



WAYMO

Driverless Autonomous Vehicle Tester Program
April 2018

Introduction

Waymo, formerly known as the Google Self-Driving Car Project, is a self-driving technology company with a mission to make it safe and easy for people and things to get around. We're determined to improve transportation for people around the world, building on software and sensor technology developed in Google's labs since 2009. We're committed to developing fully self-driving vehicles because we believe that this is safer and better for everyone.

Annually, over 1.2 million people die on our roadways. In the US alone, traffic collisions kill over 37,000 people a year and that number is rising. In the U.S., 94% of crashes involve human error or choice, and this is one place where we believe we really can bring technology to bear. Fully self-driving cars could also help people who can't drive—whether they're elderly, blind, or disabled—to get around and do the things they love.

After nearly a decade of working on this technology, 5 million miles driven on public roads, more than a billion miles simulated every year, and thousands of comprehensive tests, Waymo has introduced fully self-driving ("driverless") vehicles without a test driver in metro Phoenix and will do so in other jurisdictions moving forward. When the automated driving system¹ of these vehicles is engaged, all occupants, including Waymo employees and members of the public, are passengers only.

These driverless vehicles travel within a defined geographic area in the local jurisdictions where they have already been tested extensively. Separately, Waymo also continues to have a separate fleet of self-driving vehicles with test drivers.

The documents below supplement the overview of how we design, test, and validate our technology in the [Waymo Safety Report](#).

¹ AUTOMATED DRIVING SYSTEM. The hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether the ADS is limited to a specific operational design domain.

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DMV USE ONLY	
AVT NUMBER	_____
NAME	_____

SECTION 3 – APPLICANT ACKNOWLEDGEMENT

INITIALS

1. The autonomous vehicle has been tested under controlled conditions that simulate as closely as practicable, each operational design domain in which the manufacturer intends the vehicle to operate and the manufacturer has reasonably determined that is safe to operate the vehicle in each operational design domain. CCR 227.18(b) _____
2. Written notification that includes all of the requirements identified in CCR 227.38(a) has been provided to local authorities, as defined in Vehicle Code section 385, within the jurisdiction where the vehicle will be tested. _____
3. The autonomous test vehicle has a communication link with the remote operator to provide information on the vehicle's location and status, and allow continuous two-way communication between the remote operator and any passengers if the vehicle experiences any failures that would endanger the safety of the vehicle's passengers or other road users or otherwise prevent the vehicle from functioning as intended, while operating without a driver. CCR 227.38(b)(1)(A) _____
4. There is a process to display or communicate vehicle owner or operator information as specified in Vehicle Code Section 16025 in the event that the vehicle is involved in a collision, or if there is a need to provide that information to a law enforcement officer for any reason. CCR 227.38(b)(2) _____
5. The autonomous vehicle complies with all relevant Federal Motor Vehicle Safety Standards, Title 49 Code of Federal Regulations, Part 571, and the California Vehicle Code, Division 12 (Equipment of Vehicles), or the manufacturer is exempt from such requirements pursuant to 49 U.S.C. §30112(b)(10), or an exemption has been approved by the National Highway Traffic Safety Administration and provided as an attachment to this application. CCR 227.38(b)(3) _____
6. The autonomous vehicle is capable of operating without the presence of a driver inside the vehicle and the autonomous technology meets the description of a level 4 or level 5 automated driving system under SAE International's *Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles*, standard J3016. CVC 227.38(c) _____
7. A copy of a law enforcement interaction plan will be submitted to the California Highway Patrol within 10 days of application approval, and the internet web site address where the law enforcement interaction plan may be accessed will be provided to all other law enforcement agencies, first responders, fire department and emergency medical personnel within the vicinity of the operational design domain of the autonomous vehicle. CCR 227.38(e) _____
8. Remote operators have completed training sufficient to enable him or her to safely execute the duties of a remote operator and possesses the proper class of license for the type of test vehicle being operated. CCR 227.38(f) _____
9. Passengers that are not employees, contractors, or designees of the manufacturer will be notified of what personal information, if any, may be collected and how it will be used. CCR 227.38(h) _____
10. Upon receipt of a Manufacturer's Testing Permit to conduct the testing on public roads of a vehicle that does not require a driver, data related to the disengagement of the autonomous mode will be retained for the purposes of submitting an annual report to the department. CCR 227.50(a) _____
11. Any collision originating from the operation of the vehicle on public roads that resulted in the damage of property or in bodily injury or death shall be reported to the department, within 10 days. CCR 227.48 _____
12. Autonomous test vehicles will not be permitted to operate on public roads when members of the public that are not employees, contractors, or designees of the manufacturer are charged a fee or the manufacturer receives compensation for providing a ride to members of the public. CCR 227.26(f) _____

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DMV USE ONLY	
AVT NUMBER	_____
NAME	_____

