

**Metropolitan Transportation Commission  
Operations Committee**

**April 9, 2021**

**Agenda Item 5a**

**Contract – Vehicle Occupancy Detection Phase 2 Pilot - San Francisco-Oakland Bay Bridge:  
Gruendl, Inc. (DBA Ray's Electric) (\$576,390 plus contingency of \$58,000)**

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**Subject:** This item requests Committee approval to enter into a contract with Gruendl, Inc. (DBA Ray's Electric) in an amount not to exceed \$576,390 for construction services for the Vehicle Occupancy Detection (VOD) Phase 2 Pilot Project in the High Occupancy Vehicle (HOV) Lane 1 at the San Francisco-Oakland Bay Bridge (SFOBB). This item also recommends a contingency in an amount of \$58,000 to be used at the discretion of the Executive Director or designee for unexpected changes in the scope of work.

**Background** MTC's goal is to improve HOV lane performance to increase person-throughput on congested bridges and freeways and boost the attractiveness of carpooling and express buses as alternatives to driving alone. Prior to COVID-19, a significant number of Bay Area HOV lanes have been consistently degraded, failing to meet federally-required speed standards of 45 mph in recent years, due in part to use of the lanes by vehicles not meeting the minimum occupancy requirements. To prepare for the inevitable return of congestion and carpool violations, staff continues to work on efforts to pilot vehicle occupancy enforcement technologies.

In May 2020, this Committee awarded a contract to Conduent State & Local Solutions, Inc. (Conduent) to deploy its roadside camera-based system in HOV Lane 1 at the SFOBB toll plaza as part of a Phase 2 pilot. Conduent's VOD system will be integrated with the toll plaza lane system and the FasTrak® back office. Through a 12-month pilot, occupancies will be determined for vehicles using HOV Lane 1, and transactions will be processed accordingly. The purpose of the pilot is to assess the feasibility (accuracy, cost, scalability, travel behavior effects, etc.) of deploying the technology regionally at other bridges and/or express lanes.

**Contractor Selection Process:** On February 2, 2021, MTC issued an Invitation for Bid (IFB) to procure a civil contractor to construct the roadside infrastructure (e.g., poles, communications, and power) that would be needed to support the VOD system equipment (e.g., cameras, laser triggers, and illuminators). The engineer's estimate for the project was \$638,600.

MTC held a non-mandatory bidder's conference on February 10, 2021. On March 4, three bids were received and opened at a public bid opening. However, on March 8, staff received a request from one firm (Tennyson Electric, Inc.) to withdraw its bid, pursuant to Public Contract Code 5100, due to the discovery of mathematical errors. Staff accepted the request.

Bidder	Location	Total Bid Amount (A)	SBE Bid Preference	SBE Bid Preference Amount* (B)	Bid Rank (C)
Tennyson Electric, Inc.	Livermore, CA	\$293,400	N	\$293,400	1**
Gruendl, Inc. DBA Ray's Electric	Oakland, CA	\$576,390	Y	\$518,751	2
St. Francis Electric, LLC	San Leandro, CA	\$697,000	N	\$697,000	3

*\*SBE Bid Preference Amount is used solely for the purpose of determining the lowest bid.*

*\*\* Bid withdrawn by Tennyson Electric, Inc.*

With the withdrawal of Tennyson Electric, Inc.'s bid, Ray's Electric is the apparent lowest bidder. Staff has determined that Ray's Electric is a responsible contractor, and its bid is responsive based on a review of all bid forms received as a part of the bid, including its bid security bond, minimum insurance requirement certification, reference information from past projects and the Schedule of Quantities and Prices. Staff is requesting approval from the Committee for a total contract allotment of \$634,390, which includes the bid of \$576,390 and a 10% construction contingency of \$58,000.

Ray's Electric is an SBE firm, and two of its three subcontractors are also SBE firms. Attachment A includes a summary of Ray's Electric and its project team's small business and disadvantaged business enterprise status.

