

# TECHNOLOGY, INFORMATION & COMMUNICATIONS COMMISSION

Regular Meeting

July 1, 2020 7:00 p.m.

Teleconference Meeting without a Location

## APPROVED MINUTES

### CALL MEETING TO ORDER

Chair Mohanty called the meeting to order at 7:09 pm

### ROLL CALL

Commissioners Present: Prabir Mohanty, Naidu Bollineni, Mukesh Garg, Rajaram Soundararajan, Eliza Du, Ph. D.

Commissioners Absent: None

Staff Present: Bill Mitchell, Staff Liaison  
Brian Babcock, Communications Officer  
David Stillman, Traffic Manager  
Marlon Aumentado, Associate Engineer

Speakers: Nori, Resident  
Ilango Ganga, Bicycle and Pedestrian Commissioner

### APPROVAL OF MINUTES

#### 1. Subject: Approve Minutes from the June 12, special meeting.

Commissioner Soundararajan made a motion to approve the Minutes. Commissioner Bollineni second the Motion. Motion passed unanimously.

### ORAL COMMUNICATIONS

This portion of the meeting is reserved for persons wishing to address the commission on any matter not on the agenda. Speakers are limited to three (3) minutes a person. In most cases, state law will prohibit the commission from making any decisions with respect to a matter not listed on the agenda.

- A. *Cupertino Resident Nori spoke regarding Agenda Item no. 6.4 Education. Nori recommended the Virtual Workshops being planned address health concerns, measurement method, calculations, and comparison of Emission with other Countries. Additionally, she suggested speakers be unbiased.*

## WRITTEN COMMUNICATIONS

### A. None

## NEW BUSINESS

### 2. Subject: CREST Award Nominee

Communication Officer Babcock proved background on the Crest Awards.

Commissioner Bollineni made a motion to bring back the Business item to the August meeting. Commissioner Soundararajan second the motion. Motion passed unanimously.

### 3. Subject: Receive Traffic Signal Infrastructure Presentation from the Traffic Division

Traffic Manager Stillman introduced Associate Engineer Aumentado.

Mr. Aumentado presented the Traffic Signal Infrastructure PowerPoint, attached for the record.

He discussed the following:

- Existing Infrastructure
  - City operates and Maintains 60 Traffic Signals
  - Of those 60, 8 Traffic Signals are owned by CalTrans
- Traffic Signal Vehicle Detection Loops
  - Detect Vehicles passing or arriving at a certain point in the roadway
  - Vehicle Detection Loops: 39 Locations
  - Video Detection Cameras: 14 Locations
  - Both Loop and Video Detection: 7 Locations
- Traffic Operations Center (TOC)
  - **52 Traffic signals** communicate back / forth via Fiber Optic Network
  - Program detects and reports signal status, malfunctions, and failures in real time
  - Able to test and adjust traffic signal timing parameters
- Video Detection Cameras
  - *Video cameras detect traffic, and the images are digitized, processed and converted into traffic data*
- Econolite, Iteris, and Traficon
- Adaptive Traffic Control System

- Traffic Management strategy in which Traffic Signal timing changes, or adapts, based on actual Traffic demand

Bicycle and Pedestrian Commissioner Ganga inquired about:

- Video Detection for Bicycle and Pedestrians,
- Capability of sending data collected real time to TOC,
- Possibility of procuring Detection software in the future,
- Would software be compatible with Data Analytics offered by Cloud Providers such as Google, Microsoft, etc.
- Software upgrades as part of the Work Plans

Associate Engineer Aumentado confirmed Video Detection of Bicycle and Pedestrians is possible however the Module is not procured by the City. In terms of sending data collected to TOC, it will not be valuable since it does not change year to year unless there is new development that congests Traffic.

Transportation Manager Stillman stated that the Software Upgrades that are part of the Work Plan will bring communications to the traffic signals that are not communicating back to TOC. Regarding Data Analytics, the City is using its own Traffic Control system.

The Commission thanked Mr. Stillman and Mr. Aumentado for the Presentation.

#### **4. Subject: Guidance on Commission Work Programs**

Staff liaison Mitchell reviewed the Guidance on Commission Work Programs FY2020-21.

Staff Liaison Mitchell addressed the following:

- Role of Commission
  - Advise Council on Policy
- Role of commission Staff liaison
- Overview of the Process

The Commission accepted the Guidance document and agreed on finalizing the Work Plan and forwarding to Council no later than July.