SECTION 4 — ATTACHMENTS

INITIALS

1. Evidence of insurance, Surety Bond (OL 317), or Application for Self-Insurance (OL 319) in the amount of five million dollars (\$5,000,000). CCR 227.04(c) _____
2. Copy of written notification to local authorities, as defined in Vehicle Code section 385, for each jurisdiction where the vehicle will be tested that includes all of the items identified in CCR 227.38(a). _____
3. Description of how the manufacturer will monitor the communication link. CCR 227.38(b)(1)(B) _____
4. Explanation of how all of the vehicles tested will be monitored. CCR 227.38(b)(1)(C) _____
5. Describe/inform the department of the intended operational design domain of the autonomous vehicle. CCR 227.38(d) _____
6. Copy of law enforcement interaction plan. CCR 227.38(e) _____
7. Copy of course outline and description of the remote operator training program and the date each remote operator completed the program and includes all of the items identified in CCR 227.38(f). _____
8. For manufacturers that have publicly disclosed an assessment demonstrating their approach to achieving safety, a copy of that assessment. CCR 227.38(g) _____
9. **If applicable;** evidence of an exemption approved by the National Highway Traffic Safety Administration for manufacturers exempt from such requirements pursuant to 49 U.S.C. 30112(b)(10). CCR 227.38(b)(3) _____

SECTION 5 – CERTIFICATION

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

I further certify that I am the authorized Administrator of the program for the above named employer.

PROGRAM DIRECTOR/AUTHORIZED REPRESENTATIVE PRINTED NAME AND TITLE		DRIVER LICENSE NUMBER	
SIGNATURE		DATE SIGNED	
X			
STREET ADDRESS	CITY	STATE	ZIP CODE
EMAIL ADDRESS	FAX NUMBER	TELEPHONE NUMBER	
	()	()	



II. Waymo Contact Information

Name of Manufacturer			
WAYMO LLC			
Business Name			Secretary of State Entity Number
WAYMO LLC			6073396
Business Name Licensed by DMV			Telephone Number
WAYMO LLC			650-253-0000
Street Address	City	State	Zip Code
1600 AMPHITHEATRE PKWY	MOUNTAIN VIEW	CA	94043
Mailing Address (If Different From Street Address)	City	State	Zip Code
100 MAYFIELD AVE	MOUNTAIN VIEW	CA	94043

III. Types of Vehicles Tested and Number of Vehicles

Make	Model	Year	Initial Number of Vehicles Being Registered With the California DMV
Chrysler	Pacifica Plug-In Hybrid	2017	52
			
Front View		Rear View	

IV. Supplemental Attachments

A. Evidence of Insurance

Application content enclosed on the following page.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
02/23/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MARSH RISK & INSURANCE SERVICES 345 CALIFORNIA STREET, SUITE 1300 CALIFORNIA LICENSE NO. D437153 SAN FRANCISCO, CA 94104 Attn: Michael Pessy (Michael.Pessy@marsh.com) 102594-STND-GAWU-17-18	CONTACT NAME: _____	
	PHONE (A/C No. Ext): _____	FAX (A/C No.): _____
E-MAIL ADDRESS: _____		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Old Republic Insurance Co		24147
INSURER B : National Fire & Marine Insurance Co		20079
INSURER C : Safety National Casualty Corp.		15105
INSURER D : _____		
INSURER E : _____		
INSURER F : _____		

COVERAGES **CERTIFICATE NUMBER:** SEA-00353447-09 **REVISION NUMBER:** 2

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSUR LTR	TYPE OF INSURANCE	AGG. SUBR. BND. WVD.	POLICY NUMBER	POLICY EFF. (MM/DD/YYYY)	POLICY EXP. (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER		MVZY310510	06/01/2017	06/01/2018	EACH OCCURRENCE \$ 10,000,000 DAMAGE TO RENTED PREMISES (EA OCCURRENCE) \$ 10,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ SEE ATTACHED GENERAL AGGREGATE \$ 15,000,000 PRODUCTS - COMPOP AGG \$ 15,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY		MWTB310509	06/01/2017	06/01/2018	COMBINED SINGLE LIMIT (EA accident) \$ 10,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		42UM010024004	06/01/2017	06/01/2018	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	LDS4052990 (AOS) PS4052991 (WI)	06/01/2017 06/01/2017	06/01/2018 06/01/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 10,000,000 E.L. DISEASE - EA EMPLOYEE \$ 10,000,000 E.L. DISEASE - POLICY LIMIT \$ 10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
EVIDENCE OF INSURANCE

CERTIFICATE HOLDER Alphabet Inc. and all subsidiaries Including Waymo LLC Attn: Business Risk and Insurance 1600 Amphitheatre Parkway Mountain View, CA 94043	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE of Marsh Risk & Insurance Services Jennifer D. Loveall <i>Jennifer D. Loveall</i>
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AGENCY CUSTOMER ID: 102594

LOC #: San Francisco



ADDITIONAL REMARKS SCHEDULE

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AGENCY MARSH RISK & INSURANCE SERVICES		NAMED INSURED Alphabet Inc. and all subsidiaries including Waymo LLC Attn: Business Risk and Insurance 1600 Amphitheatre Parkway Mountain View, CA 94043	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

#

#

* PERSONAL INJURY/WITH LIMITATION ENDORSEMENT, POLICY NUMBER: MWZY310510 (06/01/2017 - 06/01/2018), OLD REPUBLIC INSURANCE CO., LIMIT: \$10,000,000

* ADVERTISING INJURY LIMIT: EXCLUDED

B. Waymo Two-Way Communication Link Monitoring

Every Waymo vehicle has a two-way cellular communication link, with redundant cellular service, for connecting with our Fleet Response and Rider Support Specialists.² In certain emergency situations, the Fleet Response Specialists notify the Rider Support Specialist to connect to the passengers. In these situations, the Rider Support Specialists are trained to promptly initiate communication with the passenger. The Rider Support Specialists are also notified of irregular trip situations through the Rider Support tool, and are trained to connect with the passenger upon receiving said notifications.

