PLANNING COMMISSION STAFF REPORT

APPLICATION: **CUP2018-04** **AGENDA ITEM:** **PH-4**

PREPARED BY: **Teresa Santilena**
Assistant Planner

MEETING DATE: **April 11, 2018**

SUBJECT: Conditional Use Permit CUP2018-04
239 West Huntington Drive (APNs: 8508-008-071 and 8508-008-070)

REQUEST: Applicant is requesting a Conditional Use Permit to construct a new 2,200 square foot drive-thru coffee shop (Starbucks) and surface parking lot with 35 parking spaces. The existing building on site will be demolished. This property is located in the RCC (Retail Corridor Commercial) zone and the M (Manufacturing) zone.

APPLICANT: Kaidence Group; c/o Kayman Wong
5070 North 40th Street #210
Phoenix, AZ 85018

ENVIRONMENTAL DETERMINATION: Categorical Exemption (Class 3)

BACKGROUND: Starbucks Corporation is proposing the development of a 2,200 square foot café with indoor and outdoor seating, and a drive-thru, as well as surface parking for 35 vehicles. A Conditional Use Permit (CUP) is required for new construction of 10,000 square feet or larger and/or with an occupant load of 30 or more.

SUBJECT PROPERTY: The subject site contains two parcels, the 20,941 square foot parcel at the corner of West Huntington Drive and South Magnolia Avenue that is improved with the 3-Day Suit Broker building (APN# 8508-008-071), and the 8,033 square foot parcel to the north of the alley behind the building that is used for parking (APN# 8508-008-070). The existing building will be demolished, and a new 2,200 square foot drive-thru cafe with 17 parking spaces will be constructed on the southern parcel. The parcel to the north of the alley will be improved with 18 parking spaces and landscaped planters. The southern parcel is zoned RCC (Retail Corridor Commercial), the northern parcel is zoned M (Manufacturing).
The subject site is surrounded by the following land designations and uses:

North:

General Plan:	Manufacturing
Zoning:	M (Manufacturing)
Land Use:	Commercial Building (RBJ Software, Inc.)

South:

General Plan:	Retail Corridor Commercial
Zoning:	RCC (Retail Corridor Commercial)
Land Use:	Commercial Building (Jack in the Box)

East:

General Plan:	Retail Corridor Commercial
Zoning:	RCC (Retail Corridor Commercial)
Land Use:	Commercial Building (Pepboys)

West:

General Plan:	Retail Corridor Commercial
Zoning:	RCC (Retail Corridor Commercial)
Land Use:	Commercial Building (Fast Auto Loans/Donut and Yogurt)

DISCUSSION/ANALYSIS: The site is currently improved with the 19,148 square foot 3-Day Suit Broker retail building, and 14 striped parking spaces on the parcel to the north. The existing structure, which was built in 1961, will be demolished and the new 2,200 square foot drive-thru Starbucks will be constructed near the southwest corner of the project site. The proposed hours of operation will be from 4:00 a.m. until midnight and four to six employees will be on site per shift.

Neither the drive-thru nor the late night operations (defined in the Zoning Ordinance as businesses that operate between 12 midnight and 6:00 a.m.) require the approval of conditional use permits. Conditional use permits for Drive-thru and Late night operations are required when the project site is located within 100 feet of a residential zone. The location of this project is more than 100 feet from any residential zone. Therefore, the conditional use permit is required only for new construction of a building that has an occupant load greater than 30.

Site Plan

The proposed Starbucks café will be situated towards the southwest corner of the property, which will allow up to 11 vehicles to queue in the drive-thru. The entrance of the drive-thru will be north of the outdoor patio and will wrap around the building on the north and west sides. Orders will be picked up from the window on the south building elevation. The site will be accessed via a new drive approach on West Huntington Drive and the alley, which is located between the two subject parcels.

A 10’ wide landscaped area will be located along both street frontage property lines and additional landscaped areas will be located along the north and east property lines, as well as within the project site. Conditions 18 – 20 on the attached Data Sheet 1 require a landscape and irrigation plan to be prepared by a Landscape Architect. The landscape plan will have to meet the standards outlined in the State Model Water Efficient Landscape Ordinance.

Floor Plan/Elevations

The floor plan includes an indoor café with seating for 51 patrons, a retail merchandise area, two restrooms, and a walk-up counter. Behind the counter, the back of house includes areas for storage and office space, as well as kitchen equipment, such as refrigerators and dish washers. The outdoor patio wraps around the north and west sides of the building and provides seating for 40 patrons, as well as a bike rack.

The building utilizes a mid-century modern design, with flat roofs, generous eave overhangs, and clean lines. The majority of the building is 13’-6” tall; the “tower” element reaches 20’ tall. Starbucks’ new design relies heavily upon concrete and glass building materials. Wood finishes and landscape planters add visual interest to the building elevations.

Parking/Circulation
The parking requirement for a restaurant is calculated as 1 parking space required for every 2.3 people based on the occupant load of the building, plus an additional 7% for employee parking. Based on this requirement, staff has calculated that the proposed use would require 35 parking spaces. The applicant is providing 35 parking spaces total within the two parcels, including two ADA parking spaces. Condition of approval 24 on Data Sheet 1 requires that employees shall park in the parking lot located north of the alley, with the exception of the parking space located southeast of the trash enclosure. Condition of approval 13 on Data Sheet 1 requires that the applicant record a covenant to hold the two parcels as one so that one cannot be sold without the other. This will ensure that the parking lot located on the parcel to the north will remain with the development.

The drive-thru queue will accommodate up to 11 vehicles, exceeding the Starbucks Corporation standard of 8 vehicles. There is also room within the project site to accommodate additional waiting vehicles before impacting the surrounding streets. From the south, via the new drive approach on West Huntington Drive, the site would accommodate an additional four vehicles waiting in the drive-thru lane before overflowing onto the street. From the north, via the alley, an additional two vehicles can be accommodated on site, before overflow would occur into the alley. Condtion of approval 33 on Data Sheet 1 allows for the CUP to be called for review to mitigate impacts to surrounding streets and/or properties that are caused by vehicles queueing beyone the boundaries of the project site.

A traffic impact analysis, dated March 2018 has been prepared by LSA and reviewed by the City's contract Traffic Engineer, Gibson Transportation Consulting, Inc (attached as Exhibit A). The report focuses on the a.m. and p.m. peak hour levels of service (LOS) at seven intersections, studying the existing conditions, as well as the existing plus project conditions. The analysis focuses on inbound and outbound trips to the subject location, with the existing retail use versus the proposed café use. The analysis took into consideration that 3-Day Suit Broker is not open Monday through Wednesday, and that the propsed Starbucks will be open seven days per week. The results of the analysis show that the seven studied intersections will continue to operate at the same service level after the café commences operations. LSA has therefore concluded, and Gibson Transportation Consulting, Inc. concurs in the attached letter (Exhibit B) that the project will not create significant impacts upon the studied intersections, and that the project may move forward without implementing traffic mitigation measures.

Conclusion
The drive-thru Starbucks will be located on the highly visible corner of West Huntington Drive and South Magnolia Avenue. The café and drive-thru is permitted in the Retail Corridor Commercial zone. The new construction of a building with an occupant load greater than 30 requires a Conditional Use Permit. The proposed plan utilizes an attractive design and quality materials. The site has been designed to maximize the drive-thru queue length and meet the required parking. A Traffic Impact Analysis has been prepared noting that the new use will have minimal impact to the surrounding intersections.

RECOMMENDATION: Staff and the Development Review Committee recommend approval of CUP2018-04 for a new 2,200 square foot coffee shop with drive thru and surface parking lot with 35 parking spaces at 239 West Huntington Drive. If the Planning Commission concurs with this recommendation then, following the public hearing, the following actions would be:

1. Pursuant to the California Environmental Quality Act ("CEQA") and the City's local CEQA Guidelines, the Planning Commission in the exercise of its independent judgment finds that CUP2018-04 is categorically exempt from CEQA under Class 3.

2. The Planning Commission finds that the custodian of records for all other materials that constitute the record of proceeding upon which this decision is based is the Planning Division Manager. Those documents are available for public review in the Planning Division located at 415 South Ivy Avenue, Monrovia, California, 91016.

3. The Planning Commission in the exercise of its independent judgment hereby makes the findings listed on attached Data Sheet No. 3 for CUP2018-04, which are incorporated herein by this reference.

4. The Planning Commission approves CUP2018-04, subject to the attached Planning Conditions on Data Sheet No. 1 and the Public Works Conditions on Data Sheet 2, and recommendations in the Staff Report, all of which are incorporated herein by this reference.

MOTION:

Close the public hearing and approve CUP2018-04 pursuant to the recommendations in the Staff Report.

DATA SHEET 1 Planning Conditions

CUP 2018-04 **239 West Huntington Drive**

Development of the subject property and operations on the site must remain in substantial conformance at all times with the request and application forms and plans for CUP2018-04, allowing a drive thru establishment, for a 2,200 square foot new commercial building with 35 parking spaces submitted by the applicant, as approved by the Planning Commission and placed on file in the office of the Planning Division, except as modified by the conditions imposed by the Planning Commission and by subsequent modifications determined by the Planning Division Manager to be in substantial compliance with the conditions of approval.

DEVELOPMENT STANDARDS

1. A decorative trash enclosure shall be constructed per City specifications and regulations, and shall be shown and indicated on the submitted site plan, subject to review and approval by the Planning Division Manager. Trash pickup shall be scheduled with enough frequency to ensure that the provided dumpster does not overflow. Trash pickup shall only occur between the hours of 6:00 a.m. to 6:00 p.m.

2. If it is determined by the Community Development Director or Public Services Director that patrons are littering the surrounding streets, sidewalks, parking lots, parks, or adjoining private properties as a result of their coming or leaving the establishment, the business will provide employees to pick-up and properly dispose of all litter.

3. Electrical power lines, telephone lines, and any other transmission lines (including, without limitation, cable television lines, data transmission lines, communication lines, other utility lines, etc.) within the development, shall be placed underground. The existing power poles located along South Magnolia Avenue and within the alley may remain above ground.

4. No roof mounted mechanical equipment shall be permitted on the building unless completely screened by the proposed roof design.

5. All utilities and structures such as gas meters, electrical meters, telephone pedestal-mounted terminal boxes, surface mounted electrical transformers, or other potential obstructions shall be noted on the plans with provisions for appropriate screening.

6. Placement of the electrical transformer shall be shown on a site plan and shall be reviewed and approved by the Development Review Committee.

7. Plans showing all exterior lighting shall be submitted to the Planning Division for review prior to installation and no exterior lighting shall be installed without the approval of the Planning Division Manager. All exterior lighting shall be designed, arranged, and installed so as to confine direct rays onto the premises and to direct light away from adjacent structures.

8. Any graffiti painted or marked upon the premises or on an adjacent area under the control of the licensee shall be removed or painted over within forty-eight hours, unless any law in effect at that time imposes a shorter time period for eradication.

9. Ground level mechanical equipment shall be placed a minimum of 5' from the interior property lines and shall be completely screened with landscaping or fencing. Ground level mechanical equipment shall not be located within the front and street side setbacks.

10. All exterior signs shall be submitted for review by the Development Review Committee (DRC) and no exterior sign may be installed without prior approval of the DRC.

11. The outdoor furniture and patio trellis shall be reviewed and approved by the Planning Division Manager prior to installation.

12. The ordering and pick-up of food and beverages using drive-through facilities is only permitted from a motorized vehicle; any other means used to access drive-thru facilities, including without limitation, pedestrian and bicycle, are prohibited. Applicant shall be responsible for ensuring that its patrons do not loiter or panhandle on the premises outdoors.

13. The approval of Conditional Use Permit CUP2018-04 is predicated on the combined use of two lots: APNs: 8508-008-071 and 8508-008-070. A covenant to hold properties as one ("Covenant") shall be submitted to the Planning Division Manager. The Covenant must meet the approval of the Planning Division Manager, be acceptable in form and substance to the City Attorney, and once approved by the Planning Division Manager, shall be recorded with the Los Angeles County Recorder's office against each parcel that is included, in whole or in part, within the project. The Covenant shall not be modified or revoked without the prior written approval of the City. The Covenant shall be recorded prior to the commencement of operation pursuant to this Conditional Use Permit.

BUSINESS OPERATION

14. All supplies, products, materials, and equipment shall be stored within the building. Outdoor storage of supplies, products, materials, and equipment is prohibited.

15. The Development Review Committee shall review the use permitted by this CUP six months from the date the business commences.

16. Hours of operation shall be limited to 4:00 a.m. to midnight. Before any change is made in these hours of operation, approval by the Development Review

Committee (DRC) shall be obtained by Applicant. Alternatively, the DRC may refer the matter to the Planning Commission for its review, in which case no change in the hours of operation shall be made without Planning Commission approval.

17. The indoor seating shall be limited to 51 seats, and the outdoor seating shall be limited to 40 seats. If the Community Development Department, Public Services Department or any other City department or division finds that traffic related impacts occur once business operations commence, seating may be further reduced.

LANDSCAPING

18. Landscaping over the entire site (two parcels) shall be improved. A Landscape and Irrigation Plan prepared by a Landscape Architect shall be submitted to the Planning Division for plan check showing the size, type, and location of all planting areas and the following conditions of approval:

    a. Landscaping shall be a combination of 24" and 36" box trees, shrubs, groundcover, and turf. The use of turf shall be minimal.
    b. All landscaping shall be maintained by a permanent automatic irrigation sprinkler system.
    c. Any unimproved City right-of-way contiguous with the property shall be landscaped by the Applicant and incorporated into the required landscape plan.
    d. Hardscape improvements shall be provided in common areas.
    e. The Landscape and Irrigation Plan shall comply with the State of California Model Water Efficient Landscape Ordinance.

19. A landscape documentation package pursuant to the requirements of the State Model Water Efficient Landscape Ordinance shall be submitted to the Planning Division for approval prior to landscape construction. A Landscape Certificate of Completion shall be submitted to the Planning Division at the completion of the installation, prior to request for a final inspection and Certificate of Occupancy.

20. Landscaping shall be distributed <u>throughout</u> the parking area and shall be in addition to the required street setback landscaping.

PARKING

21. All parking spaces that are provided as part of the project shall be clearly marked by 2" wide pavement paint or alternate method if approved by the Development Review Committee. Double striping shall be used for delineating all parking spaces so as to provide a minimum parking area of 8'-6" in width by 18' in depth (see details in MMC §17.24.120).

22. Adequate wheel stops shall be installed and maintained as a safeguard to abutting property. The barrier shall be at least three feet from any property line, but in no case shall it be less than necessary to meet the intent of MMC §17.24.060 through §17.24.120.

23. A pedestrian path of travel shall be delineated for patrons walking from the parking lot north of the alley to the café. The delineation shall consist of signage and/or striping to the satisfaction by the City Engineer.

24. With the exception of the parking space located directly to the southeast of the trash enclosure, employees shall park in the parking lot located north of the alley.

CONSTRUCTION SITE REQUIREMENTS

25. Applicant shall provide temporary perimeter fencing with view obscuring material during construction. If graffiti is painted or marked in any way upon the premises or on an adjacent area under the control of the Applicant (including without limitation, any temporary perimeter construction fencing or permanent wall), the graffiti shall be removed or painted over by Applicant within twenty-four hours, unless any law in effect at that time imposes a shorter time period for eradication. Fencing may be removed prior to landscape installation with Planning Division approval.

26. One waterproof sign (36" x 48") in both English and Spanish noting construction hours and a phone number for contact shall be posted by the Applicant at the front of the site prior to grading or construction.

FIRE DEPARTMENT REQUIREMENTS

27. A fire sprinkler system shall be installed per CBC 903.2 and MMC 15.04.240.

28. The fire sprinkler system shall be monitored by a UL listed central station.

29. A knox box shall be provided as required by the Fire Inspector.

GENERAL REQUIREMENTS

30. Any violation of these conditions of approval or the Monrovia Municipal Code may be subject to the Administrative Fine Ordinance, other available remedies and/or revocation or modification of this permit at the discretion of the City Attorney and City Prosecutor.

31. In addition to Planning (Data Sheet No. 1) and Public Works (Data Sheet No. 2) conditions of approval, the Applicant shall also comply with all requirements of the Monrovia Municipal Code, Building Division and Fire Department that are directly applicable to the project.

32. The term "Applicant" as used herein shall include the applicant, the property developer and all successors in interest to this conditional use permit.

33. This CUP may be called for review, including modification or revocation, at any time by City Staff, the City Council, or Planning Commission if a violation of the approved conditions or the Monrovia Municipal Code is alleged, or if it is alleged that the establishment, or its patrons, are creating a public nuisance, or if there are circulation impacts to the surrounding streets and/or properties due to vehicles

queueing beyond the boundaries of the development site and such violation or public nuisance is verified as valid by the Police Department, Code Enforcement, or other City department. In addition to any other remedy available to the City, security measures may be required such as adding an employee to monitor the area where problems are occurring.

34. Indemnification. As a condition of approval, Applicant agrees to defend, indemnify, protect and hold harmless City, its officers, officials, employees, agents and volunteers from and against any and all claims, actions, or proceeding against the City, its officers, officials, employees, agents and/or volunteers to attack, set aside, void or annul, an approval of the City, Planning Commission or City Council concerning this permit and the project. Such indemnification shall include damages, judgments, settlements, penalties, fines, defensive costs or expenses, including, but not limited to, interest, attorneys' fees and expert witness fees, or liability of any kind related to or arising from such claim, action, or proceeding. The City shall promptly notify the Applicant of any claim, action, or proceeding. Nothing contained herein shall prohibit City from participating in a defense of any claim, action or proceeding. The City shall have the option of coordinating the defense, including, but not limited to, choosing counsel for the defense at Applicant's expense.

35. The Applicant shall, within 30 days after approval by the Planning Commission, submit to the Community Development Department his/her written consent to all of the conditions of approval contained in Data Sheet Numbers 1 and 2. This CUP shall be void and of no force or effect unless such written consent is submitted to the City within the 30 day period.

36. The use or development associated with this CUP shall begin within one (1) year after its approval or it will expire without further action by the City.

37. All of the above conditions shall be complied with prior to commencement of the operation, unless an earlier compliance period is specified as part of a condition

DATA SHEET 2 Public Works Conditions

CUP 2018-04 **239 W Huntington Drive**

Development shall be subject to the conditions of approval listed below, and if so indicated, the condition(s) shall be satisfied before Plan approval. The term "Applicant" shall include, without limitation, the applicant, the property developer, the property owner, and all subsequent owners of each parcel.

Engineering Conditions

1) Prior to any development, the Applicant shall provide the following:

a) Site Plan showing: survey monuments, boundaries, easements and right-of-ways

i) Submit existing site plan, topographic map of the project site, grading, drainage and utility plan to Public Works Department for review and approval. The plans shall indicate existing and proposed structures, miscellaneous facilities if applicable and all utilities applicable within the project site. The plans shall be prepared on a 24" x 36" sheets with City standard title block stamped and signed by a Registered Professional Civil Engineer in the State of California. The submittal of the plans shall include: a hydrology report, a geotechnical report, required design calculations, a cost estimate, a plan check fee, and an inspection fee. The final submittal for final approval shall include a mylar of the approved grading, drainage and utility plans. The applicant shall use the assigned drawing number obtained from Public Works for this project. Partial or incomplete submittals will not be accepted.

ii) All site plans, grading plans, drainage plans and street improvement plans shall be coordinated for consistency prior to the issuance of any permits.

b) Water Improvements

i) If the applicant cannot use the existing water services, the applicant shall install a water service to Monrovia's water system to serve the development for domestic and fire usage within the City of Monrovia to the specifications of the City Engineer.

c) Waste Water Improvements

i) If the applicant cannot use the exiting sanitary sewer service, the applicant shall install sanitary sewers to Monrovia's sewer system to serve the development within the City of Monrovia to the specifications of the City Engineer.

ii) The applicant shall provide evidence of payment and approval for connection of sewer units to LA County Waste Water System.

iii) A CCTV video of the existing/proposed sewer lateral connecting to the City mainline is required for the project; a copy of the video shall be submitted to Public Works. Prior to CCTV please notify the Department of Public Works requesting to have the Public Works Inspector on-site to witness the inspection

iv) The Applicant shall comply with the requirements of MMC Section 13.12.015 Non-Storm Water Discharges, Section 13.12.02 Deposit or Discharge of Specified Substances Prohibited, Section 13.12.030 Grease Traps Required and Section 13.12.040 Maintenance of Sewer Laterals. All sewer laterals shall be maintained by the owner of the property served by such lateral in a safe and sanitary operating condition so that there is no seepage of waste at any point up to and including the junction of the sewer lateral and sewer main so that passage of waste through the lateral to the sewer main is free from stoppage and obstruction; all devices and safeguards required for the operation of sewer laterals shall be maintained in good working order. The Applicant shall provide the Department of Public Works a copy of a closed circuit television inspection report of the condition of the existing sewer lateral. If the sewer lateral needs repair, it shall be completed to the satisfaction of the City Engineer prior to commencement of the applicant's operation or prior to issuance of certificate of occupancy.

v) The Applicant shall install an approved interceptor for all kitchen sanitary sewers as approved by the City Engineer and in accordance with the City's Fat, Oil and Grease (FOG) policy.

d) Geotechnical Investigation and Report

i) Prior to issuance of a grading permit or encroachment permit, Applicant shall provide geotechnical report that addresses earthwork and foundation recommendations, including but not limited to, earthwork, retaining walls and foundation construction adjacent to the existing structures located on the property, pavement structural sections and recommendations. The geotechnical report shall include data regarding the nature, distribution and strengths of existing soils, conclusions and recommendations for grading procedures, design criteria for and identified corrective measures, and opinions and recommendations regarding existing conditions and proposed grading. The report shall also include subsurface geology of the site, degree of seismic hazard if any, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, opinions and recommended design criteria to mitigate any identified geologic hazards including locations of surface and subsurface fault lines in the area as applicable. Provide off-site and on-site pavement structural section to be address with recommendation based on Traffic indexes and R values, per Caltrans methods. Provide percolation testing for Low Impact Design (LID) standards

e) Hydrology Report and Hydraulic Calculations

Applicant shall provide hydrology study and hydraulic calculations per L.A. County standards, for mitigation of off-site and on-site flows tributary to these structures and conveyances. And shall obtain permits from the county for all connections or modifications to their system. The outfall of this project after meeting LID standards shall have direct connection to the County or City Strom Sewer System and not be directed to City of Monrovia streets.

f) Grading Plan

i) Grading plan shall conform to MMC Chapter 15.28 and be prepared on a 24" x 36" sheets with City title block. Required improvements may be shown on the grading plan along with site drainage.

ii) Applicant shall provide an analysis and construct required infiltration and/or treatment of storm water from impervious surfaces prior to reaching direct connections leading to the main storm drainage system.

iii) All required mitigation measures identified in the soils engineer's and geologist's reports shall be incorporated into the grading/drainage plans and a made a part thereof.

iv) The lot shall mitigate its own drainage runoff increase and thereby not impacting off-site drainage structures.

v) Grading plan to provide a scaled detail section at each property line where the project is in cut or fill greater than 0.5 feet. Provide in relation to the adjacent property existing conditions: set back dimensions, retaining wall dimensions and encroachments, ground and finish surface elevations, cut and fill slopes including code setbacks, and direction of flow indicators.

g) Utility Coordination Plan

i) Applicant shall submit a utility plan showing all proposed utility cuts for services such as Water, Sewer, Fire Department Stand Pipe, Gas, Edison, Telephone, Cable TV, etc. The Utility plan shall be submitted and approved prior to issuance of grading permits. Private utility plans including sewer, water, gas, including all abandoned, or to be removed facilities, etc. for the proposed development shall be submitted for review and approval by the City Engineer. Pay all applicable fees for Engineering Division services for issuance of Public Works encroachment permits.

h) Off-site Street Improvement Plans

i) Applicant shall dedicate additional rights of way if determined in the review of the improvement plans as they are needed.

ii) Applicant shall reconstruct and repave the public alley that separates parcel 1 and 2 per an approved street improvement plan.

iii) Remove and replace any curb, gutter, sidewalk, driveway approach or street pavement found by the City Engineer to be broken, uplifted, damaged or not meeting current ADA standards. Construct improvements as required, per City standard drawings to match existing improvements on adjacent properties. All ADA requirements shall be satisfied by the Applicant. These conditions apply on public right-of-way along property frontage.

iv) All work such as but not limited to demolition, construction and improvements within the public right-of-way shall be subject to review and approval of the Public Works Department, and will require construction and encroachment permit from the City's Public Works Department, prior to start of any construction. All work within the public right-of-way shall be in accordance with applicable standards of the City of Monrovia, Standard Specifications for Public Works Construction ("Green Book", latest edition) and the Manual on Uniform Traffic Control Devices (MUTCD, latest edition), and further that construction equipment ingress and egress be controlled by a plan approved by the City Engineer.

v) Applicant shall obtain applicable permits for all work to be done within the public right-of-way from the Public Works Department and shall pay all applicable fees for Engineering Division services such as plan check fee and construction inspection fee as applicable.

vi) The City requires the restoration of the existing pavement after utility installation. Restoration is required from the outer limits of the area covering and encompassing all the utility cuts as shown on the plans, but actual limits shall be determined out in the field by City Engineer. Restoration of asphalt pavement may be up to 2-inch pavement grind and 2-inch asphalt overlay and slurry seal type II.

i) Traffic Engineering Conditions

i) Prepare and submit for approval: traffic control plans and staging plans for all off-site improvements and utility connections. Applicant to maintain all traffic control devices for the entire time while working within the City right of way.

j) Environmental Conditions

i) Based upon the requirements of the City's Storm water Management Ordinance, MMC 12.36 and the Los Angeles County Municipal Storm Water National Pollutant Discharge Elimination System (MS4 NPDES) Permit issued by California Regional Water Quality Control Board, Los Angeles Region the applicant will minimize impacts from storm water runoff on the biological integrity of natural drainage systems and water bodies in accordance with requirements under the California Environmental Quality Act and ***follow the City's flow chart for compliance to these laws and codes***.

k) Demolition of Existing Structures

i) The project demolition activities shall comply with the City's Construction and Demolition Recycling Program (C&D Recycling Program) by filing an application and submitting a deposit to Public Works Environmental Services prior to issuance of permits. Building, demolition, and grading permits will not be issued until the applicant provides the City with the required forms and the waste management plan has been reviewed and approved by the Environmental Services. If the Applicant chooses not to participate in the C&D Recycling Program, then the hauler must be identified on the demolition, building and grading plans.

ii) Building, demolition, and grading permits will not be issued until the applicant provides copy of Air Quality Management District (AQMD) permit.

l) As-built Plans

i) Applicant shall provide to the City of Monrovia revised plans of the original size, on mylar, showing all as-built conditions for the off-site and on-site improvements prior to the release of bonds held for the completion of the map.

DATA SHEET 3 Findings

CUP2018-04 **239 West Huntington Drive**

CONDITIONAL USE PERMIT

As required by Section 17.52.290 of the Monrovia Municipal Code, the decision for granting Conditional Use Permit No. CUP2018-04 for new 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces in the RCC (Retail Corridor Commercial) and the M (Manufacturing) zones located at 239 West Huntington Drive is based on the following findings:

A. The project site is adequate in size, shape and topography for the 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces. *The subject site contains two parcels that are bisected by an alley totaling 28,974 square feet within a commercial/industrial area of the City. The topography of this commercial/industrial area is relatively flat. The use will lessen the size of development and increase on-site parking over the current conditions.*

B. The project site where the 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces will be located has sufficient access to streets and highways, adequate in width and pavement type to carry the quantity and quality of traffic generated by the proposed use. *The proposed use is located in a commercial/industrial area of the City, which is designed to support the use and traffic loads this use will generate. A Traffic Impact Analysis has been prepared and reviewed by the City's Traffic Consultant to study the effects of the proposed use. The study concludes, and the City's Traffic Consultant concurs that the proposed development will have minimal traffic impacts. As conditioned, the existing site will provide a clearly marked pedestrian and accessible walkway from the parking area. The proposed 35 surface parking spaces will be sufficient to serve this use.*

C. The 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces is compatible with the General Plan and will not adversely impact the objectives of the General Plan. *The property is located within the Retail Corridor Commercial General Plan land use designation, which "allows for large-scale retail, entertainment, hotels, and office facilities serving both the local and sub-regional markets." The conditions of approval will further ensure compatibility with the surrounding uses by limiting the hours of operation and implementing a review of the use after six months of operations to address any impacts to the surrounding properties. The 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces is compatible with the General Plan and will not adversely impact the objectives of the General Plan.*

D. The 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces will comply with the applicable provisions of the zoning ordinance. *The zoning ordinance provides regulations relating to the size and location of*

commercial developments within the Retail Corridor Commercial zone. The proposed coffee shop and parking lot is in compliance with the provisions set forth in the zoning ordinance. No exceptions or variances are being sought in conjunction with the proposed project.

E. The granting of the conditional use permit for a 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces and the conditions under which it will be operated or maintained will not be detrimental to the public health, safety or welfare, nor will it be materially injurious to properties or improvements in the vicinity. *The applicant will be required to adhere to the conditions of approval on Data Sheet No. 1 and Data Sheet No. 2 to ensure the 2,200 square foot drive-thru coffee shop and surface parking lot with 35 parking spaces is not detrimental or injurious to the public and surrounding uses.*

DATA SHEET 4 Surrounding Land Uses

CUP2018-04 **239 West Huntington Drive**

Property Description: Located on the northeast corner of West Huntington Drive and South Magnolia Avenue. The subject site contains two parcels, the 20,941 square foot parcel at the corner of West Huntington Drive and South Magnolia Avenue that is improved with the 3-Day Suit Broker, and the 8,033 square foot parcel that is used for parking located to the north of the alley behind the building. The existing building will be demolished, and a new 2,200 square foot drive-thru cafe with 17 parking spaces will be constructed on the southern parcel. The parcel to the north of the alley will be improved with 18 parking spaces and landscaped planters.

Zoning

Subject site: RCC (Retail Corridor Commercial)/M (Manufacturing)

Surrounding pattern:

north: M (Manufacturing)

south: RCC (Retail Corridor Commercial)

east: RCC (Retail Corridor Commercial)/M (Manufacturing)

west: RCC (Retail Corridor Commercial)/PQP (Public/Quasi-Public)

Land Use

Subject site: Commercial Building (3-Day Suit Broker)

Surrounding pattern:

north: Commercial Building (RBJ Software, Inc.)