**Issues:** None identified.

**Recommendation:** Staff recommends that the Committee authorize the Executive Director or designee to award a contract to Gruendl, Inc. (DBA Ray's Electric) in an amount not to exceed \$576,390; and that a contract contingency of \$58,000 be authorized to be used at the discretion of the Executive Director or designee for unexpected changes in the scope of work for the civil construction element of the VOD pilot.

**Attachments:** **Attachment A:** Contractors SBE / DBE Status  
**Attachment B:** PowerPoint

  
Therese W. McMillan

**Small Business and Disadvantaged Business Enterprise Status**

Firm Name	Role on Project	DBE* Firm			SBE** Firm		
		Yes	If Yes, List #	No	Yes	If Yes, List #	No
Gruendl, Inc. (DBA Ray's Electric)	Prime			X	X	13545	
CMC Traffic Control Specialists	Subcontractor	X	33473		X	61410	
West Coast Drilling, Inc.	Subcontractor			X	X	17993363	
Badger Daylighting	Subcontractor			X			X

\*Denotes certification by the California Unified Certification Program (CUCP).

\*\*Denotes certification by the State of California.

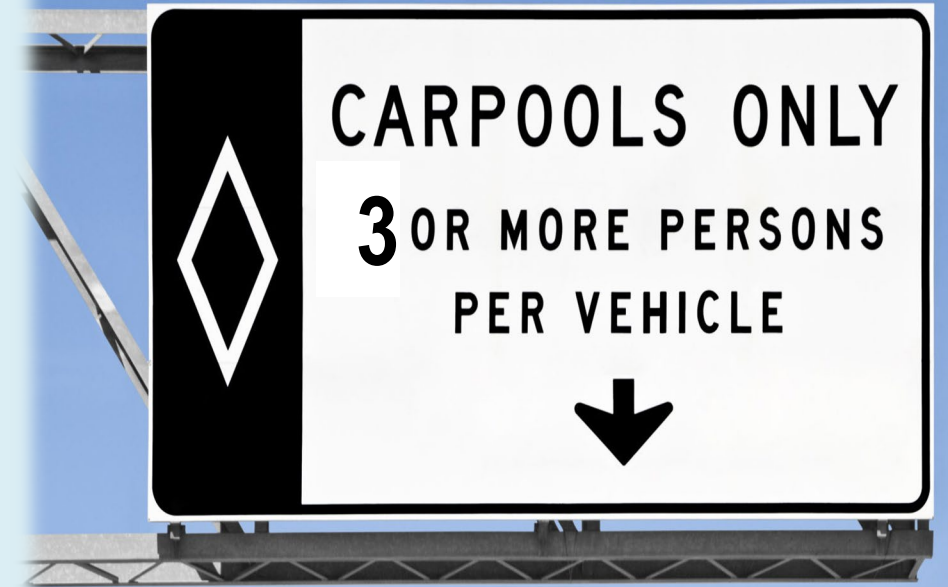
## REQUEST FOR COMMITTEE APPROVAL

### Summary of Proposed Contract

Work Item No.:	6861
Consultant:	Gruendl, Inc. (DBA Ray's Electric) Oakland, CA
Work Project Title:	Construction Contract between MTC and Gruendl, Inc. (DBA Ray's Electric) for the Vehicle Occupancy Detection (VOD) Phase 2 Pilot Project
Purpose of Project:	To construct roadside infrastructure to support VOD system equipment for a pilot project in HOV Lane 1 at the San Francisco-Oakland Bay Bridge toll plaza.
Brief Scope of Work:	Installation of two new Caltrans standard poles with mast arms and foundations; and installation of new conduit, pull boxes, and cables for power and communications to the VOD system equipment.
Project Cost Not to Exceed:	\$576,390, plus a contingency of \$58,000
Funding Source:	Toll Bridge Rehabilitation Program Funds
Fiscal Impact:	Funds are included in the FY 2021-22 Toll Bridge Rehabilitation Program Budget.
Motion by Committee:	That the Executive Director or designee is authorized to enter into a contract with Gruendl, Inc. (DBA Ray's Electric) for the construction of roadside infrastructure for the Vehicle Occupancy Detection Phase 2 Pilot at the San Francisco-Oakland Bay Bridge described above and in the Operations Committee Summary Sheet dated April 9, 2021; and the Chief Financial Officer is authorized to set aside \$576,390 for such construction contract, and \$58,000 for a contract contingency to be used at the discretion of the Executive Director or designee for changes in the scope of work.
Operations Committee:	<hr/> Carol Dutra-Vernaci, Chair
Approved:	April 9, 2021