In addition, if at any time the passenger is looking for assistance, the passenger can press a button inside the Waymo vehicle's second row or by calling or chatting with our Rider Support team via our mobile app. Rider Support Specialists are trained to rapidly connect with passengers and initiate real-time voice communications to assist passengers in the vehicle. If the Rider Support Specialist cannot connect through the car, the Rider Support Specialist is trained to reach out to the passenger's cellular phone. Passengers' cellular phone numbers are stored in the Rider Support tool.

C. Waymo Fleet Monitoring Overview

Before deploying our fully driverless vehicles, a Waymo technician ensures that each vehicle is ready for operation and puts the vehicle into driverless mode. Waymo has two separate teams that continuously monitor our fleet while in operation.

First, our Fleet Response Specialists possess valid drivers licenses and are responsible for monitoring the status of our vehicles in real-time as they travel on public roadways. Using a virtual tool, they monitor Waymo vehicles during all self-driving testing, including testing both with and without a human driver.

Additionally, our Rider Support team, which provides customer support functionality for passengers, is available to communicate with passengers at any point in their trip.

² The definition of "remote operator" in the California DMV's *Driverless Testing and Deployment Regulations (CCR 227.02(n))* allows (but does not require) operators to "perform the dynamic driving task for the vehicle" - otherwise known as "remote driving" or "teleoperation." For safety reasons, and because Waymo's vehicles already handle the entire dynamic driving task at SAE Level 4, Waymo neither has such functionality today, nor do we intend to moving forward.

D. Intended Operational Design Domain of Waymo's Vehicles During Driverless Testing and Operation

A duplicate of the information is provided in the Waymo Law Enforcement Interaction Protocol.

The operational design domain refers to the conditions under which a self-driving system can safely operate. Waymo's domain includes geographies, roadway types, speed range, weather, time of day, state and local traffic laws and regulations, and other conditions.

An operational design domain can be very limited: for instance, a single fixed route on low-speed public streets or private grounds (such as business parks) in temperate weather conditions during daylight hours. However, Waymo intends to have a broad operational design domain to cover everyday driving. We're developing self-driving technology that can navigate roadways in a variety of conditions within broad geographic areas. Our vehicles are designed with the capability to drive in inclement weather, such as light to moderate rain, and can operate in daytime and at night.

Waymo's system is also designed so each vehicle will not operate outside of its approved operational design domain. For example, passengers cannot select a destination outside of our approved geography, and our software will not create a route that travels outside of a "geo-fenced" area, which has been mapped in detail.

Level of Automation	<p>Waymo's vehicles validated for driverless testing include a Level 4 automated driving system under SAE International's Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (SEP 2016). This system is what enables the capabilities of our fully self-driving vehicles.</p> <p>Our Level 4 system includes the software and hardware that, when integrated into the vehicle, perform all driving functions. Waymo's self-driving system is designed to perform the entire dynamic driving task³ within a defined operational design domain⁴ and has the capability to achieve a minimal risk condition⁵: the ability to bring a vehicle to a safe stop, without any expectation that a human driver take over. In contrast, systems at a lower-level of automation, at SAE Levels 1, 2, or 3, are required to have a human driver take over from the system when necessary.</p>
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³ DYNAMIC DRIVING TASK. Means all of the real-time functions required to operate a vehicle in on-road traffic, excluding selection of final and intermediate destinations, and including without limitation: object and event detection, recognition, and classification; object and event response; maneuver planning; steering, turning, lane keeping, and lane changing, including providing the appropriate signal for the lane change or turn maneuver; and acceleration and deceleration.

⁴ OPERATIONAL DESIGN DOMAIN. A description of the specific operating domain(s) in which an automated driving system is designed to properly operate, including but not limited to geographic area, roadway type, speed range, environmental conditions (weather, daytime/nighttime, etc.) and other domain constraints.

⁵ MINIMAL RISK CONDITION. A low-risk operating mode in which a fully self-driving vehicle operating without a human driver achieves a reasonably safe state, such as bringing the vehicle to a complete stop, upon experiencing a failure of the vehicle's automated driving system that renders the vehicle unable to perform the entire dynamic driving task

Minimal Risk Condition Overview	<p>If the Waymo vehicle can no longer proceed on a planned trip, Waymo's vehicles are designed to be capable of performing a safe stop, known as achieving a "minimal risk condition" without any need for human intervention, which is a requirement for an SAE Level 4 automated driving system. This includes situations when Waymo's fully self-driving vehicle experiences a problem that prevents the automated driving system from continuing the driving task or when environmental conditions change in a way that would affect safe driving within our operational design domain. Waymo's system is designed to detect each one of these scenarios automatically. In addition, our vehicles run thousands of checks on their systems every second, looking for faults. Our system is equipped with a series of redundancies for critical systems, such as sensors, computing, steering and braking. Our vehicle's response varies with the type of roadway on which a situation occurs, the current traffic conditions, and the extent of the technology failure. Depending on these factors, the system can determine an appropriate response to keep the vehicle, its passengers,⁶ and other road users safe.</p>
Roadway Type	<p>During driverless testing, the intended operational design domain of Waymo's vehicles will include the following roadway types:</p> <ul style="list-style-type: none"> • Freeways, highways,⁷ city streets, rural roads, and other roadways. • Parking lots
Speed Range	<p>During driverless testing, the intended operational design domain of Waymo's vehicles will include roadways with posted speed limits up to 65 miles per hour.</p>
Inclement Weather	<p>During driverless testing, the intended operational design domain of Waymo's vehicles will include the following inclement weather situations:</p> <ul style="list-style-type: none"> • Light Rain • Fog
Time of Day	<p>During driverless testing, the intended operational design domain of Waymo's vehicles will include all times of day and night.</p>
Geographic Area for Driverless	<p>Waymo will provide local jurisdictions with information regarding the geographic area where our vehicles are involved in driverless testing.</p>