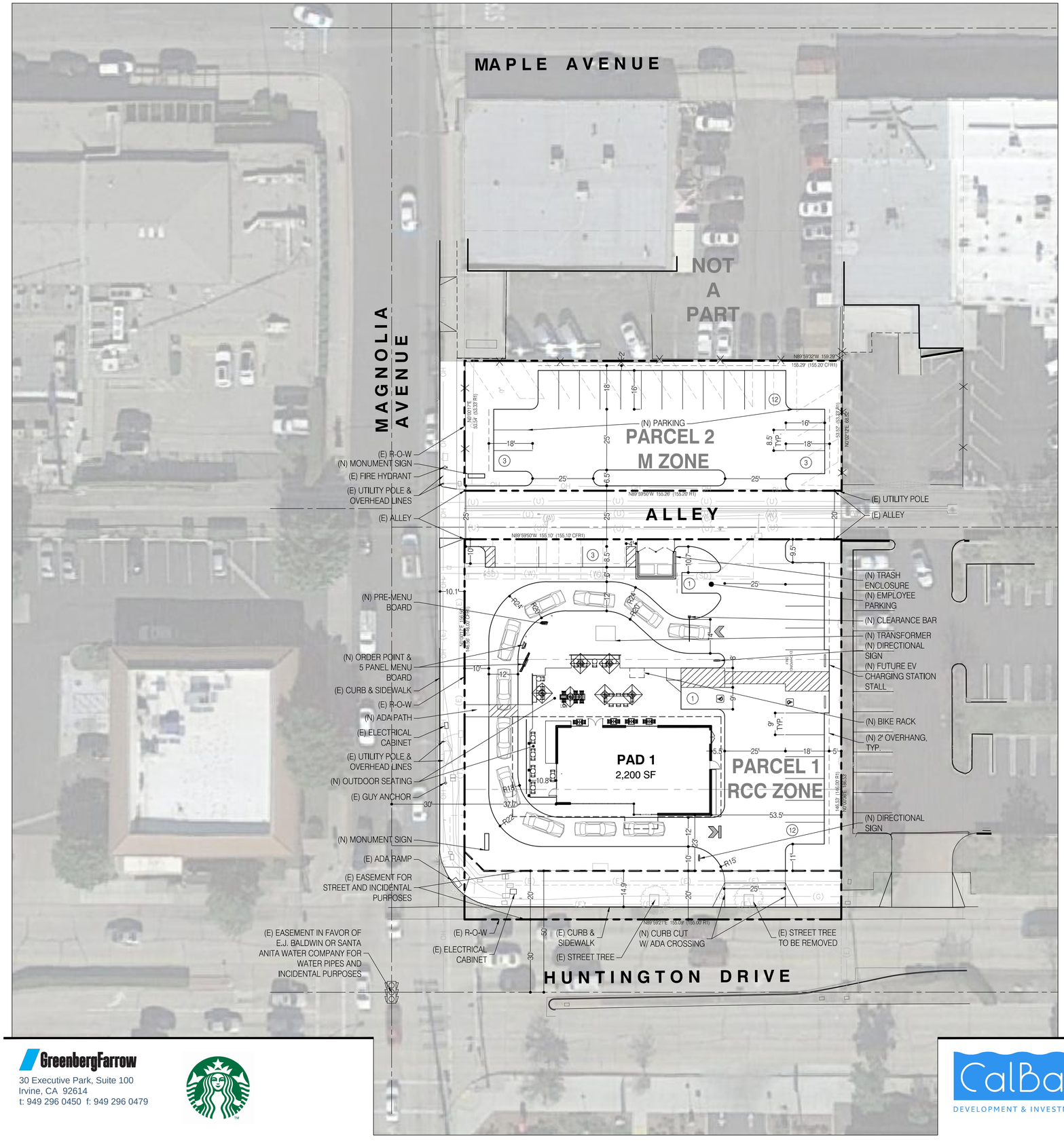
south: Commercial Building (Jack In the Box)

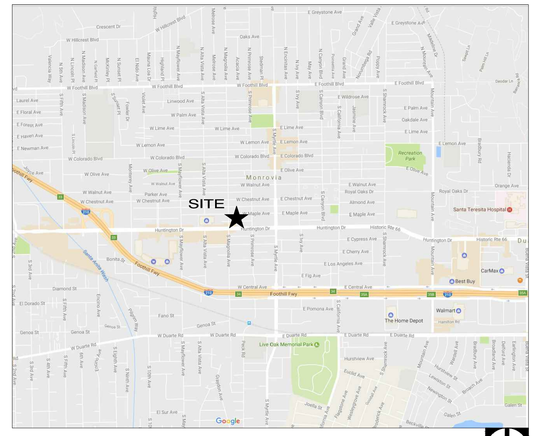
east: Commercial Building (Pepboys)

west: Commercial Building (Fast Auto Loans/Donut & Yogurt)

Environmental Determination: Categorical Exemption Class 3

Applicable Ordinance Regulations: MMC 17.52.020 Planning Commission Authority for CUP





LOCATION MAP

PROJECT INFORMATION

ZONING CLASSIFICATION

JURISDICTION	MONROVIA, CA
EXISTING ZONE	RCC (RETAIL CORRIDOR COMMERCIAL) M (MANUFACTURING)
REQUIRED ZONE	RCC (RETAIL CORRIDOR COMMERCIAL) M (MANUFACTURING)

SITE AREA

PARCEL 1	±0.485 AC
PARCEL 2	±0.191 AC
NET SITE AREA (EXISTING)	±0.676 AC
STREET EASEMENT (HUNTINGTON DRIVE)	±0.072 AC
TOTAL GROSS SITE AREA	±0.748 AC

NET SITE COVERAGE: ±7.47% (±3,254 SF/AC)

BUILDING INFORMATION

PAD 1 BUILDING AREA ±2,200 SF

PARKING SUMMARY

USER	RATIO REQUIRED	SPACES REQUIRED	SPACES PROVIDED
PAD 1	*	34	
STANDARD			32
ACCESSIBLE	2+1		3
TOTAL		34	35

DRIVE-THRU STACKING 11 CARS

* PARKING REQUIRED: 1 SP/2.3 PEOPLE CALCULATED FOR OCCUPANT LOAD OF DINING AREA + 7% OF OCCUPANCY LOAD FOR EMPLOYEE PARKING

OCCUPANT LOAD OF DINING AREA	= 73
7% FOR EMPLOYEE PARKING	= 5
TOTAL	= 78

PROJECT NOTES

1. THIS CONCEPTUAL SITE PLAN IS FOR PLANING SUBMITTAL PURPOSES ONLY.
2. THIS SITE PLAN IS BASED ON A CAD FILE OF THE ALTA LAND TITLE SURVEY PREPARED BY DRC ENGINEERING, INC., DATED 07/18/2017.

DRAWING ISSUE/REVISION RECORD

DATE	NARRATIVE	INITIALS
04.20.2017	PREP SP-1	II
04.21.2017	PREP SP-2	II
06.22.2017	PREP SP-3	II
07.19.2017	PREP SP-4	CD
07.26.2017	PREP SP-5	II
10.10.2017	PREP SP-6	II
10.11.2017	REV SUMMARY	II
11.17.2017	REV SP-6	MM
03.16.2018	PREP SP-7	MM

GREENBERG FARROW CONTACTS

SITE PLANNER/PROJECT MANAGER	I.IBRAHIMBEGOVIC
SITE DEV. COORDINATOR	B.MICHALCHUK

TRUE NORTH

SCALE: 1"=20'-0"

0 10 20 40 60 80

GreenbergFarrow
30 Executive Park, Suite 100
Irvine, CA 92614
t: 949 296 0450 f: 949 296 0479

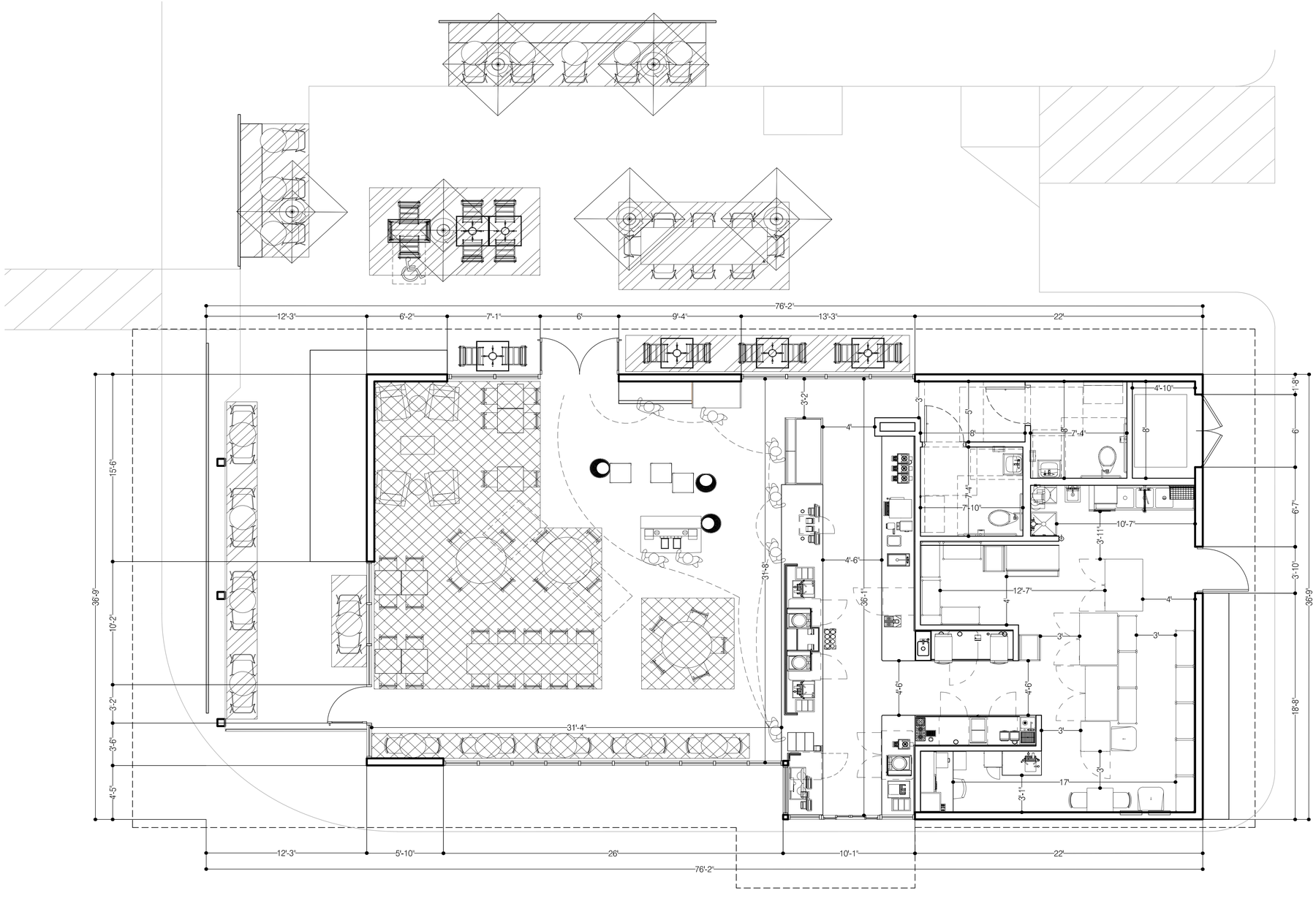
CalBay DEVELOPMENT & INVESTMENTS

STARBUCKS
NEC HUNTINGTON DR & MAGNOLIA AVE
MONROVIA, CA
20170704.0

SITE PLAN

SP-7

03.16.2018



LEGEND

INDOOR SEATING
(±500 SF)

OUTDOOR SEATING
(±595 SF)

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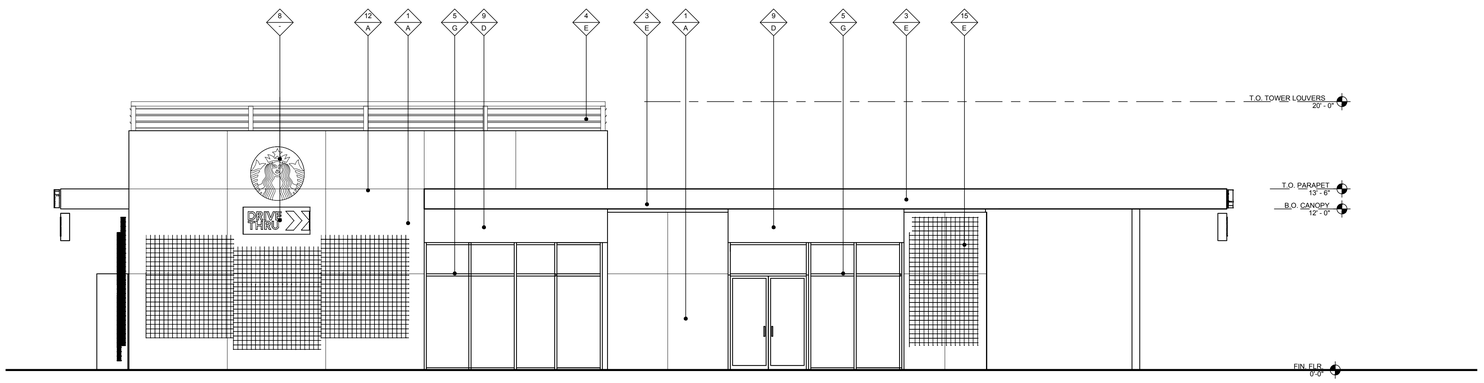
SCALE: 1/4"= 1'–0"

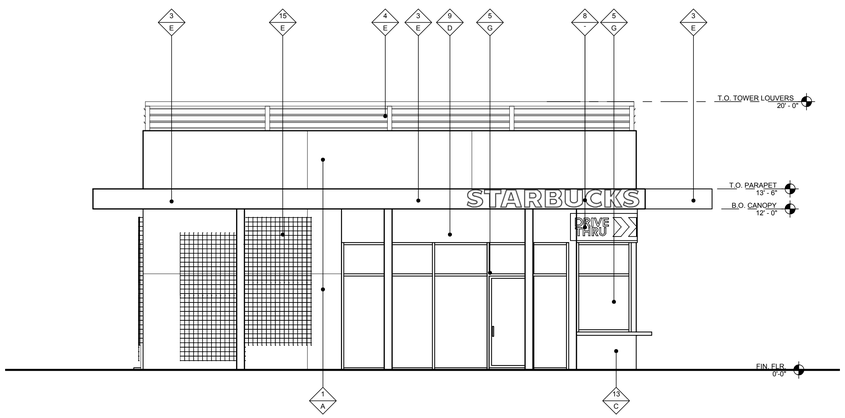
STARBUCKS
NEC HUNTINGTON DR & MAGNOLIA AVE
MONROVIA, CA

FLOOR PLAN

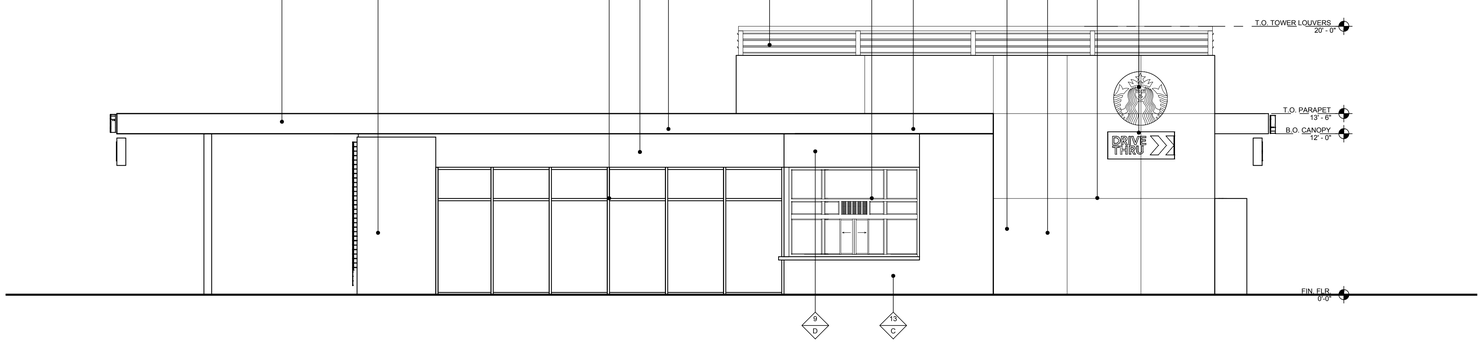
20170740.0 | 03.19.2018



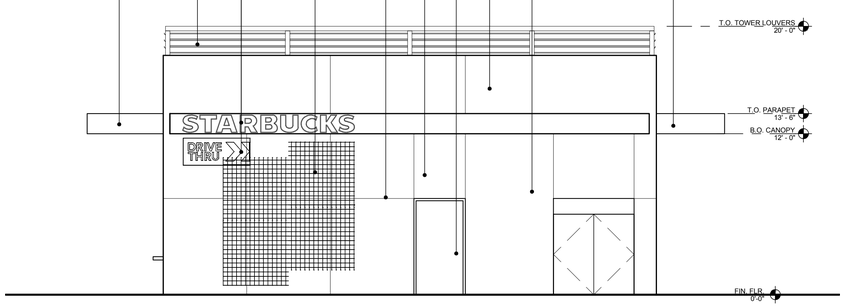
1 NORTH ELEVATION
Scale: 3/16"= 1'-0"



2 WEST ELEVATION
Scale: 3/16"= 1'-0"



3 SOUTH ELEVATION
Scale: 3/16"= 1'-0"



4 EAST ELEVATION
Scale: 3/16"= 1'-0"

FINISH SCHEDULE

	FINISH MATERIAL		FINISH COLOR
1	CEMENT PLASTER W/INTEGRAL COLOR FINISH COAT - SMOOTH FINISH	A	UNPAINTED STUCCO WITH CONTROL JOINT AND DIVOTS
2	PREFINISHED METAL COPING	B	NOT USED
3	METAL CANOPY	C	THERMO TREATED ASH
4	CORRUGATED METAL	D	PAINT TO MATCH DARK BRONZE
5	ALUMINUM STOREFRONT SYSTEM	E	POWDERCOAT - DARK BRONZE
6	DRIVE-THRU WINDOW	F	NOT USED
7	HOLLOW METAL DOOR AND FRAME	G	ANODIZED - DARK BRONZE
8	SIGNAGE UNDER SEPARATE PERMIT	H	NOT USED
9	BREAK METAL		
10	NOT USED		
11	NOT USED		
12	CEMENT PLASTER CONTROL JOINT		
13	HORIZONTAL WOOD SIDING		
14	NOT USED		
15	METAL TRELLIS		

Note:
Colors shown on these elevations are for illustration purposes only. For actual colors, refer to manufacturer's samples.

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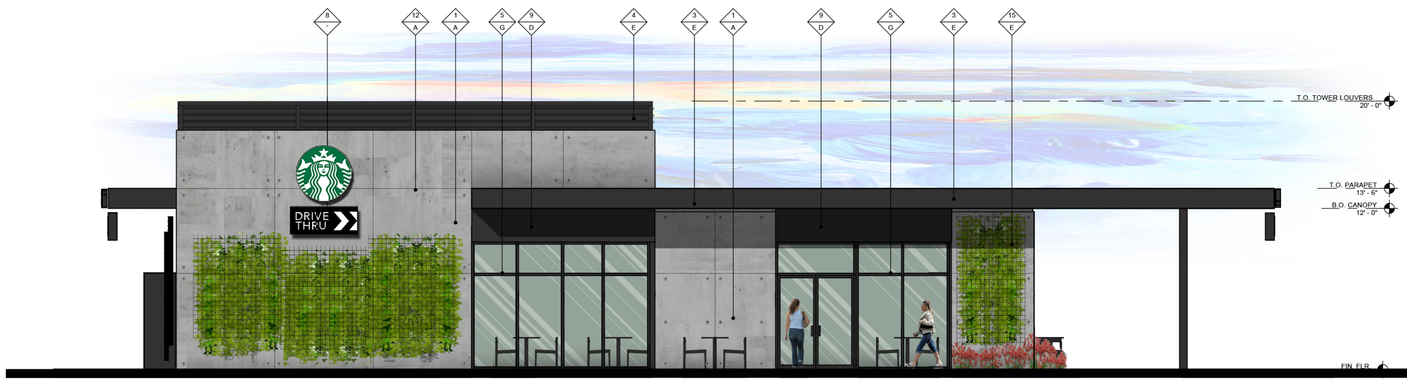
STARBUCKS
239 W. HUNTINGTON DRIVE
MONROVIA, CA
20170502.0

EXTERIOR ELEVATIONS
SCALE: AS NOTED

03.19.18



1 NORTH ELEVATION
Scale: 3/16"= 1'-0"

2 WEST ELEVATION
Scale: 3/16"= 1'-0"

3 SOUTH ELEVATION
Scale: 3/16"= 1'-0"

4 EAST ELEVATION
Scale: 3/16"= 1'-0"

FINISH SCHEDULE

	FINISH MATERIAL		FINISH COLOR
1	CEMENT PLASTER WINTEGRAL COLOR FINISH COAT - SMOOTH FINISH	A	UNPAINTED STUCCO WITH CONTROL JOINT AND DIVOTS
2	PREFINISHED METAL COPING	B	NOT USED
3	METAL CANOPY	C	THERMO TREATED ASH
4	CORRUGATED METAL	D	PAINT TO MATCH DARK BRONZE
5	ALUMINUM STOREFRONT SYSTEM	E	POWDERCOAT - DARK BRONZE
6	DRIVE-THRU WINDOW	F	NOT USED
7	HOLLOW METAL DOOR AND FRAME	G	ANODIZED - DARK BRONZE
8	SIGNAGE UNDER SEPARATE PERMIT	H	NOT USED
9	BREAK METAL		
10	NOT USED		
11	NOT USED		
12	CEMENT PLASTER CONTROL JOINT		
13	HORIZONTAL WOOD SIDING		
14	NOT USED		
15	METAL TRELLIS		

Note:
Colors shown on these elevations are for illustration purposes only. For actual colors, refer to manufacturer's samples.

GreenbergFarrow
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STARBUCKS
239 W. HUNTINGTON DRIVE
MONROVIA, CA
20170502.0

EXTERIOR ELEVATIONS
SCALE: AS NOTED

03.19.18

Exhibit A

TRAFFIC IMPACT ANALYSIS

MONROVIA STARBUCKS

MONROVIA, LOS ANGELES COUNTY, CALIFORNIA

This Traffic Impact Analysis has been prepared under the supervision of
Donson H. Liu, T.E.

Signed _____

LSA

March 2018

Exhibit A

TRAFFIC IMPACT ANALYSIS

MONROVIA STARBUCKS

MONROVIA, LOS ANGELES COUNTY, CALIFORNIA

Submitted to:

CalBay Corporation
3770 Highland Avenue, Suite 208
Manhattan Beach, CA 90266

Prepared by:

LSA
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. CBY1801

March 2018

Exhibit A

EXECUTIVE SUMMARY

LSA has prepared the following Traffic Impact Analysis (TIA) to identify any traffic impacts that could result from the development of a 2,200 square-foot (sf) retail coffee shop with a drive-through on the northeast corner of Magnolia Avenue/Huntington Drive in Monrovia. The existing site for the Monrovia Starbucks Project (project) consists of a 19,148 sf retail development. This use will be demolished and replaced by the project. Vehicular access to the project site will be provided via a right-in/right-out driveway along Huntington Drive, and an additional full-access driveway connected to an existing alley along Magnolia Avenue.

This study focuses on the a.m. peak-hour (one hour between 7:00 a.m. to 9:00 a.m.) and p.m. peak-hour (one hour between 4:00 p.m. to 6:00 p.m.) levels of service (LOS) at 7 intersections. Project impacts were determined based on the analyses of the following scenarios:

1. Existing condition
2. Existing plus project condition
3. Cumulative year (2020) condition
4. Cumulative year (2020) plus project condition

The study also analyzed the California Department of Transportation (Caltrans) ramp intersections using *Highway Capacity Manual* (HCM 6th Edition, Transportation Resources Board 2016) methodology. The ramp intersection analysis is not part of the City of Monrovia's (City) TIA guidelines, but is included for Caltrans disclosure purposes.

Pedestrian traffic is afforded safe travel via existing sidewalks throughout the site that connect to the public right-of-way along Magnolia Avenue and Huntington Drive. On-street (Class III) bicycle routes are available along Magnolia Avenue.

Transit facilities are accessible from the project site within the immediate vicinity. Foothill Transit bus stops are provided on the western edge of Magnolia Avenue/Project Alley (Line 270) and on the northwest and southwest corners of Magnolia Avenue/Huntington Drive (Line 187). The Foothill Transit bus stops are accessible via sidewalk and crosswalk connections.

The proposed project is estimated to generate 902 trips per day, including 98 trips in the a.m. peak hour (50 inbound and 48 outbound) and 48 trips in the p.m. peak hour (24 inbound and 24 outbound). The total net trip generation (total proposed project minus trips generated by existing land uses) will add 179 trips per day, including an additional 80 trips in the a.m. peak hour (39 inbound and 41 outbound) and a reduction of 25 trips in the p.m. peak hour (a reduction of 11 inbound trips and 14 outbound trips).

Based on the results of this TIA, the project can be implemented without creating significant impacts to the performance of the studied intersections or the Caltrans ramp intersections. No mitigation measures are required for project implementation.

Exhibit A

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APPENDICES

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FIGURES AND TABLES

FIGURES

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Exhibit A

LIST OF ABBREVIATIONS AND ACRONYMS

Caltrans	California Department of Transportation
City	City of Monrovia
DU	dwelling unit
ft	foot/feet
HCM	*Highway Capacity Manual*
I-210	Interstate 210
ICU	Intersection Capacity Utilization
ITE	Institute of Transportation Engineers
LOS	level of service
mi	mile/miles
NDS	National Data and Surveying Services
project	Monrovia Starbucks Project
RIRO	right-in/right-out
sf	square foot/square feet
TIA	Traffic Impact Analysis
v/c	volume-to-capacity

Exhibit A

INTRODUCTION

LSA has prepared this Traffic Impact Analysis (TIA) to identify any traffic impacts that could result from the planned development of a 2,200 square-foot (sf) retail coffee shop with a drive-through on the northeast corner of Magnolia Avenue/Huntington Drive in Monrovia. This TIA for the Monrovia Starbucks Project (project) was prepared in accordance with the applicable sections of the City of Monrovia's (City) *General Plan Circulation Element* (adopted by the City on January 15, 2008, and amended on November 6, 2012) and guidance through discussions with the City Traffic Engineer.

PROJECT SITE

Figure 1 shows the project site location. The project includes the demolition of a 19,148 sf retail development, and construction of a 2,200 sf retail coffee shop with a drive-through.

The project site is bounded by an alley to the north, Magnolia Avenue to the west, Huntington Drive to the south, and commercial uses to the east. Vehicular access to the project site will be provided via a right-in/right-out (RIRO) driveway along Huntington Drive and an additional full-access driveway connected to an existing alley along Magnolia Avenue. Both driveways will have one inbound lane and one outbound lane and will be approximately 25 ft wide. Figure 2 shows the project site plan.

Study Area Boundary

As illustrated on Figure 1, the study area includes the following intersections:

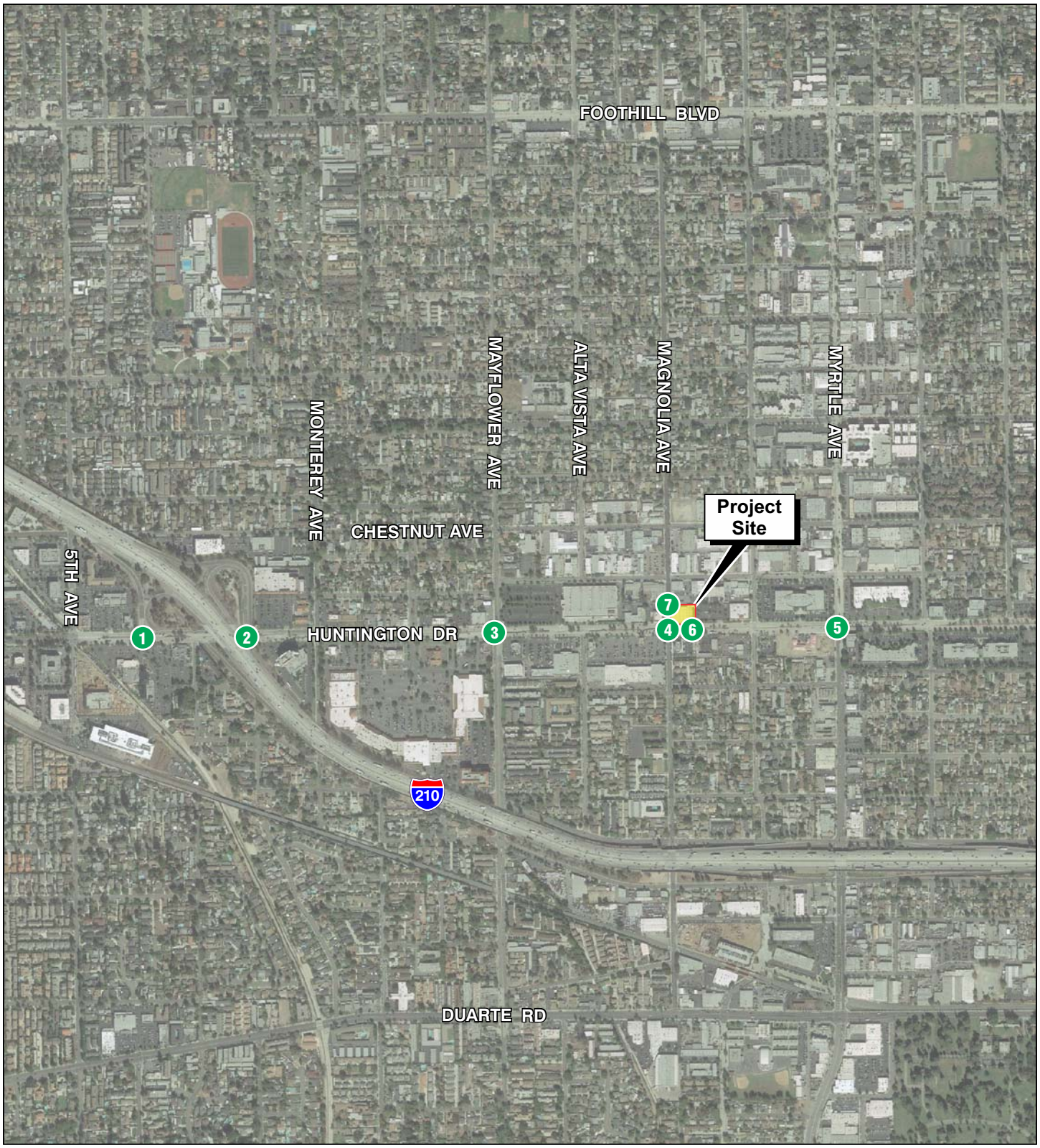
1. Interstate-210 (I-210) eastbound ramps/Huntington Drive (signalized)
2. I-210 westbound ramps/Huntington Drive (signalized)
3. Mayflower Avenue/Huntington Drive (signalized)
4. Magnolia Avenue/Huntington Drive (signalized)
5. Myrtle Avenue/Huntington Drive (signalized)
6. Project Driveway/Huntington Drive (unsignalized)
7. Magnolia Avenue/Project Alley (unsignalized)

PERFORMANCE CRITERIA

Intersection Criteria

The Intersection Capacity Utilization (ICU) methodology was used to determine the peak-hour operations at signalized intersections within the study area. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow activity and LOS F represents overcapacity operation. Parameters set by the City for ICU calculations, including lane capacity, right-turn treatment, and clearance interval, are incorporated into the analysis.

