APPENDIX 2.0

Native American Monitoring Group, Salazar Folkes,
Most Likely Descendant Affidavit Letter

NATIVE AMERICAN MONITORING GROUP

January 20, 2017

Adrian Fernandez
Senior Planner
CITY OF MAILBU
23825 Stuart Ranch Road
Malibu, CA 90265

Re: Malibu Memorial Park Project

Dear Mr. Fernandez:

The purpose of this letter is to address concerns regarding the above-described project. As the Most Likely Descendent "MLD" for the project and someone who has been involved with the project since inception for excavation and development, I would like to specifically address particular findings with regard to this site location.

Thorough site surveys, record searchers and archaeological testing have resulted in the identification of two prehistoric sites in the project area. One of these, CA-LAN-1715, has been determined through subsurface testing to have been highly disturbed during previous plant nursery operations and no longer meets the significant criteria under CEQA.

The second site, CA-LAN-266 does retain integrity, including the presence of a hearth feature and several flaked stone and ground stone tools within a relatively shallow deposit (60cm). This site does meet the significance criteria as a historical resource under CEQA. This site will be capped by fill soils to limit any further subsurface impacts.

Most important however, is that numerous archaeological studies conducted at the project site over the past dozen or so years, including subsurface test excavations, have shown no indication that the two archaeological sites contain human remains. That said, there are known and recognized cemetery complexes, within a mile of the proposed project site related to much large settlements at CA-LAN-264 (Humaliwo) and CA-LAN-267 (Sweetwater Mesa).

During my time on site for cultural resource monitoring over the course of the last 15 years approximately, and most recently in February and March of 2016 with ESA's archaeological field crew, archaeological deposits were limited to manos, cores and several flakes (Monterey Chert, Franciscan Chert and Quartzite). The amount of debitage collected most recently was sufficient to demonstrate that the Malibu Ranch location was once used by the Chumash for tool-making activities.

I feel confident that the City of Malibu has extensively reviewed and provided us with any and all information deemed to be sufficient and a solid approach to ensure no further disturbance. As the MLD of this site, I feel due diligence has been met by the developer and is in accordance with the current laws in place for said development within the proximity of a recorded archaeological site, and that no additional steps need to be taken. Hence, the project should be allowed to proceed without delay.

Notwithstanding the aforesaid, if specific factual information regarding the presence of burials at CA-LAN-266 is obtained, I would be interested in immediately reviewing such documentation.

Should you have any questions or concerns, please do not hesitate to contact me.

Very truly,

Beverly Folkes

Beverly Salazar Folkes
Chumash Most Likely Descendent

cc: Bruce McBride

1931 Shady Brook Drive • Thousand Oaks, CA 91362 • (805) 492-7255 • Email: folkes9@msn.com

APPENDIX 3.0-1

Updated Biological Inventory Report

Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, California 93003

805 644 4455
FAX 644 4240

info@rinconconsultants.com
www.rinconconsultants.com

November 18, 2015
Project Number 15-02065

Jake Jesson
Assistant Project Manager
Green Acres, LLC
22837 Pacific Coast Highway #775
Malibu, California 90265
Via Email: jjesson@weintraubre.com

Subject: **Updated Biological Inventory Report for the Rancho Malibu Religious Memorial Project, 4000 Malibu Canyon Road, City of Malibu, California**

This letter report updates the previous findings of the Biological Inventory Report (BIR) for the Rancho Malibu Religious Memorial Project due to a change in the project scope and grading plan. An Environmental Impact Report (EIR) was first prepared for this site (CBA, 1997) and certified by the City of Malibu City Council (March 23, 1998) along with conditions of approval contained in Conditional Use Permit No. 96-005. A BIR was prepared for the project site by Rincon Consultants, Inc. (Rincon) in May 2007 for plans to build a 146 room luxury hotel. An updated report was prepared in September 2011 (Rincon) as part of a Coastal Development Permit (CDP) application and Site Plan Review. In February of 2012, Rincon conducted a native tree assessment. In 2011 a reconnaissance survey and BIR update was prepared by Rincon to support the applicant's plans to change the project from the development of a luxury hotel to a religious memorial and cemetery. This BIR (October 2015) documents the changes in potential impacts to special-status biological resources as they relate to the revised scope and grading plan for the proposed religious memorial and cemetery.

PROJECT LOCATION AND DESCRIPTION

The project site is located in the central portion of the City of Malibu, immediately north of Pacific Coast Highway between Malibu Canyon Road and Civic Center Way at 4000 Malibu Canyon Road. The site is depicted on the *Malibu Beach*, California, United States Geological Survey (USGS) topographic map. It is located on Assessor's Parcel Numbers 4458-028-019, 4458-028-015, and 4458-030-007 within the County of Los Angeles. The project site is bounded by two or four lane roads on all sides. Land use includes the Santa Monica Mountains National Recreational Areas (SMMNRA) to the north and south, separated by the aforementioned roadways. The SMMNRA lands to the north of the site consist of coastal sage scrub. The SMMNRA lands to the south of the site include disced fields, a recreational field area, and scattered development to the far south. Pepperdine University is to the west of the project site, and residential areas to the east.

According to the project description provided by Green Acres dated November 17th, 2015, the project site will be redeveloped into the Malibu Memorial Park and Chapel, comprised of approximately 21.0 acres of a 27.8 acre property. The unstable slope areas along the perimeter of the site comprise the remaining 7 acres of the parcel that Green Acres has elected not to develop. The proposed Memorial Park project contains approximately 17,500 gross square feet of floor area ratio development and will include the construction of a 8,500 square-foot Main Chapel facility, 8,500 square-foot subterranean parking basement (19 parking spaces), 48 free-standing Mausoleum structures totaling approximately 9,000 square-foot (approximately 186 square-foot/each), approximately 30,600 plot spaces will allow for various crypt configurations, cremation and fractional burial options, as well as surface parking for 132 guest vehicles along the entry drive and Chapel ring.

METHODOLOGY

The biological inventory for the project site included a review of relevant literature available for the site. Rincon first reviewed the previously prepared biological and environmental impact reports (Rancho Malibu Hotel Project EIR), and site specific biological reports, to assess earlier habitat conditions and determine additional survey requirements, if necessary. To ensure consistency with the requirements set forth by the City of Malibu Local Coastal Program (LCP) Land Use Plan, adopted by the California Coastal Commission (CCC) in 2002, geographic information systems (GIS) software was used to review the City's updated data layers to check locations of Environmentally Sensitive Habitat Area (ESHA) and other sensitive biological resources or planning areas. In addition, the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) RareFind5 (October 6, 2015, expires April 6, 2016) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPS 2014) were reviewed for recently tracked occurrences of special-status species or other special-status biological resources within 5 miles of the project site. Site plans provided by the client, aerial photographs, and topographic maps were also examined.

A native tree assessment was conducted at the site on February 16, 2012 by Rincon biologist Stephanie Lopez (certified arborist) and senior botanist Cher Batchelor, under the direction of certified arborist Julie Broughton. During the site visit all trees were identified to the lowest taxonomic level possible. For each tree assessed, tree height, canopy width and trunk diameter at breast height (DBH, four and one-half feet above natural grade) was determined. Tree height and canopy width was visually estimated and DBH was measured using a Forestry Suppliers English unit diameter tape and/or tree calipers. GPS data points were collected for native trees using a Trimble GeoXT unit with sub-meter accuracy.

