM ROSECRANS AVENUE (PM 19.2) TO ROUTE 90 (PM 25.95)
- MAKE FULL USE OF THE FREEWAY SYSTEM CAPACITY TO ADDRESS THE CONGESTION INCREASE BY DEPLOYING ACTIVE TRAFFIC MANAGEMENT (ATM) AND INTEGRATED CORRIDOR MANAGEMENT (ICM) STRATEGIES
- INSTALL NEW AND UPGRADE EXISTING TRANSPORTATION MANAGEMENT SYSTEM (TMS) WITH LIFE CYCLE REPLACEMENTS FOR THE TMS FIELD ELEMENTS TO ENSURE THE CORRIDOR IS IN OPERATIONAL AND MONITORING CONDITION



PROJECT AREA MAP



PROPOSED TYPICAL GANTRIES