Exhibit A



LSA

LEGEND

- Project Site
- # - Study Area Intersection

N

0 550 1100

FEET

SOURCE: Google Earth

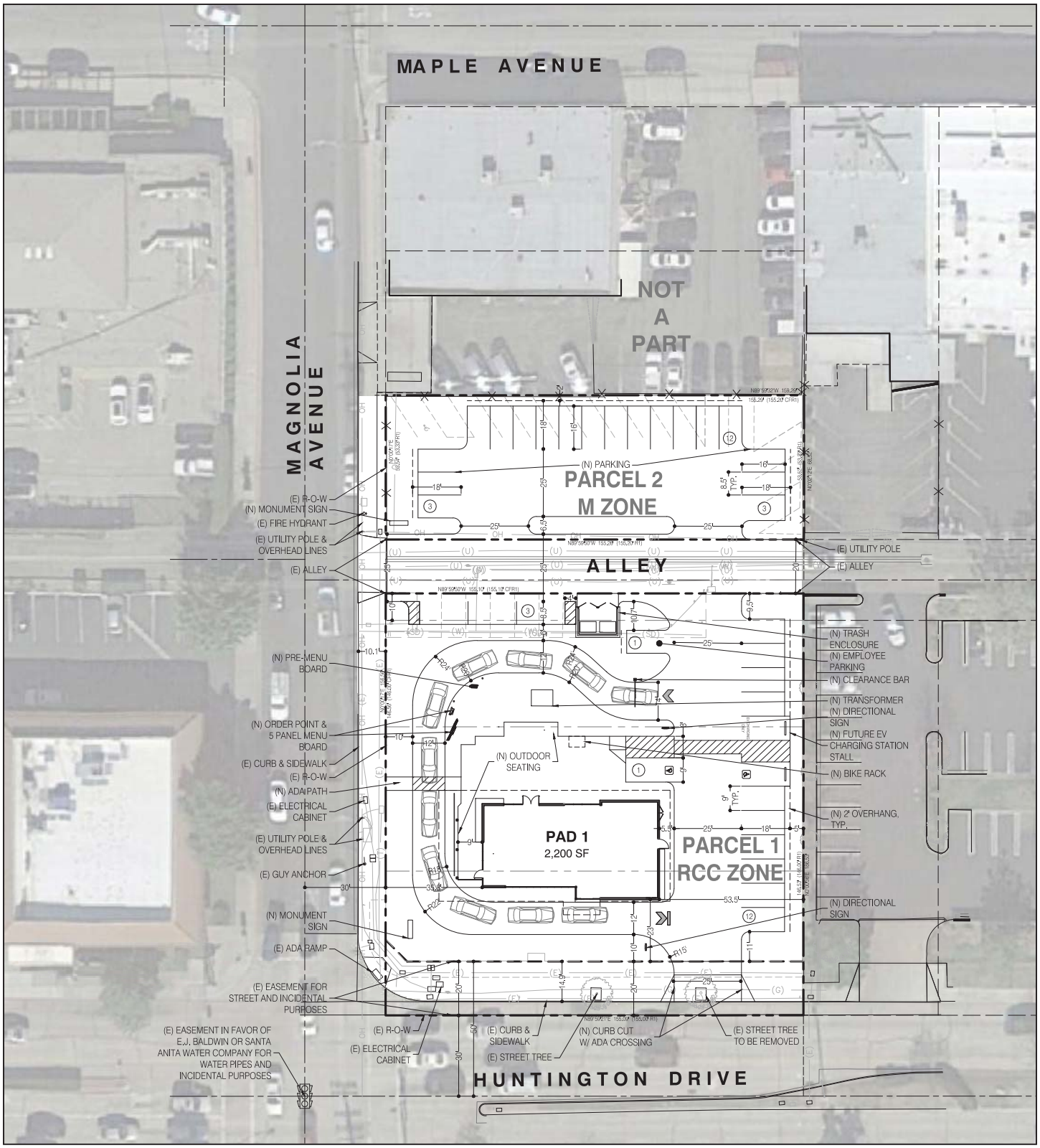
FIGURE 1

Monrovia Starbucks

Project Location and Study Area Intersections

I:\CBY1801\G\Location&Ints.cdr (2/5/2018)

Exhibit A



LSA

FIGURE 2

N

0 25 50

FEET

SOURCE: GreenbergFarrow

Monrovia Starbucks

Site Plan

I:\CBY1801\G\Site Plan.cdr (1/31/2018)

Exhibit A

According to the City's *General Plan Circulation Element* (2012), LOS at an intersection is considered to be unsatisfactory when the ICU exceeds 0.90 (LOS D) within the City, except at locations where LOS E or F conditions currently exist. The relationship of ICU to LOS is demonstrated in the following table.

Level of Service	ICU
A	0.00–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

Source: *Highway Capacity Manual* (Transportation Research Board 2016).
ICU = Intersection Capacity Utilization

Based on discussion with the City Traffic Engineer, a project impact occurs when project traffic causes an intersection to exceed the acceptable LOS, or the impact of the development results in an increase of 0.04 or greater for LOS C, 0.03 or greater for LOS D, 0.02 or greater for LOS E, or 0.01 or greater for LOS F. Project mitigation would be required to return such intersections to acceptable LOS, or to the baseline ICU if the baseline ICU is greater than 0.90.

In addition to the ICU methodology of calculating signalized intersection LOS, the *Highway Capacity Manual* (HCM 6th Edition, Transportation Resources Board 2016) methodology was used to determine the LOS at unsignalized study area intersections and signalized intersections at freeway interchanges. The HCM unsignalized and signalized intersection methodology looks at delay (in seconds per vehicle), as opposed to capacity, as the measure of effectiveness. The resulting delay is expressed in terms of LOS, much like the ICU methodology. The relationship of delay to LOS is illustrated in the following table.

Level of Service	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	≤10.0	≤10.0
B	>10.0 and ≤20.0	>10.0 and ≤15.0
C	>20.0 and ≤35.0	>15.0 and ≤25.0
D	>35.0 and ≤55.0	>25.0 and ≤35.0
E	>55.0 and ≤80.0	>35.0 and ≤50.0
F	>80.0	>50.0

Source: *Highway Capacity Manual* (Transportation Research Board 2016).

This study, consistent with City guidelines, evaluates traffic impacts based on ICU methodology. The HCM methodology is another method to evaluate operational conditions at signalized intersections, and takes into consideration signal timing and can calculate queue lengths at turn lanes. HCM methodology is also required by the California Department of Transportation (Caltrans) to analyze Caltrans ramp intersections. Acceptable LOS for Caltrans intersections is considered to be LOS D or better.

Based on a discussion with the City Traffic Engineer, the Caltrans significant impact criteria specified in the *SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region* (San Diego Regional Traffic Engineers Council/ITE 2000) are used. These criteria identify a significant impact at a Caltrans

ramp intersection when the intersection operates at LOS D, E, or F, and the impact of the development results in an increase of at least 2 seconds of delay. All HCM analysis for this study has been developed using Synchro (Version 10.1) software.

EXISTING CONDITIONS

Existing Site Uses

The existing site currently consists of a 19,148 sf retail development. This use will be replaced by the proposed 2,200 sf retail coffee shop with a drive-through. It should be noted that the existing site is zoned for retail, but the existing retail shop is closed Monday to Wednesday. Figure 3 illustrates existing lane configurations within the study area.

Existing Baseline Traffic Volumes and Levels of Service

Peak-hour intersection turn volumes for the study area intersections were obtained from the City and National Data and Surveying Services (NDS). Figure 4 presents the existing a.m. (one hour between 7:00 a.m. to 9:00 a.m.) and p.m. peak-hour (one hour between 4:00 p.m. to 6:00 p.m.) turn-movement volumes at the study area intersections. Appendix A provides the existing count data.

Table A summarizes the results of the existing a.m. and p.m. peak-hour LOS analysis. As previously discussed, the ICU methodology was used to determine the LOS at signalized study area intersections, and the HCM methodology was used to determine the LOS at unsignalized study area intersections. The LOS analysis for the intersection of Project Driveway/Huntington Drive will be shown later in the report, due to the fact that the intersection does not generate a baseline delay.

As shown in Table A, all study area intersections currently operate at satisfactory LOS during the a.m. and p.m. peak hours.

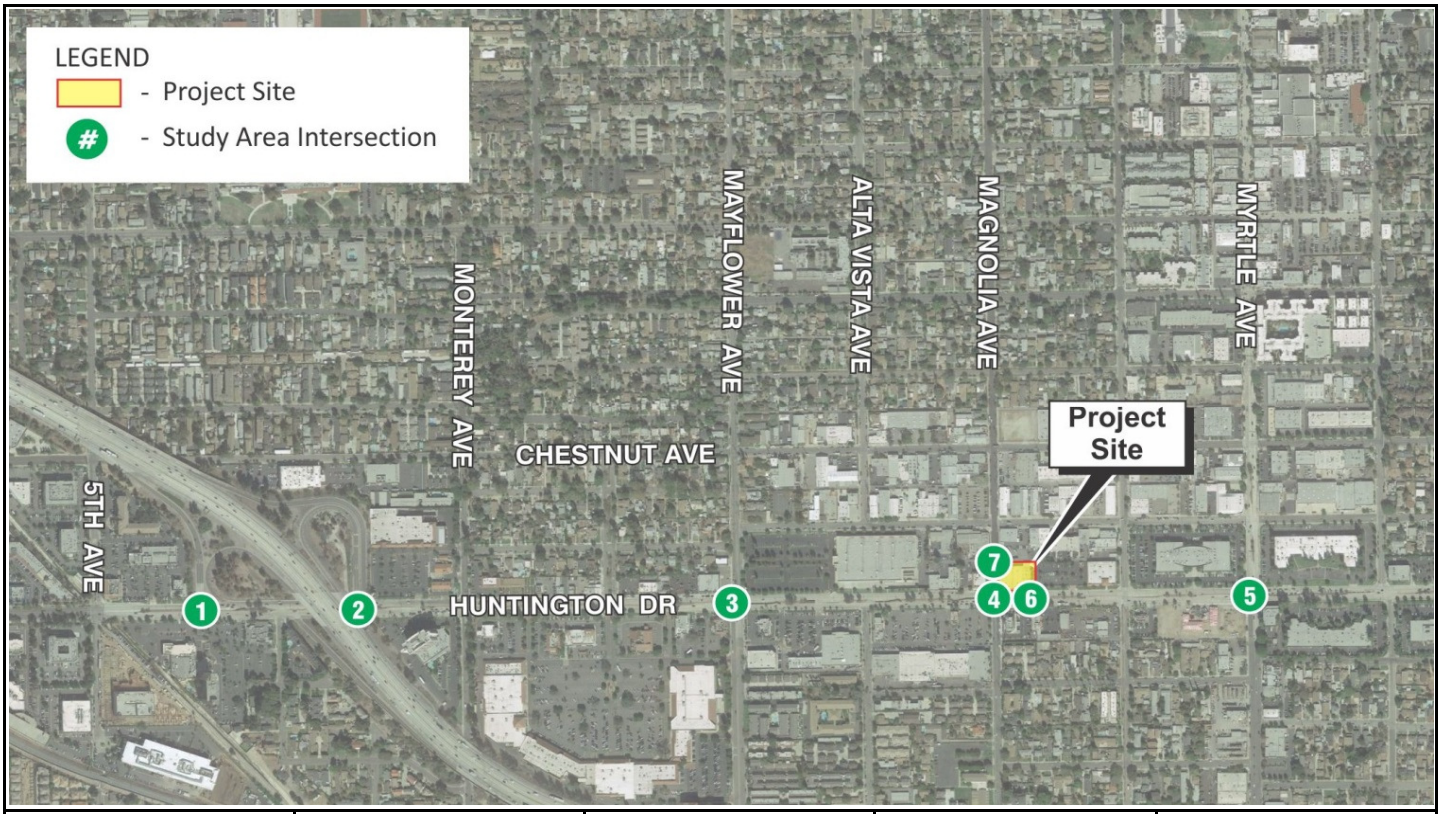
PROPOSED PROJECT TRAFFIC

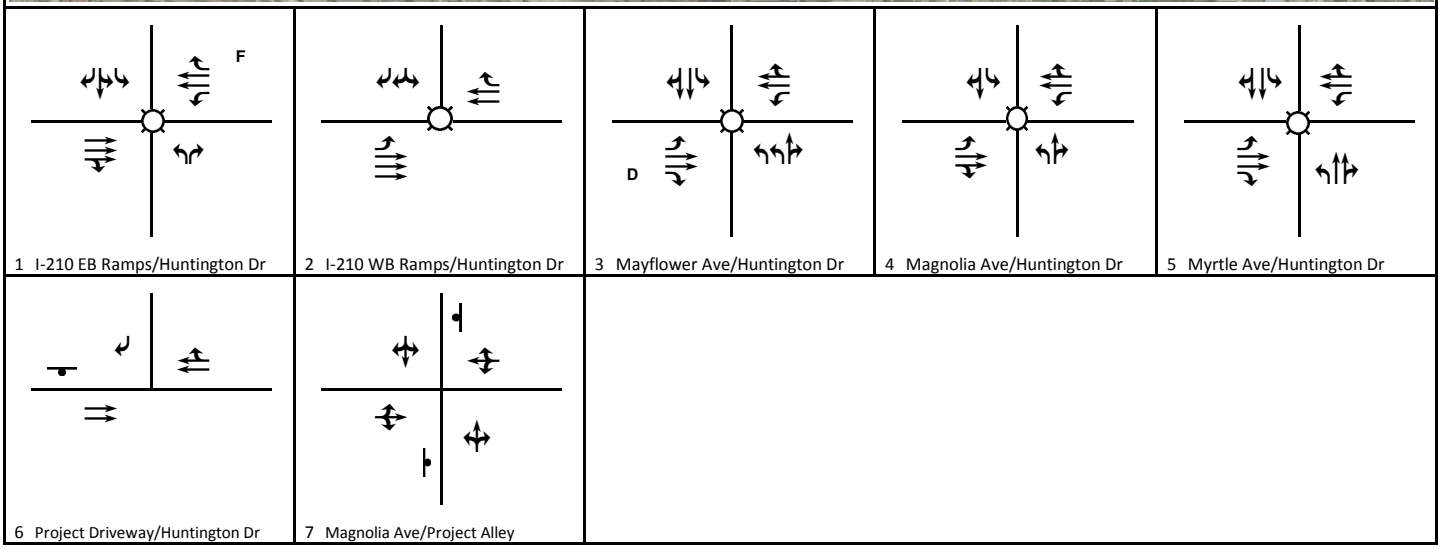
Trip Generation

Trip generation calculations for the project were based on the daily and peak-hour trip rates taken from the Institute of Transportation Engineers (ITE) *Trip Generation*, 10th Edition (2017), shown in Table B.

As Table B indicates, the existing land uses are estimated to generate 723 trips per day, including 18 trips during the a.m. peak hour (11 inbound and 7 outbound) and 73 trips in the p.m. peak hour (35 inbound and 38 outbound). It should be noted that the existing retail shop is closed Monday to Wednesday, and will be discussed later in the report. As discussed with the City traffic engineer, due to the nature of the project, the project will take a 50% pass-by trip credit. Pass-by traffic is the element of traffic that is already on the road and stops at a site as an intervening opportunity. For example, someone driving on their way to work in the morning and pulling in for coffee at Starbucks.

Exhibit A





1 I-210 EB Ramps/Huntington Dr
2 I-210 WB Ramps/Huntington Dr
3 Mayflower Ave/Huntington Dr
4 Magnolia Ave/Huntington Dr
5 Myrtle Ave/Huntington Dr

6 Project Driveway/Huntington Dr
7 Magnolia Ave/Project Alley

LSA

FIGURE 3

Legend

Signal

Stop Sign

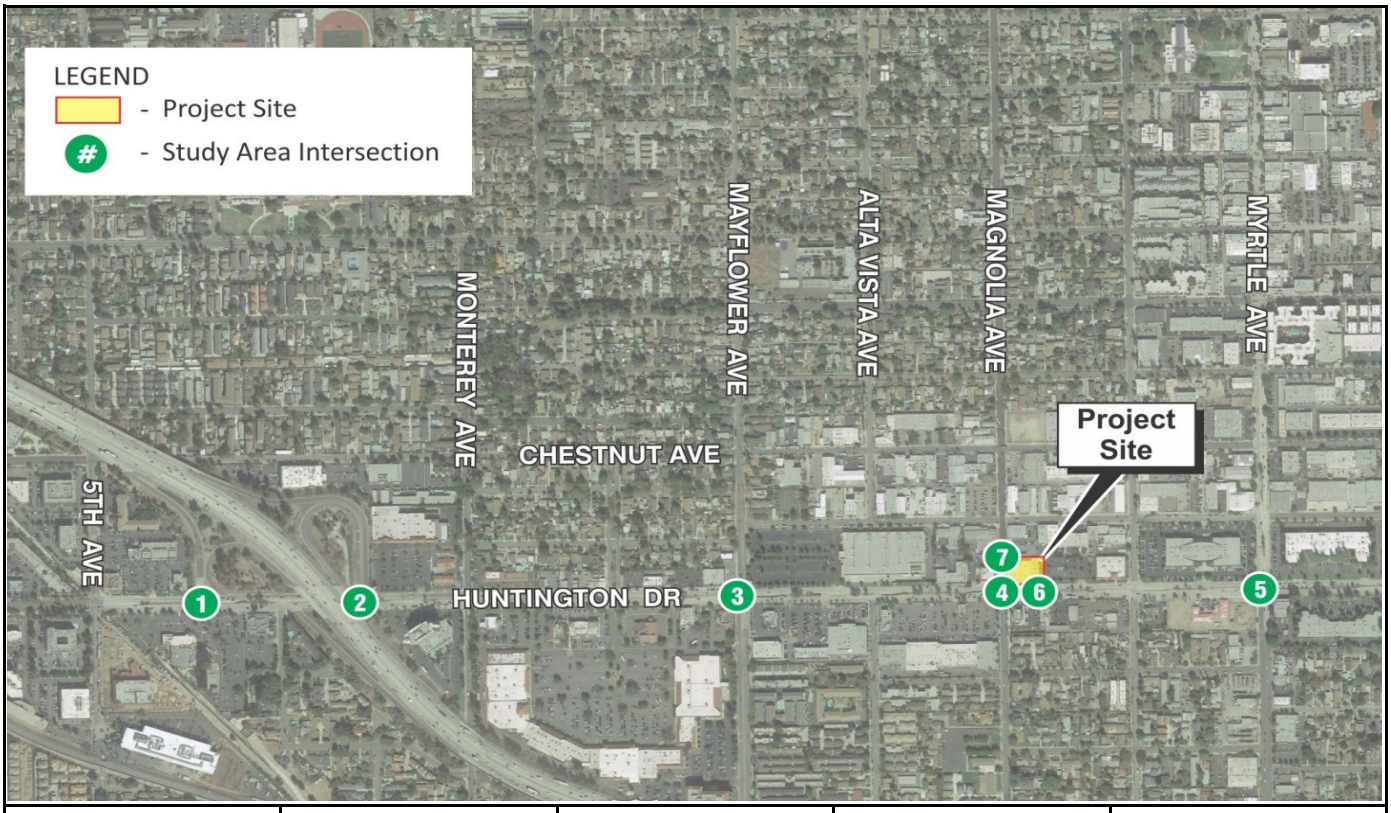
F Free Right Turn

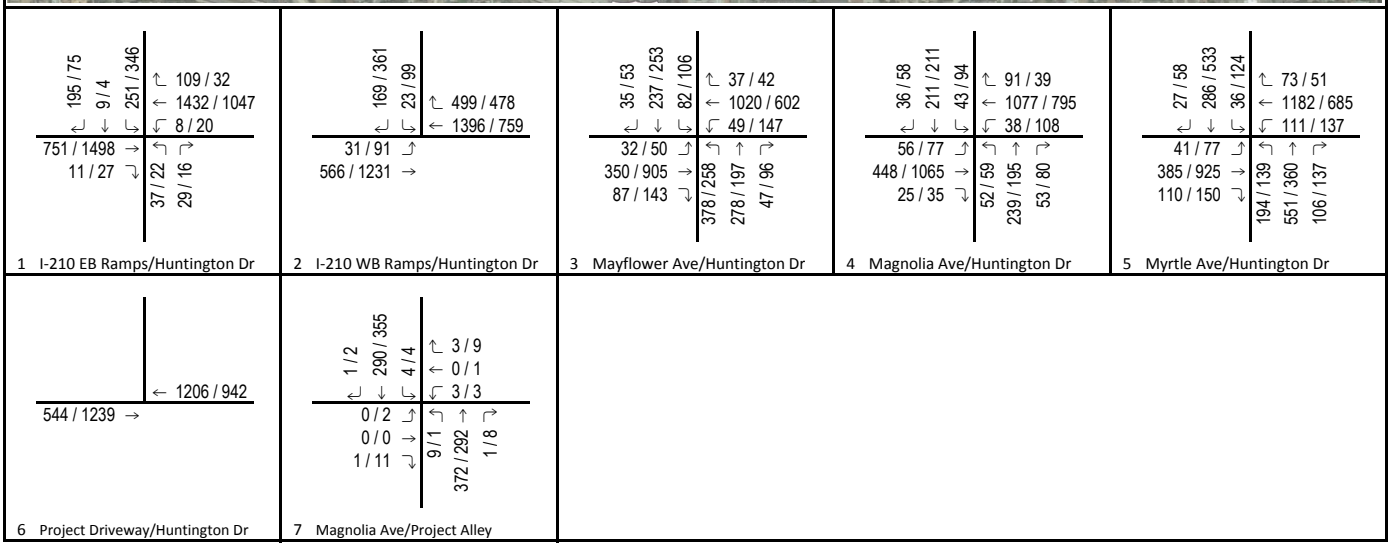
D De-Facto Right Turn

Monrovia Starbucks

Existing Intersection Geometrics

Exhibit A





LSA

FIGURE 4

Legend

123 / 456 AM / PM Volume

Monrovia Starbucks

Existing Peak-Hour Volumes

P:\CBY1801\figures\Fig-04 Existing Volumes.xls\Figure (3/15/2018)

Exhibit A

Table A: Existing LOS Summary

Intersection		Existing			
		AM Peak Hour		PM Peak Hour	
		ICU/HCM	LOS	ICU/HCM	LOS
1	I-210 EB Ramps/Huntington Drive	0.693	B	0.553	A
2	I-210 WB Ramps/Huntington Drive	0.616	B	0.599	A
3	Mayflower Avenue/Huntington Drive	0.705	C	0.724	C
4	Magnolia Avenue/Huntington Drive	0.709	C	0.742	C
5	Myrtle Avenue/Huntington Drive	0.746	C	0.746	C
7	Magnolia Avenue/Project Alley HCM	*15.3*	*C*	*12.4*	*B*

EB = eastbound
I-210 = Interstate 210
ICU = Intersection Capacity Utilization ratio
HCM = Highway Capacity Manual delay (seconds per vehicle)
LOS = level of service
WB = westbound

Table B: Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Coffee Shop with Drive-Through		TSF	820.38	45.38	43.61	88.99	21.69	21.69	43.38
General Retail		TSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81
Project Trip Generation									
Coffee Shop with Drive-Through	2.200	TSF	1,805	100	96	196	48	48	96
Pass-By Trips (50%)			*903*	*50*	*48*	*98*	*24*	*24*	*48*
Subtotal			**902**	**50**	**48**	**98**	**24**	**24**	**48**
Existing Trip Generation									
General Retail	19.148	TSF	723	11	7	18	35	38	73
Net Trip Generation			**179**	**39**	**41**	**80**	**-11**	**-14**	**-25**

[1] The following trip rates are referenced from the Institute of Transportation Engineers' (ITE) *Trip Generation*, 10th Edition (2017):
- Land Use Code (820) – Shopping Center
- Land Use Code (937) – Coffee Shop with Drive-Through

ADT = average daily traffic
TSF = thousand square feet

The proposed project is estimated to generate 902 trips per day, including 98 trips in the a.m. peak hour (50 inbound and 48 outbound) and 48 trips in the p.m. peak hour (24 inbound and 24 outbound). The net trip generation is calculated by subtracting the trips generated from the existing land uses from the trips generated from the project's land uses. The total net trip generation will add 179 trips per day, including an additional 80 trips in the a.m. peak hour (39 inbound and 41 outbound) and a reduction of 25 trips in the p.m. peak hour (a reduction of 11 inbound trips and 14 outbound trips).

It should be noted that the project estimate includes fewer trips for the p.m. peak hour. While the net trip generation in Table B shows a reduction in trips for the p.m. peak hour, no trips will be removed in the p.m. peak hour. The net trip generation results in fewer trips for the p.m. peak hour

Exhibit A

because coffee shops generally have fewer customers during the evening. Therefore, the change in land use from existing retail uses to coffee shop uses may cause the change in use to generate fewer trips.

Trip Distribution and Assignment

Trip distribution for the project was based on the project's location in relation to local and regional transportation facilities and origins/destinations, along with input and concurrence from the City Traffic Engineer. Figure 5 shows the trip distribution for the project. Figure 6 displays the resulting project trip assignment for study area intersections.

Existing and Existing Plus Project Traffic Volumes and Levels of Service

To demonstrate the effect that the project would have on the study area intersections in the existing condition, an existing plus project LOS analysis was prepared. Figure 7 displays the existing plus project peak-hour volumes for the study area intersections. Intersection geometrics reflect current conditions as of 2018.

The existing and existing plus project LOS worksheets are provided in Appendix B. A summary of existing and existing plus project intersection LOS is presented in Table C, which indicates that all study area intersections currently operate at satisfactory LOS during the a.m. and p.m. peak hours. With the addition of the project to the existing setting, all study area intersections would continue to operate at satisfactory LOS. Therefore, the project can be implemented in the existing setting with no significant peak-hour intersection impacts.

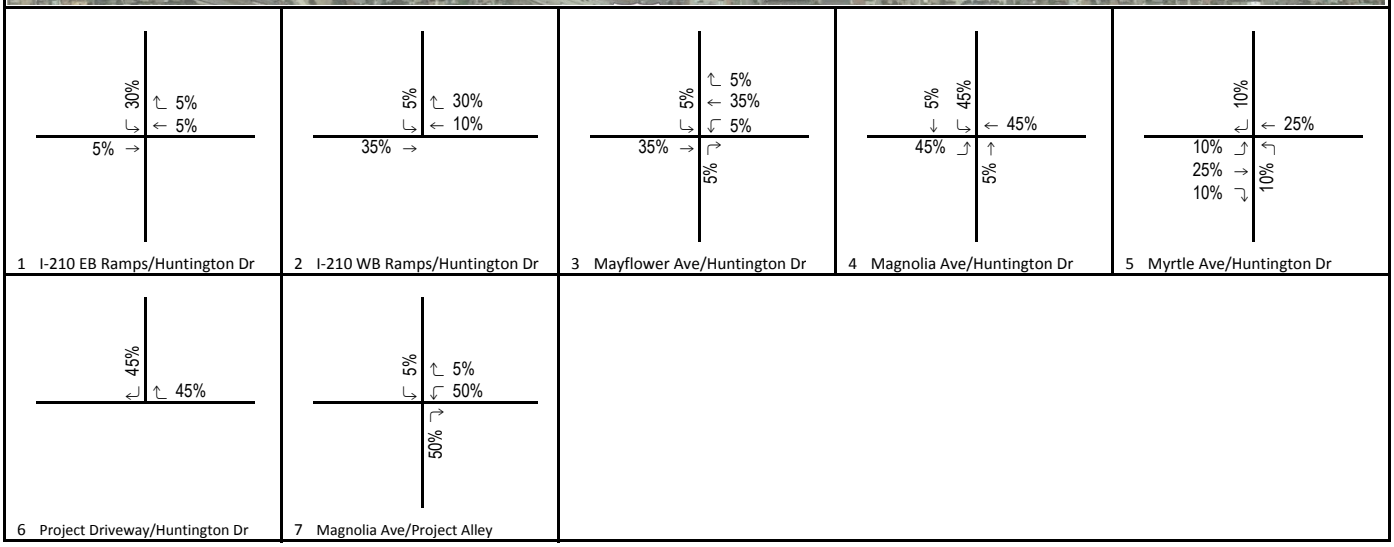
LSA also performed a sensitivity analysis for the days the existing retail shop is closed. LSA assigned only the project trips, not including the credit for the existing retail use, and recalculated the LOS. The sensitivity analysis indicates that with the addition of the project without an existing trip credit to the existing setting, all study area intersections would continue to operate at satisfactory LOS with no significant peak-hour intersection impacts. LOS worksheets for this sensitivity analysis are included in Appendix C.

CUMULATIVE (2020) TRAFFIC CONDITION

To present a cumulative (2020) traffic condition, a regional ambient growth rate was determined and traffic volumes for other planned or under construction projects in the vicinity were developed, which were added to the existing traffic counts.

To reflect regional growth in the study area, a growth rate of 0.82 percent per year was added to the existing traffic volumes. This growth rate was obtained from the Los Angeles County *Congestion Management Plan* (Los Angeles County Metropolitan Transportation Authority 2010). The annual growth rate was calculated by taking the difference between the growth factors from year 2020 (1.082) and year 2015 (1.041) in Zone 25. The difference of 0.041 was divided by the difference of 5 years to calculate the annual growth rate of 0.82 percent per year. This annual growth rate was applied to the three years between the existing setting (2017) and the cumulative condition (2020), for a total of 2.46 percent.