A field reconnaissance survey was conducted in October 2014 to document existing site conditions and the potential presence of sensitive biological resources, including sensitive plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. Rincon biologist, Leslie Yen conducted the site visit on October 3, 2014 between 1300 and 1330 hours. Average weather conditions during the survey included temperatures of approximately 87 degrees Fahrenheit, winds of 1 to 3 miles per

hour, and clear skies (<5% cloud cover). The project site was accessed directly from Malibu Canyon Road. The survey area consists of the area within the proposed limits of work. The field biologist surveyed the project site on foot and recorded the biological resources present on site such as plant and wildlife species. Where portions of the survey area were inaccessible on foot (e.g., fenced-off development), these areas were visually inspected with binoculars (10 x 42).

The potential presence of sensitive species is based on a literature review and field survey designed to assess habitat suitability only. Definitive surveys to confirm the presence or absence of special-status species were not performed. Definitive surveys for sensitive plant and wildlife species generally require specific survey protocols and extensive field survey time, and are conducted only at certain times of the year.

A reconnaissance survey was not performed in 2015 in support of this project revision because the site has remained in similar condition since the original project proposal in 1997, and all design modifications are within the 2014 survey area. The findings and opinions conveyed in this report are based on this methodology.

ENVIRONMENTAL CONDITIONS

Most of the project site consists of a bluff top with sloping sides towards the public road ways. The top of the site contains drivable dirt roads as the site was formerly used as a nursery. No structures remain on the property, but vagrant activity is evident.

Vegetation Communities

The property vegetation is generally comprised of coastal sage scrub and native grasslands, but also contains many non-native nursery trees and shrubs and patches of ruderal grassland. Much of the central portions of the property are open and disturbed; however, the majority of the landscape is succeeding to coastal sage scrub habitat, and the general landscape provides cover and habitat for a variety of common native birds, reptiles, and small mammals.

Per the 1997 EIR, the site contained approximately 8 acres of undisturbed coastal sage scrub along the northern bluff, 18 acres of recovering coastal scrub mixed with landscaping plants on the bluff top, and about 1.8 acres dominated by landscaping and ornamental plants.

Based on field reconnaissance surveys, the plant communities are similar to that in 1997 except for the continued succession of coastal sage scrub into the abandoned nursery area and the establishment of a native saltgrass-fasciculed tarplant grassland. Currently, the site vegetation is comprised of five general plant communities. These plant communities are mapped on Figure 1, represented in Figure 2, and discussed in the bullets below:

- ***Dense, Intact Coastal Sage Scrub.*** The lower, north-facing slope (bluff face) in the northeastern portion of the site contains dense, intact coastal sage scrub. The established coastal sage scrub is dominated by laurel sumac (*Malosma laurina*). Associate species of the intact coastal sage scrub onsite include California sagebrush (*Artemisia californica*),

coyote brush (*Baccharis pilularis*), southern California black walnut (*Juglans californica* var. *californica*), coast ash buckwheat (*Eriogonum cinereum*), white sage (*Salvia apiana*), purple sage (*Salvia leucophylla*), and sawtooth goldenbush (*Hazardia squarrosa*). The openings of this area contain Foothill Needlegrass Patches discussed below.

- ***Foothill Needlegrass Patches.*** The foothill needlegrass patches observed onsite are located along the top of the north-facing slope between the abandoned nursery and the intact coastal sage scrub. These patches are dominated by *Stipa lepida* (foothill needlegrass), and associate species includes cudweed aster (*Lessingia filaginifolia*), soap plant (*Chlorogalum pomeridianum* var. *pomeridianum*), and small-flowered melicgrass (*Melica imperfecta*), with elements of coastal sage scrub mixed in at lesser levels. One patch was approximately 11,300 square feet and a larger patch was approximately 14,700 square feet. These patches are approximately 200 feet away from each other. The two patches together would be approximately 0.6 acres.
- ***Successional Coastal Sage Scrub with Ornamentals.*** The majority of the project site is comprised of remnant and successional coastal sage scrub with abandoned/escaped nursery/ornamental plantings. The successional coastal sage scrub onsite is less dense and more disturbed than that on the north-facing bluff, and is also dominated by laurel sumac. The associate species in this portion of the site include those mentioned above for the intact coastal sage scrub, but this area also includes a significant number of species such as myoporum (*Myoporum laetum*), Mexican fan palm (*Washingtonia robusta*), European olive (*Olea europia*), Tasmanian blue gum (*Eucalyptus globulus*), Brazilian pepper tree (*Schinus terebenthifolius*), and fountain grass (*Pennisetum setaceum*). The understory contains species such as red brome (*Bromus madritensis* ssp. *rubens*), soft chess (*Bromus hordeaceus*), sweet fennel (*Foeniculum vulgare*), black mustard (*Brassica nigra*), and summer mustard (*Hirschfeldia incana*). Five coast live oaks (*Quercus agrifolia*) were found onsite, and all were on the flat, former nursery section of the site. The openings of this area contain saltgrass-fasciculed tarplant fields discussed below.
- ***Saltgrass-Fasciculed Tarplant Fields.*** Open field areas dominated by two native species, the perennial, alkaline saltgrass (*Distichlis spicata*) and fasciculed tarplant (*Deinandra fasciculata*), were observed in several large openings of the abandoned nursery. Other associate species include western ragweed (*Ambrosia psilostachya* var. *californica*), scarlet pimpernel (*Anagallis arvensis*), southwestern carrot (*Daucus pusillus*), cudweed aster, green everlasting (*Pseudognaphalium californicum*), deerweed (*Lotus scoparius*), coast prickly-pear (*Opuntia litorallis*), and annual grasses. The patches range in size from 2,000 – 19,700 square feet and total about 1.8 acres.
- ***Disturbed/Ruderal.*** The site also contains several open dirt areas with sparse ruderal vegetation, in particular an approximate 0.5 acre area at the northern tip of the project site. Species observed here include horsetail (*Conyza canadensis*), summer mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), and annual grasses.

Special-Status Plant Species

Per the 2014 BIR, two California Native Plant Society (CNPS) List 4 species were observed onsite: Plummer's baccharis (*Baccharis plummerae* var. *plummerae*) and southern California

black walnut *(Juglans californica* var. *californica*). Both species are on the Watch List as "limited in distribution" in California. A complete list of all plant species observed onsite is attached.

General Wildlife

The project site provides habitat for wildlife species that commonly occur within urban and rural areas of Los Angeles County. Common, non-special status, species observed on site during the 2007, 2011, and 2014 surveys included western fence lizard *(Sceloporus occidentalis),* California side-blotched lizard (*Uta stansburiana*), Botta's pocket gopher *(Thomomys bottae),* Audubon's cottontail *(Sylvilagus audubonii),* California ground squirrel *(Spermophilus beecheyi), and* coyote (*Canis latrans)*. Common avian species observed included, red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), greater roadrunner *(Geococcyx californianus),* mourning dove *(Zenaida macroura),* California towhee (*Melozone crissalis),* American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), wrentit (*Chamaea fasciata*), and Anna's hummingbird (*Calypte anna*). No special-status wildlife species, nesting birds or raptors, were observed onsite.

Other common wildlife species that might be expected to frequent the area based on available habitats would include western rattlesnake (*Crotalus viridis*), gopher snake (*Pituophis catenifer*), American goldfinch (*Carduelis tristis*), red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), common bushtit (*Psaltriparus minimus*), American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), pacific-slope flycatcher (*Empidonax difficilis*), western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), black phoebe (*Sayornis nigricans*), big-eared woodrat (*Neotoma macrotis*), brush rabbit (*Sylvilagus bachmani*), and mule deer (*Odocoileus hemionus*).