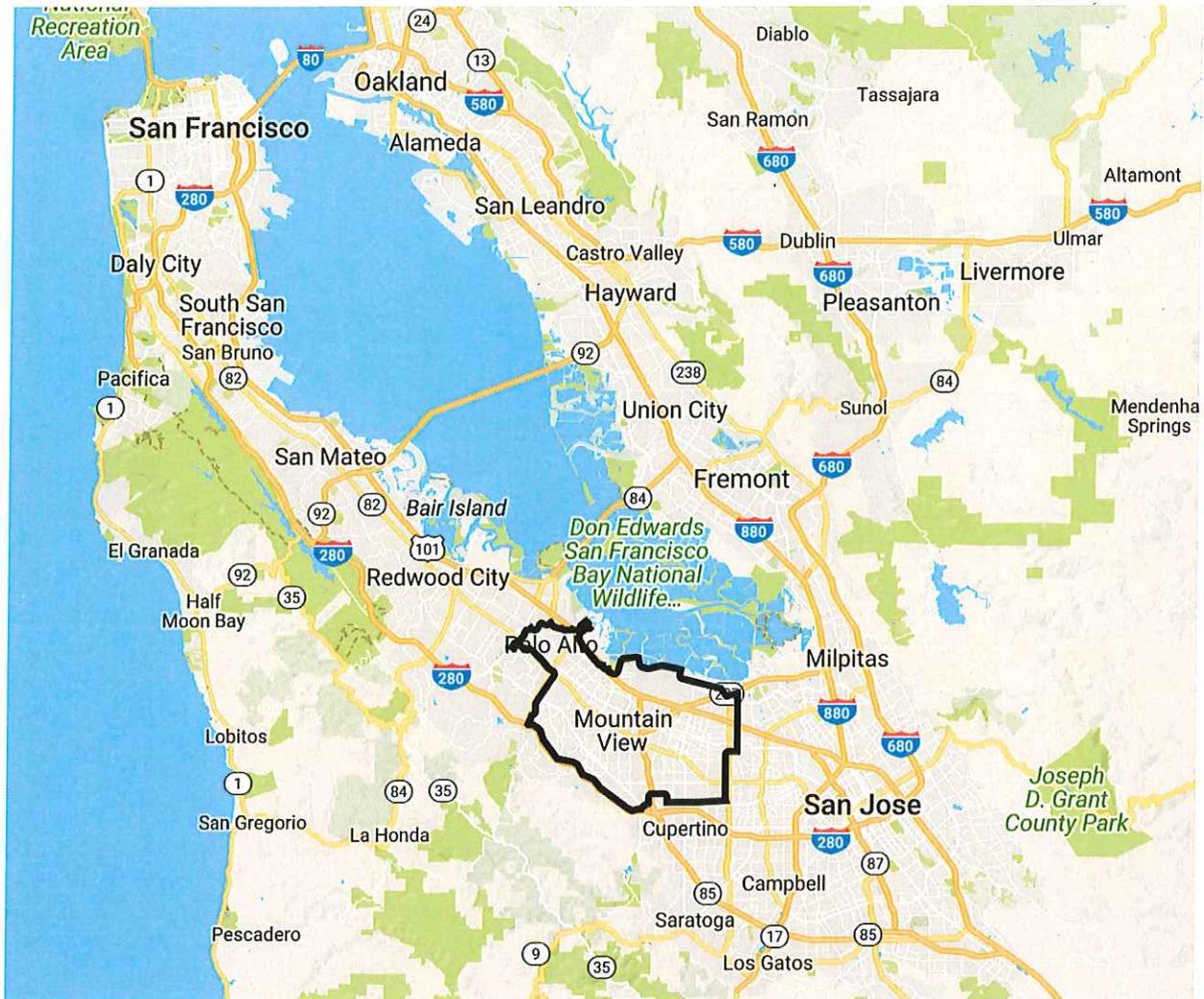
⁶ PASSENGER. An occupant of a vehicle who has no role in the operation of that vehicle when the autonomous technology is engaged. A passenger may summon a vehicle or input a destination, but does not engage the technology, monitor the vehicle, or drive or operate the vehicle. A member of the public may ride as a passenger in an autonomous test vehicle if there are no fees charged to the passenger or compensation received by the manufacturer.

⁷ See California Vehicle Code § 360: "Highway" is a way or place of whatever nature, publicly maintained and open to the use of the public for purposes of vehicular travel. Highway includes street.