Exhibit A



LSA

FIGURE 5

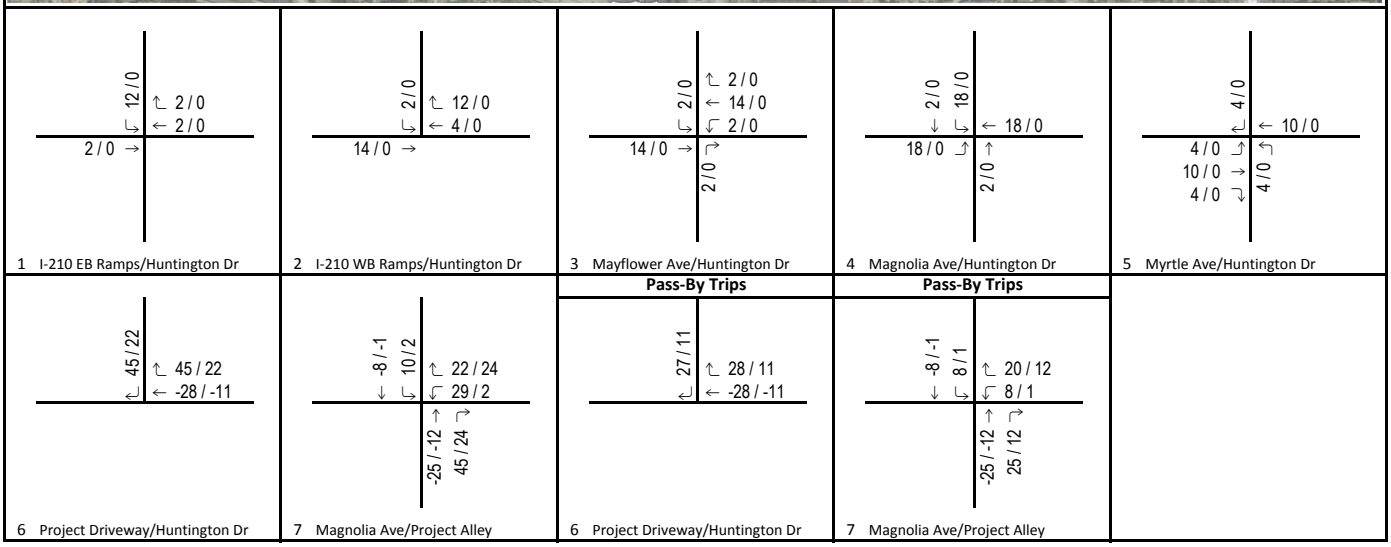
Legend

% Project Trip Distribution Percentages

Monrovia Starbucks
Project Trip Distribution

P:\CBY1801\figures\Fig-05 Project Trip Distribution.xls\Figure (3/14/2018)

Exhibit A



LSA

FIGURE 6

Legend

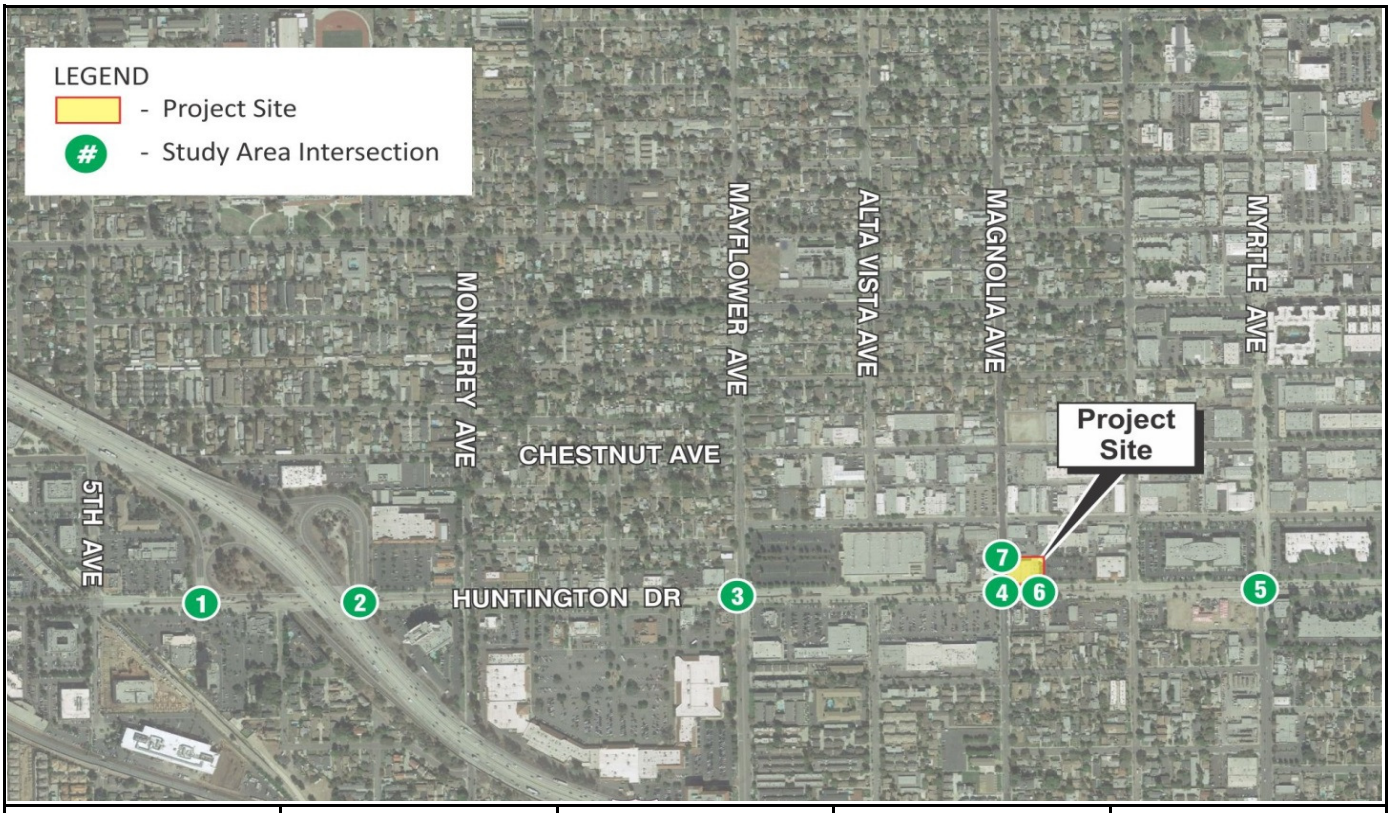
123 / 456 AM / PM Volume

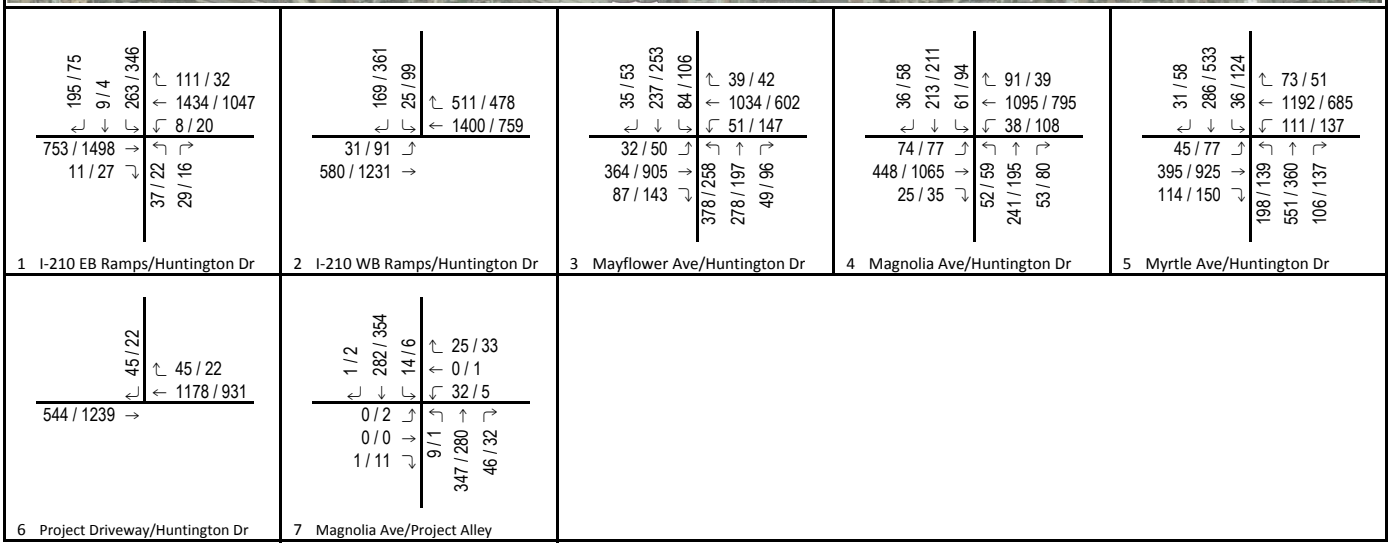
Note: Negative numbers at driveways are reflective of pass-by trip interaction.

Monrovia Starbucks
Project Trip Assignment

P:\CBY1801\figures\Fig-06 Project Trip Assignment.xls\Figure (3/15/2018)

Exhibit A





LSA

FIGURE 7

Legend

123 / 456 AM / PM Volume

Monrovia Starbucks

Existing Plus Project Peak-Hour Volumes

P:\CBY1801\figures\Fig-07 Existing Plus Project Volumes.xls\Figure (3/16/2018)

Exhibit A

Table C: Existing and Existing Plus Project LOS Summary

Intersection		Existing				Plus Project				Peak-Hour Δ ICU/HCM		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM	LOS	AM	PM	
1	I-210 EB Ramps/Huntington Drive	0.693	B	0.553	A	0.693	B	0.553	A	0.000	0.000	No
2	I-210 WB Ramps/Huntington Drive	0.616	B	0.599	A	0.618	B	0.599	A	0.002	0.000	No
3	Mayflower Avenue/Huntington Drive	0.705	C	0.724	C	0.712	C	0.724	C	0.007	0.000	No
4	Magnolia Avenue/Huntington Drive	0.709	C	0.742	C	0.739	C	0.742	C	0.030	0.000	No
5	Myrtle Avenue/Huntington Drive	0.746	C	0.746	C	0.751	C	0.746	C	0.005	0.000	No
7	Magnolia Avenue/Project Alley HCM	*15.3*	*C*	*12.4*	*B*	*18.9*	*C*	*11.9*	*B*	*3.6*	*-0.5*	No

Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
ICU = Intersection Capacity Utilization ratio
LOS = level of Service
WB = westbound

Exhibit A

A list of cumulative projects was provided by the City Planning Division (Appendix D). Significant projects located near the proposed project were analyzed as cumulative projects and are illustrated on Figure 8. Table D shows the cumulative projects and their respective trip generations. It should be noted that there are a total of sixteen cumulative projects listed in Appendix D. Of these sixteen projects, only ten have the ability to measurably affect traffic within the study area. The remaining six projects were included as part of the regional annual growth rate, due to their small project sizes.

Table D: Cumulative Project Trip Generation Summary

	Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Rates[1]										
	General Light Industrial		TSF	4.96	0.62	0.08	0.70	0.08	0.55	0.63
	Apartment		DU	7.32	0.11	0.35	0.46	0.35	0.21	0.56
	High-Turnover Restaurant		TSF	112.18	5.47	4.47	9.94	0.61	0.37	0.98
	Coffee/Donut Shop Without Drive-Through Window[2]		TSF	820.38	51.58	49.56	101.14	18.16	18.15	36.31
	Shopping Center		TSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81
Cumulative Trip Generation										
1	Hotel[3]	109	Rooms	891	34	24	58	34	31	65
2	Shopping Center	98.000	TSF	3,700	57	35	92	179	194	373
3[4]	Apartment	261	DU	1,433	22	69	91	69	41	110
4	Apartment	154	DU	1,127	17	54	71	54	32	86
5[4]	High-Turnover Restaurant	12.617	TSF	1,062	52	42	94	6	3	9
	Coffee/Donut Shop without Drive-Through Window	2.165	TSF	1,332	84	80	164	29	29	58
	Brewery Manufacturing[5]	3.477	TSF	13	2	0	2	0	1	1
	Shopping Center	2.675	TSF	76	1	1	2	4	4	8
6[4]	Apartment	103	DU	565	8	27	35	27	16	43
7	Apartment[6]	154	DU	684	-11	39	27	42	6	48
8	Apartment	140	DU	1,025	15	49	64	49	29	78
9	Apartment[7]	296	DU	925	-10	80	70	66	7	73
10	Apartment[8]	472	DU	2,129	15	143	158	143	69	212
		Trip Generation		15,945	318	691	1,009	746	496	1,242

[1] The following trip rates were referenced from the Institute of Transportation Engineers *Trip Generation Manual*, 10th Edition (2017):
- Land Use Code (110) – General Light Industrial
- Land Use Code (220) – Apartment
- Land Use Code (932) – High-Turnover (Sit-Down) Restaurant
- Land Use Code (936) – Coffee/Donut Shop without Drive-Through Window
- Land Use Code (820) – Shopping Center

[2] ADT for Coffee/Donut Shop Without Drive-Through Window is not available. The ADT was taken from the related land use 937 – Coffee/Donut Shop with Drive-Through Window.

[3] The net trip generation was taken from the *Monrovia Hotel Traffic Impact Analysis* (LSA 2017c).

[4] 25% trip credits have been taken from projects 3, 5, and 6, due to their proximity to the Metro Gold Line Station.

[5] Brewery Manufacturing land use was analyzed with the General Light Industrial trip rates.

[6] The net trip generation was taken from the *Avalon Monrovia Traffic Impact Analysis* (LSA 2018).

[7] The net trip generation was taken from the *Duarte Road Apartments Traffic Impact Analysis* (LSA 2017a).

[8] The net trip generation was taken from the *1625 Magnolia Traffic Impact Analysis* (LSA 2017b).

ADT = average daily traffic
DU = dwelling unit
TSF = thousand square feet

Exhibit A

LSA

LEGEND

- Project Site
- # - Cumulative Projects

N

0 550 1100
FEET

SOURCE: Google Earth

FIGURE 8

Monrovia Starbucks

Cumulative Project Locations

I:\CBY1801\G\Cumulative Projects.cdr (1/31/2018)

Exhibit A

The cumulative project trip distribution was determined based on each project's land use and location. The resulting combined trip assignment at the study intersections for the cumulative projects is provided on Figure 9. The cumulative condition was developed by adding ambient growth and cumulative project traffic to existing traffic volumes. The resulting cumulative (2020) peak-hour traffic volumes are shown on Figure 10. The cumulative plus project peak-hour traffic volumes are shown on Figure 11. In order to assess the project's potential impact in cumulative conditions, an analysis of cumulative LOS was prepared. This analysis assumes existing intersection geometrics.

As Table E indicates, all study area intersections are anticipated to operate at satisfactory LOS during the cumulative setting. With the addition of the project in the cumulative setting, all study area intersections would continue to operate at satisfactory LOS. The increase in ICU does not exceed the thresholds of significance at any of the intersections; therefore, the project can be implemented in the cumulative setting with no significant peak-hour intersection impacts. No mitigation measures are required.

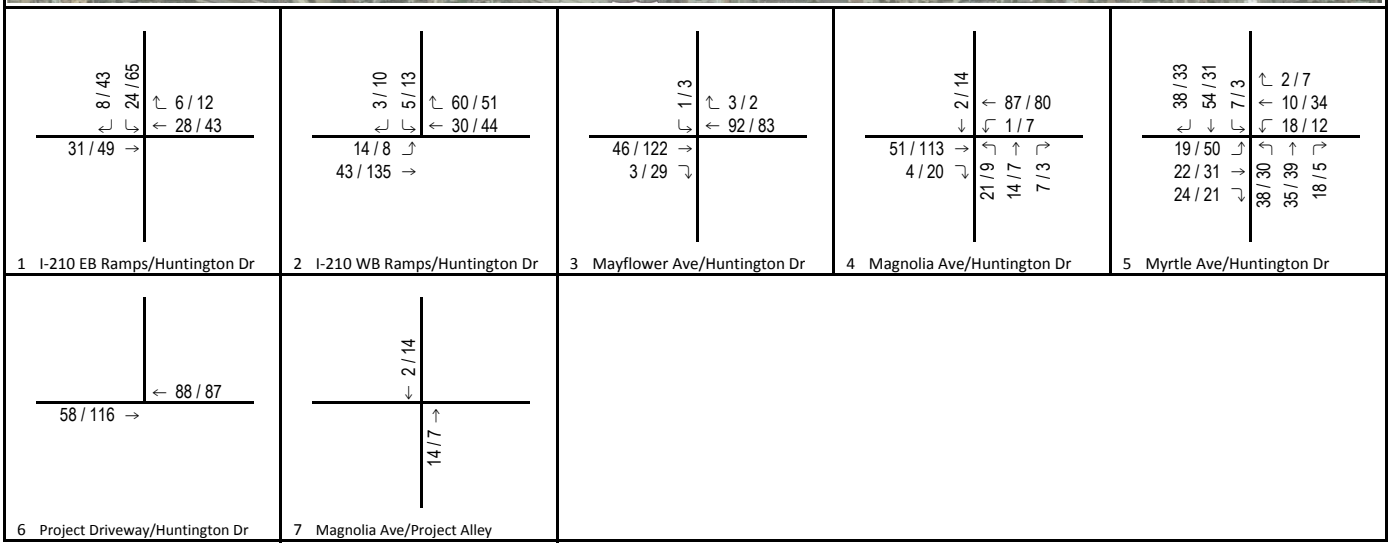
LSA also performed a sensitivity analysis for the days the existing retail shop is closed. LSA assigned only the project trips, not including the credit for the existing retail use, and recalculated the LOS. The sensitivity analysis indicates that with the addition of the project without an existing trip credit to the cumulative setting, all study area intersections would continue to operate at satisfactory LOS with no significant peak-hour intersection impacts.

Table E: Cumulative and Cumulative Plus Project LOS Summary

Intersection		Cumulative				Plus Project				Peak-Hour Δ ICU/HCM		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		ICU/ HCM	LOS	ICU/ HCM	LOS	ICU/ HCM	LOS	ICU/ HCM	LOS	AM	PM	
1	I-210 EB Ramps/ Huntington Drive	0.722	C	0.596	A	0.723	C	0.596	A	0.001	0.000	No
2	I-210 WB Ramps/ Huntington Drive	0.653	B	0.659	B	0.655	B	0.659	B	0.002	0.000	No
3	Mayflower Avenue/ Huntington Drive	0.750	C	0.780	C	0.757	C	0.780	C	0.007	0.000	No
4	Magnolia Avenue/ Huntington Drive	0.764	C	0.810	D	0.793	C	0.810	D	0.029	0.000	No
5	Myrtle Avenue/ Huntington Drive	0.821	D	0.817	D	0.830	D	0.817	D	0.009	0.000	No
7	Magnolia Avenue/ Project Alley HCM	*15.9*	*C*	*12.8*	*B*	*20.0*	*C*	*12.3*	*B*	*4.1*	*-0.5*	No

Note: Gray shading indicates values that exceed City of Monrovia's LOS criteria.
Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
ICU = Intersection Capacity Utilization ratio
LOS = level of service
WB = westbound

Exhibit A



LSA

FIGURE 9

Legend

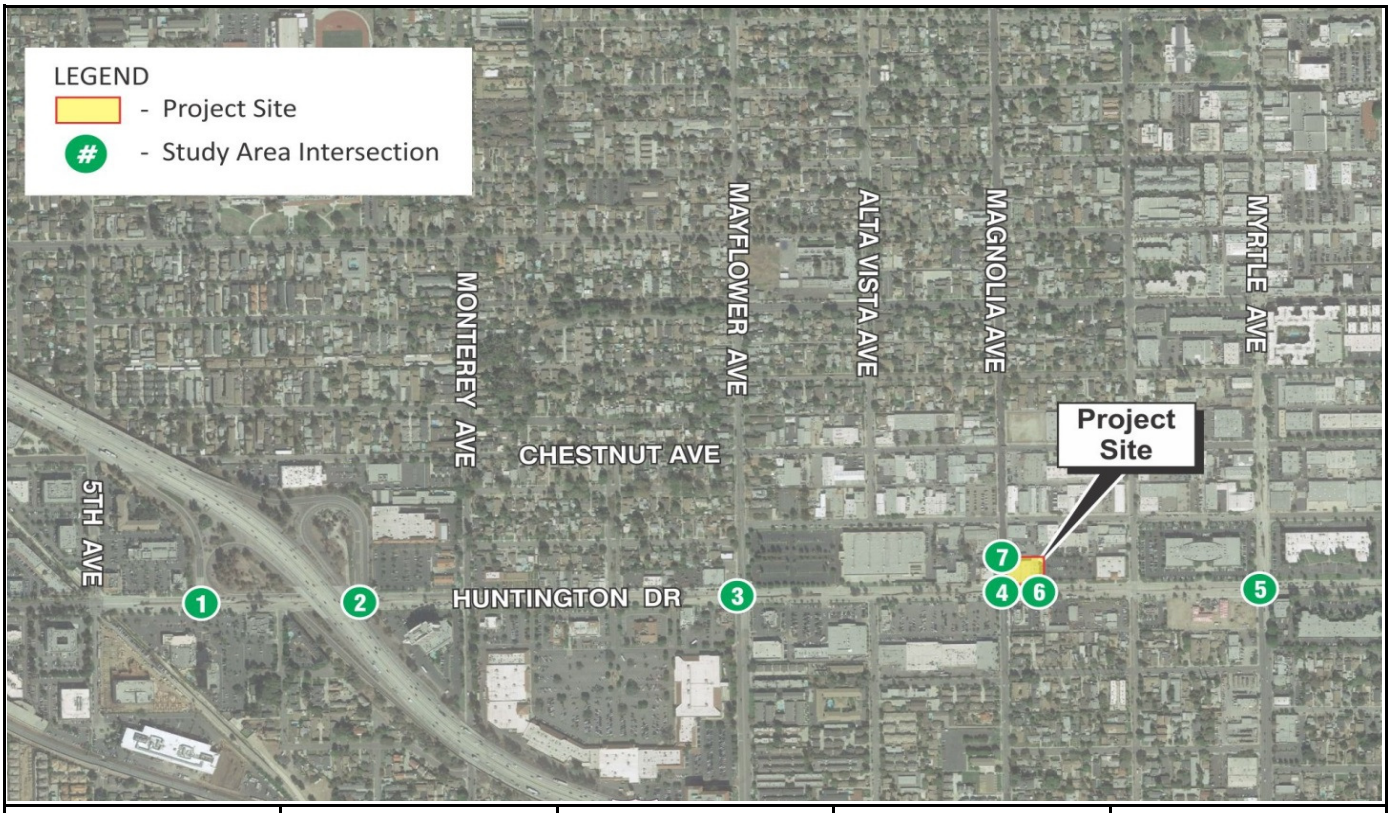
123 / 456 AM / PM Volume

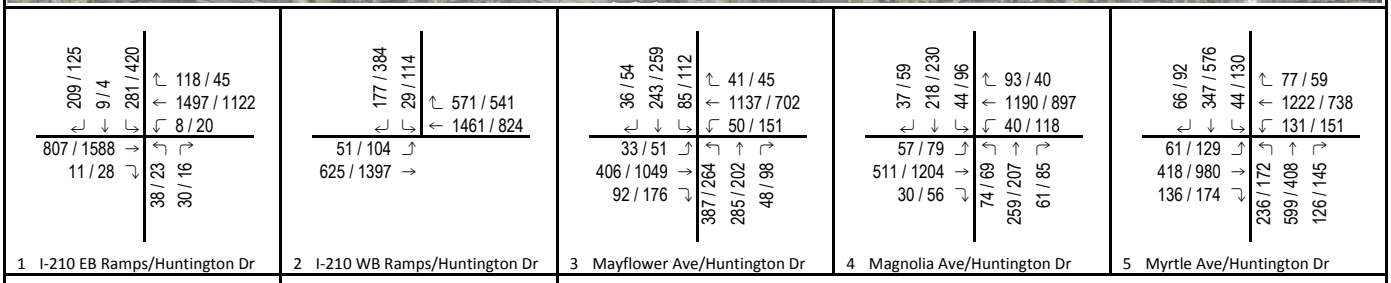
Monrovia Starbucks

Cumulative Project Trip Assignment

P:\CBY1801\figures\Fig-09 Cumulative Trip Assignment.xls\Figure (3/14/2018)

Exhibit A





LSA

FIGURE 10

Legend

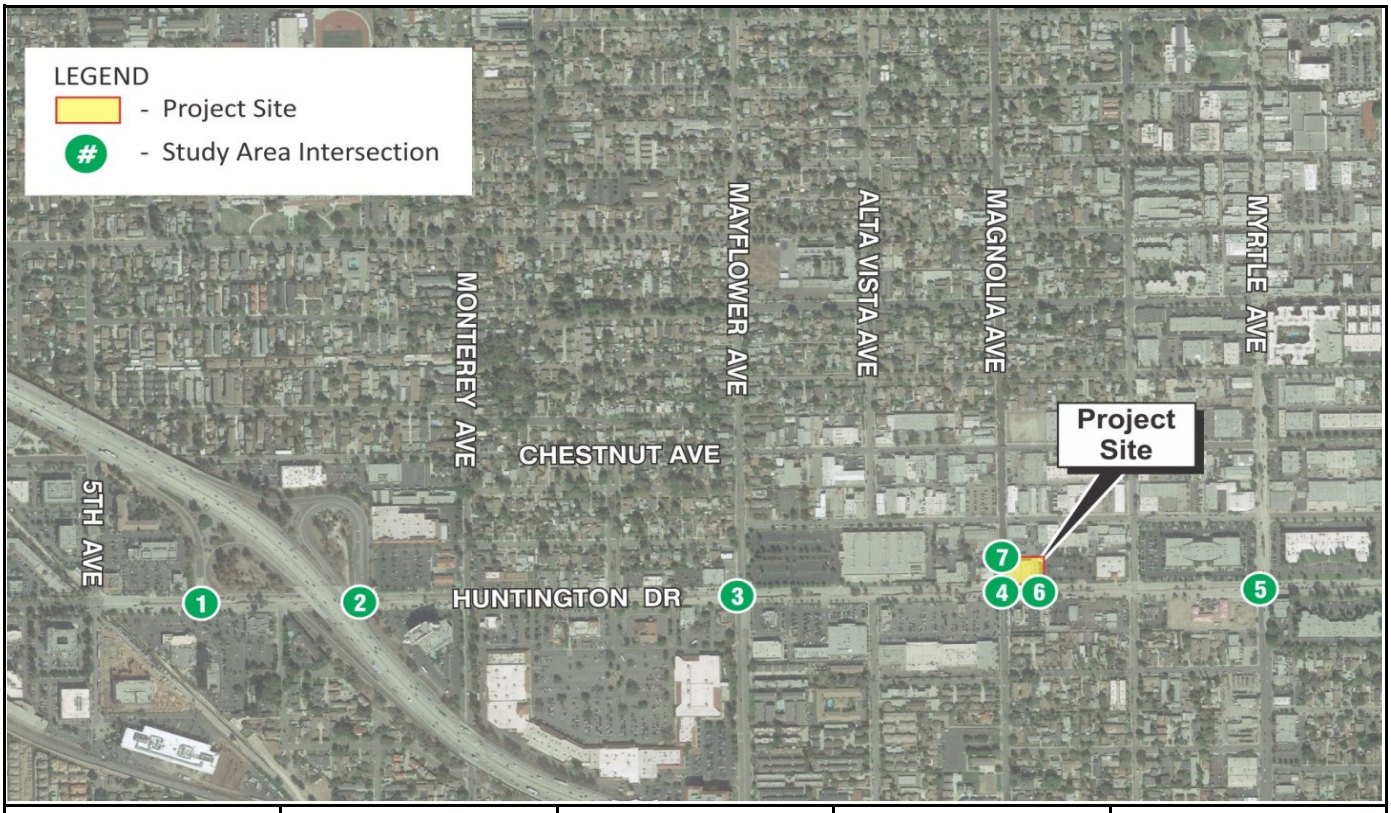
123 / 456 AM / PM Volume

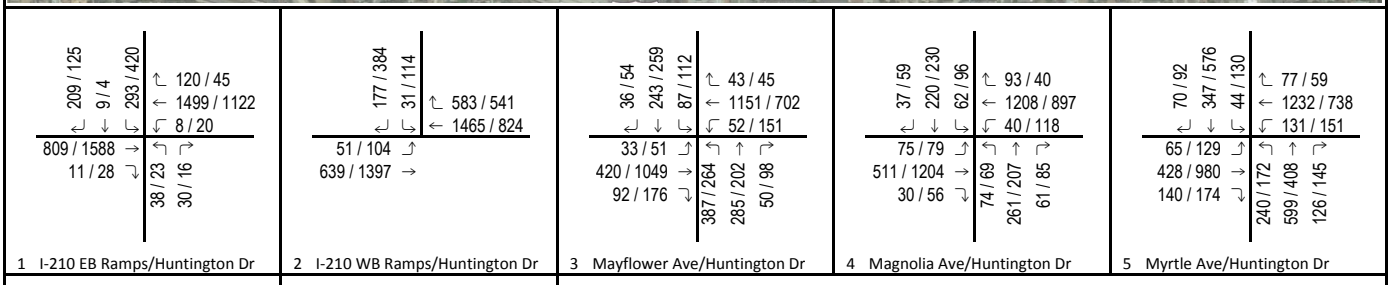
Monrovia Starbucks

Cumulative Peak-Hour Volumes

P:\CBY1801\figures\Fig-10 Cumulative Volumes.xls\Figure (3/15/2018)

Exhibit A





LSA

FIGURE 11

Legend

123 / 456 AM / PM Volume

Monrovia Starbucks

Cumulative Plus Project Peak-Hour Volumes

P:\CBY1801\figures\Fig-11 Cumulative Plus Project Volumes.xls\Figure (3/16/2018)

Exhibit A

RAMP INTERSECTION ANALYSIS

Existing and Existing Plus Project Ramp Intersection Analysis

To demonstrate the effect that the project would have on the Caltrans jurisdiction ramp intersections in the existing condition, an existing plus project HCM analysis was prepared.

Appendix E provides the ramp intersection HCM LOS worksheets. Table F presents a summary of existing and existing plus project ramp intersections, which indicates that all study area ramp intersections currently operate at satisfactory LOS during the a.m. and p.m. peak hours. With the addition of the project in the existing setting, all study area freeway ramp intersections would continue to operate at satisfactory LOS. Therefore, the project can be implemented in the existing setting with no significant peak-hour ramp intersection impacts.

Table F: Existing and Existing Plus Project Ramp Intersection Summary

Intersection		Existing				Plus Project				Peak-Hour Δ HCM		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		HCM	LOS	HCM	LOS	HCM	LOS	HCM	LOS	AM	PM	
1	I-210 EB Ramps/ Huntington Drive	8.7	A	7.0	A	8.8	A	7.0	A	0.1	0.0	No
2	I-210 WB Ramps/ Huntington Drive	10.2	B	12.0	B	10.3	B	12.0	B	0.1	0.0	No

Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
LOS = level of Service
WB = westbound

Cumulative and Cumulative Plus Project Ramp Intersection Analysis

To demonstrate the effect that the project would have on the Caltrans jurisdiction ramp intersections in the cumulative (2020) condition, a cumulative plus project HCM analysis was prepared.

Table G presents a summary of cumulative and cumulative plus project ramp intersections, which indicates all study area freeway ramp intersections are projected to operate at satisfactory LOS during the a.m. and p.m. peak hours. With the addition of the project in the cumulative setting, all study area intersections would continue to operate at satisfactory LOS. Therefore, the project can be implemented in the cumulative setting with no significant peak-hour ramp intersection impacts.

Table G: Cumulative and Cumulative Plus Project Ramp Intersection Summary

Intersection		Cumulative				Plus Project				Peak-Hour Δ HCM		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		HCM	LOS	HCM	LOS	HCM	LOS	HCM	LOS	AM	PM	
1	I-210 EB Ramps/ Huntington Drive	9.4	A	8.1	A	9.5	A	8.1	A	0.1	0.0	No
2	I-210 WB Ramps/ Huntington Drive	11.1	B	13.6	B	11.2	B	13.6	B	0.1	0.0	No

Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
LOS = level of Service
WB = westbound

SPECIAL ISSUES

Access Analysis

Access to the Monrovia Starbucks project site will be provided via a RIRO driveway along Huntington Drive and an additional full-access driveway connected to an existing alley along Magnolia Avenue. Both driveways will have one inbound lane and one outbound lane and will be approximately 25 ft wide. HCM-based intersection analysis has been utilized as the metric to evaluate the adequacy and performance of both unsignalized driveways. Table H presents a summary of the driveway LOS for the existing plus project and cumulative plus project conditions.

Table H: Project Driveway LOS Summary

Intersection		Existing Plus Project				Cumulative Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		HCM	LOS	HCM	LOS	HCM	LOS	HCM	LOS
6	Project Driveway/Huntington Drive	*15.2*	*C*	*12.5*	*B*	*16.4*	*C*	*13.3*	*B*
7	Magnolia Avenue/Project Alley	*18.9*	*C*	*11.9*	*B*	*20.0*	*C*	*12.3*	*B*

HCM = Highway Capacity Manual delay (seconds per vehicle)
LOS = level of Service

As shown in Table H, both driveways are anticipated to operate at satisfactory LOS during the a.m. and p.m. peak-hour periods in both the existing plus project and cumulative plus project conditions.

No sight distance obstructions exist that would compromise the ability to navigate in or out of the project site. No geometrics or striping are present that would adversely affect access to the project site.

Site Plan Review

The drive-through for the proposed project was analyzed to determine how much space is available before vehicles back onto the public circulation system. As shown in Figure 2, approximately 6 vehicles can queue back from the pick-up and payment window to the order box. Approximately 5 vehicles can queue back from the order box to the entrance of the drive-through aisle. A pre-menu

board is available for the next-in-line vehicle to order, to speed up the customer's decision-making process before ordering.

If vehicles (approximately 22 ft per vehicle) queue past the entrance of the drive-through aisle, approximately 35 ft (1 to 2 vehicles) will be available for storage from the northern driveway, and approximately 100 ft (4 to 5 vehicles) will be available for storage from the southern driveway before reaching Huntington Drive.

In the scenario that the drive-through queue is overflowing, customers will be more inclined to park their vehicles and order in the store. 13 customer parking spaces will be available in the main parking lot, and 18 customer parking spaces will be available across the alley.

Drive-Through Queuing

In order to determine the potential vehicle queues in the project's drive-through lane, queuing observations were taken at an existing Starbucks with a drive through lane. On May 7, 2015, NDS conducted queuing surveys at the 20790 Lake Forest Drive Starbucks during the morning commute period (6:00 a.m. to 9:00 a.m.). This previously conducted queuing survey is provided in Appendix F.

The surveyed location's drive-through lane could hold approximately 9 vehicles before the queued vehicles would affect the ability of other vehicles to park in the parking lot. The survey results of the existing Starbucks drive-through show that all 4 vehicle positions between the service window and the menu order board were occupied after 6:25 a.m. This indicates that delivering the orders and processing the payments at the service window are the rate-determining steps for moving vehicles through the drive-through. During this period of peak operation, the restaurant was able to process orders for approximately 1 vehicle per minute. When the arrival rate exceeds this processing time, vehicles are added to the queue. The maximum observed queue on the surveyed weekday was 8 vehicles behind the menu order board (12 vehicles total).

As shown in Figure 2, the proposed drive-through lane would provide distance for 11 vehicles between the service window and the parking lot. Based on the surveyed data, the drive-through storage area will adequately accommodate the maximum queue without backing out onto the alley or public streets. Although the maximum queue may place one vehicle in front of available parking spaces, the maximum queue would be contained within the project site and would not spill onto the public streets or alley. The proposed project has a longer storage area than the surveyed location. Therefore, it is anticipated that the proposed drive-through configuration will be able to accommodate drive-through traffic without interfering with the public streets or alley.