Native Trees

Per the native tree protection ordinance, native oak (*Quercus sps.*), California walnut (*Juglans californica*), western Sycamore (*Platanus racemosa*), alder (*Alnus rhombifolia*), and toyon (*Heteromeles arbutifolia*) trees, with at least one trunk measuring six inches or more in diameter, or a combination of any two trunks measuring a total of eight inches or more in diameter, measured at four and one-half feet above natural grade are protected and require a tree protection plan (City of Malibu, 2002). During the tree assessment conducted in 2012 (Rincon 2012), the project site did not contain any native trees that meet the City's requirements for protection.

SENSITIVE BIOLOGICAL RESOURCES

In response to legislative mandates, regulatory authorities have defined sensitive biological resources as those specific organisms that have regionally declining populations such that they may become extinct if declining population trends continue. Habitats are also considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. Two communities of special concern identified by the CNDDB occur within the vicinity of the project area: Southern Coastal Salt Marsh and Valley Oak Woodland. Neither of the

communities identified as special concern by CNDDB or CDFW is present within the project area.

Several resource studies have been prepared that address the general biological resource values within the Project site and general vicinity. These studies include the Malibu Parks Public Access Enhancement Plan (MPPAEP) Environmental Impact Report (EIR) (Dudek, 2010), Revised Biological Inventory Report for the Rancho Malibu Resort Project (Rincon Consultants Inc, 2011), Revised Biological Inventory Report for the Rancho Malibu Religious Memorial Project (Rincon 2014), and the South Coast Missing Linkages Project Santa Monica-Sierra Madre Connection (South Coast Wildlands, 2006).

The project design was revised again in October 2015 to exclude work in sensitive habitat areas, reducing the overall project footprint from 27.8 acres to 21 acres, resulting in an overall reduction in potential impacts to special-status biological resources.

Special-Status Vegetation Communities

CNDDB tracks three sensitive habitat types in the vicinity: Southern coast live oak riparian forest, southern coastal salt marsh, and valley oak woodland. None of these habitats exist onsite. The coastal sage scrub on the northern bluff was considered sensitive by the City of Malibu per the 1997 EIR as it was relatively undisturbed habitat. This habitat is identified on Figure 1 as "Dense, Intact Coastal Sage Scrub." New project plans also show that portions of the coastal sage scrub on the unstable slopes along the northeast and eastern sides will be avoided, minimizing impacts to this habitat community.

Special-Status Plant Species

In addition to the two special-status plant species observed onsite (Plummer's baccharis and southern California black walnut); CNDDB tracks 15 special-status plant species within five miles of the project site. Suitable habitat exists onsite for 7 of the 15 tracked plant species, including Coulter's saltbush (*Atriplex coulteri*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), Malibu Baccharis (*Baccharis malibuensis*), Santa Susana tarplant (*Deinandra minthornii*), Blochman's dudleya (*Dudleya blochmaniae* ssp. *Blochmaniae*), and Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*). None of the CNDDB special-status plant species were observed during the 2007, 2011, or the 2014 reconnaissance surveys; however, a moderate potential exists for these species to occur onsite in the intact coastal sage scrub area. While two locally important plant species were observed onsite, the presence of these species alone does not qualify the onsite habitat to be ESHA since the species are not considered to be especially valuable as they lack special nature and specific roles in the onsite ecosystem. They also are not either List 1 or 2 plants, which are considered worthy of rarity status as noted in the Malibu LCP Land Use Plan Policy 3.4.d. The complete CNDDB report for the area within 5 miles of the project site is attached.

Special-Status Wildlife Species

CNDDB also tracks 13 special-status wildlife species within five miles of the project site. Suitable habitat for 3 of the 13 special-status wildlife species tracked by CNDDB occurs

within the project site, including coastal whiptail (*Aspidoscelis tigris stejnegeri*), Bryant's [San Diego desert] woodrat (*Neotoma bryanti* [*N. lepida intermedia*]), and coast horned lizard (*Phrynosoma blainvillii*). None of these special-status species were observed during the 2007, 2011, or the 2014 reconnaissance surveys; however, a moderate potential exists for these species to occur onsite in the intact coastal sage scrub. An additional special-status species discussion with respect to ESHA designation is discussed below.

Potentially sensitive wildlife that could use the isolated coastal sage scrub habitat on site includes the loggerhead shrike (*Lanius ludovicianus*, a California species of special concern while nesting) that could potentially use the site for nesting. However, these birds were not observed on site during the May 2007 breeding season. The coastal western whiptail (*Aspidoscelis tigris stejnegeri)*, a California species of special concern, require an area of at least 0.25 acre to establish home ranges; therefore, this species could also potentially use the fragmented coastal sage scrub area onsite. However, isolated habitats tend to lose rare species over time through changes in the local environment that create conditions that are no longer conducive to their existence. In addition, the fire that occurred in 2007 could have extirpated many of the rare species if they were previously present on site. If locally extirpated, the chance of re-colonization of coastal western whiptails is substantially decreased due to habitat isolation. The San Diego woodrat could also potentially utilize the habitat that exists on site; however, during the most recent survey, no woodrat middens were observed within the project area. Lastly, the coast horned lizard was historically found along the pacific coast, but the range has now been severely fragmented. This species more often occurs in chaparral with open areas. Furthermore, the coast horned lizard requires loose friable soils to burrow beneath and native any populations as a food source. It is likely that most ant species that occur on site are non-native due to the former site use as a nursery of ornamental species. The amount of suitable habitat present is limited and consequentially, any population of sensitive wildlife would also be limited. The nearest connection from the northern edge of the property to intact sage scrub habitat is more than 350 feet to a steep hillside north of the intersection of Malibu Canyon Road and Civic Center Way. The lack of cover and suitable habitat over this distance significantly limits the movement of animals from lower trophic levels (most invertebrates, amphibians, reptiles, and small mammals). Furthermore, according to updated project plans, most of the intact sage scrub habitat where these species are most likely to occur will be avoided.

Native Trees

The tree assessment conducted in 2012 determined that the project site does not contain native trees that meet the City's requirements for protection. Native trees were observed on site; however, none met the size criteria for protection or were within the project disturbance boundaries. A single oak tree meeting the size criteria was observed on site, but was identified as a cork oak (*Quercus suber*) that is native to southwestern Europe and northern Africa (Bringham, 2005). Three native qualifying California walnuts were observed to the east and outside the project boundary.

Nesting Birds
Coastal sage scrub and large trees could be attractive for nesting birds protected under the California Fish and Game Code. Although accessible trees and shrubs throughout the property were examined with binoculars and no active nests were observed, birds are expected to nest within the habitats and trees onsite generally between February 15 and August 15.

Jurisdictional Drainages
No riparian/riverine habitat, vernal pools, or potential vernal pools occur within the project site. In addition, the soils onsite are considered well-drained and are unlikely to form vernal pools. A potential drainage does exist north of the project site (USFWS National Wetlands Inventory website http://www.fws.gov/wetlands/, 2006), on the opposite side of Civic Center Way. The drainage crosses Civic Center Way outside the north east corner of the project side and continues into an adjacent property, immediately below the bluffs on the eastern side of the project site, and turns into Winter Canyon southwest of the project site. Current project plans do not anticipate modification of the drainage or canyon. No riparian or wetland habitats occur on site that would qualify as ESHA.

Critical Habitat
No critical habitat is mapped onsite and the project would not affect any federal designated critical habitat. The closest mapped federal designated critical habitat from the project site is for tidewater goby (*Eucyclogobius newberryi*), which is approximately 0.85 mile east of the project site in Malibu Canyon Creek.

ESHA
According to the City of Malibu LCP ESHA Overlay Map 3: *Dan Blocker to Malibu Pier* (Malibu LCP), the property is not within any currently mapped ESHA. However, unmapped coastal sage scrub or native grassland patches could be defined as an ESHA if these areas would need to meet the following definition:

> "…any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Malibu LCP LIP, page 10.