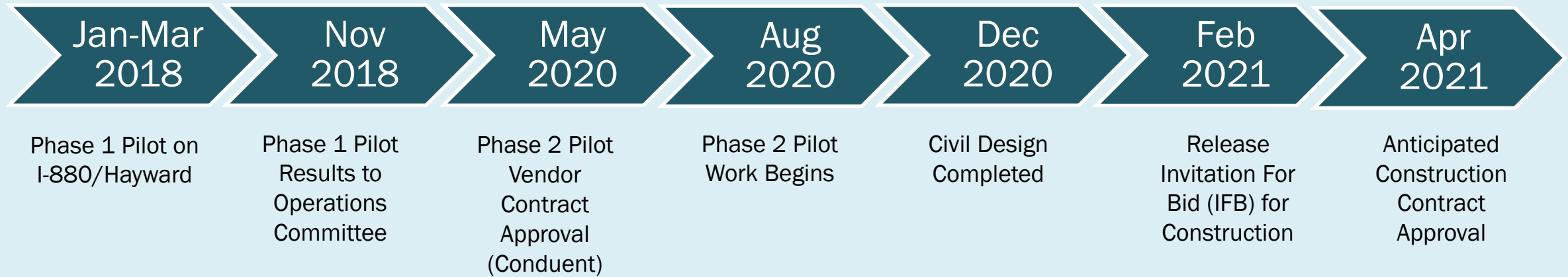
# Vehicle Occupancy Detection Phase 2 Pilot

San Francisco-Oakland Bay Bridge



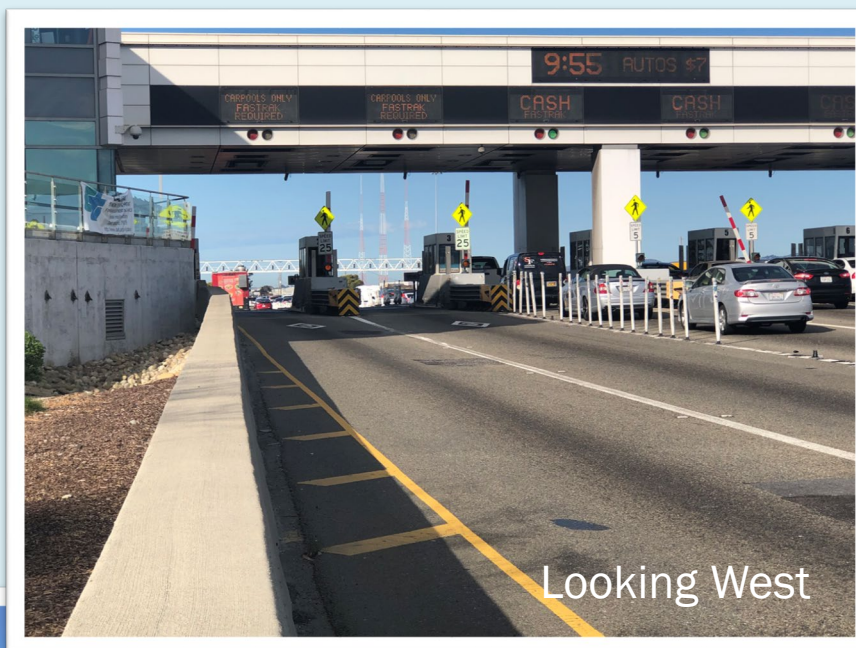
MTC Operations Committee  
April 9, 2021

# Activities To-Date



# Pilot Overview

- ✓ Deploy at San Francisco-Oakland Bay Bridge, HOV Lane 1
- ✓ Integrate VOD system with existing toll system and FasTrak® back office
- ✓ Operate & maintain for 12 months
- ✓ Evaluate pilot