Alternative Mobility Modes

Pedestrian traffic is afforded safe travel via existing sidewalks throughout the site that connect to the public right-of-way along Magnolia Avenue and Huntington Drive. On-street (Class III) bicycle routes are available along Magnolia Avenue.

Transit facilities are accessible from the project site within the immediate vicinity. Foothill Transit bus stops are provided on the western edge of Magnolia Avenue/Project Alley (Line 270) and on the northwest and southwest corners of Magnolia Avenue/Huntington Drive (Line 187). These bus

routes provide transportation to the neighboring cities of Pasadena, Arcadia, El Monte, Duarte, and Azusa. The Foothill Transit bus stops are accessible via sidewalk and crosswalk connections.

RECOMMENDED IMPROVEMENTS

Based on the results of this analysis, the development of the project can be implemented without significant impacts to the surrounding study area intersections in the existing or cumulative year horizons. The addition of project traffic to the study area intersections does not exceed City thresholds for performance and is therefore not considered significant. Mitigation measures are not required for project implementation.

Exhibit A

APPENDIX A

EXISTING INTERSECTION COUNTS

Exhibit A

ITM Peak Hour Summary

Prepared by:

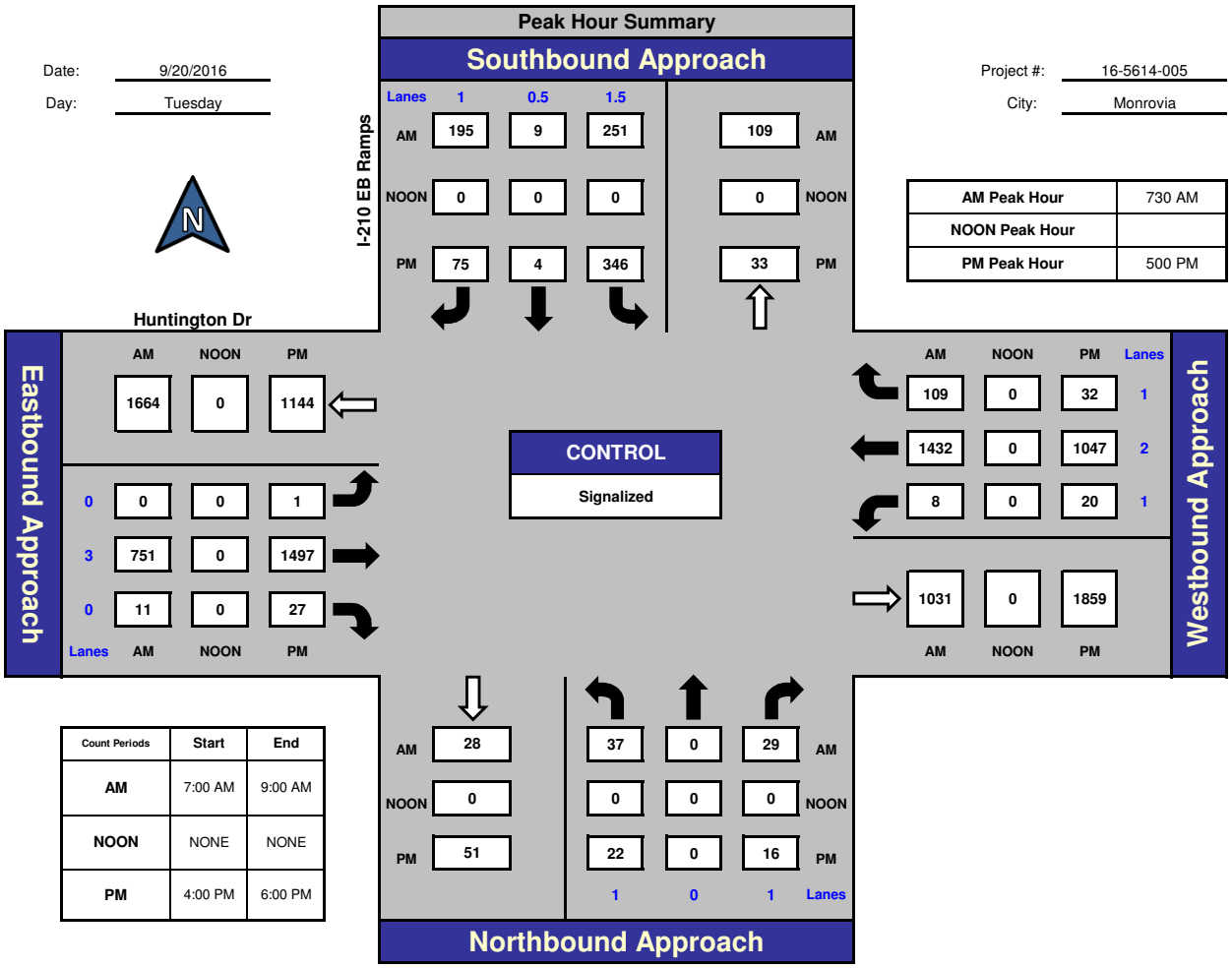
National Data & Surveying Services

I-210 EB Ramps and Huntington Dr , Monrovia

Date: 9/20/2016
Day: Tuesday

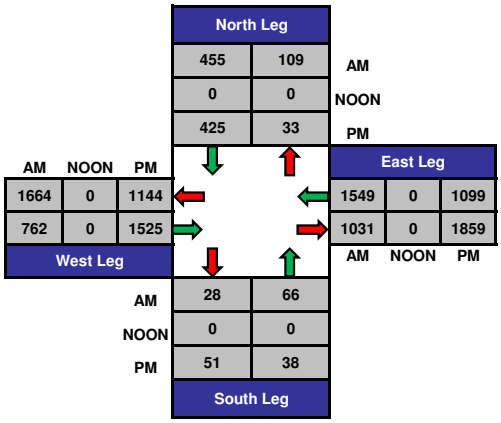
Project #: 16-5614-005
City: Monrovia

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg

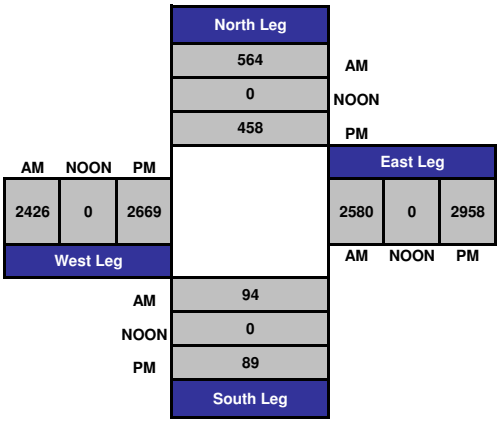


Exhibit A

ITM Peak Hour Summary

Prepared by:

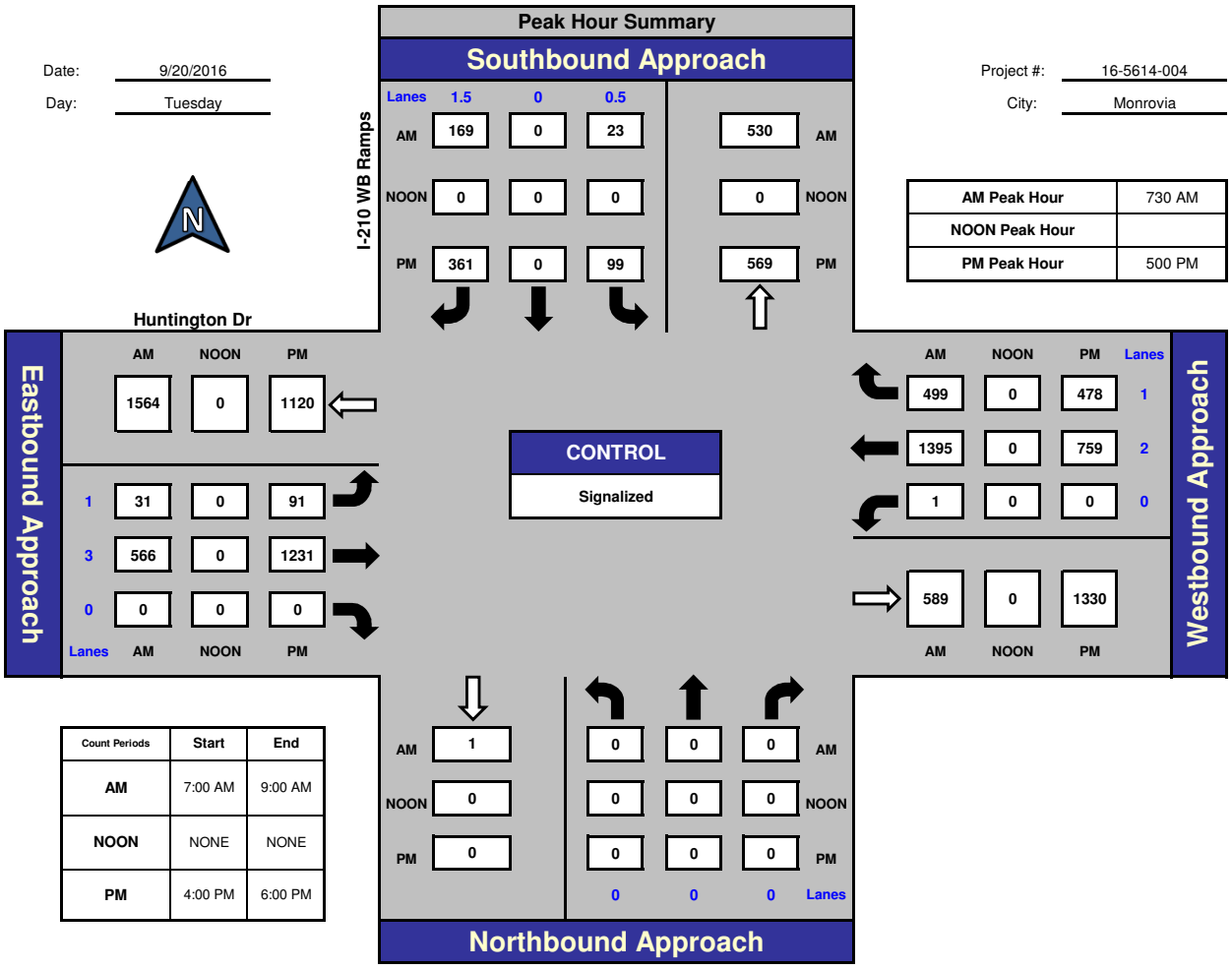
National Data & Surveying Services

I-210 WB Ramps and Huntington Dr , Monrovia

Date: 9/20/2016
Day: Tuesday

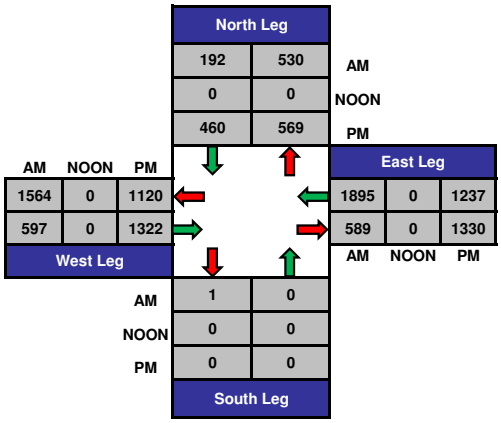
Project #: 16-5614-004
City: Monrovia

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg

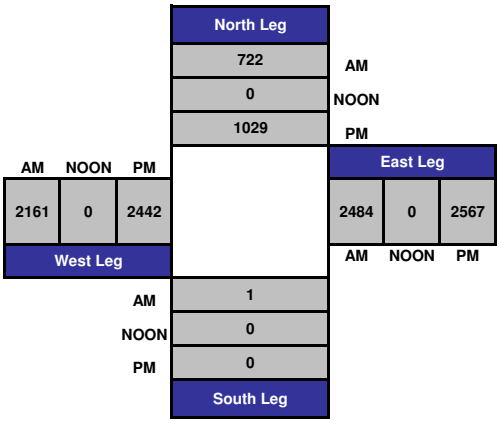


Exhibit A

Prepared by National Data & Surveying Services

Mayflower Ave & Huntington Dr

Peak Hour Turning Movement Count

ID: 18-5061-001
City: Monrovia

Day: Wednesday
Date: 01/24/2018

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Mayflower Ave — SOUTHBOUND

AM	35	237	82	0	347	AM
NOON	0	0	0	0	0	NOON
PM	53	253	106	0	289	PM
	0	2	1	0		

Huntington Dr — EASTBOUND

AM	NOON	PM	
1433	0	913	
0	0	0	0
32	0	50	1
350	0	905	2
87	0	143	0
AM	NOON	PM	

CONTROL

Signalized

TEV	2632	0	2852
	AM	NOON	PM
PHF	0.96		0.98

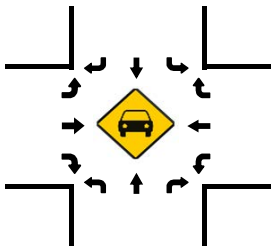
WESTBOUND — Huntington Dr

PM	NOON	AM	
42	0	37	0
602	0	1020	2
147	0	49	1
0	0	0	0
1107	0	479	
PM	NOON	AM	

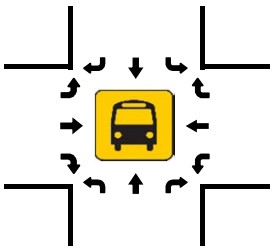
Mayflower Ave — NORTHBOUND

PM	543	0	258	197	96	PM
NOON	0	0	0	0	0	NOON
AM	373	0	378	278	47	AM
		0	2	0.5	0.5	

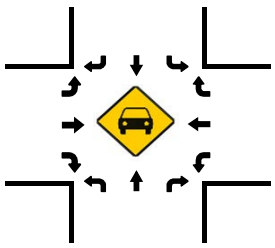
Total Vehicles (AM)



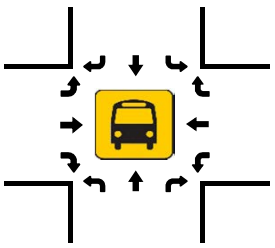
Total Vehicles (AM)



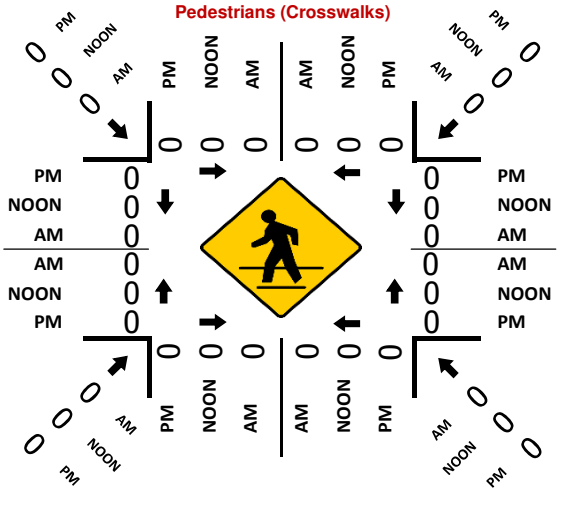
Total Vehicles (NOON)



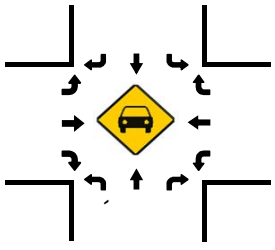
Total Vehicles (NOON)



Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)

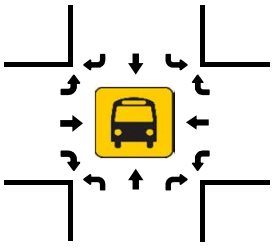


Exhibit A

Prepared by National Data & Surveying Services

Magnolia Ave & W Huntington Dr

Peak Hour Turning Movement Count

ID: 18-05167-002
City: Monrovia

Day: Thursday
Date: 03/08/2018

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:00 PM - 06:00 PM

Magnolia Ave — SOUTHBOUND

AM	36	211	43	0	386	AM
NOON	0	0	0	0	0	NOON
PM	58	211	94	0	311	PM

W Huntington Dr — EASTBOUND

AM	NOON	PM		
1165	0	912	⇦	
0	0	0	↶	0
56	0	77	↱	1
448	0	1065	→	2
25	0	35	↳	0
AM	NOON	PM		

CONTROL

Signalized

TEV	2369 AM	0 NOON	2816 PM
PHF	0.95		0.97

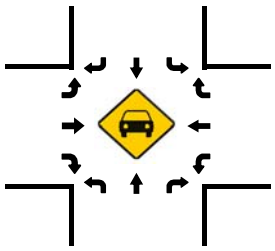
W Huntington Dr — WESTBOUND

PM	NOON	AM		
39	0	91	↰	0
795	0	1077	←	2
103	0	38	↰	1
5	0	0	↰	0
1244	0	544	⇨	
PM	NOON	AM		

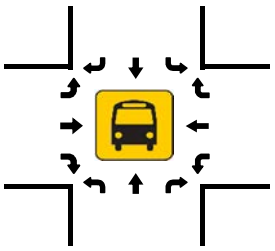
Magnolia Ave — NORTHBOUND

PM	349	0	59	195	80	PM
NOON	0	0	0	0	0	NOON
AM	274	0	52	239	53	AM

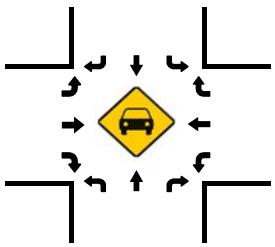
Total Vehicles (AM)



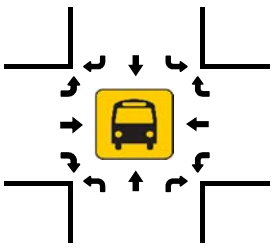
Total Vehicles (AM)



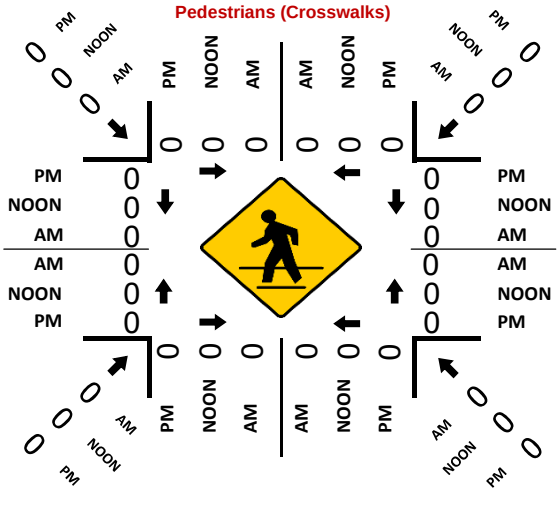
Total Vehicles (NOON)



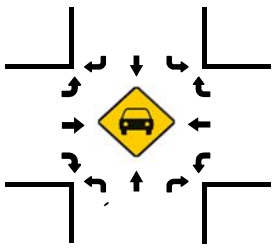
Total Vehicles (NOON)



Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)

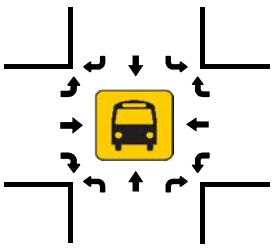


Exhibit A

ITM Peak Hour Summary

Prepared by:

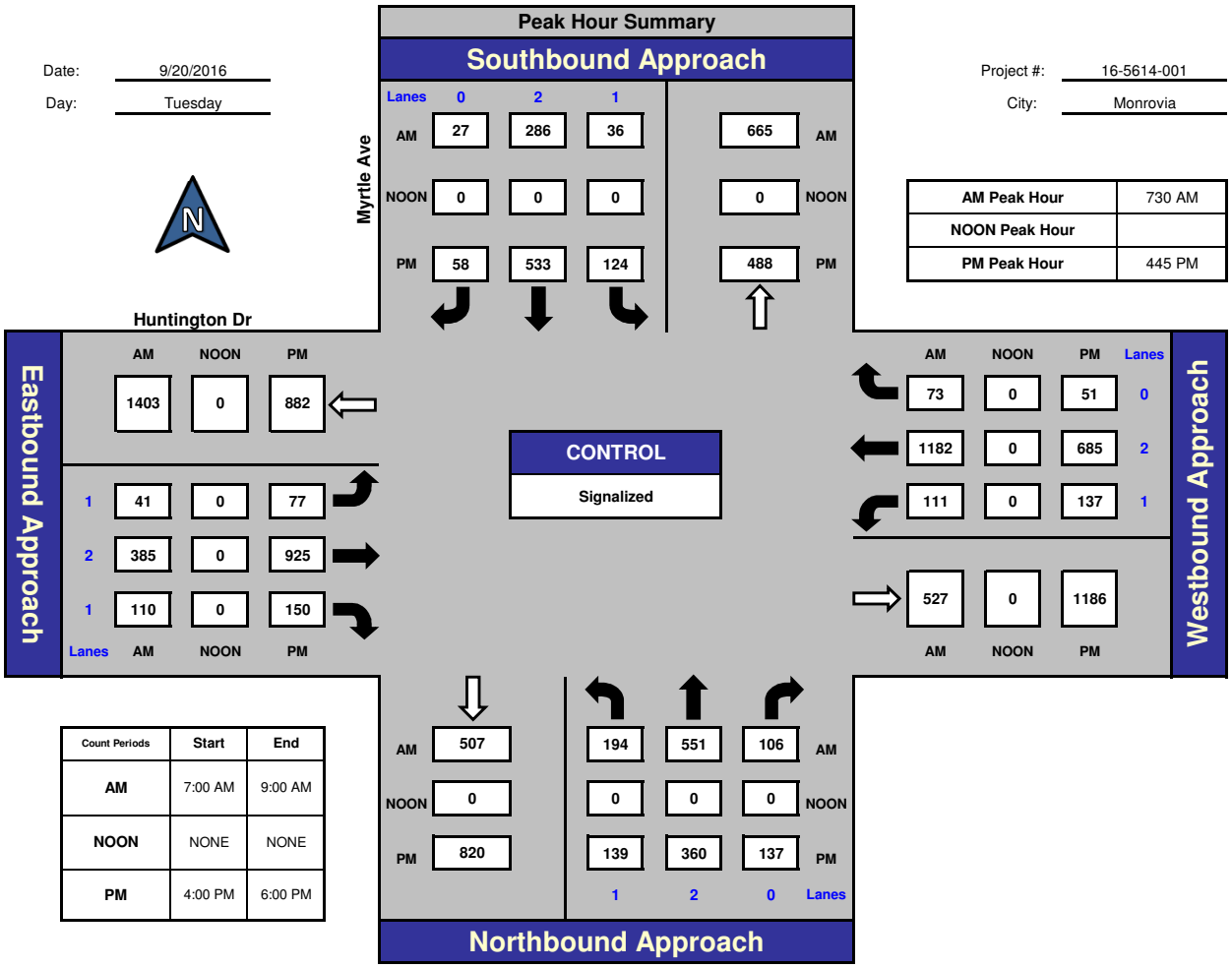
National Data & Surveying Services

Myrtle Ave and Huntington Dr , Monrovia

Date: 9/20/2016
Day: Tuesday

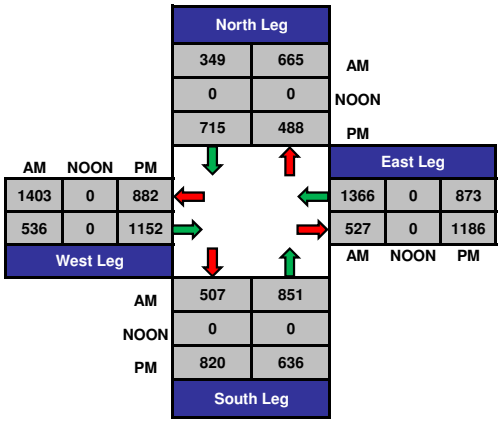
Project #: 16-5614-001
City: Monrovia

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	445 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg

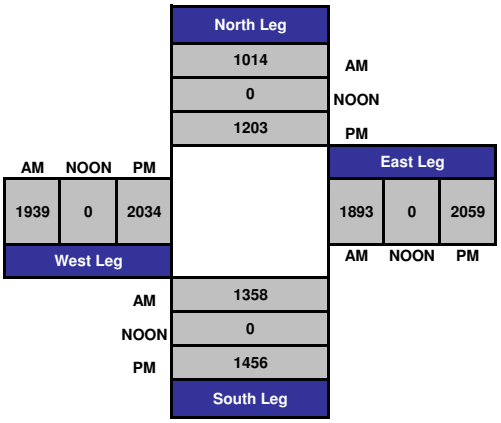


Exhibit A

Prepared by National Data & Surveying Services

Magnolia Ave & Alley (between Maple Ave & Huntington)

Peak Hour Turning Movement Count

ID: 18-05167-001
City: Monrovia

Day: Thursday
Date: 03/08/2018

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Magnolia Ave — SOUTHBOUND

AM	1	290	2	2	377	AM
NOON	0	0	0	0	0	NOON
PM	2	355	4	0	303	PM

Alley (between Maple Ave & Huntington) — EASTBOUND

AM	NOON	PM	
10	0	3	⇦
0	0	0	↶ 0
0	0	2	↱ 0
0	0	0	→ 1
1	0	11	↴ 0
AM	NOON	PM	

CONTROL

No Control

TEV	684 AM	0 NOON	688 PM
PHF	0.77		0.85

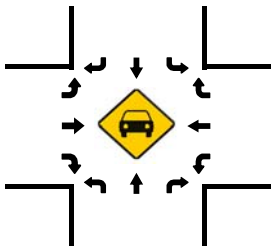
WESTBOUND — Alley (between Maple Ave & Huntington)

PM	NOON	AM	
9	0	3	0 ↰
1	0	0	1 ←
3	0	3	0 ↰
0	0	0	0 ↰
12	0	3	⇨
PM	NOON	AM	

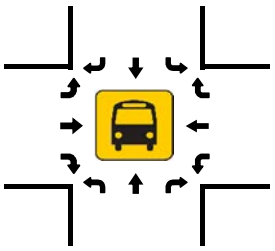
Magnolia Ave — NORTHBOUND

PM	370	1	0	292	8	PM
NOON	0	0	0	0	0	NOON
AM	294	0	9	372	1	AM

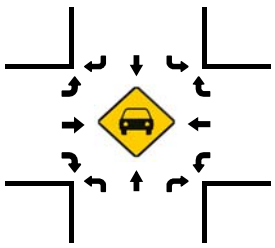
Total Vehicles (AM)



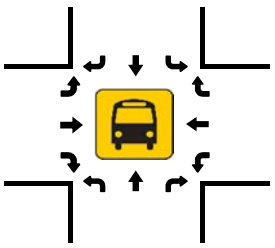
Total Vehicles (AM)



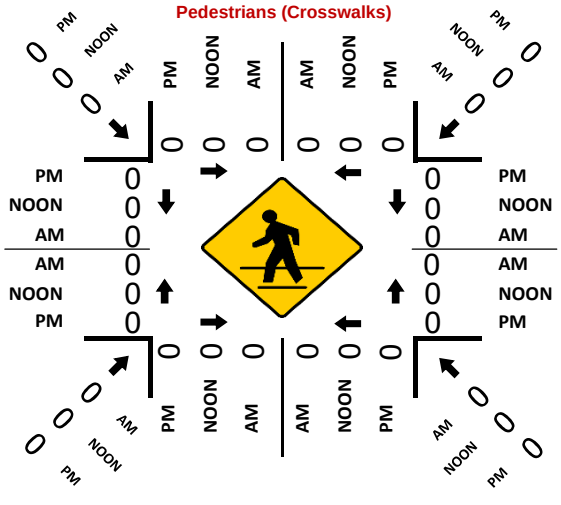
Total Vehicles (NOON)



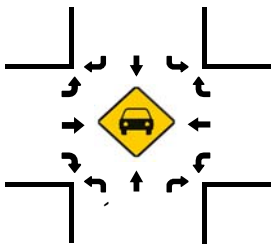
Total Vehicles (NOON)



Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)

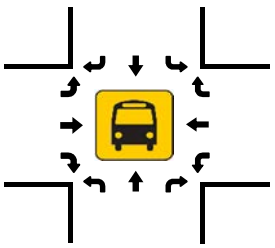


Exhibit A

APPENDIX B

LOS WORKSHEETS

Exhibit A

Monrovia Starbucks
CBY1801
Existing AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	37	0	29	251	9	195	0	751	11	8	1432	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	0	29	251	9	195	0	751	11	8	1432	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	37	0	29	251	9	195	0	751	11	8	1432	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	0	29	251	9	195	0	751	11	8	1432	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	37	0	29	251	9	195	0	751	11	8	1432	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.93	0.07	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3089	111	1600	0	4731	69	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.08	0.08	0.12	0.00	0.16	0.16	0.01	0.45	0.00
Crit Moves:	****					****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.616
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	23	0	169	31	566	0	0	1396	499
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	23	0	169	31	566	0	0	1396	499
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	23	0	169	31	566	0	0	1396	499
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	23	0	169	31	566	0	0	1396	499
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	23	0	169	31	566	0	0	1396	499
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.24	0.00	1.76	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	383	0	2817	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.02	0.12	0.00	0.00	0.44	0.31
Crit Moves:				****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	378	278	47	82	237	35	32	350	87	49	1020	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	278	47	82	237	35	32	350	87	49	1020	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	378	278	47	82	237	35	32	350	87	49	1020	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	278	47	82	237	35	32	350	87	49	1020	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	378	278	47	82	237	35	32	350	87	49	1020	37
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.86	0.14	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1369	231	1600	2788	412	1600	3200	1600	1600	3088	112
Capacity Analysis Module:												
Vol/Sat:	0.12	0.20	0.20	0.05	0.09	0.08	0.02	0.11	0.05	0.03	0.33	0.33
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.709
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	239	53	43	211	36	56	448	25	38	1077	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	239	53	43	211	36	56	448	25	38	1077	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	239	53	43	211	36	56	448	25	38	1077	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	239	53	43	211	36	56	448	25	38	1077	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	239	53	43	211	36	56	448	25	38	1077	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	0.85	0.15	1.00	1.89	0.11	1.00	1.84	0.16
Final Sat.:	1600	1310	290	1600	1367	233	1600	3031	169	1600	2951	249
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.03	0.15	0.15	0.04	0.15	0.15	0.02	0.37	0.36
Crit Moves:		****			****			****			****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	194	551	106	36	286	27	41	385	110	111	1182	73
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	194	551	106	36	286	27	41	385	110	111	1182	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	551	106	36	286	27	41	385	110	111	1182	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	551	106	36	286	27	41	385	110	111	1182	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	551	106	36	286	27	41	385	110	111	1182	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.68	0.32	1.00	1.83	0.17	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2684	516	1600	2924	276	1600	3200	1600	1600	3014	186
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.02	0.10	0.10	0.03	0.12	0.07	0.07	0.39	0.39
Crit Moves:		****			****			****			****	

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/13/2018

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	3	0	3	9	372	1	4	290	1
Future Vol, veh/h	0	0	1	3	0	3	9	372	1	4	290	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	4	0	4	12	483	1	5	377	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	898	896	378	896	896	484	378	0	0	484	0	0
Stage 1	388	388	-	508	508	-	-	-	-	-	-	-
Stage 2	510	508	-	388	388	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	260	280	669	261	280	583	1180	-	-	1079	-	-
Stage 1	636	609	-	547	539	-	-	-	-	-	-	-
Stage 2	546	539	-	636	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	254	274	669	257	274	583	1180	-	-	1079	-	-
Mov Cap-2 Maneuver	254	274	-	257	274	-	-	-	-	-	-	-
Stage 1	627	605	-	539	531	-	-	-	-	-	-	-
Stage 2	535	531	-	631	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	15.3	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1180	-	-	669	357	1079	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.022	0.005	-	-
HCM Control Delay (s)	8.1	0	-	10.4	15.3	8.4	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Existing PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	22	0	16	346	4	75	0	1498	27	20	1047	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	0	16	346	4	75	0	1498	27	20	1047	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	22	0	16	346	4	75	0	1498	27	20	1047	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	0	16	346	4	75	0	1498	27	20	1047	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	22	0	16	346	4	75	0	1498	27	20	1047	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3163	37	1600	0	4715	85	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.11	0.11	0.05	0.00	0.32	0.32	0.01	0.33	0.00
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.599
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	99	0	361	91	1231	0	0	759	478
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	99	0	361	91	1231	0	0	759	478
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	99	0	361	91	1231	0	0	759	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	99	0	361	91	1231	0	0	759	478
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	99	0	361	91	1231	0	0	759	478
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.43	0.00	1.57	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	689	0	2511	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.06	0.26	0.00	0.00	0.24	0.30
Crit Moves:				****			****					****