Further instruction regarding the ESHA designation is provided on page 48 of the Malibu LCP Land Use Plan (Land Use Plan Policy 3.1):

> "… unless there is site-specific evidence that establishes that a habitat area is not especially valuable because of its special nature or role in the ecosystem…"

The 2010 MPPAEP EIR does not list the Project site as an important habitat linkage. The 2011 BIR prepared for the Project site specifically addresses the connectivity potential of the site and concludes the site does not have high habitat function nor habitat connectivity. Lastly, results of the 2006 Wildlands Study indicate that the Project site in its current condition is a constriction point for the focal species examined in the 2006

Wildlands Study. Constriction points are areas where habitats have been narrowed by surrounding development and can prevent organisms from moving through. The 2006 Wildlands Study indicates that the Malibu Bluffs and the Project site provide patch size or less than a patch size habitat for numerous species (mountain lion, mule deer, loggerhead shrike, and California thrasher). Thus, the Project site currently functions as an isolated habitat and would not be considered especially valuable. Due to the high road density within the Project area, the Project site as it exists is already functionally isolated from the Santa Monica Mountains. Further, PCH also serves to isolate the site from the Malibu Bluffs to the south for most of the lower trophic levels. The discussions below further supports that this project does not qualify as an ESHA.

The coastal sage scrub habitat within the project site, identified in Figure 1 as "Successional Coastal Sage Scrub with Ornamentals" would not qualify as ESHA since this area lacks connectivity to other nearby large native habitat blocks. Native grassland patches have developed within the former nursery area. These patches are relatively small, with no single patch greater than 0.5 acres, and are isolated from other known ESHA grasslands in the area to the west, and do not contain rare plant species. They do not appear to be "especially valuable because of its special nature or role in the ecosystem" given that the onsite ecosystem is a former nursery within which native vegetation is mixed extensively with well-established non-native horticultural species.

MITIGIATION RECOMMENDATIONS

Although no ESHA occurs on site, several measures are recommended herein to avoid and minimize potential impacts to biological resources.

Special-Status Vegetation Communities

Although the coastal sage scrub habitat onsite does not necessarily qualify as ESHA, this habitat is still considered sensitive by the City of Malibu. Rincon concurs, as the habitat is located within the coastal zone within the Santa Monica Mountains and provides suitable habitat for local wildlife species. Any potential impacts to the intact coastal sage scrub may be required to be mitigated to compensate for the loss of coastal habitat. Similarly, while the foothill needlegrass and saltgrass- fasciculed tarplant grassland patches does not appear to qualify as ESHA, they nonetheless could still be considered sensitive by the City of Malibu and mitigation required.

Special-Status Plant Species

Due to the occurrence of two locally important plant species and the potential for other special-status plant species to occur, the following measure is recommended to minimize and avoid impacts to special status plant species:

- Prior to vegetation clearing/ground disturbance, seasonal rare plant surveys are recommended to be conducted by a qualified botanist. Surveys should be conducted during the blooming periods of special-status species with the potential to occur on site (typically up to 3 surveys between March and July). Rare plant surveys should be conducted in accordance with CNPS and CDFG protocol.

- If rare plant species (CNPS List 1 or 2) are discovered, then a recovery and revegetation plan shall be implemented in the event that they cannot be avoided by site design. Alternatively, in lieu fees for conserved habitat in the Santa Monica Mountains suitable for the species found may be provided at a mitigation ratio of 5:1 for the onsite occupied habitat.

Special-Status Wildlife Species

Due to the potential for special-status wildlife species, such as coastal whiptail, coast horned lizard, and San Diego woodrat, to occur onsite, the following measure is recommended to minimize and avoid impacts to special-status wildlife species:

- Prior to ground disturbance, a qualified biologist should conduct wildlife clearance surveys for animals within the proposed areas of disturbance. The biologist should also be present during initial ground disturbance activities and until clearance has been completed. If woodrat middens are located within the construction footprint to be disturbed, the middens and any associated nests will be carefully dismantled allowing the woodrats to leave on their own. The midden materials will be relocated to suitable undisturbed habitat so that they may be reused by woodrats. If coast horned lizards, coastal whiptails, or other special status animal species are present within the disturbance area, the biologist will relocate them to suitable habitat away from the edge of the construction footprint. CDFG and City should be notified and consulted regarding the presence of a special-status wildlife species onsite. If a federally listed species is found prior to grading of the site, the USFWS shall also be notified to determine whether an Endangered Species Act Section 10 Habitat Conservation Plan is necessary to proceed.

Native Trees

If native trees that would qualify for protection under the Malibu LCP Native Tree Protection Ordinance are present on site, impacts or removal of qualifying trees would need to be carried out in accordance with the Malibu LCP Native Tree Protection Ordinance.

Nesting Birds

The following measure is recommended to maintain compliance with the California Fish and Game Code with respect to nesting birds:

- If initial clearing activities take place between February 15 and August 15, nesting bird surveys are recommended to be performed by a qualified biologist/ornithologist with results reported subsequently to the City of Malibu prior to grading and clearing. If nesting birds are found, a City-approved construction buffer of at least 200' may be required until all young are no longer dependent on the nest.

Jurisdictional Drainages

Should project plans change or anticipate any impacts to the drainage adjacent to the project site, a jurisdictional delineation survey is recommended, and consultation and potential

permits from CDFG, U.S. Army Corps of Engineers (USACE), or Los Angeles Regional Water Quality Control Board (RWQCB) could be required.

LIMITATIONS

This document was prepared for use solely and exclusively by Green Acres, LLC, care of Jake Jesson, Assistant Project Manager. Mr. Jesson has requested this assessment on behalf of Green Acres, LLC, who may use it to provide information to satisfy regulatory agency requirements. No other use or disclosure is intended or authorized by Rincon, nor shall this report be relied upon or transferred to any other party without the express written consent of Rincon Consultants. This work has been performed in accordance with good commercial, customary, and generally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on a suitability analysis level only and did not include definitive surveys for the presence or absence of the special-status species that may be present. Definitive surveys for special-status wildlife and plant species generally require specific survey protocols requiring extensive field survey time to be conducted only at certain times of the year. The findings and opinions conveyed in this report are based on this methodology. It is understood that Rincon is to be held harmless for any inverse condemnation or devaluation of said property that may result if Rincon's report or information generated during our performance of services is used for other purposes.

Thank you for the opportunity to assist you with this project. If you have any questions regarding this biological inventory report, please contact us at 805/644-4455.

Sincerely,
RINCON CONSULTANTS, INC.

Leslie Yen
Biologist

Lacrissa Cook Davis, MESM
Principal Biologist

Attachments: *Figure 1. Aerial Photograph and Vegetation Map*
Figure 2. Site Photographs
Plant Species Observed Onsite
CNDDB RareFind5 Report (5 mile radius from project site)

Legend

- Site Boundary
- Dense, Intact Coastal Sage Scrub
- Disturbed/Ruderal
- Foothill Needlegrass Patches
- Saltgrass-Fasciculed Tarplant Fields
- Successional Coastal Sage Scrub with Ornamentals
- Location of Concrete Box
- Approximate Location of Eroded Canyon

N

0 170 340 Feet

Aerial Photograph and Vegetation Map

Figure 1

Photo 1 - View looking west from western portion of site showing disturbed portions of the site with mix of remnant/ successional scrub species, ornamental trees/shrubs, and native and nonnative herbs and grasses.

Photo 2 - View looking west from middle of site showing mix of native and ornamental species.

Photo 3 - View looking south from middle of site showing field dominated by native saltgrass and fasciculed tarplant.

Photo 4 - View looking southeast of ridgeline and boundary between abandoned nursery area to the south and intact coastal sage scrub to the north.