Testing	
Types of Passengers During Driverless Testing	<p>During driverless testing, Waymo's vehicles may transport the following categories of passengers:</p> <ul style="list-style-type: none"> ● Waymo employees, contractors, or agents. ● Alphabet employees, contractors, or agents. ● Alphabet affiliate company employees, contractors, or agents. ● Members of the public as passengers during testing, without any fee charged.
Domain Constraints	<p>Waymo's intended operational design domain will not initially allow for driverless testing under the following conditions:</p> <ul style="list-style-type: none"> ● Snow/icy conditions ● Heavy rain ● Flooded roadways ● Offroad ● One-way mountain roadways <p>During driverless testing, if any of these conditions are encountered, Waymo's vehicles are designed to be capable of achieving a minimal risk condition without any human intervention.</p> <p>Controlling the operating domain of its driverless vehicles is a part of Waymo's dynamic testing program. For the purpose of driverless testing, Waymo may choose to change domain constraints for some or all of its vehicles at various times. For example, driverless testing may be limited to:</p> <ul style="list-style-type: none"> ● Certain times of day ● Roadways of slower posted speed limits than 65 miles per hour ● Certain validated roadway features (including freeway ramps, merge lanes, turn lanes, intersections, construction zones, roundabouts, cul de sacs, roundabouts, covered parking lots, restricted speed zones, and rail and light transit crossings) ● Non-inclement weather conditions.

E. Geographic Area for Driverless Testing (California)

Waymo plans to conduct driverless testing⁸ on roads within the California Bay Area communities outlined in the boundary map below with the vehicles described in Waymo's application. These geographies are part of Waymo's current operational design domain. Each of the covered communities will be notified of the date of driverless testing, prior to the start of such testing in the respective community. Additionally, any expansion of this territory during testing will be preceded by a notification to such covered communities before it is submitted as an amendment for review to the California Department of Motor Vehicles:

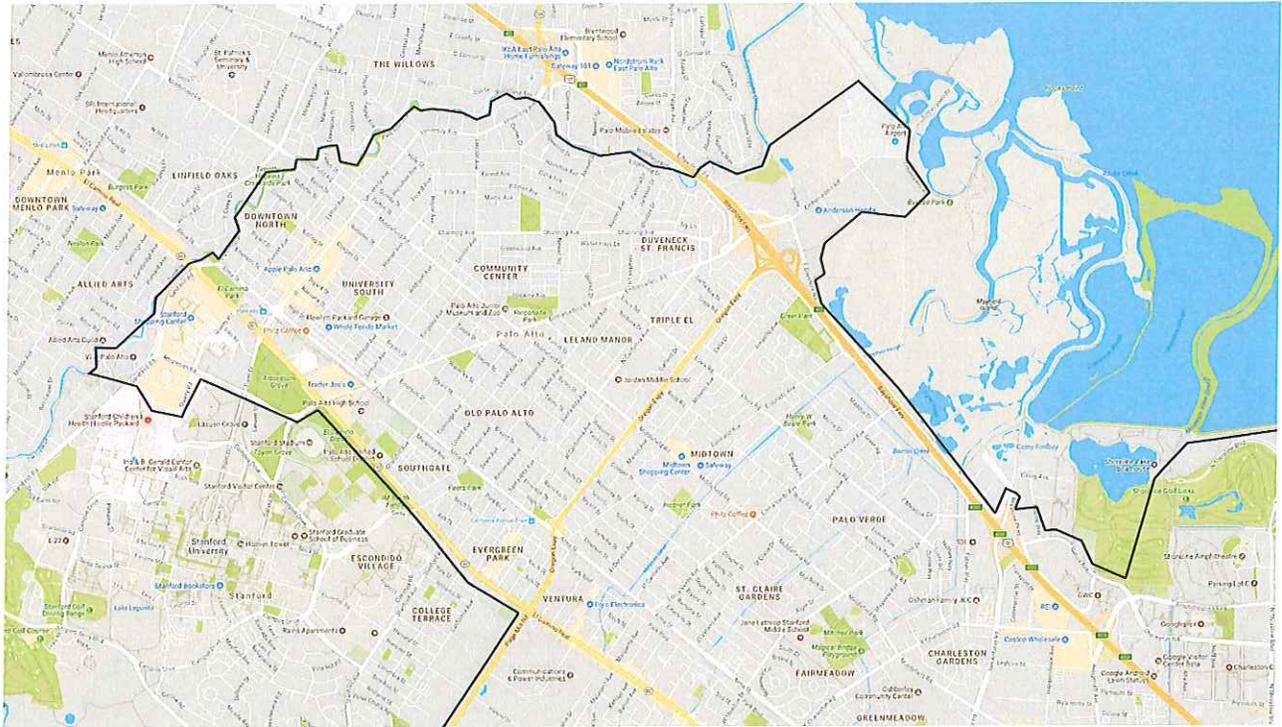


⁸ TESTING. The operation of a self-driving vehicle on public roads by employees, contractors, or designees of a manufacturer for the purpose of assessing, demonstrating, and validating the automated driving system's capabilities.