Exhibit A

Monrovia Starbucks
CBY1801
Existing PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	258	197	96	106	253	53	50	905	143	147	602	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	197	96	106	253	53	50	905	143	147	602	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	197	96	106	253	53	50	905	143	147	602	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	197	96	106	253	53	50	905	143	147	602	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	197	96	106	253	53	50	905	143	147	602	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	3200	1076	524	1600	2646	554	1600	3200	1600	1600	2991	209
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.18	0.07	0.10	0.10	0.03	0.28	0.09	0.09	0.20	0.20
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.742
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	59	195	80	94	211	58	77	1065	35	108	795	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	195	80	94	211	58	77	1065	35	108	795	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	195	80	94	211	58	77	1065	35	108	795	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	195	80	94	211	58	77	1065	35	108	795	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	195	80	94	211	58	77	1065	35	108	795	39
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.78	0.22	1.00	1.94	0.06	1.00	1.91	0.09
Final Sat.:	1600	1135	465	1600	1255	345	1600	3098	102	1600	3050	150
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.17	0.06	0.17	0.17	0.05	0.34	0.34	0.07	0.26	0.26
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	139	360	137	124	533	58	77	925	150	137	685	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	139	360	137	124	533	58	77	925	150	137	685	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	139	360	137	124	533	58	77	925	150	137	685	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	360	137	124	533	58	77	925	150	137	685	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	360	137	124	533	58	77	925	150	137	685	51
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.45	0.55	1.00	1.80	0.20	1.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	1600	2318	882	1600	2886	314	1600	3200	1600	1600	2978	222
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.16	0.08	0.18	0.18	0.05	0.29	0.09	0.09	0.23	0.23
Crit Moves:	****			****			****			****		

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/13/2018

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	3	1	9	1	292	8	4	355	2
Future Vol, veh/h	2	0	11	3	1	9	1	292	8	4	355	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	4	1	11	1	344	9	5	418	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	786	784	419	787	781	349	420	0	0	353	0	0
Stage 1	429	429	-	351	351	-	-	-	-	-	-	-
Stage 2	357	355	-	436	430	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	310	325	634	309	326	694	1139	-	-	1206	-	-
Stage 1	604	584	-	666	632	-	-	-	-	-	-	-
Stage 2	661	630	-	599	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	323	634	301	324	694	1139	-	-	1206	-	-
Mov Cap-2 Maneuver	303	323	-	301	324	-	-	-	-	-	-	-
Stage 1	603	581	-	665	631	-	-	-	-	-	-	-
Stage 2	649	629	-	584	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	12.4	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1139	-	-	543	500	1206	-	-
HCM Lane V/C Ratio	0.001	-	-	0.028	0.031	0.004	-	-
HCM Control Delay (s)	8.2	0	-	11.8	12.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	37	0	29	263	9	195	0	753	11	8	1434	111
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	0	29	263	9	195	0	753	11	8	1434	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	37	0	29	263	9	195	0	753	11	8	1434	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	0	29	263	9	195	0	753	11	8	1434	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	37	0	29	263	9	195	0	753	11	8	1434	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.93	0.07	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3094	106	1600	0	4731	69	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.08	0.09	0.12	0.00	0.16	0.16	0.01	0.45	0.00
Crit Moves:	****					****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	25	0	169	31	580	0	0	1400	511
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	25	0	169	31	580	0	0	1400	511
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	25	0	169	31	580	0	0	1400	511
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	25	0	169	31	580	0	0	1400	511
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	25	0	169	31	580	0	0	1400	511
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.26	0.00	1.74	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	412	0	2788	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.02	0.12	0.00	0.00	0.44	0.32
Crit Moves:				****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.712
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	378	278	49	84	237	35	32	364	87	51	1034	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	278	49	84	237	35	32	364	87	51	1034	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	378	278	49	84	237	35	32	364	87	51	1034	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	278	49	84	237	35	32	364	87	51	1034	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	378	278	49	84	237	35	32	364	87	51	1034	39
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.85	0.15	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1360	240	1600	2788	412	1600	3200	1600	1600	3084	116
Capacity Analysis Module:												
Vol/Sat:	0.12	0.20	0.20	0.05	0.09	0.08	0.02	0.11	0.05	0.03	0.34	0.34
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.739
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	241	53	61	213	36	74	448	25	38	1095	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	241	53	61	213	36	74	448	25	38	1095	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	241	53	61	213	36	74	448	25	38	1095	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	241	53	61	213	36	74	448	25	38	1095	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	241	53	61	213	36	74	448	25	38	1095	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	0.86	0.14	1.00	1.89	0.11	1.00	1.85	0.15
Final Sat.:	1600	1312	288	1600	1369	231	1600	3031	169	1600	2954	246
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.04	0.16	0.16	0.05	0.15	0.15	0.02	0.37	0.37
Crit Moves:	****			****			****			****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.751
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	198	551	106	36	286	31	45	395	114	111	1192	73
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	198	551	106	36	286	31	45	395	114	111	1192	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	198	551	106	36	286	31	45	395	114	111	1192	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	551	106	36	286	31	45	395	114	111	1192	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	198	551	106	36	286	31	45	395	114	111	1192	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.68	0.32	1.00	1.80	0.20	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2684	516	1600	2887	313	1600	3200	1600	1600	3015	185
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.02	0.10	0.10	0.03	0.12	0.07	0.07	0.40	0.40
Crit Moves:		****			****			****			****	

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	544	1178	45	0	45
Future Vol, veh/h	0	544	1178	45	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	591	1280	49	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	665
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	403
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	403
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	403
HCM Lane V/C Ratio	-	-	-	0.121
HCM Control Delay (s)	-	-	-	15.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.4

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/14/2018

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	1	32	0	25	9	347	46	14	282	1
Future Vol, veh/h	0	0	1	32	0	25	9	347	46	14	282	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	42	0	32	12	451	60	18	366	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	924	938	367	908	908	481	367	0	0	511	0	0
Stage 1	403	403	-	505	505	-	-	-	-	-	-	-
Stage 2	521	535	-	403	403	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	250	264	678	256	275	585	1192	-	-	1054	-	-
Stage 1	624	600	-	549	540	-	-	-	-	-	-	-
Stage 2	539	524	-	624	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	230	255	678	249	265	585	1192	-	-	1054	-	-
Mov Cap-2 Maneuver	230	255	-	249	265	-	-	-	-	-	-	-
Stage 1	615	587	-	541	532	-	-	-	-	-	-	-
Stage 2	502	517	-	610	587	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	18.9	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	678	333	1054	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.222	0.017	-	-
HCM Control Delay (s)	8.1	0	-	10.3	18.9	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0.1	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	22	0	16	346	4	75	0	1498	27	20	1047	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	0	16	346	4	75	0	1498	27	20	1047	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	22	0	16	346	4	75	0	1498	27	20	1047	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	0	16	346	4	75	0	1498	27	20	1047	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	22	0	16	346	4	75	0	1498	27	20	1047	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3163	37	1600	0	4715	85	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.11	0.11	0.05	0.00	0.32	0.32	0.01	0.33	0.00
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.599
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	99	0	361	91	1231	0	0	759	478
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	99	0	361	91	1231	0	0	759	478
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	99	0	361	91	1231	0	0	759	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	99	0	361	91	1231	0	0	759	478
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	99	0	361	91	1231	0	0	759	478
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.43	0.00	1.57	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	689	0	2511	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.06	0.26	0.00	0.00	0.24	0.30
Crit Moves:				****			****					****

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	258	197	96	106	253	53	50	905	143	147	602	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	197	96	106	253	53	50	905	143	147	602	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	197	96	106	253	53	50	905	143	147	602	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	197	96	106	253	53	50	905	143	147	602	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	197	96	106	253	53	50	905	143	147	602	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	3200	1076	524	1600	2646	554	1600	3200	1600	1600	2991	209
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.18	0.07	0.10	0.10	0.03	0.28	0.09	0.09	0.20	0.20
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.742
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	0	1 0	1	0
Volume Module:												
Base Vol:	59	195	80	94	211	58	77	1065	35	108	795	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	195	80	94	211	58	77	1065	35	108	795	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	195	80	94	211	58	77	1065	35	108	795	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	195	80	94	211	58	77	1065	35	108	795	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	195	80	94	211	58	77	1065	35	108	795	39
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.78	0.22	1.00	1.94	0.06	1.00	1.91	0.09
Final Sat.:	1600	1135	465	1600	1255	345	1600	3098	102	1600	3050	150
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.17	0.06	0.17	0.17	0.05	0.34	0.34	0.07	0.26	0.26
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	139	360	137	124	533	58	77	925	150	137	685	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	139	360	137	124	533	58	77	925	150	137	685	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	139	360	137	124	533	58	77	925	150	137	685	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	360	137	124	533	58	77	925	150	137	685	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	360	137	124	533	58	77	925	150	137	685	51
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.45	0.55	1.00	1.80	0.20	1.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	1600	2318	882	1600	2886	314	1600	3200	1600	1600	2978	222
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.16	0.08	0.18	0.18	0.05	0.29	0.09	0.09	0.23	0.23
Crit Moves:	****			****			****			****		

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1239	931	22	0	22
Future Vol, veh/h	0	1239	931	22	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1347	1012	24	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	518
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	502
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	502
HCM Lane V/C Ratio	-	-	-	0.048
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/16/2018

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	5	1	33	1	280	32	6	354	2
Future Vol, veh/h	2	0	11	5	1	33	1	280	32	6	354	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	6	1	39	1	329	38	7	416	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	801	800	417	788	782	348	418	0	0	367	0	0
Stage 1	431	431	-	350	350	-	-	-	-	-	-	-
Stage 2	370	369	-	438	432	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	303	318	636	309	326	695	1141	-	-	1192	-	-
Stage 1	603	583	-	666	633	-	-	-	-	-	-	-
Stage 2	650	621	-	597	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	283	315	636	301	323	695	1141	-	-	1192	-	-
Mov Cap-2 Maneuver	283	315	-	301	323	-	-	-	-	-	-	-
Stage 1	602	578	-	665	632	-	-	-	-	-	-	-
Stage 2	612	620	-	580	577	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11.7	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1141	-	-	534	580	1192	-	-
HCM Lane V/C Ratio	0.001	-	-	0.029	0.079	0.006	-	-
HCM Control Delay (s)	8.2	0	-	11.9	11.7	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	38	0	30	281	9	209	0	807	11	8	1497	118
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	0	30	281	9	209	0	807	11	8	1497	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	38	0	30	281	9	209	0	807	11	8	1497	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	0	30	281	9	209	0	807	11	8	1497	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	38	0	30	281	9	209	0	807	11	8	1497	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.94	0.06	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3101	99	1600	0	4735	65	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.09	0.09	0.13	0.00	0.17	0.17	0.01	0.47	0.00
Crit Moves:	****					****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.653
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	29	0	177	51	625	0	0	1461	571
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	29	0	177	51	625	0	0	1461	571
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	29	0	177	51	625	0	0	1461	571
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	29	0	177	51	625	0	0	1461	571
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	29	0	177	51	625	0	0	1461	571
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.28	0.00	1.72	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	450	0	2750	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.03	0.13	0.00	0.00	0.46	0.36
Crit Moves:						****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.750
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	387	285	48	85	243	36	33	406	92	50	1137	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	387	285	48	85	243	36	33	406	92	50	1137	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	387	285	48	85	243	36	33	406	92	50	1137	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	285	48	85	243	36	33	406	92	50	1137	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	387	285	48	85	243	36	33	406	92	50	1137	41
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.86	0.14	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1369	231	1600	2787	413	1600	3200	1600	1600	3089	111
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.05	0.09	0.09	0.02	0.13	0.06	0.03	0.37	0.37
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.764
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	74	259	61	44	218	37	57	511	30	40	1190	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	259	61	44	218	37	57	511	30	40	1190	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	259	61	44	218	37	57	511	30	40	1190	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	259	61	44	218	37	57	511	30	40	1190	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	259	61	44	218	37	57	511	30	40	1190	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.81	0.19	1.00	0.85	0.15	1.00	1.89	0.11	1.00	1.86	0.14
Final Sat.:	1600	1295	305	1600	1368	232	1600	3023	177	1600	2968	232
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.03	0.16	0.16	0.04	0.17	0.17	0.03	0.40	0.40
Crit Moves:		****			****			****			****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	236	599	126	44	347	66	61	418	136	131	1222	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	236	599	126	44	347	66	61	418	136	131	1222	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	236	599	126	44	347	66	61	418	136	131	1222	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	236	599	126	44	347	66	61	418	136	131	1222	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	236	599	126	44	347	66	61	418	136	131	1222	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.68	0.32	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2644	556	1600	2689	511	1600	3200	1600	1600	3010	190
Capacity Analysis Module:												
Vol/Sat:	0.15	0.23	0.23	0.03	0.13	0.13	0.04	0.13	0.09	0.08	0.41	0.41
Crit Moves:	****			****			****			****		

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/15/2018

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	1	3	0	3	9	395	1	4	299	1
Future Vol, veh/h	0	0	1	3	0	3	9	395	1	4	299	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	4	0	4	12	513	1	5	388	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	939	937	389	937	937	514	389	0	0	514	0	0
Stage 1	399	399	-	538	538	-	-	-	-	-	-	-
Stage 2	540	538	-	399	399	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	244	265	659	245	265	560	1170	-	-	1052	-	-
Stage 1	627	602	-	527	522	-	-	-	-	-	-	-
Stage 2	526	522	-	627	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	239	260	659	241	260	560	1170	-	-	1052	-	-
Mov Cap-2 Maneuver	239	260	-	241	260	-	-	-	-	-	-	-
Stage 1	618	598	-	520	515	-	-	-	-	-	-	-
Stage 2	515	515	-	622	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	15.9	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	659	337	1052	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.023	0.005	-	-
HCM Control Delay (s)	8.1	0	-	10.5	15.9	8.4	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	23	0	16	420	4	125	0	1588	28	20	1122	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	0	16	420	4	125	0	1588	28	20	1122	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	23	0	16	420	4	125	0	1588	28	20	1122	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	0	16	420	4	125	0	1588	28	20	1122	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	23	0	16	420	4	125	0	1588	28	20	1122	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3170	30	1600	0	4717	83	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.13	0.13	0.08	0.00	0.34	0.34	0.01	0.35	0.00
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.659
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	114	0	384	104	1397	0	0	824	541
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	114	0	384	104	1397	0	0	824	541
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	114	0	384	104	1397	0	0	824	541
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	114	0	384	104	1397	0	0	824	541
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	114	0	384	104	1397	0	0	824	541
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	0.00	1.54	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	733	0	2467	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.16	0.07	0.29	0.00	0.00	0.26	0.34
Crit Moves:				****			****					****

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	264	202	98	112	259	54	51	1049	176	151	702	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	264	202	98	112	259	54	51	1049	176	151	702	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	264	202	98	112	259	54	51	1049	176	151	702	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	264	202	98	112	259	54	51	1049	176	151	702	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	264	202	98	112	259	54	51	1049	176	151	702	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	3200	1077	523	1600	2648	552	1600	3200	1600	1600	3007	193
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.07	0.10	0.10	0.03	0.33	0.11	0.09	0.23	0.23
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	69	207	85	96	230	59	79	1204	56	118	897	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	207	85	96	230	59	79	1204	56	118	897	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	69	207	85	96	230	59	79	1204	56	118	897	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	207	85	96	230	59	79	1204	56	118	897	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	207	85	96	230	59	79	1204	56	118	897	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.80	0.20	1.00	1.91	0.09	1.00	1.91	0.09
Final Sat.:	1600	1134	466	1600	1273	327	1600	3058	142	1600	3063	137
Capacity Analysis Module:												
Vol/Sat:	0.04	0.18	0.18	0.06	0.18	0.18	0.05	0.39	0.39	0.07	0.29	0.29
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	172	408	145	130	576	92	129	980	174	151	738	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	408	145	130	576	92	129	980	174	151	738	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	408	145	130	576	92	129	980	174	151	738	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	408	145	130	576	92	129	980	174	151	738	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	408	145	130	576	92	129	980	174	151	738	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.48	0.52	1.00	1.72	0.28	1.00	2.00	1.00	1.00	1.85	0.15
Final Sat.:	1600	2361	839	1600	2759	441	1600	3200	1600	1600	2963	237
Capacity Analysis Module:												
Vol/Sat:	0.11	0.17	0.17	0.08	0.21	0.21	0.08	0.31	0.11	0.09	0.25	0.25
Crit Moves:	****			****			****			****		

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/15/2018

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	3	1	9	1	306	8	4	378	2
Future Vol, veh/h	2	0	11	3	1	9	1	306	8	4	378	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	4	1	11	1	360	9	5	445	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	829	827	446	830	824	365	447	0	0	369	0	0
Stage 1	456	456	-	367	367	-	-	-	-	-	-	-
Stage 2	373	371	-	463	457	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	290	307	612	289	308	680	1113	-	-	1190	-	-
Stage 1	584	568	-	653	622	-	-	-	-	-	-	-
Stage 2	648	620	-	579	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	283	305	612	281	306	680	1113	-	-	1190	-	-
Mov Cap-2 Maneuver	283	305	-	281	306	-	-	-	-	-	-	-
Stage 1	583	565	-	652	621	-	-	-	-	-	-	-
Stage 2	636	619	-	563	565	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	12.8	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1113	-	-	519	478	1190	-	-
HCM Lane V/C Ratio	0.001	-	-	0.029	0.032	0.004	-	-
HCM Control Delay (s)	8.2	0	-	12.1	12.8	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.723
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	38	0	30	293	9	209	0	809	11	8	1499	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	0	30	293	9	209	0	809	11	8	1499	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	38	0	30	293	9	209	0	809	11	8	1499	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	0	30	293	9	209	0	809	11	8	1499	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	38	0	30	293	9	209	0	809	11	8	1499	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.94	0.06	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3105	95	1600	0	4736	64	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.09	0.09	0.13	0.00	0.17	0.17	0.01	0.47	0.00
Crit Moves:	****					****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	31	0	177	51	639	0	0	1465	583
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	31	0	177	51	639	0	0	1465	583
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	31	0	177	51	639	0	0	1465	583
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	31	0	177	51	639	0	0	1465	583
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	31	0	177	51	639	0	0	1465	583
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.30	0.00	1.70	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	477	0	2723	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.07	0.03	0.13	0.00	0.00	0.46	0.36
Crit Moves:						****	****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.757
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	387	285	50	87	243	36	33	420	92	52	1151	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	387	285	50	87	243	36	33	420	92	52	1151	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	387	285	50	87	243	36	33	420	92	52	1151	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	285	50	87	243	36	33	420	92	52	1151	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	387	285	50	87	243	36	33	420	92	52	1151	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.85	0.15	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1361	239	1600	2787	413	1600	3200	1600	1600	3085	115
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.05	0.09	0.09	0.02	0.13	0.06	0.03	0.37	0.37
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	74	261	61	62	220	37	75	511	30	40	1208	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	261	61	62	220	37	75	511	30	40	1208	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	261	61	62	220	37	75	511	30	40	1208	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	261	61	62	220	37	75	511	30	40	1208	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	261	61	62	220	37	75	511	30	40	1208	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.81	0.19	1.00	0.86	0.14	1.00	1.89	0.11	1.00	1.86	0.14
Final Sat.:	1600	1297	303	1600	1370	230	1600	3023	177	1600	2971	229
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.04	0.16	0.16	0.05	0.17	0.17	0.03	0.41	0.41
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.830
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	240	599	126	44	347	70	65	428	140	131	1232	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	599	126	44	347	70	65	428	140	131	1232	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	599	126	44	347	70	65	428	140	131	1232	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	599	126	44	347	70	65	428	140	131	1232	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	240	599	126	44	347	70	65	428	140	131	1232	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.66	0.34	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2644	556	1600	2663	537	1600	3200	1600	1600	3012	188
Capacity Analysis Module:												
Vol/Sat:	0.15	0.23	0.23	0.03	0.13	0.13	0.04	0.13	0.09	0.08	0.41	0.41
Crit Moves:	****			****			****			****		

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	616	1296	45	0	45
Future Vol, veh/h	0	616	1296	45	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	670	1409	49	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	729
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	365
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	365
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	365
HCM Lane V/C Ratio	-	-	-	0.134
HCM Control Delay (s)	-	-	-	16.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.5

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/15/2018

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	1	32	0	25	9	370	46	14	291	1
Future Vol, veh/h	0	0	1	32	0	25	9	370	46	14	291	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	42	0	32	12	481	60	18	378	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	966	980	379	950	950	511	379	0	0	541	0	0
Stage 1	415	415	-	535	535	-	-	-	-	-	-	-
Stage 2	551	565	-	415	415	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	234	250	668	240	260	563	1179	-	-	1028	-	-
Stage 1	615	592	-	529	524	-	-	-	-	-	-	-
Stage 2	519	508	-	615	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	241	668	233	250	563	1179	-	-	1028	-	-
Mov Cap-2 Maneuver	214	241	-	233	250	-	-	-	-	-	-	-
Stage 1	606	579	-	521	516	-	-	-	-	-	-	-
Stage 2	482	500	-	600	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	20	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	668	314	1028	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.236	0.018	-	-
HCM Control Delay (s)	8.1	0	-	10.4	20	8.6	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.9	0.1	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	23	0	16	420	4	125	0	1588	28	20	1122	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	0	16	420	4	125	0	1588	28	20	1122	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	23	0	16	420	4	125	0	1588	28	20	1122	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	0	16	420	4	125	0	1588	28	20	1122	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	23	0	16	420	4	125	0	1588	28	20	1122	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3170	30	1600	0	4717	83	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.13	0.13	0.08	0.00	0.34	0.34	0.01	0.35	0.00
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.659
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	114	0	384	104	1397	0	0	824	541
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	0	0	114	0	384	104	1397	0	0	824	541
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	0	0	0	114	0	384	104	1397	0	0	824	541
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	114	0	384	104	1397	0	0	824	541
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	0	0	0	114	0	384	104	1397	0	0	824	541
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 0.00	0.00		0.46 0.00	1.54		1.00 3.00	0.00		0.00 2.00	1.00	
Final Sat.:	0	0	0	733	0	2467	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00	0.00		0.16 0.00	0.16		0.07 0.29	0.00		0.00 0.26	0.34	
Crit Moves:				****			****					****

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.780
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	264	202	98	112	259	54	51	1049	176	151	702	45
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	264	202	98	112	259	54	51	1049	176	151	702	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	264	202	98	112	259	54	51	1049	176	151	702	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	264	202	98	112	259	54	51	1049	176	151	702	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	264	202	98	112	259	54	51	1049	176	151	702	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	3200	1077	523	1600	2648	552	1600	3200	1600	1600	3007	193
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.07	0.10	0.10	0.03	0.33	0.11	0.09	0.23	0.23
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	69	207	85	96	230	59	79	1204	56	118	897	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	207	85	96	230	59	79	1204	56	118	897	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	69	207	85	96	230	59	79	1204	56	118	897	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	207	85	96	230	59	79	1204	56	118	897	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	207	85	96	230	59	79	1204	56	118	897	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.80	0.20	1.00	1.91	0.09	1.00	1.91	0.09
Final Sat.:	1600	1134	466	1600	1273	327	1600	3058	142	1600	3063	137
Capacity Analysis Module:												
Vol/Sat:	0.04	0.18	0.18	0.06	0.18	0.18	0.05	0.39	0.39	0.07	0.29	0.29
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	172	408	145	130	576	92	129	980	174	151	738	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	408	145	130	576	92	129	980	174	151	738	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	172	408	145	130	576	92	129	980	174	151	738	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	408	145	130	576	92	129	980	174	151	738	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	172	408	145	130	576	92	129	980	174	151	738	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.48	0.52	1.00	1.72	0.28	1.00	2.00	1.00	1.00	1.85	0.15
Final Sat.:	1600	2361	839	1600	2759	441	1600	3200	1600	1600	2963	237
Capacity Analysis Module:												
Vol/Sat:	0.11	0.17	0.17	0.08	0.21	0.21	0.08	0.31	0.11	0.09	0.25	0.25
Crit Moves:	****			****			****			****		

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	1385	1043	22	0	22
Future Vol, veh/h	0	1385	1043	22	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1505	1134	24	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	579
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	458
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	458
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	458
HCM Lane V/C Ratio	-	-	-	0.052
HCM Control Delay (s)	-	-	-	13.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/16/2018

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	5	1	33	1	294	32	6	377	2
Future Vol, veh/h	2	0	11	5	1	33	1	294	32	6	377	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	6	1	39	1	346	38	7	444	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	846	845	445	833	827	365	446	0	0	384	0	0
Stage 1	459	459	-	367	367	-	-	-	-	-	-	-
Stage 2	387	386	-	466	460	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	282	300	613	288	307	680	1114	-	-	1174	-	-
Stage 1	582	566	-	653	622	-	-	-	-	-	-	-
Stage 2	637	610	-	577	566	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	263	297	613	280	304	680	1114	-	-	1174	-	-
Mov Cap-2 Maneuver	263	297	-	280	304	-	-	-	-	-	-	-
Stage 1	581	561	-	652	621	-	-	-	-	-	-	-
Stage 2	599	609	-	560	561	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	509	560	1174	-	-
HCM Lane V/C Ratio	0.001	-	-	0.03	0.082	0.006	-	-
HCM Control Delay (s)	8.2	0	-	12.3	12	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Exhibit A

APPENDIX C

SENSITIVITY ANALYSIS LOS WORKSHEETS

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	37	0	29	266	9	195	0	754	11	8	1434	111
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	0	29	266	9	195	0	754	11	8	1434	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	37	0	29	266	9	195	0	754	11	8	1434	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	0	29	266	9	195	0	754	11	8	1434	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	37	0	29	266	9	195	0	754	11	8	1434	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.93	0.07	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3095	105	1600	0	4731	69	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.09	0.09	0.12	0.00	0.16	0.16	0.01	0.45	0.00
Crit Moves:	****					****	****				****	

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/16/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	754	11	8	1434	111	37	0	29	266	9	195
Future Volume (veh/h)	0	754	11	8	1434	111	37	0	29	266	9	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	802	12	9	1526	0	39	0	31	290	0	207
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3142	47	500	2154		0	0	0	686	0	305
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	0	5351	77	671	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	526	288	9	1526	0		0.0		290	0	207
Grp Sat Flow(s),veh/h/ln	0	1702	1856	671	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	3.7	3.7	0.3	15.0	0.0				3.6	0.0	6.1
Cycle Q Clear(g_c), s	0.0	3.7	3.7	4.0	15.0	0.0				3.6	0.0	6.1
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2063	1125	500	2154					686	0	305
V/C Ratio(X)	0.00	0.26	0.26	0.02	0.71					0.42	0.00	0.68
Avail Cap(c_a), veh/h	0	2815	1535	648	2938					1743	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.6	4.7	5.6	6.9	0.0				18.0	0.0	19.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.5	0.0				0.4	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	0.0	3.7	0.0				1.4	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.7	4.8	5.6	7.4	0.0				18.4	0.0	21.6
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		814			1535	A					497	
Approach Delay, s/veh		4.7			7.4						19.7	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.9		35.8				35.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		8.1		17.0				5.7				
Green Ext Time (p_c), s		1.6		13.7				6.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

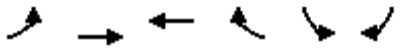
Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	26	0	169	31	584	0	0	1401	513
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	26	0	169	31	584	0	0	1401	513
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	26	0	169	31	584	0	0	1401	513
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	26	0	169	31	584	0	0	1401	513
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	26	0	169	31	584	0	0	1401	513
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.27	0.00	1.73	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	427	0	2773	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.02	0.12	0.00	0.00	0.44	0.32
Crit Moves:						****	****				****	

Exhibit A

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/16/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	584	1401	513	26	169
Future Volume (veh/h)	31	584	1401	513	26	169
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	621	1490	546	0	210
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	156	3629	1967	877	198	352
Arrive On Green	0.09	0.71	0.55	0.55	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	33	621	1490	546	0	210
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.0	2.3	18.5	13.4	0.0	3.6
Cycle Q Clear(g_c), s	1.0	2.3	18.5	13.4	0.0	3.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	156	3629	1967	877	198	352
V/C Ratio(X)	0.21	0.17	0.76	0.62	0.00	0.60
Avail Cap(c_a), veh/h	560	5165	2229	994	837	1490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	2.7	9.8	8.7	0.0	24.2
Incr Delay (d2), s/veh	0.7	0.0	1.4	1.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	5.8	3.7	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.0	2.8	11.2	9.7	0.0	25.8
LnGrp LOS	C	A	B	A	A	C
Approach Vol, veh/h		654	2036		210	
Approach Delay, s/veh		3.9	10.8		25.8	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		45.8		11.5	9.0	36.8
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.3		5.6	3.0	20.5
Green Ext Time (p_c), s		5.0		0.8	0.0	11.2

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.714
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	378	278	50	85	237	35	32	368	87	51	1037	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	278	50	85	237	35	32	368	87	51	1037	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	378	278	50	85	237	35	32	368	87	51	1037	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	278	50	85	237	35	32	368	87	51	1037	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	378	278	50	85	237	35	32	368	87	51	1037	39
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.85	0.15	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1356	244	1600	2788	412	1600	3200	1600	1600	3084	116
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.20	0.05	0.09	0.08	0.02	0.12	0.05	0.03	0.34	0.34
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	52	242	53	65	213	36	79	448	25	38	1099	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	242	53	65	213	36	79	448	25	38	1099	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	242	53	65	213	36	79	448	25	38	1099	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	242	53	65	213	36	79	448	25	38	1099	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	242	53	65	213	36	79	448	25	38	1099	91
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.82	0.18	1.00	0.86	0.14	1.00	1.89	0.11	1.00	1.85	0.15
Final Sat.:	1600	1313	287	1600	1369	231	1600	3031	169	1600	2955	245
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.04	0.16	0.16	0.05	0.15	0.15	0.02	0.37	0.37
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	199	551	106	36	286	32	46	397	115	111	1195	73
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	199	551	106	36	286	32	46	397	115	111	1195	73
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	199	551	106	36	286	32	46	397	115	111	1195	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	199	551	106	36	286	32	46	397	115	111	1195	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	199	551	106	36	286	32	46	397	115	111	1195	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.68	0.32	1.00	1.80	0.20	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2684	516	1600	2878	322	1600	3200	1600	1600	3016	184
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.02	0.10	0.10	0.03	0.12	0.07	0.07	0.40	0.40
Crit Moves:		****			****			****			****	

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	544	1178	45	0	45
Future Vol, veh/h	0	544	1178	45	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	591	1280	49	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	665
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	403
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	403
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	403
HCM Lane V/C Ratio	-	-	-	0.121
HCM Control Delay (s)	-	-	-	15.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.4