Site Photographs

Figure 2a

Photo 5 - View looking northwest of north-facing slope on north/northeast portion of the site occupied by dense relatively undisturbed coastal sage scrub.

Photo 6 - View looking southeast of same north-facing slope occupied by coastal sage scrub and needlegrass grassland patches.

Photo 7 - View looking south from dirt lot/ruderal field at north tip of site showing north-facing slope with southern California black walnut specimens emergent from the coastal sage scrub (light green background).

Photo 8 - Plummer's baccharis along the north ridgeline in the middle of the site; observed in a needlegrass opening within the coastal sage scrub.

Site Photographs

Figure 2b

Plant Species Observed – Rancho Malibu Resort

Scientific Name	Common Name
Adenostoma fasciculatum	Chamise
Ambrosia psilostachya var. *californica*	Western ragweed
Anagallis arvensis	Scarlet pimpernel
Artemisia californica	California sagebrush
Artemisia douglasiana	Mugwort
Asclepias fascicularis	Narrowleaf milkweed
Astragalus trichopodus var. *phoxus*	Antisell three-pod milkvetch
Avena barbata	Slender wild oat
Baccharis pilularis	Coyote brush
Baccharis plummerae var. *plummerae*	Plummer's baccharis
Brassica nigra	Black mustard
Bromus hordeaceus	Soft chess
Bromus madritensis ssp. rubens	Red brome
Cardionema ramosissimum	Sand mat
Carpobrotus chinensis	Ice plant
Carpobrotus edulis	Hottentot fig
Centaurea melitensis	Tocalote
Chamaesyce albomarginata	Rattlesnake spurge
Chlorogalum pomeridianum var. *pomeridianum*	Soap plant
Conyza canadensis	Horseweed
Cynodon dactylon	Bermuda grass
Daucus pusillus	Southwestern carrot
Deinandra fasciculata	Fasciculed tarplant
Distichlis spicata	Saltgrass
Dudleya pulverulenta ssp. *pulverulenta*	Chalky live-forever
Encelia californica	California bush sunflower
Eriogonum cinereum	Ash coast buckwheat
Eriogonum fasciculatum var. *fasciculatum*	California buckwheat
Eucalyptus globulus	Tasmanian blue gum
Foeniculum vulgare	Sweet fennel
Geranium molle	Annual cranesbill
Grindelia camporum var. *bracteosum*	Bracted gumplant
Hazardia squarrosa var. *squarrosa*	Sawtooth goldenbush
Helianthus annuus	Common sunflower
Hesperoyucca [*Yucca*] *whipplei* ssp. *whipplei*	Our Lord's candle
Heteromeles arbutifolia	Toyon
Heterotheca grandiflora	Telegraph weed
Hirschfeldia incana	Summer mustard
Juglans californica var. *californica*	Southern California black walnut
Lessingia filaginifolia var. *filaginifolia*	California cudweed-aster
Leymus condensatus	Giant wildrye
Lotus scoparius var. *scoparius*	Deerweed
Lupinus longifolius	Long-leaved bush lupine
Malacothrix saxatilis var. *saxatilis*	Cliff-aster
Malosma laurina	Laurelleaf sumac

Plant Species Observed – Rancho Malibu Resort

Scientific Name	Common Name
Melica imperfecta	Small-flowered melicgrass
Mimulus aurantiacus var. *aurantiacus*	Bush monkeyflower
Myoporum laetum	Myoporum
Nassella lepida	Foothill needlegrass
Nicotiana glauca	Tree tobacco
Olea europaea	European olive
Opuntia littoralis	Coastal prickly pear
Pennisetum setaceum	Fountain grass
Picris echioides	Bristly ox-tongue
Pinus sp.	Pine
Piptatherum miliaceum	Smilo grass
Plantago lanceolata	English plantain
Polypogon monspeliensis	Rabbitsfoot grass
Pseudognaphalium californicum	California everlasting
Quercus agrifolia	*Coast live oak*
Rhus integrifolia	Lemonade berry
Ricinus communis	Castor bean
Rumex crispus	Curly dock
Salvia leucophylla	Purple sage
Salvia mellifera	Black sage
Schinus terebenthifolius	Brazilian pepper tree
Sonchus asper ssp. *asper*	Prickly Sow-thistle
Stellaria media	Common chickweed
Stephanomeria virgata ssp. *virgata*	Twiggy wreath plant
Venegasia carpesioides	Canyon sunflower
Washingtonia robusta	Mexican fan palm

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: BIOS selection

Rancho Malibu Religious Memorial Project, 4000 Malibu Canyon Road, Malibu, California

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T3T4	S2S3	
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G2	S2	1B.2
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Baccharis malibuensis Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
California macrophylla round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
Calochortus clavatus var. gracilis slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T3	S3	1B.1
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Deinandra minthornii Santa Susana tarplant	PDAST4R0J0	None	Rare	G2	S2	1B.2
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3Q	S2?	
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Dudleya cymosa ssp. marcescens marcescent dudleya	PDCRA040A3	Threatened	Rare	G5T2	S2	1B.2
Dudleya cymosa ssp. ovatifolia Santa Monica dudleya	PDCRA040A5	Threatened	None	G5T1	S1	1B.1
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Isocoma menziesii var. decumbens decumbent goldenbush	PDAST57091	None	None	G3G5T2T3	S2	1B.2
Lampropeltis zonata (pulchra) California mountain kingsnake (San Diego population)	ARADB19063	None	None	G4G5	S1S2	SSC
Lasiurus blossevillii western red bat	AMACC05060	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Monardella hypoleuca ssp. hypoleuca white-veined monardella	PDLAM180A3	None	None	G4T2T3	S2S3	1B.3
Myotis ciliolabrum western small-footed myotis	AMACC01140	None	None	G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Oncorhynchus mykiss irideus steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	SSC
Pentachaeta lyonii Lyon's pentachaeta	PDAST6X060	Endangered	Endangered	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Southern California Coastal Lagoon Southern California Coastal Lagoon	CALE1220CA	None	None	GNR	SNR	
Southern California Steelhead Stream Southern California Steelhead Stream	CARE2310CA	None	None	GNR	SNR	
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Thamnophis hammondii two-striped garter snake	ARADB36160	None	None	G4	S3S4	SSC
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	

Record Count: 37

APPENDIX 3.0-2

Traffic Queuing Analysis, Overland Traffic Consultants, Inc.

Overland Traffic Consultants, Inc.

Overland Traffic Consultants
24325 Main Street # 202
Santa Clarita, CA 91321
Phone (661) 799 - 8423
E-mail: otc@overlandtraffic.com

February 3, 2017

Mr. Fred Gaines
Gaines & Stacey LLP
16633 Ventura Blvd. Suite 1220
Encino, CA 91436-1872

RE: Response to Public Works Department Memo
(February 2, 2017)

Dear Mr. Gaines,

Overland Traffic Consultants has received the Public Works Department comment dated February 2, 2017 (attached). We have reviewed the comment and adjusted the HCS capacity worksheets for the Pacific Coast Highway and Malibu Canyon Road intersection. The capacity worksheets have been amended to show the southbound left turn shared lane traffic assignment for 1 left turn lane and 1 shared left - through lane to be 55% and 45 %, respectively. The adjusted worksheets are attached and modified to show the reduced delay values for the intersection peak hours and the amended table for Response 13 is provide below.

Response 13

A queuing analysis has been conducted for existing 2016 conditions with and without the project. As shown below are the results of the eastbound left turn queuing analysis for Pacific Coast Highway at Malibu Canyon Road and at Webb Way. The analysis shows that the project will not create a significant traffic impact to the eastbound vehicle queue with ample capacity to accommodate the left turn demand with the project. It should be noted that the dual left turn mitigation at Pacific Coast Highway and Webb Way has been assumed for this analysis. The capacity worksheets are attached for reference.