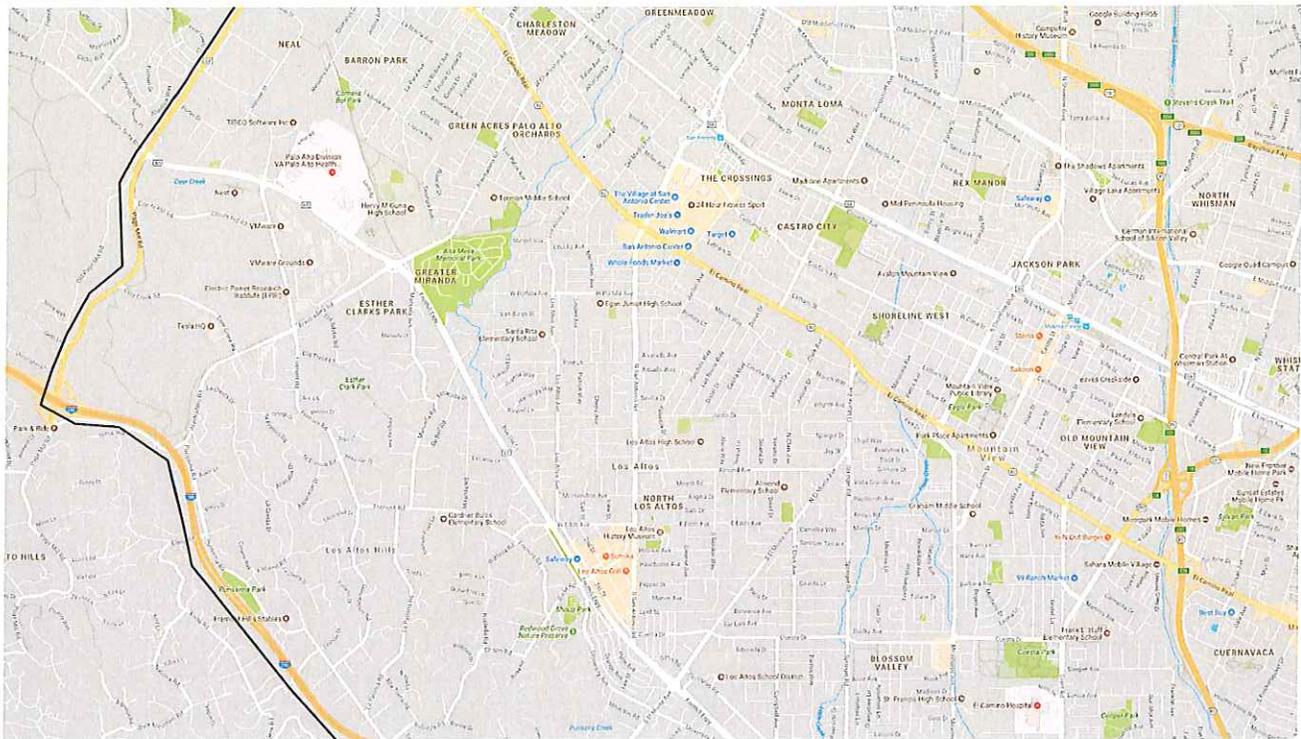
Expanded View 1



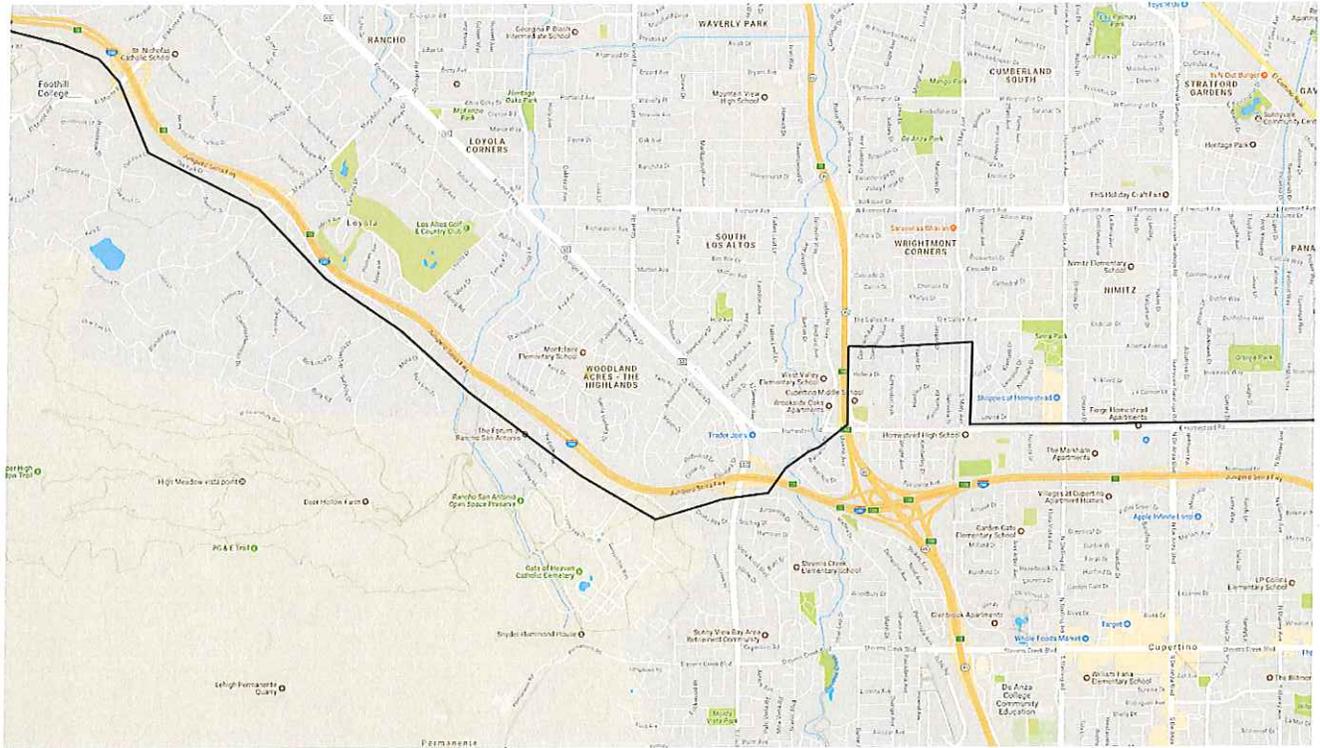
Expanded View 2



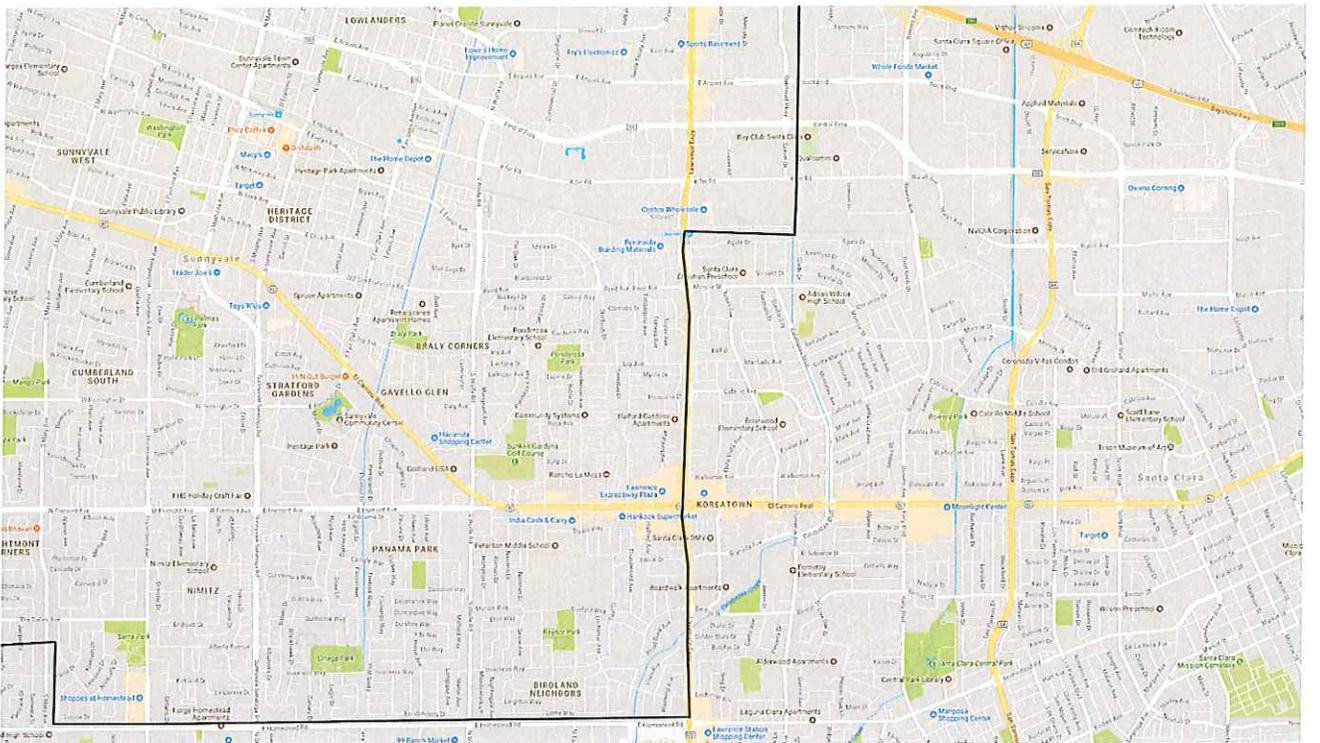
Expanded View 3



Expanded View 4



Expanded View 5



Expanded View 6



F. Waymo Law Enforcement Interaction Protocol

To be provided by e-mail and posted to waymo.com upon approval of the Autonomous Vehicle Tester Program permit.

G. Waymo Safety Report

The [Waymo Safety Report](#) was submitted to the U.S. Department of Transportation on October 12, 2017. The report contains information responsive to the U.S. Department of Transportation's new Voluntary Guidance – Automated Driving Systems 2.0: A Vision for Safety, released on September 12, 2017. Section I of the Guidance outlines 12 safety design elements, and encourages companies testing and deploying self-driving systems to address each of these areas.

The Report summarizes how Waymo is considering and broadly addressing these specific safety areas, and includes additional details on other aspects of our safety program including safety features, the processes we've established to design and validate our technology to ensure safety, and our comprehensive testing program.

The DOT's 12 safety design elements have been considered during product development of our fully self-driving vehicles and are addressed across the four chapters of the Report:

Our "Safety by Design" Philosophy: How Waymo takes a comprehensive approach to system safety.