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/16/2018

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	1	32	0	25	9	347	46	14	282	1
Future Vol, veh/h	0	0	1	32	0	25	9	347	46	14	282	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	42	0	32	12	451	60	18	366	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	924	938	367	908	908	481	367	0	0	511	0	0
Stage 1	403	403	-	505	505	-	-	-	-	-	-	-
Stage 2	521	535	-	403	403	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	250	264	678	256	275	585	1192	-	-	1054	-	-
Stage 1	624	600	-	549	540	-	-	-	-	-	-	-
Stage 2	539	524	-	624	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	230	255	678	249	265	585	1192	-	-	1054	-	-
Mov Cap-2 Maneuver	230	255	-	249	265	-	-	-	-	-	-	-
Stage 1	615	587	-	541	532	-	-	-	-	-	-	-
Stage 2	502	517	-	610	587	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	18.9	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	678	333	1054	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.222	0.017	-	-
HCM Control Delay (s)	8.1	0	-	10.3	18.9	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0.1	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.556
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	22	0	16	353	4	75	0	1499	27	20	1048	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	0	16	353	4	75	0	1499	27	20	1048	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	22	0	16	353	4	75	0	1499	27	20	1048	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	0	16	353	4	75	0	1499	27	20	1048	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	22	0	16	353	4	75	0	1499	27	20	1048	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3164	36	1600	0	4715	85	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.11	0.11	0.05	0.00	0.32	0.32	0.01	0.33	0.00
Crit Moves:	****			****			****			****		

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/16/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1499	27	20	1048	33	22	0	16	353	4	75
Future Volume (veh/h)	0	1499	27	20	1048	33	22	0	16	353	4	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1530	28	20	1069	0	22	0	16	363	0	77
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2972	54	306	2045		0	0	0	632	0	281
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	0	5331	94	331	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1009	549	20	1069	0		0.0		363	0	77
Grp Sat Flow(s),veh/h/ln	0	1702	1853	331	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	7.4	7.4	1.6	7.5	0.0				3.9	0.0	1.7
Cycle Q Clear(g_c), s	0.0	7.4	7.4	9.0	7.5	0.0				3.9	0.0	1.7
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1959	1067	306	2045					632	0	281
V/C Ratio(X)	0.00	0.51	0.51	0.07	0.52					0.57	0.00	0.27
Avail Cap(c_a), veh/h	0	3453	1880	451	3605					2139	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.3	5.3	8.0	5.3	0.0				15.6	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.7	0.1	1.6	0.0				1.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.5	5.7	8.1	5.5	0.0				16.4	0.0	15.2
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1558			1089	A					440	
Approach Delay, s/veh		5.6			5.6						16.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		12.4		28.9				28.9				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		5.9		11.0				9.4				
Green Ext Time (p_c), s		1.5		10.0				14.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 I-210 WB Ramps/Huntington Drive

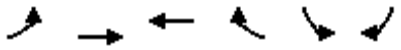
Cycle (sec):	100	Critical Vol./Cap.(X):	0.604
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	100	0	361	91	1239	0	0	761	485
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	100	0	361	91	1239	0	0	761	485
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	100	0	361	91	1239	0	0	761	485
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	100	0	361	91	1239	0	0	761	485
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	100	0	361	91	1239	0	0	761	485
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.43	0.00	1.57	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	694	0	2506	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.14	0.06	0.26	0.00	0.00	0.24	0.30
Crit Moves:						****	****					****

Exhibit A

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/16/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	1239	761	485	100	361
Future Volume (veh/h)	91	1239	761	485	100	361
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1347	827	527	241	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	163	3117	1592	710	373	332
Arrive On Green	0.09	0.61	0.45	0.45	0.21	0.21
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	99	1347	827	527	241	250
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.0	7.9	9.5	15.6	7.0	8.4
Cycle Q Clear(g_c), s	3.0	7.9	9.5	15.6	7.0	8.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	163	3117	1592	710	373	332
V/C Ratio(X)	0.61	0.43	0.52	0.74	0.65	0.75
Avail Cap(c_a), veh/h	567	5224	2254	1005	847	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	5.8	11.2	12.9	20.5	21.0
Incr Delay (d2), s/veh	3.6	0.1	0.3	1.8	1.9	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.0	3.2	4.9	2.9	7.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.3	5.9	11.5	14.7	22.3	24.5
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1446	1354		491	
Approach Delay, s/veh		7.5	12.8		23.4	
Approach LOS		A	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.6	17.0	9.2	30.4
Change Period (Y+Rc), s	5.1	5.1	4.0	5.1
Max Green Setting (Gmax), s	57.9	26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s	9.9	10.4	5.0	17.6
Green Ext Time (p_c), s	14.1	1.5	0.2	7.8

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.728
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0 1	0	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	258	197	97	107	253	53	50	913	143	148	610	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	197	97	107	253	53	50	913	143	148	610	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	197	97	107	253	53	50	913	143	148	610	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	197	97	107	253	53	50	913	143	148	610	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	197	97	107	253	53	50	913	143	148	610	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.87	0.13
Final Sat.:	3200	1072	528	1600	2646	554	1600	3200	1600	1600	2989	211
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.18	0.07	0.10	0.10	0.03	0.29	0.09	0.09	0.20	0.20
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.749
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	0	1 0	1	0
Volume Module:												
Base Vol:	59	196	80	105	212	58	88	1065	35	108	806	39
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	196	80	105	212	58	88	1065	35	108	806	39
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	196	80	105	212	58	88	1065	35	108	806	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	196	80	105	212	58	88	1065	35	108	806	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	196	80	105	212	58	88	1065	35	108	806	39
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.79	0.21	1.00	1.94	0.06	1.00	1.91	0.09
Final Sat.:	1600	1136	464	1600	1256	344	1600	3098	102	1600	3052	148
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.17	0.07	0.17	0.17	0.06	0.34	0.34	0.07	0.26	0.26
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Existing Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.750
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	141	360	137	124	533	60	79	931	152	137	691	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	141	360	137	124	533	60	79	931	152	137	691	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	141	360	137	124	533	60	79	931	152	137	691	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	360	137	124	533	60	79	931	152	137	691	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	141	360	137	124	533	60	79	931	152	137	691	51
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.45	0.55	1.00	1.80	0.20	1.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	1600	2318	882	1600	2876	324	1600	3200	1600	1600	2980	220
Capacity Analysis Module:												
Vol/Sat:	0.09	0.16	0.16	0.08	0.19	0.19	0.05	0.29	0.10	0.09	0.23	0.23
Crit Moves:	****			****			****			****		

HCM 6th TWSC
6: Huntington Drive & Project Driveway 03/16/2018

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1239	931	22	0	22
Future Vol, veh/h	0	1239	931	22	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1347	1012	24	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	518
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	502
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	502
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	502
HCM Lane V/C Ratio	-	-	-	0.048
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/16/2018

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	5	1	33	1	280	32	6	354	2
Future Vol, veh/h	2	0	11	5	1	33	1	280	32	6	354	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	6	1	39	1	329	38	7	416	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	801	800	417	788	782	348	418	0	0	367	0	0
Stage 1	431	431	-	350	350	-	-	-	-	-	-	-
Stage 2	370	369	-	438	432	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	303	318	636	309	326	695	1141	-	-	1192	-	-
Stage 1	603	583	-	666	633	-	-	-	-	-	-	-
Stage 2	650	621	-	597	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	283	315	636	301	323	695	1141	-	-	1192	-	-
Mov Cap-2 Maneuver	283	315	-	301	323	-	-	-	-	-	-	-
Stage 1	602	578	-	665	632	-	-	-	-	-	-	-
Stage 2	612	620	-	580	577	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11.7	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1141	-	-	534	580	1192	-	-
HCM Lane V/C Ratio	0.001	-	-	0.029	0.079	0.006	-	-
HCM Control Delay (s)	8.2	0	-	11.9	11.7	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.723
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	38	0	30	296	9	209	0	810	11	8	1499	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	0	30	296	9	209	0	810	11	8	1499	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	38	0	30	296	9	209	0	810	11	8	1499	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	0	30	296	9	209	0	810	11	8	1499	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	38	0	30	296	9	209	0	810	11	8	1499	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.94	0.06	1.00	0.00	2.96	0.04	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3106	94	1600	0	4736	64	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.10	0.10	0.13	0.00	0.17	0.17	0.01	0.47	0.00
Crit Moves:	****					****	****				****	

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/16/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	810	11	8	1499	120	38	0	30	296	9	209
Future Volume (veh/h)	0	810	11	8	1499	120	38	0	30	296	9	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	862	12	9	1595	0	40	0	32	322	0	222
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3165	44	471	2167		0	0	0	713	0	317
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5358	72	634	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	565	309	9	1595	0		0.0		322	0	222
Grp Sat Flow(s),veh/h/ln	0	1702	1857	634	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	4.2	4.2	0.4	17.1	0.0				4.3	0.0	7.0
Cycle Q Clear(g_c), s	0.0	4.2	4.2	4.5	17.1	0.0				4.3	0.0	7.0
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2076	1133	471	2167					713	0	317
V/C Ratio(X)	0.00	0.27	0.27	0.02	0.74					0.45	0.00	0.70
Avail Cap(c_a), veh/h	0	2656	1449	579	2772					1645	0	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.9	4.9	6.0	7.4	0.0				18.9	0.0	20.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.8	0.0				0.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	1.1	0.0	4.5	0.0				1.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.0	5.0	6.0	8.2	0.0				19.3	0.0	22.8
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		874			1604	A					544	
Approach Delay, s/veh		5.0			8.2						20.7	
Approach LOS		A			A						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		15.9		37.9				37.9				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		9.0		19.1				6.2				
Green Ext Time (p_c), s		1.8		13.7				6.8				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

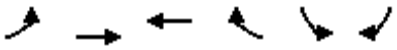
Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	32	0	177	51	643	0	0	1466	585
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Initial Bse:	0	0	0	32	0	177	51	643	0	0	1466	585
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
PHF Volume:	0	0	0	32	0	177	51	643	0	0	1466	585
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	32	0	177	51	643	0	0	1466	585
PCE Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
MLF Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
FinalVolume:	0	0	0	32	0	177	51	643	0	0	1466	585
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600		1600 1600	1600		1600 1600	1600		1600 1600	1600	
Adjustment:	1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00		1.00 1.00	1.00	
Lanes:	0.00 0.00	0.00		0.31 0.00	1.69		1.00 3.00	0.00		0.00 2.00	1.00	
Final Sat.:	0	0	0	490	0	2710	1600 4800		0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00 0.00	0.00		0.07 0.00	0.07		0.03 0.13	0.00		0.00 0.46	0.37	
Crit Moves:				****			****				****	

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/16/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	643	1466	585	32	177
Future Volume (veh/h)	51	643	1466	585	32	177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	684	1560	622	0	224
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	151	3635	1987	886	205	364
Arrive On Green	0.08	0.71	0.56	0.56	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	54	684	1560	622	0	224
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.7	2.6	20.3	16.8	0.0	4.0
Cycle Q Clear(g_c), s	1.7	2.6	20.3	16.8	0.0	4.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	151	3635	1987	886	205	364
V/C Ratio(X)	0.36	0.19	0.79	0.70	0.00	0.61
Avail Cap(c_a), veh/h	544	5019	2166	966	813	1448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.4	2.8	10.2	9.4	0.0	24.8
Incr Delay (d2), s/veh	1.4	0.0	1.8	2.1	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	6.5	4.9	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.9	2.8	12.0	11.5	0.0	26.5
LnGrp LOS	C	A	B	B	A	C
Approach Vol, veh/h		738	2182		224	
Approach Delay, s/veh		4.6	11.9		26.5	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		47.0		11.9	9.0	38.0
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.6		6.0	3.7	22.3
Green Ext Time (p_c), s		5.6		0.8	0.1	10.6

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.760
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	387	285	51	88	243	36	33	424	92	52	1154	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	387	285	51	88	243	36	33	424	92	52	1154	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	387	285	51	88	243	36	33	424	92	52	1154	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	285	51	88	243	36	33	424	92	52	1154	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	387	285	51	88	243	36	33	424	92	52	1154	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.85	0.15	1.00	1.74	0.26	1.00	2.00	1.00	1.00	1.93	0.07
Final Sat.:	3200	1357	243	1600	2787	413	1600	3200	1600	1600	3085	115
Capacity Analysis Module:												
Vol/Sat:	0.12	0.21	0.21	0.06	0.09	0.09	0.02	0.13	0.06	0.03	0.37	0.37
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	74	262	61	66	220	37	80	511	30	40	1212	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	262	61	66	220	37	80	511	30	40	1212	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	262	61	66	220	37	80	511	30	40	1212	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	262	61	66	220	37	80	511	30	40	1212	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	262	61	66	220	37	80	511	30	40	1212	93
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.81	0.19	1.00	0.86	0.14	1.00	1.89	0.11	1.00	1.86	0.14
Final Sat.:	1600	1298	302	1600	1370	230	1600	3023	177	1600	2972	228
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.04	0.16	0.16	0.05	0.17	0.17	0.03	0.41	0.41
Crit Moves:	****			****			****				****	

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project AM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.833
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	241	599	126	44	347	71	66	430	141	131	1235	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	241	599	126	44	347	71	66	430	141	131	1235	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	241	599	126	44	347	71	66	430	141	131	1235	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	599	126	44	347	71	66	430	141	131	1235	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	599	126	44	347	71	66	430	141	131	1235	77
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.65	0.35	1.00	1.66	0.34	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	1600	2644	556	1600	2656	544	1600	3200	1600	1600	3012	188
Capacity Analysis Module:												
Vol/Sat:	0.15	0.23	0.23	0.03	0.13	0.13	0.04	0.13	0.09	0.08	0.41	0.41
Crit Moves:	****			****			****			****		

HCM 6th TWSC
6: Huntington Drive & Project Driveway 03/16/2018

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	616	1296	45	0	45
Future Vol, veh/h	0	616	1296	45	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	670	1409	49	0	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	729
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	365
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	365
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	365
HCM Lane V/C Ratio	-	-	-	0.134
HCM Control Delay (s)	-	-	-	16.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.5

HCM 6th TWSC
7: Magnolia Avenue & Alley/Project Alley 03/16/2018

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	1	32	0	25	9	370	46	14	291	1
Future Vol, veh/h	0	0	1	32	0	25	9	370	46	14	291	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	1	42	0	32	12	481	60	18	378	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	966	980	379	950	950	511	379	0	0	541	0	0
Stage 1	415	415	-	535	535	-	-	-	-	-	-	-
Stage 2	551	565	-	415	415	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	234	250	668	240	260	563	1179	-	-	1028	-	-
Stage 1	615	592	-	529	524	-	-	-	-	-	-	-
Stage 2	519	508	-	615	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	241	668	233	250	563	1179	-	-	1028	-	-
Mov Cap-2 Maneuver	214	241	-	233	250	-	-	-	-	-	-	-
Stage 1	606	579	-	521	516	-	-	-	-	-	-	-
Stage 2	482	500	-	600	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	20	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	668	314	1028	-	-
HCM Lane V/C Ratio	0.01	-	-	0.002	0.236	0.018	-	-
HCM Control Delay (s)	8.1	0	-	10.4	20	8.6	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.9	0.1	-	-

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 I-210 EB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.598
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	40	Level Of Service:	A

Street Name:	I-210 EB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	0 1	1 1	0	0 1	0 0	2	1 0	1 0	2	0 1
Volume Module:												
Base Vol:	23	0	16	427	4	125	0	1589	28	20	1123	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	0	16	427	4	125	0	1589	28	20	1123	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	23	0	16	427	4	125	0	1589	28	20	1123	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	0	16	427	4	125	0	1589	28	20	1123	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	23	0	16	427	4	125	0	1589	28	20	1123	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.98	0.02	1.00	0.00	2.95	0.05	1.00	2.00	1.00
Final Sat.:	1600	0	1600	3170	30	1600	0	4717	83	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.13	0.13	0.08	0.00	0.34	0.34	0.01	0.35	0.00
Crit Moves:	****			****				****		****		

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/16/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1589	28	20	1123	46	23	0	16	427	4	125
Future Volume (veh/h)	0	1589	28	20	1123	46	23	0	16	427	4	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1621	29	20	1146	0	23	0	16	439	0	128
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2972	53	274	2044		0	0	0	710	0	316
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5334	92	303	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1068	582	20	1146	0		0.0		439	0	128
Grp Sat Flow(s),veh/h/ln	0	1702	1854	303	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	8.8	8.8	2.0	9.1	0.0				5.1	0.0	3.2
Cycle Q Clear(g_c), s	0.0	8.8	8.8	10.8	9.1	0.0				5.1	0.0	3.2
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1958	1066	274	2044					710	0	316
V/C Ratio(X)	0.00	0.55	0.55	0.07	0.56					0.62	0.00	0.41
Avail Cap(c_a), veh/h	0	3152	1717	381	3291					1953	0	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.9	5.9	9.3	6.0	0.0				16.5	0.0	15.8
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.2	0.1	2.2	0.0				1.9	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.2	6.4	9.4	6.3	0.0				17.4	0.0	16.6
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1650			1166	A					567	
Approach Delay, s/veh		6.3			6.3						17.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.1		31.1				31.1				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		7.1		12.8				10.8				
Green Ext Time (p_c), s		1.9		10.7				15.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

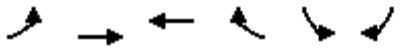
Intersection #2 I-210 WB Ramps/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	I-210 WB Ramps						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	0 0	1! 0	1	1 0	3	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	115	0	384	104	1405	0	0	826	548
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	115	0	384	104	1405	0	0	826	548
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	115	0	384	104	1405	0	0	826	548
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	115	0	384	104	1405	0	0	826	548
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	115	0	384	104	1405	0	0	826	548
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.46	0.00	1.54	1.00	3.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	737	0	2463	1600	4800	0	0	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.16	0.07	0.29	0.00	0.00	0.26	0.34
Crit Moves:						****	****					****

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/16/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	104	1405	826	548	115	384
Future Volume (veh/h)	104	1405	826	548	115	384
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1527	898	596	261	271
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	170	3184	1654	738	387	344
Arrive On Green	0.10	0.62	0.47	0.47	0.22	0.22
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	113	1527	898	596	261	271
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.9	10.3	11.6	20.6	8.6	10.3
Cycle Q Clear(g_c), s	3.9	10.3	11.6	20.6	8.6	10.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	170	3184	1654	738	387	344
V/C Ratio(X)	0.66	0.48	0.54	0.81	0.68	0.79
Avail Cap(c_a), veh/h	501	4619	1993	889	749	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	6.5	12.2	14.7	23.0	23.7
Incr Delay (d2), s/veh	4.4	0.1	0.3	4.7	2.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.8	4.0	7.3	3.6	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.3	6.6	12.5	19.3	25.0	27.7
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1640	1494		532	
Approach Delay, s/veh		8.4	15.2		26.4	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		45.0		19.0	10.1	34.9
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		12.3		12.3	5.9	22.6
Green Ext Time (p_c), s		16.9		1.6	0.2	7.2

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Mayflower Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.784
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Mayflower Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	0	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	264	202	99	113	259	54	51	1057	176	152	710	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	264	202	99	113	259	54	51	1057	176	152	710	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	264	202	99	113	259	54	51	1057	176	152	710	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	264	202	99	113	259	54	51	1057	176	152	710	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	264	202	99	113	259	54	51	1057	176	152	710	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.67	0.33	1.00	1.65	0.35	1.00	2.00	1.00	1.00	1.88	0.12
Final Sat.:	3200	1074	526	1600	2648	552	1600	3200	1600	1600	3005	195
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.07	0.10	0.10	0.03	0.33	0.11	0.10	0.24	0.24
Crit Moves:	****			****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Magnolia Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Magnolia Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	0	1 0	1 0	0	1 0	1 0	1	0	1 0	1	0
Volume Module:												
Base Vol:	69	208	85	107	231	59	90	1204	56	118	908	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	208	85	107	231	59	90	1204	56	118	908	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	69	208	85	107	231	59	90	1204	56	118	908	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	208	85	107	231	59	90	1204	56	118	908	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	69	208	85	107	231	59	90	1204	56	118	908	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.80	0.20	1.00	1.91	0.09	1.00	1.92	0.08
Final Sat.:	1600	1136	464	1600	1274	326	1600	3058	142	1600	3065	135
Capacity Analysis Module:												
Vol/Sat:	0.04	0.18	0.18	0.07	0.18	0.18	0.06	0.39	0.39	0.07	0.30	0.30
Crit Moves:		****		****				****		****		

Exhibit A

Monrovia Starbucks
CBY1801
Cumulative Plus Project PM

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Myrtle Avenue/Huntington Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Street Name:	Myrtle Avenue						Huntington Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	2	0 1	1 0	1	1 0
Volume Module:												
Base Vol:	174	408	145	130	576	94	131	986	176	151	744	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	408	145	130	576	94	131	986	176	151	744	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	174	408	145	130	576	94	131	986	176	151	744	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	408	145	130	576	94	131	986	176	151	744	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	174	408	145	130	576	94	131	986	176	151	744	59
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.48	0.52	1.00	1.72	0.28	1.00	2.00	1.00	1.00	1.85	0.15
Final Sat.:	1600	2361	839	1600	2751	449	1600	3200	1600	1600	2965	235
Capacity Analysis Module:												
Vol/Sat:	0.11	0.17	0.17	0.08	0.21	0.21	0.08	0.31	0.11	0.09	0.25	0.25
Crit Moves:	****			****			****			****		

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	1385	1043	22	0	22
Future Vol, veh/h	0	1385	1043	22	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1505	1134	24	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	579
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	458
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	458
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	458
HCM Lane V/C Ratio	-	-	-	0.052
HCM Control Delay (s)	-	-	-	13.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	5	1	33	1	294	32	6	377	2
Future Vol, veh/h	2	0	11	5	1	33	1	294	32	6	377	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	13	6	1	39	1	346	38	7	444	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	846	845	445	833	827	365	446	0	0	384	0	0
Stage 1	459	459	-	367	367	-	-	-	-	-	-	-
Stage 2	387	386	-	466	460	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	282	300	613	288	307	680	1114	-	-	1174	-	-
Stage 1	582	566	-	653	622	-	-	-	-	-	-	-
Stage 2	637	610	-	577	566	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	263	297	613	280	304	680	1114	-	-	1174	-	-
Mov Cap-2 Maneuver	263	297	-	280	304	-	-	-	-	-	-	-
Stage 1	581	561	-	652	621	-	-	-	-	-	-	-
Stage 2	599	609	-	560	561	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	509	560	1174	-	-
HCM Lane V/C Ratio	0.001	-	-	0.03	0.082	0.006	-	-
HCM Control Delay (s)	8.2	0	-	12.3	12	8.1	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Exhibit A

APPENDIX D

CUMULATIVE PROJECT LIST

Exhibit A

City of Monrovia
Cumulative Project List – Land Development Projects

1. **102-140 West Huntington Drive / Towneplace Suites by Marriott - NONRESIDENTIAL**
    - 5-Story – 109 Room Hotel
    - Lot Size: 1.71 Acres
    - Building Area: 68,000 SF (Completing Entitlement Applications and CEQA)

2. **725 East Huntington Drive (Former Albertsons Center) - NONRESIDENTIAL**
    - Commercial center façade renovations and interior tenant improvements to accommodate four brand name retail stores.
    - Lot Size: 6.06 Acres
    - Building Area: 98,000 SF (Existing area under proposed Tenant Improvement)
    - Under Construction

3. **530 Fano Street – NEW MULTIFAMILY**
    - 12 unit residential condominium development with attached two car garages and six guest parking spaces.
    - Lot Size: 22,393 SF
    - Building Area: ±16,920 SF
    - Under Construction

4. **1218 South 5th Avenue (City of Hope –Tenant Improvement) - NONRESIDENTIAL**
    - A façade remodel and additional roof-top equipment and ground level mechanical equipment for a new laboratory and research space.
    - Lot Size: 38,277 SF
    - Building Area: 42,936 SF (Existing area under proposed Tenant Improvement)
    - Under Construction

5. **SWC of Pomona Avenue between Primrose and Magnolia (MODA) - NEW MULTIFAMILY**
    - 261 residential units for lease, including 2 courtyards totaling 18,500 sf and a two-story fitness gym. Total building height is 5 stories.
    - Lot Size: 2.8 acres (93 units per acre)
    - Building Area: 225,220 SF
    - Under Construction

6. **1110 – 1212 South Fifth Avenue (5th and Huntington) – NEW MULTIFAMILY**
    - Residential/Commercial Mixed-Use Project, 4-story mixed use containing 154 residential units for lease and a ground floor retail space.
    - Lot Size: +/- 2.86 Acres
    - Building Area: 131,400 SF (154 Units) + 1,340 Retail Use
    - Constructed – Final issued November 21, 2017

7. **137 West Pomona Avenue (The Lumber Yard) An Artisan Food Village - NONRESIDENTIAL**
    - Repurpose of two existing industrial buildings into chic food-hall. Existing *Building 1* totals ±9,490 square feet and existing *Building 2* totals ±15,364 square feet. A new ±2,040 square foot building will be added to the site.
    - Lot Size: ± 59,368
    - Total Floor Area Breakdown:
        i. Restaurant - 12,617 sf
        ii. Coffee Shop - 2,165 sf
        iii. Brewery Manufacturing - 3,477 sf
        iv. Retail (Wine Retail and Tasting) - 2,675 sf
        v. Mezzanine Storage- 4,841 sf
    - Entitlements Approved December 2016 – Project has not been submitted into building plan check.

8. **239 West Chestnut Avenue (10-Unit Development) NONRESIDENTIAL**
    - New 10 unit industrial condominium development with 38 parking spaces
    - Lot Size: 34,212 SF
    - Building Area: 16,349 SF
    - In Building Plan Check

9. **303 South Madison Avenue - NEW MULTIFAMILY**
    - 6 detached, two-story residential units for sale.
    - Lot Size: 20,241 SF
    - Building Area: 9,305 SF
    - Under Construction

10. **717-721 West Duarte Road- NEW MULTIFAMILY**
    - 11-unit residential condominium development (replacing two existing units)
    - Lot Size:18,652 SF
    - Building Area: 13,667 SF
    - In Planning Review (entitlements not yet granted)

11. **1601 South Myrtle Avenue – City Park and Ride Lot - NEW MULTIFAMILY & PARKING LOT**
    - 103 residential units with a public parking structure component
    - APNs: 8507-003-915, 916, 907, 908, and 909
    - Site Area: 1.07 AC
    - In Pre-Application Review (entitlements not yet granted)

12. **N/E Corner of Magnolia Avenue and Duarte Road - NEW MULTIFAMILY**
    - Richman Group – 296 Residential Apartments
    - 205 and 225 W Duarte Road, 1725 Peck Rd (8507-003-045, 046, 047 and 048)
    - Site Area: 163,254 SF (3.75 Acres)
    - Density: 79 units per acre
    - Total New Residential Square Footage: 251,348 SF
    - In Planning Pre-Application Review (entitlements not yet granted)

13. **1625 South Magnolia Avenue – NEW MULTIFAMILY**
    - Trammell Crow - 392 Residential Apartments
    - APNs: 8507-006-041, 042, 043, 044, 035, 022, 024, 016
    - Site Area: 6.77 Acres
    - Concept Stage - Pre-Application Review (entitlements not yet granted)

14. **825 South Myrtle Avenue – NEW MULTIFAMILY**
    - Avalon Bay – 154 Residential Units
    - APNs: 8508-006-040, 0039,038, 037, 055, 054
    - Site Area: 2.1 acres
    - Concept Stage - Pre-Application Review (entitlements not yet granted)

15. **239 West Huntington Drive - NEW STARBUCKS**
    - New Starbucks with Drive Thru
    - APNs: 8508-008-071 and 070
    - Building Size: 2,200 SF
    - Site Area: 0.67 AC
    - In Planning Pre-Application Review (entitlements not yet granted)

16. **Corner of Myrtle and Lime – NEW MULTIFAMILY**
    - Myrtle Lime Apartments - 140 Residential Units
    - Former Frontier and Existing City Parking Lot Property
    - Very Concept Stage - Massing Study Submitted

Exhibit A

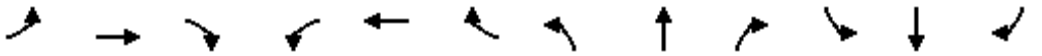
APPENDIX E

RAMP LOS WORKSHEETS

Exhibit A

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/13/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	751	11	8	1432	109	37	0	29	251	9	195
Future Volume (veh/h)	0	751	11	8	1432	109	37	0	29	251	9	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	799	12	9	1523	0	39	0	31	274	0	207
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3142	47	502	2154		0	0	0	683	0	304
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	0	5351	78	673	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	525	286	9	1523	0		0.0		274	0	207
Grp Sat Flow(s),veh/h/ln	0	1702	1856	673	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	3.6	3.6	0.3	14.9	0.0				3.4	0.0	6.1
Cycle Q Clear(g_c), s	0.0	3.6	3.6	3.9	14.9	0.0				3.4	0.0	6.1
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2064	1125	502	2154					683	0	304
V/C Ratio(X)	0.00	0.25	0.25	0.02	0.71					0.40	0.00	0.68
Avail Cap(c_a), veh/h	0	2825	1540	652	2949					1750	0	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.6	4.6	5.5	6.9	0.0				17.9	0.0	19.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.5	0.0				0.4	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	0.0	3.7	0.0				1.3	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.7	4.7	5.6	7.3	0.0				18.2	0.0	21.6
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		811			1532	A					481	
Approach Delay, s/veh		4.7			7.3						19.7	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.8		35.7				35.7				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		8.1		16.9				5.6				
Green Ext Time (p_c), s		1.6		13.7				6.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

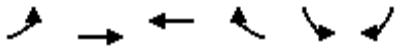
Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/13/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	566	1396	499	23	169
Future Volume (veh/h)	31	566	1396	499	23	169
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	602	1485	531	0	206
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	156	3631	1966	877	196	348
Arrive On Green	0.09	0.71	0.55	0.55	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	33	602	1485	531	0	206
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.0	2.2	18.3	12.8	0.0	3.5
Cycle Q Clear(g_c), s	1.0	2.2	18.3	12.8	0.0	3.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	156	3631	1966	877	196	348
V/C Ratio(X)	0.21	0.17	0.76	0.61	0.00	0.59
Avail Cap(c_a), veh/h	563	5188	2239	998	841	1496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	2.7	9.8	8.6	0.0	24.1
Incr Delay (d2), s/veh	0.7	0.0	1.3	0.8	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	5.7	3.6	0.0	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	2.7	11.1	9.4	0.0	25.7
LnGrp LOS	C	A	B	A	A	C
Approach Vol, veh/h		635	2016		206	
Approach Delay, s/veh		3.9	10.6		25.7	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		45.6		11.4	9.0	36.6
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.2		5.5	3.0	20.3
Green Ext Time (p_c), s		4.9		0.7	0.0	11.2

Intersection Summary	
HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/13/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1498	27	20	1047	32	22	0	16	346	4	75
Future Volume (veh/h)	0	1498	27	20	1047	32	22	0	16	346	4	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1529	28	20	1068	0	22	0	16	356	0	77
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2977	55	307	2049		0	0	0	625	0	278
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	0	5331	95	331	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1008	549	20	1068	0		0.0		356	0	77
Grp Sat Flow(s),veh/h/ln	0	1702	1853	331	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	7.3	7.3	1.6	7.5	0.0				3.8	0.0	1.7
Cycle Q Clear(g_c), s	0.0	7.3	7.3	8.9	7.5	0.0				3.8	0.0	1.7
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	1069	307	2049					625	0	278
V/C Ratio(X)	0.00	0.51	0.51	0.07	0.52					0.57	0.00	0.28
Avail Cap(c_a), veh/h	0	3467	1888	453	3620					2148	0	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.2	5.2	7.9	5.3	0.0				15.5	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.6	0.1	1.6	0.0				1.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.4	5.6	8.0	5.5	0.0				16.4	0.0	15.2
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1557			1088	A					433	
Approach Delay, s/veh		5.5			5.5						16.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		12.3		28.8				28.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		5.8		10.9				9.3				
Green Ext Time (p_c), s		1.5		10.0				14.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Notes