EB Left Turn Volume and Capacity

Intersection	Peak Hour	Q Capacity Without	Volume With Project	
1 Pacific Coast Highway	am	224	225	139
Malibu Canyon Road	pm	527	529	402
	Sat.	314	334	231
2 Pacific Coast Highway	am	249	249	165
Webb Way	pm	201	201	125
	Sat.	203	203	127

Please call if you have questions.

Sincerely,

Jerry T. Overland

Attachments

City of Malibu

23825 Stuart Ranch Rd., Malibu, California CA 90265-4861
(310) 456-2489 FAX (310) 456-7650

PUBLIC WORKS REVIEW
REFERRAL SHEET

TO: Public Works Department **DATE:** 4/28/2015

FROM: City of Malibu Planning Department

PROJECT NUMBER:	CDP 15-028
JOB ADDRESS:	4000 MALIBU CANYON RD, Parcel
APPLICANT / CONTACT:	Bruce McBride
APPLICANT ADDRESS:	PO Box 6528 Malibu, CA 90264
APPLICANT PHONE #:	(310) 456-2600 x2
APPLICANT FAX #:	
APPLICANT EMAIL:	bmcbride@pda-llc.net
PROJECT DESCRIPTION:	Malibu Memorial Park

TO: Malibu Planning Department and/or Applicant

FROM: Public Works Department

✓ The following items described on the attached memorandum shall be addressed and resubmitted.

____ The project was reviewed and found to be in conformance with the City's Public Works and LCP policies and CAN proceed through the Planning process.

Jonathan Richardson
SIGNATURE

2/2/17
DATE

City of Malibu
MEMORANDUM

To: Bruce McBride

From: Public Works Department
Jonathan Pichardo, Assist. Civil Engineer

Date: February 2, 2017

Re: Memo No.2 (MND Traffic Responses) 4000 Malibu Canyon Road CDP 15-028

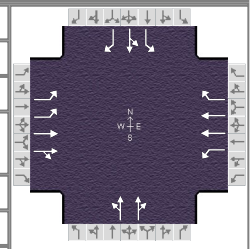
The Public Works Department has begun its review of this application and has determined that additional information is required.

MND Response Comments:

1. The HCS worksheets describe the AM peak hour intersection delay pre project to be 197.7s/veh and the AM peak hour intersection delay to be 197.4s/veh post project. Please clarify how the proposed development is to decrease traffic instead of increase.

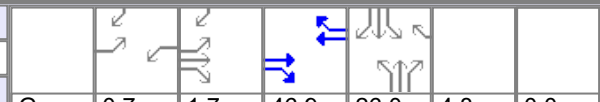
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
Jurisdiction		Time Period	exisitng am peak hour	PHF	0.92
Urban Street	Pacific Coast Highway	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Malibu Canyon Road	File Name	pch malibu am peak without.xus		
Project Description	am peak hour without project				

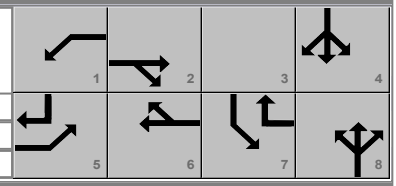


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	138	939	15	4	704	146	16	7	29	896	13	184

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	1.7	46.9	26.0	4.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	10.4	56.6	4.7	50.9		8.8		30.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.0
Queue Clearance Time (g_s), s	6.2		2.2			3.9		28.0
Green Extension Time (g_e), s	0.3	0.0	0.0	0.0		0.1		0.0
Phase Call Probability	0.98		0.11			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	150	520	517	4	765	159	25		32	536	452	200
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1889	1810	1809	1610	1836		1610	1810	1812	1610
Queue Service Time (g_s), s	4.2	17.9	17.9	0.2	14.3	3.0	1.3		1.9	26.0	24.6	9.6
Cycle Queue Clearance Time (g_c), s	4.2	17.9	17.9	0.2	14.3	3.0	1.3		1.9	26.0	24.6	9.6
Green Ratio (*g/C*)	0.06	0.53	0.53	0.01	0.47	0.73	0.05		0.05	0.26	0.26	0.32
Capacity (*c*), veh/h	224	999	993	12	1695	1173	87		77	470	471	521
Volume-to-Capacity Ratio (*X*)	0.669	0.521	0.521	0.352	0.451	0.135	0.286		0.412	1.139	0.960	0.384
Back of Queue (*Q*), ft/ln (50 th percentile)	45	185.3	184.7	3.2	141.2	19.4	14.9		19.1	548.9	357.9	87.5
Back of Queue (*Q*), veh/ln (50 th percentile)	1.8	7.4	7.4	0.1	5.6	0.8	0.6		0.8	22.0	14.3	3.5
Queue Storage Ratio (*RQ*) (50 th percentile)	0.15	0.00	0.00	0.01	0.00	0.00	0.00		0.00	1.25	0.00	0.00
Uniform Delay (d_1), s/veh	45.8	15.5	15.5	49.4	17.9	4.1	46.0		46.3	37.0	36.5	26.1
Incremental Delay (d_2), s/veh	1.3	1.9	2.0	6.2	0.9	0.2	0.7		1.3	85.3	31.1	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	47.1	17.4	17.4	55.6	18.8	4.3	46.6		47.6	122.3	67.6	26.3
Level of Service (LOS)	D	B	B	E	B	A	D		D	F	E	C
Approach Delay, s/veh / LOS	21.2	C		16.5	B		47.2	D		85.3	F	
Intersection Delay, s/veh / LOS	43.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.5	A	1.3	A	0.5	A	2.4	B

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
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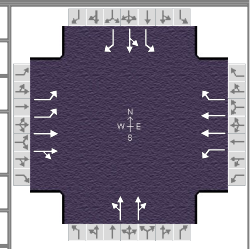
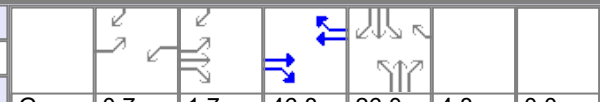
Intersection	Malibu Canyon Road	File Name	pch malibu am peak with.xus		
Project Description	am peak hour with project				

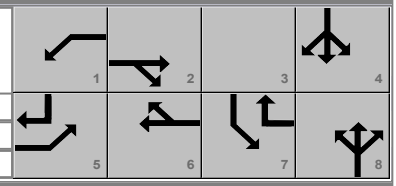


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	139	939	15	4	705	149	16	7	29	896	13	184

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	0.7	1.7	46.8	26.0	4.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