- *System safety:* Our System Safety Program builds on widely accepted industry practices, using a systems engineering approach to identify, analyze, and mitigate risks associated with our self-driving vehicles.

How the Vehicle Works: What our fully self-driving vehicle is and how it is designed to work safely without a human driver.

- *Object and event detection and response:* How our vehicles' sensors observe the world, predict actions of other road users, and provide the data our system needs to make safe decisions.
- *Operational design domain:* The conditions (e.g., speed, weather conditions, geography) within which our vehicles can operate, and how we ensure they do not operate outside those conditions.
- *Federal, state, and local laws:* How our vehicles incorporate rules of the road and other applicable laws.
- *Minimal risk condition (fallback):* How our vehicle detects and responds to system faults or other problems that reduce functionality, while retaining the ability to achieve a safe stop.
- *Data recording:* How our vehicle records data useful for crash reconstruction, which we analyze for possible improvements to our system.
- *Post-Crash Behavior:* How our vehicle returns to a "safe state" after a collision, and our process for responding to safety incidents.

- *Cybersecurity*: How our cybersecurity program works to address threats and vulnerabilities.

The Testing Process: How we test our fully self-driving vehicles to demonstrate their capability and safety.

- *Validation methods*: How we employ on-road testing, closed-course testing, computer simulation, and other testing methods to ensure that our system is capable of safely handling both everyday and unexpected driving situations.
- *Crashworthiness*: How vehicles that Waymo uses protect their occupants in crashes, and how our system is designed to preserve those protections.

Building Public Trust: Additional measures we take to ensure safe interactions with our passengers and other road users.

- *Human-machine Interface*: How our system interface enhances communications and interactions with passengers in our vehicles.
- *Consumer education and training*: Our work to inform consumers and new users about our fully self-driving vehicles.

H. Copy of Waymo's Corporate Information Filed with the Secretary of State

Application content enclosed on the following page.

17-314799

 Secretary of State Statement of Information (Limited Liability Company)	LLC-12
	

FILED
Secretary of State
State of California

FEB 22 2017

IMPORTANT — Read instructions before completing this form.

Filing Fee — \$20.00

Copy Fees — First page \$1.00; each attachment page \$0.50;
Certification Fee - \$5.00 plus copy fees

376/350/20/LLC
This Space For Office Use Only

1. Limited Liability Company Name (Enter the exact name of the LLC. If you registered in California using an alternate name, see instructions.) Waymo LLC	
2. 12-Digit Secretary of State File Number 201704810253	3. State, Foreign Country or Place of Organization (only if formed outside of California) Delaware

4. Business Addresses			
a. Street Address of Principal Office - Do not list a P.O. Box 1600 Amphitheatre Parkway	City (no abbreviations) Mountain View	State CA	Zip Code 94043
b. Mailing Address of LLC, if different than Item 4a	City (no abbreviations)	State	Zip Code
c. Street Address of California Office, if Item 4a is not in California - Do not list a P.O. Box	City (no abbreviations)	State CA	Zip Code

5. Manager(s) or Member(s) *If no managers have been appointed or elected, provide the name and address of each member. At least one name and address must be listed. If the manager/member is an individual, complete items 5a and 5c (leave item 5b blank). If the manager/member is an entity, complete items 5b and 5c (leave item 5a blank). Note: The LLC cannot serve as its own manager or member. If the LLC has additional managers/members, enter the name(s) and addresses on Form LLC-12A (see instructions).*

a. First Name, if an individual - Do not complete item 5b	Middle Name	Last Name	Suffix
b. Entity Name - Do not complete item 5a Waymo Holding Inc.			
c. Address 1600 Amphitheatre Parkway	City (no abbreviations) Mountain View	State CA	Zip Code 94043

6. Service of Process (Must provide either individual OR Corporation.)
INDIVIDUAL — Complete items 6a and 6b only. Must include agent's full name and California street address.

a. California Agent's First Name (if agent is not a corporation)	Middle Name	Last Name	Suffix
b. Street Address (if agent is not a corporation) - Do not enter a P.O. Box			
		State CA	Zip Code

CORPORATION — Complete item 6c only. Only include the name of the registered agent Corporation.
c. California Registered Corporate Agent's Name (if agent is a corporation) — Do not complete item 6a or 6b
Corporation Service Company Which Will Do Business In California As CSC-Lawyers Incorporating Service 01592199

7. Type of Business
a. Describe the type of business or services of the Limited Liability Company
self-driving technology

8. Chief Executive Officer, if elected or appointed			
a. First Name John	Middle Name	Last Name Krafcik	Suffix
b. Address 1600 Amphitheatre Parkway	City (no abbreviations) Mountain View	State CA	Zip Code 94043

9. The information contained herein, including any attachments, is true and correct.
Date: 2/22/2017
Christine Flores, Asst. Sec.
Type or Print Name of Person Completing the Form, Title, Signature

Return Address (Optional) (For communication from the Secretary of State related to this document, or if purchasing a copy of the filed document enter the name of a person or company and the mailing address. This information will become public when filed. SEE INSTRUCTIONS BEFORE COMPLETING.)

Name: []
Company:
Address:
City/State/Zip: []



I hereby certify that the foregoing transcript of 1 page(s) is a full, true and correct copy of the original record in the custody of the California Secretary of State's office.

FEB 23 2017

Date:

Alex Padilla

ALEX PADILLA, Secretary of State