#### **OLD BUSINESS**

##### **5. Subject: Review FY21 TICC Work Plan.**

Staff Liaison Mitchell reviewed the FY21 TICC Work Plan.

He provided an update on Item No. 6, Wireless Master Plan, stating it is in the Draft review phase. Mr. Mitchell announced the Project team will have the Final master Plan ready by the end of the Month.

The Commission agreed to establish a Subcommittee for the Cloud based Platforms consisting of Chair Mohanty and Commissioner Du.

Commissioner Du made a motion to the FY21 Work Plan. Commissioner Bollineni second the motion. Motion passed unanimously.

## **6. Subcommittee Reports**

*Staff Liaison Mitchell and the Commissioners provided an update:*

- **Climate and Conservation**

Commissioner Garg presented a PowerPoint to the Commission.

- The PowerPoint addressed:
  - Pollution
  - Conservation
  - Measurements
  - Critical Data Delivery
  - Smart Watering
  - Electricity Conservation
  - Solar Street Lights
  - Benefits

- **Traffic and Video**

- Commissioner Bollineni discussed:
  - Challenges
  - Technical Strategy
  - Output
  - Timeline

- **Wireless and Fiber Optics Master Plan**

Staff Liaison Mitchell relay the Wireless Master Plan timeline. Commissioner Du provided an update.

- **Education**

Commissioner Bollineni mentioned he and Commissioner Soundararajan have not retained Subject Matter Expert who will willingly commit to a Presentation.

## **STAFF AND COMMISSION REPORTS**

### **1. Subject: Commissioner Report from the Mayor's Meeting**

Chair Mohanty stated the Mayo's Meeting has been pushed to July 10.

**10. Subject: Review Action Items List**

The Commission reviewed the Action items List.

**11. Subject: Review Activities Calendar.**

The Commission reviewed the Activities Calendar.

**12. Commissioner Updates**

General comments provided.

**ADJOURNMENT**

Commission Du made a motion to adjourn at 9:43 pm. Commissioner Garg seconded the motion. Motion passed unanimously.

SUBMITTED BY:

*/s/ Marilyn Monreal*

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Marilyn Monreal, Recording Secretary

APPROVED BY:

*/s/ Prabir Mohanty*

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Prabir Mohanty, Chair

**Attachment A: Traffic Signal Infrastructure PowerPoint**

# Traffic Signal Infrastructure

Transportation Division



**CITY OF  
CUPERTINO**

Marlon Aumentado  
David Stillman

# Existing Infrastructure

- City operates and maintains **60 Traffic Signals**
  - **8 Traffic Signals** owned by Caltrans
- Traffic Signal Vehicle Detection
  - Vehicle Detection Loops
    - 39 Locations
  - Video Detection Cameras
    - 14 Locations
  - Both Loop and Video Detection
    - 7 Locations