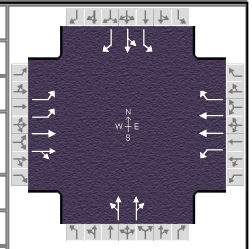
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	10.4	56.6	4.7	50.8		8.8		30.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.0
Queue Clearance Time (g_s), s	6.2		2.2			3.9		28.0
Green Extension Time (g_e), s	0.3	0.0	0.0	0.0		0.1		0.0
Phase Call Probability	0.98		0.11			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	151	520	517	4	766	162	25		32	536	452	200
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1889	1810	1809	1610	1836		1610	1810	1812	1610
Queue Service Time (g_s), s	4.2	17.9	17.9	0.2	14.3	3.0	1.3		1.9	26.0	24.6	9.6
Cycle Queue Clearance Time (g_c), s	4.2	17.9	17.9	0.2	14.3	3.0	1.3		1.9	26.0	24.6	9.6
Green Ratio (*g/C*)	0.06	0.53	0.53	0.01	0.47	0.73	0.05		0.05	0.26	0.26	0.32
Capacity (*c*), veh/h	225	999	993	12	1694	1173	87		77	470	471	522
Volume-to-Capacity Ratio (*X*)	0.670	0.521	0.521	0.352	0.452	0.138	0.286		0.412	1.139	0.960	0.383
Back of Queue (*Q*), ft/ln (50 th percentile)	45.3	185.3	184.7	3.2	141.4	19.9	14.9		19.1	548.9	357.9	87.4
Back of Queue (*Q*), veh/ln (50 th percentile)	1.8	7.4	7.4	0.1	5.7	0.8	0.6		0.8	22.0	14.3	3.5
Queue Storage Ratio (*RQ*) (50 th percentile)	0.15	0.00	0.00	0.01	0.00	0.00	0.00		0.00	1.25	0.00	0.00
Uniform Delay (d_1), s/veh	45.8	15.5	15.5	49.4	17.9	4.1	46.0		46.3	37.0	36.5	26.1
Incremental Delay (d_2), s/veh	1.3	1.9	2.0	6.2	0.9	0.2	0.7		1.3	85.3	31.1	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	47.0	17.4	17.4	55.6	18.8	4.3	46.6		47.6	122.3	67.6	26.2
Level of Service (LOS)	D	B	B	E	B	A	D		D	F	E	C
Approach Delay, s/veh / LOS	21.2	C		16.5	B		47.2	D		85.3	F	
Intersection Delay, s/veh / LOS	43.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.5	A	1.3	A	0.5	A	2.4	B

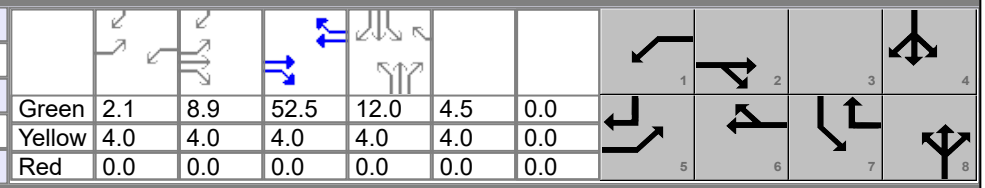
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
Jurisdiction		Time Period	exisitng pm peak hour	PHF	0.92
Urban Street	Pacific Coast Highway	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Malibu Canyon Road	File Name	pch malibu pm peak without.xus		
Project Description	pm peak hour without project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	400	1182	14	14	1216	235	11	8	28	280	18	165

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.1	8.9	52.5	12.0	4.5	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

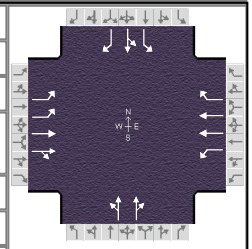
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	19.0	69.4	6.1	56.5		8.5		16.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.1
Queue Clearance Time (g_s), s	14.0		2.8			3.8		11.2
Green Extension Time (g_e), s	1.0	0.0	0.0	0.0		0.1		0.8
Phase Call Probability	1.00		0.34			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	435	651	649	15	1322	255	21		30	167	157	179
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1892	1810	1809	1610	1847		1610	1810	1821	1610
Queue Service Time (g_s), s	12.0	18.0	18.1	0.8	27.4	6.7	1.1		1.8	9.0	8.3	9.2
Cycle Queue Clearance Time (g_c), s	12.0	18.0	18.1	0.8	27.4	6.7	1.1		1.8	9.0	8.3	9.2
Green Ratio (*g/C*)	0.15	0.65	0.65	0.02	0.52	0.64	0.05		0.05	0.12	0.12	0.27
Capacity (*c*), veh/h	527	1243	1237	37	1898	1038	84		73	217	218	434
Volume-to-Capacity Ratio (*X*)	0.825	0.524	0.524	0.406	0.696	0.246	0.246		0.415	0.772	0.717	0.413
Back of Queue (*Q*), ft/ln (50 th percentile)	126.9	164.3	163.7	9.8	265.6	51.8	12.3		18.5	99.7	92	85.1
Back of Queue (*Q*), veh/ln (50 th percentile)	5.1	6.6	6.5	0.4	10.6	2.1	0.5		0.7	4.0	3.7	3.4
Queue Storage Ratio (*RQ*) (50 th percentile)	0.42	0.00	0.00	0.04	0.00	0.00	0.00		0.00	0.23	0.00	0.00
Uniform Delay (d_1), s/veh	41.2	9.1	9.1	48.4	17.8	7.5	46.1		46.4	42.7	42.4	30.0
Incremental Delay (d_2), s/veh	1.3	1.6	1.6	2.6	2.1	0.6	0.6		1.4	2.2	1.7	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	42.5	10.7	10.7	51.0	19.9	8.1	46.6		47.8	44.9	44.0	30.2
Level of Service (LOS)	D	B	B	D	B	A	D		D	D	D	C
Approach Delay, s/veh / LOS	18.7	B		18.3	B		47.3	D		39.4	D	
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.9	B	1.8	B	0.5	A	1.3	A

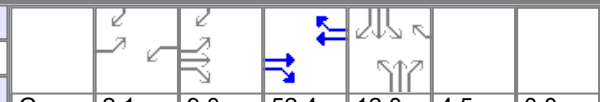
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
Jurisdiction		Time Period	exisitng pm peak hour	PHF	0.92
Urban Street	Pacific Coast Highway	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Malibu Canyon Road	File Name	pch malibu pm peak without.xus		
Project Description	pm peak hour with project				

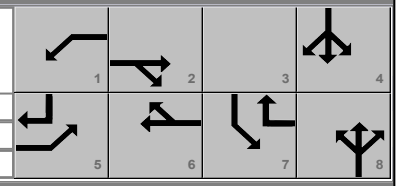


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	402	1182	14	14	1220	240	11	8	28	280	18	165

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	2.1	9.0	52.4	12.0	4.5	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



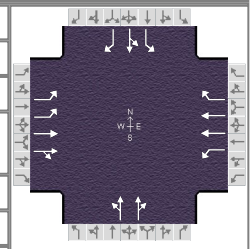
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	19.1	69.4	6.1	56.4		8.5		16.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.1
Queue Clearance Time (g_s), s	14.1		2.8			3.8		11.1
Green Extension Time (g_e), s	1.0	0.0	0.0	0.0		0.1		0.8
Phase Call Probability	1.00		0.34			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	437	651	649	15	1326	261	21		30	167	157	179
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1892	1810	1809	1610	1847		1610	1810	1821	1610
Queue Service Time (g_s), s	12.1	18.0	18.1	0.8	27.5	6.9	1.1		1.8	9.0	8.3	9.1
Cycle Queue Clearance Time (g_c), s	12.1	18.0	18.1	0.8	27.5	6.9	1.1		1.8	9.0	8.3	9.1
Green Ratio (*g/C*)	0.15	0.65	0.65	0.02	0.52	0.64	0.05		0.05	0.12	0.12	0.27
Capacity (*c*), veh/h	529	1243	1237	37	1896	1037	84		73	217	218	435
Volume-to-Capacity Ratio (*X*)	0.826	0.524	0.524	0.406	0.699	0.252	0.246		0.415	0.772	0.718	0.412
Back of Queue (*Q*), ft/ln (50 th percentile)	127.2	163.4	162.8	9.8	267.1	53.5	12.3		18.5	99.7	92	85
Back of Queue (*Q*), veh/ln (50 th percentile)	5.1	6.5	6.5	0.4	10.7	2.1	0.5		0.7	4.0	3.7	3.4
Queue Storage Ratio (*RQ*) (50 th percentile)	0.42	0.00	0.00	0.04	0.00	0.00	0.00		0.00	0.23	0.00	0.00
Uniform Delay (d_1), s/veh	41.2	9.1	9.1	48.4	17.9	7.6	46.1		46.4	42.7	42.4	30.0
Incremental Delay (d_2), s/veh	1.3	1.6	1.6	2.6	2.2	0.6	0.6		1.4	2.2	1.7	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	42.5	10.7	10.7	51.0	20.0	8.1	46.6		47.8	44.9	44.0	30.2
Level of Service (LOS)	D	B	B	D	C	A	D		D	D	D	C
Approach Delay, s/veh / LOS	18.7	B		18.4	B		47.3	D		39.4	D	
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.9	B	1.8	B	0.5	A	1.3	A