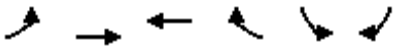
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/13/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	1231	759	478	99	361
Future Volume (veh/h)	91	1231	759	478	99	361
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1338	825	520	241	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	164	3108	1583	706	374	333
Arrive On Green	0.09	0.61	0.45	0.45	0.21	0.21
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	99	1338	825	520	241	250
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.0	7.8	9.4	15.2	6.9	8.3
Cycle Q Clear(g_c), s	3.0	7.8	9.4	15.2	6.9	8.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	164	3108	1583	706	374	333
V/C Ratio(X)	0.60	0.43	0.52	0.74	0.64	0.75
Avail Cap(c_a), veh/h	571	5263	2271	1013	853	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	5.8	11.3	12.9	20.3	20.8
Incr Delay (d2), s/veh	3.5	0.1	0.3	1.7	1.9	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.0	3.2	4.8	2.8	7.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.1	5.9	11.5	14.5	22.2	24.3
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1437	1345		491	
Approach Delay, s/veh		7.4	12.7		23.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		39.3		16.9	9.2	30.1
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		9.8		10.3	5.0	17.2
Green Ext Time (p_c), s		14.0		1.5	0.2	7.8

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/14/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	753	11	8	1434	111	37	0	29	263	9	195
Future Volume (veh/h)	0	753	11	8	1434	111	37	0	29	263	9	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	801	12	9	1526	0	39	0	31	287	0	207
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3142	47	501	2154		0	0	0	685	0	305
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	0	5351	78	671	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	526	287	9	1526	0		0.0		287	0	207
Grp Sat Flow(s),veh/h/ln	0	1702	1856	671	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	3.6	3.7	0.3	15.0	0.0				3.6	0.0	6.1
Cycle Q Clear(g_c), s	0.0	3.6	3.7	4.0	15.0	0.0				3.6	0.0	6.1
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2064	1125	501	2154					685	0	305
V/C Ratio(X)	0.00	0.25	0.26	0.02	0.71					0.42	0.00	0.68
Avail Cap(c_a), veh/h	0	2816	1535	649	2939					1744	0	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.6	4.6	5.6	6.9	0.0				18.0	0.0	19.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.5	0.0				0.4	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	0.0	3.7	0.0				1.4	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.7	4.8	5.6	7.4	0.0				18.4	0.0	21.6
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		813			1535	A					494	
Approach Delay, s/veh		4.7			7.4						19.7	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.8		35.8				35.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		8.1		17.0				5.7				
Green Ext Time (p_c), s		1.6		13.7				6.2				

Intersection Summary		
HCM 6th Ctrl Delay	8.8	
HCM 6th LOS	A	

Notes

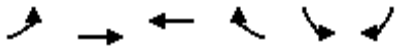
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/14/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	580	1400	511	25	169
Future Volume (veh/h)	31	580	1400	511	25	169
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	617	1489	544	0	209
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	156	3629	1967	877	197	351
Arrive On Green	0.09	0.71	0.55	0.55	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	33	617	1489	544	0	209
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.0	2.3	18.4	13.3	0.0	3.6
Cycle Q Clear(g_c), s	1.0	2.3	18.4	13.3	0.0	3.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	156	3629	1967	877	197	351
V/C Ratio(X)	0.21	0.17	0.76	0.62	0.00	0.59
Avail Cap(c_a), veh/h	561	5170	2231	995	838	1491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	2.7	9.8	8.7	0.0	24.2
Incr Delay (d2), s/veh	0.7	0.0	1.3	1.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	5.8	3.7	0.0	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	2.7	11.2	9.6	0.0	25.8
LnGrp LOS	C	A	B	A	A	C
Approach Vol, veh/h		650	2033		209	
Approach Delay, s/veh		3.9	10.8		25.8	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		45.7		11.4	9.0	36.7
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.3		5.6	3.0	20.4
Green Ext Time (p_c), s		5.0		0.7	0.0	11.2

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/14/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1498	27	20	1047	32	22	0	16	346	4	75
Future Volume (veh/h)	0	1498	27	20	1047	32	22	0	16	346	4	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1529	28	20	1068	0	22	0	16	356	0	77
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2977	55	307	2049		0	0	0	625	0	278
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.18	0.00	0.18
Sat Flow, veh/h	0	5331	95	331	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1008	549	20	1068	0		0.0		356	0	77
Grp Sat Flow(s),veh/h/ln	0	1702	1853	331	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	7.3	7.3	1.6	7.5	0.0				3.8	0.0	1.7
Cycle Q Clear(g_c), s	0.0	7.3	7.3	8.9	7.5	0.0				3.8	0.0	1.7
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	1069	307	2049					625	0	278
V/C Ratio(X)	0.00	0.51	0.51	0.07	0.52					0.57	0.00	0.28
Avail Cap(c_a), veh/h	0	3467	1888	453	3620					2148	0	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.2	5.2	7.9	5.3	0.0				15.5	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.6	0.1	1.6	0.0				1.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.4	5.6	8.0	5.5	0.0				16.4	0.0	15.2
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1557			1088	A					433	
Approach Delay, s/veh		5.5			5.5						16.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		12.3		28.8				28.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		5.8		10.9				9.3				
Green Ext Time (p_c), s		1.5		10.0				14.4				

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

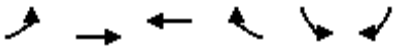
Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/14/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	1231	759	478	99	361
Future Volume (veh/h)	91	1231	759	478	99	361
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	1338	825	520	241	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	164	3108	1583	706	374	333
Arrive On Green	0.09	0.61	0.45	0.45	0.21	0.21
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	99	1338	825	520	241	250
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.0	7.8	9.4	15.2	6.9	8.3
Cycle Q Clear(g_c), s	3.0	7.8	9.4	15.2	6.9	8.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	164	3108	1583	706	374	333
V/C Ratio(X)	0.60	0.43	0.52	0.74	0.64	0.75
Avail Cap(c_a), veh/h	571	5263	2271	1013	853	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	5.8	11.3	12.9	20.3	20.8
Incr Delay (d2), s/veh	3.5	0.1	0.3	1.7	1.9	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.0	3.2	4.8	2.8	7.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.1	5.9	11.5	14.5	22.2	24.3
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1437	1345		491	
Approach Delay, s/veh		7.4	12.7		23.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		39.3		16.9	9.2	30.1
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		9.8		10.3	5.0	17.2
Green Ext Time (p_c), s		14.0		1.5	0.2	7.8

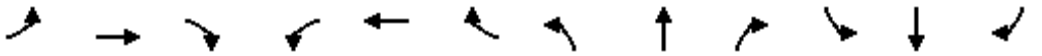
Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/15/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	807	11	8	1497	118	38	0	30	281	9	209
Future Volume (veh/h)	0	807	11	8	1497	118	38	0	30	281	9	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	859	12	9	1593	0	40	0	32	306	0	222
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3166	44	473	2168		0	0	0	711	0	316
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5357	72	636	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	563	308	9	1593	0		0.0		306	0	222
Grp Sat Flow(s),veh/h/ln	0	1702	1857	636	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	4.1	4.1	0.4	17.0	0.0				4.0	0.0	7.0
Cycle Q Clear(g_c), s	0.0	4.1	4.1	4.5	17.0	0.0				4.0	0.0	7.0
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2077	1133	473	2168					711	0	316
V/C Ratio(X)	0.00	0.27	0.27	0.02	0.73					0.43	0.00	0.70
Avail Cap(c_a), veh/h	0	2663	1453	583	2780					1650	0	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.9	4.9	5.9	7.4	0.0				18.8	0.0	20.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.8	0.0				0.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	1.1	0.0	4.4	0.0				1.5	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.9	5.0	5.9	8.1	0.0				19.2	0.0	22.8
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		871			1602	A					528	
Approach Delay, s/veh		5.0			8.1						20.7	
Approach LOS		A			A						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		15.8		37.8				37.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		9.0		19.0				6.1				
Green Ext Time (p_c), s		1.7		13.7				6.7				

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
HCM 6th LOS	A	

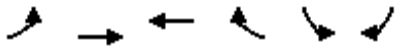
Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/15/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	625	1461	571	29	177
Future Volume (veh/h)	51	625	1461	571	29	177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	665	1554	607	0	221
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	152	3637	1986	886	203	361
Arrive On Green	0.09	0.71	0.56	0.56	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	54	665	1554	607	0	221
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.7	2.5	20.1	16.1	0.0	3.9
Cycle Q Clear(g_c), s	1.7	2.5	20.1	16.1	0.0	3.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	152	3637	1986	886	203	361
V/C Ratio(X)	0.36	0.18	0.78	0.69	0.00	0.61
Avail Cap(c_a), veh/h	546	5037	2173	969	816	1453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	2.8	10.1	9.3	0.0	24.8
Incr Delay (d2), s/veh	1.4	0.0	1.8	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	6.4	4.7	0.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.7	2.8	11.9	11.1	0.0	26.4
LnGrp LOS	C	A	B	B	A	C
Approach Vol, veh/h		719	2161		221	
Approach Delay, s/veh		4.6	11.7		26.4	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		46.9		11.8	9.0	37.9
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.5		5.9	3.7	22.1
Green Ext Time (p_c), s		5.5		0.8	0.1	10.7

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

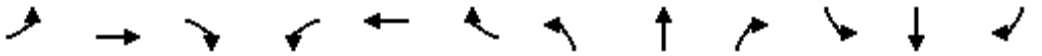
Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/15/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1588	28	20	1122	45	23	0	16	420	4	125
Future Volume (veh/h)	0	1588	28	20	1122	45	23	0	16	420	4	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1620	29	20	1145	0	23	0	16	432	0	128
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2977	53	276	2048		0	0	0	703	0	313
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5334	92	303	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1068	581	20	1145	0		0.0		432	0	128
Grp Sat Flow(s),veh/h/ln	0	1702	1854	303	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	8.7	8.7	2.0	9.1	0.0				5.0	0.0	3.2
Cycle Q Clear(g_c), s	0.0	8.7	8.7	10.7	9.1	0.0				5.0	0.0	3.2
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1962	1068	276	2048					703	0	313
V/C Ratio(X)	0.00	0.54	0.54	0.07	0.56					0.61	0.00	0.41
Avail Cap(c_a), veh/h	0	3165	1724	383	3305					1961	0	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.9	5.9	9.2	6.0	0.0				16.5	0.0	15.8
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.9	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.2	0.1	2.1	0.0				1.8	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.1	6.3	9.3	6.2	0.0				17.4	0.0	16.6
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1649			1165	A					560	
Approach Delay, s/veh		6.2			6.3						17.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.0		31.1				31.1				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		7.0		12.7				10.7				
Green Ext Time (p_c), s		1.9		10.7				15.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

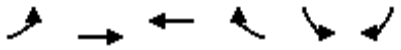
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Exhibit A

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/15/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	104	1397	824	541	114	384
Future Volume (veh/h)	104	1397	824	541	114	384
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1518	896	588	261	270
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	3178	1647	735	386	344
Arrive On Green	0.10	0.62	0.46	0.46	0.22	0.22
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	113	1518	896	588	261	270
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.9	10.1	11.5	20.1	8.5	10.2
Cycle Q Clear(g_c), s	3.9	10.1	11.5	20.1	8.5	10.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	171	3178	1647	735	386	344
V/C Ratio(X)	0.66	0.48	0.54	0.80	0.68	0.79
Avail Cap(c_a), veh/h	505	4660	2011	897	755	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	6.4	12.2	14.5	22.8	23.4
Incr Delay (d2), s/veh	4.3	0.1	0.3	4.3	2.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.7	4.0	7.0	3.6	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.0	6.5	12.5	18.8	24.9	27.4
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1631	1484		531	
Approach Delay, s/veh		8.3	15.0		26.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		44.6		18.9	10.1	34.5
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		12.1		12.2	5.9	22.1
Green Ext Time (p_c), s		16.8		1.6	0.2	7.3

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

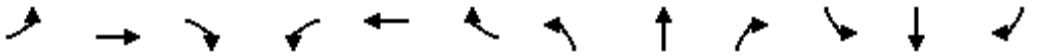
Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/15/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	809	11	8	1499	120	38	0	30	293	9	209
Future Volume (veh/h)	0	809	11	8	1499	120	38	0	30	293	9	209
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	861	12	9	1595	0	40	0	32	319	0	222
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	3165	44	472	2167		0	0	0	713	0	317
Arrive On Green	0.00	0.61	0.61	0.61	0.61	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5357	72	635	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	565	308	9	1595	0		0.0		319	0	222
Grp Sat Flow(s),veh/h/ln	0	1702	1857	635	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	4.2	4.2	0.4	17.1	0.0				4.2	0.0	7.0
Cycle Q Clear(g_c), s	0.0	4.2	4.2	4.5	17.1	0.0				4.2	0.0	7.0
Prop In Lane	0.00		0.04	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2076	1133	472	2167					713	0	317
V/C Ratio(X)	0.00	0.27	0.27	0.02	0.74					0.45	0.00	0.70
Avail Cap(c_a), veh/h	0	2656	1449	580	2773					1646	0	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	4.9	4.9	6.0	7.4	0.0				18.9	0.0	20.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.8	0.0				0.4	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	1.1	0.0	4.5	0.0				1.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.0	5.0	6.0	8.2	0.0				19.3	0.0	22.8
LnGrp LOS	A	A	A	A	A					B	A	C
Approach Vol, veh/h		873			1604	A					541	
Approach Delay, s/veh		5.0			8.2						20.7	
Approach LOS		A			A						C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		15.8		37.8				37.8				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		9.0		19.1				6.2				
Green Ext Time (p_c), s		1.7		13.7				6.8				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

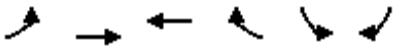
Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/15/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	639	1465	583	31	177
Future Volume (veh/h)	51	639	1465	583	31	177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	680	1559	620	0	223
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	151	3636	1987	886	204	363
Arrive On Green	0.08	0.71	0.56	0.56	0.00	0.11
Sat Flow, veh/h	1781	5274	3647	1585	1781	3170
Grp Volume(v), veh/h	54	680	1559	620	0	223
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	1.7	2.6	20.3	16.7	0.0	3.9
Cycle Q Clear(g_c), s	1.7	2.6	20.3	16.7	0.0	3.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	151	3636	1987	886	204	363
V/C Ratio(X)	0.36	0.19	0.78	0.70	0.00	0.61
Avail Cap(c_a), veh/h	545	5023	2167	967	814	1449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.4	2.8	10.2	9.4	0.0	24.8
Incr Delay (d2), s/veh	1.4	0.0	1.8	2.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	6.5	4.9	0.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.8	2.8	12.0	11.4	0.0	26.5
LnGrp LOS	C	A	B	B	A	C
Approach Vol, veh/h		734	2179		223	
Approach Delay, s/veh		4.6	11.8		26.5	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		47.0		11.8	9.0	38.0
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		4.6		5.9	3.7	22.3
Green Ext Time (p_c), s		5.6		0.8	0.1	10.6

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

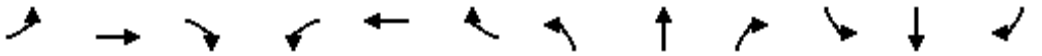
Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

HCM 6th Signalized Intersection Summary
1: Driveway/I-210 EB Off Ramp & Huntington Drive

03/15/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1588	28	20	1122	45	23	0	16	420	4	125
Future Volume (veh/h)	0	1588	28	20	1122	45	23	0	16	420	4	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1620	29	20	1145	0	23	0	16	432	0	128
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	0	2	2	2	2
Cap, veh/h	0	2977	53	276	2048		0	0	0	703	0	313
Arrive On Green	0.00	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	0	5334	92	303	3554	1585		0		3563	0	1585
Grp Volume(v), veh/h	0	1068	581	20	1145	0		0.0		432	0	128
Grp Sat Flow(s),veh/h/ln	0	1702	1854	303	1777	1585				1781	0	1585
Q Serve(g_s), s	0.0	8.7	8.7	2.0	9.1	0.0				5.0	0.0	3.2
Cycle Q Clear(g_c), s	0.0	8.7	8.7	10.7	9.1	0.0				5.0	0.0	3.2
Prop In Lane	0.00		0.05	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1962	1068	276	2048					703	0	313
V/C Ratio(X)	0.00	0.54	0.54	0.07	0.56					0.61	0.00	0.41
Avail Cap(c_a), veh/h	0	3165	1724	383	3305					1961	0	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	5.9	5.9	9.2	6.0	0.0				16.5	0.0	15.8
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.1	0.2	0.0				0.9	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.2	0.1	2.1	0.0				1.8	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.1	6.3	9.3	6.2	0.0				17.4	0.0	16.6
LnGrp LOS	A	A	A	A	A					B	A	B
Approach Vol, veh/h		1649			1165	A					560	
Approach Delay, s/veh		6.2			6.3						17.2	
Approach LOS		A			A						B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		14.0		31.1				31.1				
Change Period (Y+Rc), s		5.1		5.1				5.1				
Max Green Setting (Gmax), s		24.8		41.9				41.9				
Max Q Clear Time (g_c+I1), s		7.0		12.7				10.7				
Green Ext Time (p_c), s		1.9		10.7				15.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

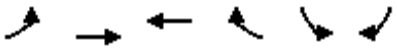
Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: Huntington Drive & I-210 WB On Ramp

03/15/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	104	1397	824	541	114	384
Future Volume (veh/h)	104	1397	824	541	114	384
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	1518	896	588	261	270
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	3178	1647	735	386	344
Arrive On Green	0.10	0.62	0.46	0.46	0.22	0.22
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	113	1518	896	588	261	270
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	3.9	10.1	11.5	20.1	8.5	10.2
Cycle Q Clear(g_c), s	3.9	10.1	11.5	20.1	8.5	10.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	171	3178	1647	735	386	344
V/C Ratio(X)	0.66	0.48	0.54	0.80	0.68	0.79
Avail Cap(c_a), veh/h	505	4660	2011	897	755	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	6.4	12.2	14.5	22.8	23.4
Incr Delay (d2), s/veh	4.3	0.1	0.3	4.3	2.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.7	4.0	7.0	3.6	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.0	6.5	12.5	18.8	24.9	27.4
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1631	1484		531	
Approach Delay, s/veh		8.3	15.0		26.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		44.6		18.9	10.1	34.5
Change Period (Y+Rc), s		5.1		5.1	4.0	5.1
Max Green Setting (Gmax), s		57.9		26.9	18.0	35.9
Max Q Clear Time (g_c+I1), s		12.1		12.2	5.9	22.1
Green Ext Time (p_c), s		16.8		1.6	0.2	7.3

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Exhibit A

APPENDIX F

DRIVE-THROUGH QUEUING STUDY

Exhibit A

LSA ASSOCIATES, INC.
20 EXECUTIVE PARK, SUITE 200
IRVINE, CALIFORNIA 92614
949.553.0666 TEL
949.553.8076 FAX
BERKELEY
CARLSBAD
FRESNO
PALM SPRINGS
PT. RICHMOND
RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

May 14, 2015

Mr. Richard Boureston
The Boureston Companies
650 Town Center Drive, Suite 890
Costa Mesa, California 92626

Subject: Drive-Through Stacking Analysis

Dear Mr. Boureston:

As you know, LSA Associates, Inc. (LSA) has been working with Shea Homes to provide transportation consulting services for the Shea Baker Ranch Area (SBRA) Plan in the City of Lake Forest (City). The project was approved by the City Council on May 15, 2012.

On January 8, 2013, LSA prepared a letter providing an analysis of the proposed signalized entrance to the parcel at the northeast corner of Alton Parkway/Rancho Parkway South–Towne Centre Drive. The proposed traffic signal at Alton Parkway/Sunflower has been constructed and is ready to serve the apartment community and the parcel that is approved for up to 25,000 square feet (sf) of retail. On March 28, 2013, LSA prepared another letter that developed traffic volumes for a proposed right-in/right-out driveway for the retail parcel on Alton Parkway.

At this time, the plans for the retail parcel have become more detailed. As illustrated in the attached site plan, the retail center is proposed to contain a 10,000 sf pre-school, a 3,000 sf restaurant, a 3,000 sf retail shop, and a drive-through restaurant pad of approximately 2,000 sf. The business anticipated to occupy the drive-through restaurant pad is a Starbucks. The retail parcel will take access via Sunflower and Rancho Parkway South and a right-in only driveway via Alton Parkway.

On April 9, 2015, the City provided screencheck comments for tentative parcel map 3-15-4747. Comment number 22 requested a stacking analysis for the proposed drive-through lane to verify that there is capacity to accommodate the anticipated stacking for the proposed use. This letter has been prepared to provide a stacking analysis in response to the City's comment.

Starbucks Queuing

In order to determine the potential vehicle queues in the drive-through lane, queuing observations were conducted at an existing Starbucks with a drive-through lane. National Data and Surveying Services (NDS) conducted queuing surveys at the 20790 Lake Forest Drive Starbucks on a typical weekday (Thursday, May 7, 2015) during the morning commute period (6:00 a.m. to 9:00 a.m.). Complete survey data is provided as an attachment. Spot surveys were also conducted on Saturday, May 9, 2015, in the 9:00 a.m. and 10:00 a.m. hours.

At the 20790 Lake Forest Drive location, the drive-through lane can hold 9 vehicles behind the service window before additional queued vehicles would affect the ability of other cars to park in the

parking lot. The menu order board is placed at vehicle position 5 behind the service window. Including the vehicle that is ordering, there are 5 vehicle positions between the menu order board and the parking lot.

The survey results of an existing Starbucks drive-through show that all 4 vehicle positions between the service window and the menu order board were occupied after 6:25 a.m. This indicates that delivering the orders and processing the payments at the service window are the rate-determining steps for moving vehicles through the drive-through. During this period of peak operation, the restaurant was able to process orders for approximately 1 vehicle per minute (the average rate between 6:20 a.m. and 9:00 a.m. was 1.025 vehicles per minute). When the arrival rate exceeds this processing time, vehicles are added to the queue. The maximum observed queue on the surveyed weekday was 8 vehicles behind the menu order board (12 vehicles total from the service window). Spot surveys on the following Saturday provided similar results.

As shown in Figure 1 (attached), the proposed drive-through lane would provide enough distance for 10 vehicles between the service window and the parking lot. It is believed that the proposed restaurant will also place their menu order board 5 vehicle positions behind the service window. Including the vehicle ordering, this will leave 6 vehicle positions between the menu order board and the parking lot. Two additional positions would be provided before cars would queue to the main drive aisle, but would block five parking spaces at the far end of the parking lot.

If the observed maximum queue were to occur at the proposed site, the drive-through storage area could be exceeded during the periods of peak demand. The anticipated maximum queue of 12 vehicles would exceed the proposed storage area by 2 vehicles. Vehicle Nos. 11 and 12 would block only five parking spaces, which are located furthest from the front door of the Starbucks. As a result, during periods of peak drive-through demand, the five parking spaces located at the north end of the retail parcel would not be accessible. However, the maximum queue would be contained within the parking lot and would not impede traffic entering from public streets.

Fast-Food Restaurant Queuing

To identify the total vehicle queues that might be experienced if the proposed drive-through restaurant housed a typical fast-food restaurant, LSA reviewed queuing data that was previously collected at McDonald's restaurants. The representative survey sites are located throughout Southern California. The drive-through queuing observations were conducted during a typical weekday (Tuesday, Wednesday, or Thursday) lunch hour (11:00 a.m. to 2:00 p.m.), a weekday dinner period (4:00 p.m. to 7:00 p.m.), and a weekend lunch hour (10:30 a.m. to 2:30 p.m.). The maximum number of vehicles observed that were queued from the menu order boards to the end of the drive-through lane at each site is noted below:

- 1170 East Philadelphia Street, Ontario, California: 5 vehicles
- 1492 2nd Street, Beaumont, California: 5 vehicles
- 1410 North Lemon Street, Anaheim, California: 6 vehicles
- 1891 Malvern Avenue, Fullerton, California: 5 vehicles
- 700 West Pacific Coast Highway, Newport Beach, California: 5 vehicles

The maximum queue length noted from the order board back was 6 vehicles. At the proposed location, 6 vehicles could be stored within the drive-through lane without affecting parking or traffic.

Conclusion

LSA examined surveys of drive-through operations to determine the potential for stacking at the proposed drive-through location in Lake Forest. A Starbucks could accommodate a maximum queue of 12 vehicles when peak demand occurs in the morning. This queue would block access to 5 parking spaces, but would be contained within the parking lot and would not interfere with public streets. In order to ensure that the maximum number of parking spaces remains available for customers, these 5 parking spaces could be designated for employees. If the proposed location were a fast-food restaurant, the maximum queue could extend 5 or 6 vehicles behind the menu order board, which would be accommodated within the drive-through lane. In either case, however, it is anticipated that the queue forming for the drive-through lane would be contained inside the parking lot and would not interfere with Sunflower or any other public street.

If you have any questions, please contact me at (949) 553-0666.

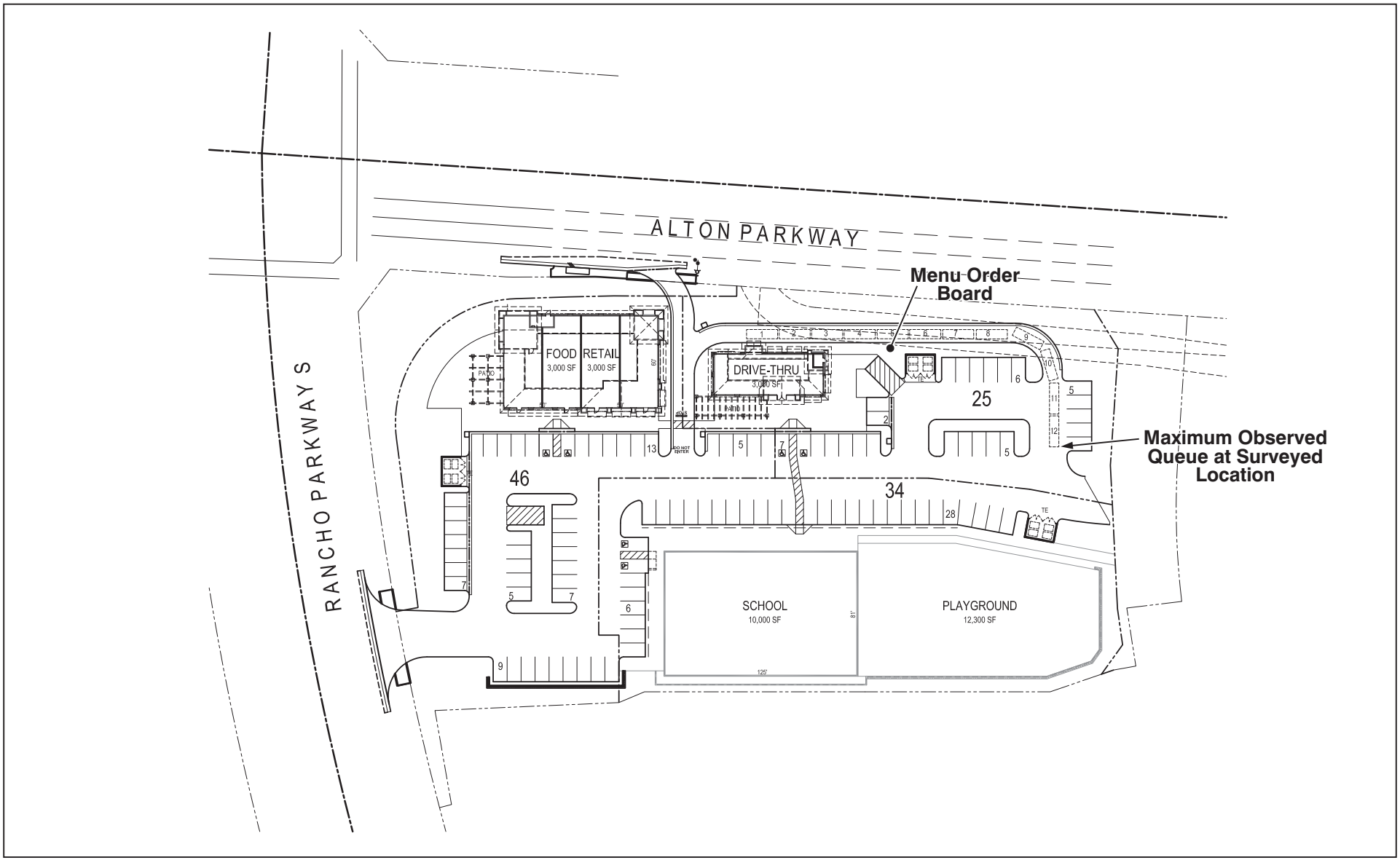
Sincerely,

LSA ASSOCIATES, INC.

Ken Wilhelm
Principal

Attachments: Figure 1: Proposed Site Plan
Starbucks Drive-Through Queuing Data

Exhibit A



LSA

FIGURE 1

N

0 45 90
FEET

SOURCE: Architects Orange

Shea Baker Ranch
Proposed Site Plan

I:\SHO1002\G\Site Plan-Commercial.cdr (5/12/15)

Exhibit A

Prepared by National Data & Surveying Services

QUEUE STUDY

Location: 20790 Lake Forest Dr
City: Lake Forest

Date: 5/7/2015
Day: Thursday

TIME	**Max Queue #1** Cashier Window to Menu Board	**Max Queue #2** Past Menu Board	**Total # of Vehicles Going through Drive-Thru**
6:00 AM	3	1	1
6:05 AM	2	1	2
6:10 AM	3	3	2
6:15 AM	1	2	2
6:20 AM	3	3	5
6:25 AM	4	3	4
6:30 AM	4	4	5
6:35 AM	4	5	5
6:40 AM	4	6	4
6:45 AM	4	7	5
6:50 AM	4	7	4
6:55 AM	4	8	4
7:00 AM	4	8	4
7:05 AM	4	8	7
7:10 AM	4	7	7
7:15 AM	4	7	5
7:20 AM	4	8	8
7:25 AM	4	8	4
7:30 AM	4	8	4
7:35 AM	4	8	5
7:40 AM	4	7	7
7:45 AM	4	8	4
7:50 AM	4	8	4
7:55 AM	4	8	5
8:00 AM	4	8	5
8:05 AM	4	8	7
8:10 AM	4	8	6
8:15 AM	4	8	6
8:20 AM	4	8	5
8:25 AM	4	8	8
8:30 AM	4	8	5
8:35 AM	4	8	5
8:40 AM	4	8	5
8:45 AM	4	8	4
8:50 AM	4	8	4
8:55 AM	4	8	4

Exhibit B

MEMORANDUM

TO: Sheri Bermejo, City of Monrovia

FROM: Patrick A. Gibson, P.E., PTOE
Richard Gibson, LEED Green Associate

DATE: March 27, 2018

RE: Final Review of the Traffic Impact Analysis for the Monrovia Starbucks Project **Ref:** J1407h

---

Gibson Transportation Consulting, Inc. (GTC) reviewed *Traffic Impact Analysis Monrovia Starbucks, Monrovia, Los Angeles County, California* (LSA, March 2018) for the Starbucks (Project) in the City of Monrovia, California.

In general, we find the Traffic Impact Analysis to be consistent with industry standards, consistent with our preliminary discussions with LSA to define the scope of the study and the basic assumptions of the analysis, and responsive to our comment letter on the draft version of the report.

The Traffic Impact Analysis covers the proposed 2,200 square foot Starbucks at the northeast corner of Magnolia Avenue & Huntington Drive. The Starbucks will replace an existing men's clothing retail store.

The Traffic Impact Analysis investigated the impacts of the Project on seven study intersections along the Huntington Drive Corridor and found that all are operating at acceptable operational levels today. The proposed Project would generate a net increase in daily traffic of 179 additional trips per day, with 80 of those trips occurring in the morning peak hour. Because of the nature of the existing retail store and the low activity levels of the Project during the afternoon peak hour, the Project will actually represent a decrease of 25 trips during the afternoon peak hour.

Capacity calculations were conducted for the seven study intersections for both existing and future (Year 2020) conditions both with and without the Project. The analysis showed that the Project would not add enough Project traffic to any of the study intersections to create a significant impact. All study intersections will continue to operate at acceptable levels of service in 2020 with the Project in place.

Technical documentation was presented to show that the queue length of the drive-through window was adequate to accommodate the anticipated demand; queuing onto the adjacent public streets is not expected to occur.

We concur that the Project as proposed will have no significant impacts on the Monrovia street system and that our comments on the previous version of the Traffic Impact Analysis report have been adequately addressed in this final version. GTC has no additional comments.