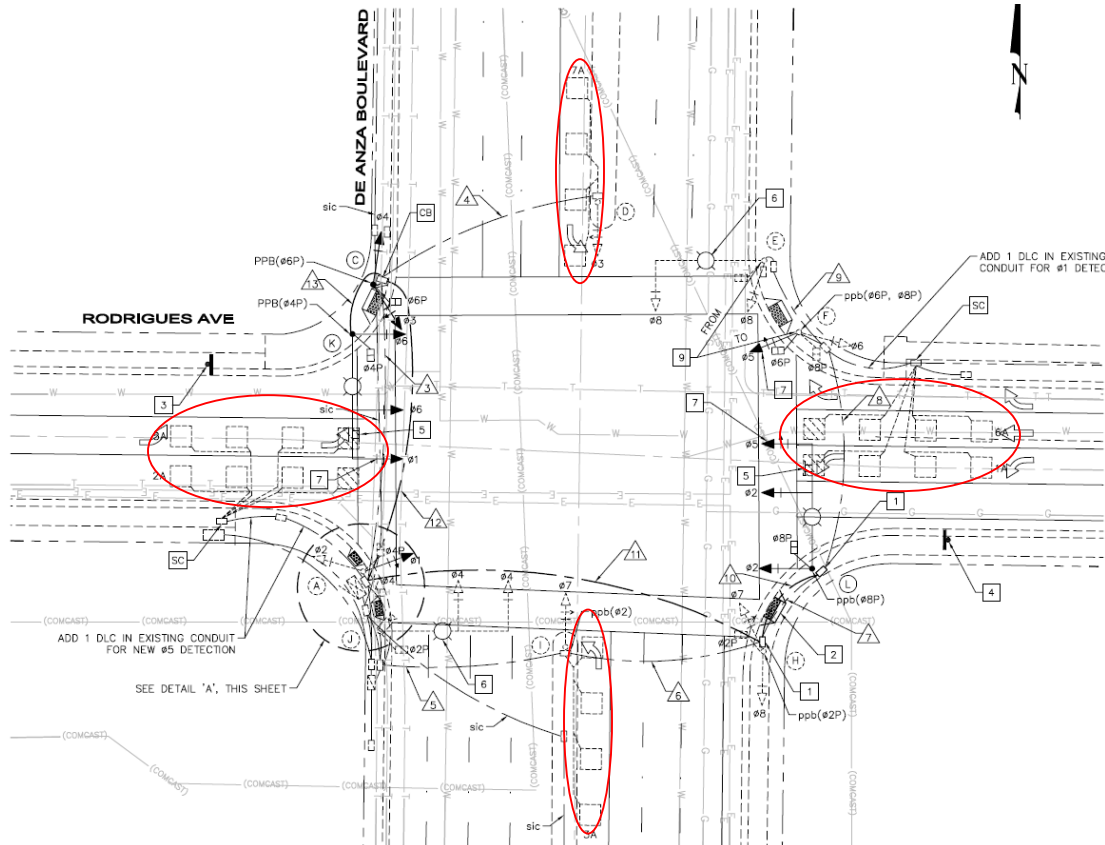
- Franco Traffic Operations Center
  - **52 Traffic signals** communicate back / forth via Fiber Optic Network
  - Program detects and reports signal status, malfunctions, and failures in real time
  - Able to test and adjust traffic signal timing parameters



# Vehicle Detection Loops

- Detect vehicles passing or arriving at a certain point in the roadway
- Pavement invasive
- Can provide basic traffic parameters (e.g. volume, speed, gap, etc.)
  - City currently does not have this software capability