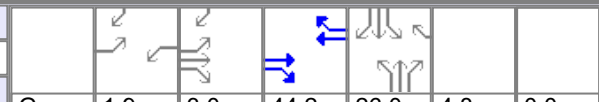
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
Jurisdiction		Time Period	exisitng sat peak hour	PHF	0.92
Urban Street	Pacific Coast Highway	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Malibu Canyon Road	File Name	pch malibu sat peak without.xus		
Project Description	sat peak hour without project				

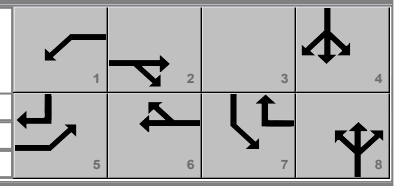


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	214	1216	24	13	1387	146	22	6	26	375	28	446

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.9	3.0	44.2	26.0	4.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



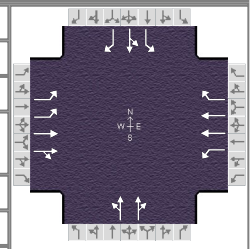
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	12.9	55.2	5.9	48.2		8.8		30.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.1
Queue Clearance Time (g_s), s	8.5		2.8			3.7		28.0
Green Extension Time (g_e), s	0.5	0.0	0.0	0.0		0.1		0.0
Phase Call Probability	1.00		0.32			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	233	676	672	14	1508	159	30		28	224	214	485
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1887	1810	1809	1610	1828		1610	1810	1822	1610
Queue Service Time (g_s), s	6.5	26.9	27.0	0.8	39.8	3.3	1.6		1.7	10.5	9.8	26.0
Cycle Queue Clearance Time (g_c), s	6.5	26.9	27.0	0.8	39.8	3.3	1.6		1.7	10.5	9.8	26.0
Green Ratio (*g/C*)	0.09	0.51	0.51	0.02	0.44	0.70	0.05		0.05	0.26	0.26	0.35
Capacity (*c*), veh/h	314	973	967	35	1600	1131	88		78	470	474	563
Volume-to-Capacity Ratio (*X*)	0.741	0.694	0.695	0.401	0.942	0.140	0.345		0.364	0.477	0.451	0.862
Back of Queue (*Q*), ft/ln (50 th percentile)	69	289.5	288.5	9.1	454.1	22.6	18.2		17	109.6	103.7	300.2
Back of Queue (*Q*), veh/ln (50 th percentile)	2.8	11.6	11.5	0.4	18.2	0.9	0.7		0.7	4.4	4.1	12.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.23	0.00	0.00	0.04	0.00	0.00	0.00		0.00	0.25	0.00	0.00
Uniform Delay (d_1), s/veh	44.4	18.5	18.5	48.4	26.7	4.9	46.1		46.1	31.3	31.0	30.3
Incremental Delay (d_2), s/veh	1.3	4.1	4.1	2.7	12.4	0.3	0.9		1.1	0.3	0.3	12.4
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	45.7	22.5	22.6	51.2	39.0	5.2	46.9		47.2	31.5	31.3	42.7
Level of Service (LOS)	D	C	C	D	D	A	D		D	C	C	D
Approach Delay, s/veh / LOS	26.0	C		35.9	D		47.0	D		37.3	D	
Intersection Delay, s/veh / LOS	32.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.8	B	1.9	B	0.5	A	2.0	B

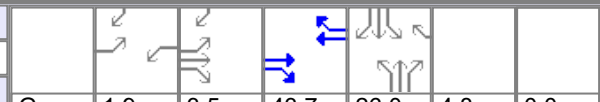
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	City of Malibu			Duration, h	0.25
Analyst	OTC	Analysis Date	1/19/2017	Area Type	Other
Jurisdiction		Time Period	exisitng sat peak hour	PHF	0.92
Urban Street	Pacific Coast Highway	Analysis Year	2017	Analysis Period	1> 7:00
Intersection	Malibu Canyon Road	File Name	pch malibu sat peak with.xus		
Project Description	sat peak hour with project				

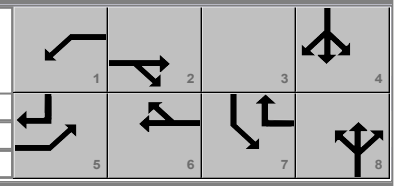


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	231	1216	24	13	1400	176	22	6	26	375	28	446

Signal Information			
Cycle, s	100.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	1.9	3.5	43.7	26.0	4.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	2.0	3.0		12.0		9.0
Phase Duration, s	13.5	55.2	5.9	47.7		8.8		30.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.0	0.0	3.0	0.0		3.1		3.1
Queue Clearance Time (g_s), s	9.0		2.8			3.7		28.0
Green Extension Time (g_e), s	0.5	0.0	0.0	0.0		0.1		0.0
Phase Call Probability	1.00		0.32			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	251	676	672	14	1522	191	30		28	224	214	485
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1887	1810	1809	1610	1828		1610	1810	1822	1610
Queue Service Time (g_s), s	7.0	26.9	27.0	0.8	40.9	4.1	1.6		1.7	10.5	9.8	26.0
Cycle Queue Clearance Time (g_c), s	7.0	26.9	27.0	0.8	40.9	4.1	1.6		1.7	10.5	9.8	26.0
Green Ratio (*g/C*)	0.09	0.51	0.51	0.02	0.44	0.70	0.05		0.05	0.26	0.26	0.35
Capacity (*c*), veh/h	334	973	967	35	1580	1122	88		78	470	474	571
Volume-to-Capacity Ratio (*X*)	0.753	0.694	0.695	0.401	0.963	0.171	0.345		0.364	0.477	0.451	0.848
Back of Queue (*Q*), ft/ln (50 th percentile)	74.4	289.5	288.5	9.1	481.3	28.9	18.2		17	109.6	103.7	292.2
Back of Queue (*Q*), veh/ln (50 th percentile)	3.0	11.6	11.5	0.4	19.3	1.2	0.7		0.7	4.4	4.1	11.7
Queue Storage Ratio (*RQ*) (50 th percentile)	0.25	0.00	0.00	0.04	0.00	0.00	0.00		0.00	0.25	0.00	0.00
Uniform Delay (d_1), s/veh	44.1	18.5	18.5	48.4	27.4	5.2	46.1		46.1	31.3	31.0	29.8
Incremental Delay (d_2), s/veh	1.3	4.1	4.1	2.7	15.4	0.3	0.9		1.1	0.3	0.3	10.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	45.4	22.5	22.6	51.2	42.8	5.5	46.9		47.2	31.5	31.3	40.7
Level of Service (LOS)	D	C	C	D	D	A	D		D	C	C	D
Approach Delay, s/veh / LOS	26.2	C		38.7	D		47.0	D		36.3	D	
Intersection Delay, s/veh / LOS	33.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.8	C	3.0	C	3.0	C
Bicycle LOS Score / LOS	1.8	B	1.9	B	0.5	A	2.0	B