Looking West



Looking East

# Roadside Infrastructure & VOD Equipment

## Roadside Infrastructure:

(April 2021 Operations Committee, Agenda Item 5a)

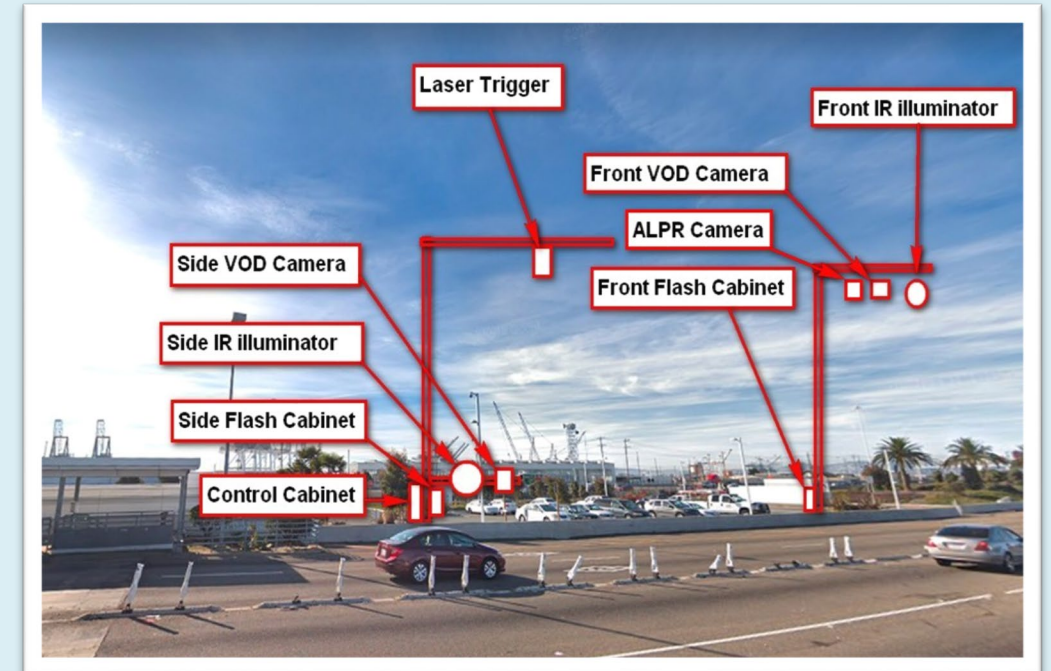
- ✓ Standard poles and mast arms
- ✓ Pole foundations
- ✓ Power
- ✓ Communications



## VOD System Equipment:

(May 2020 Operations Committee)

- ✓ Front and side occupancy cameras
- ✓ Laser trigger
- ✓ Infrared (IR) illuminators
- ✓ Automated License Plate Reader (ALPR) camera
- ✓ Cabinets
- ✓ VOD software



# Pilot Schedule

		Year 2020			Year 2021				Year 2022			
		Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
1	Operations Committee Contract Approval (Conduent)	★										
2	VOD System Design and Development											
3	Civil Design and Encroachment Permit											
4	Operations Committee Contract Approval					★						
5	Civil Construction											
6	VOD System Implementation, Fine Tuning, Testing											
7	Operations and Maintenance											
8	Pilot Evaluation											

## Schedule Risks Due to Other Regional CSC Priorities:

- ✓ FasTrak® START (Express Lanes Means-Based Discount Pilot)
- ✓ Express Lanes (680 North, 680 North Sunol, VTA 101, SM101-South)

# Estimated Pilot Project Costs

Project Cost Item	Contractor	Estimated Cost (millions)
VOD System (software, hardware, 12-month O&M)	Conduent/VOD	\$1.3
Consultant Assistance (e.g., CM, Civil Design, evaluation, etc.)	Various Consultants	\$0.7
System Modifications and O&M (existing FasTrak® back office & toll system)	Conduent/CSC	\$0.9
Civil Construction	Gruendl, Inc. (DBA Ray's Electric)*	\$0.6
<b>Total Estimated Project Cost</b>		<b>\$3.5</b>

\* Subject to approval

# Contact Information

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