# Vehicle Detection Loops



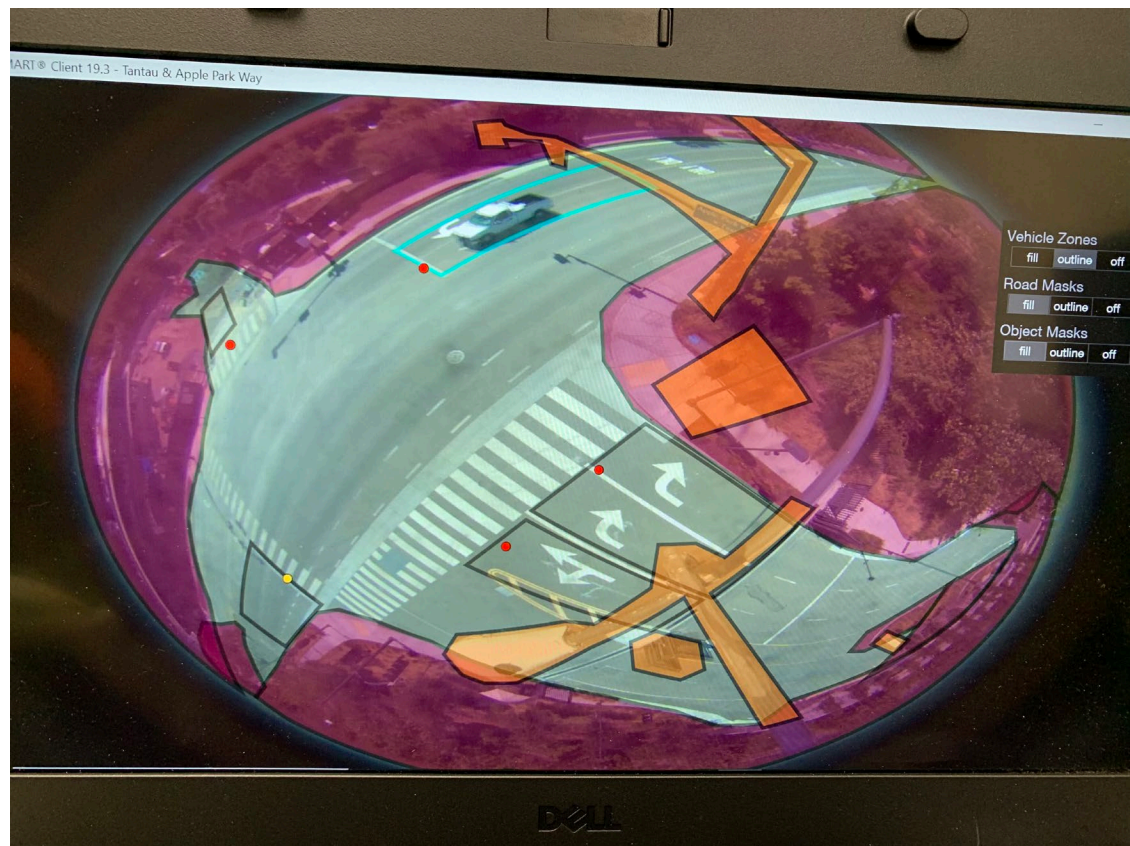
# Video Detection Cameras

- *Video cameras detect traffic, and the images are digitized, processed and converted into traffic data*
- Non-pavement invasive
- Able to monitor and modify multiple detection zones
- Performance can be affected by weather
- Can provide basic traffic parameters
  - City currently does not have this software function

# Grid Smart

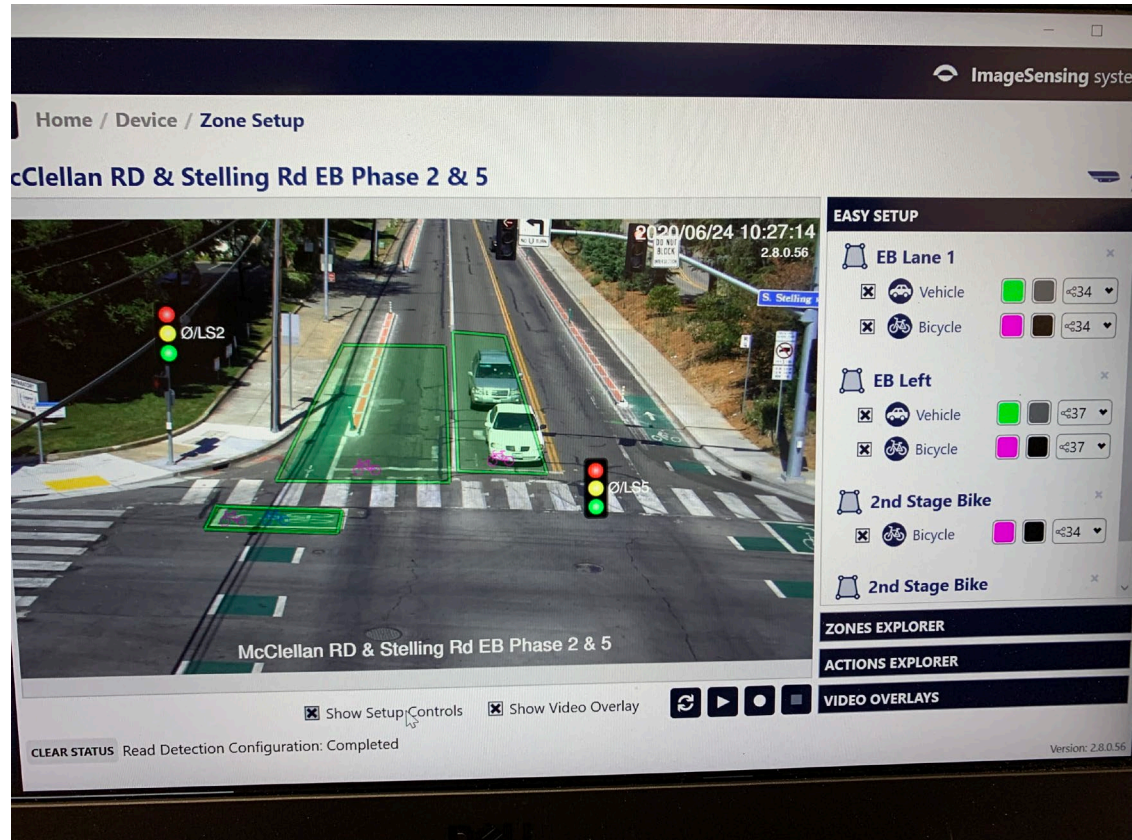


# Grid Smart





# Econolite, Iteris, and Traficon



# Adaptive Traffic Control system

- Traffic management strategy in which traffic signal timing changes, or adapts, based on actual traffic demand
- ATCS requires overhaul of existing traffic hardware and software
- City currently does not have ATCS in place

**Thank You**

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