ADDENDUM NO. 1

TO THE
MULTI-USE TRAVELERS CENTER
CONDITIONAL USE PERMIT NO. 03370
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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ABBREVIATIONS AND ACROYNMS

AB	Assembly Bill
CEQA	California Environmental Quality Act
County	County of Riverside
CUP	Conditional Use Permit
DIF	Development Impact Fees
EIR	Environmental Impact Report
GHG	Greenhouse Gas
IS/MND	Initial Study / Mitigated Negative Declaration
LLG	Linscott, Law & Greenspan Engineers
M-SC	Manufacturing-Service Commercial
ND	Negative Declaration
NOD	Notice of Determination
RCNG	Renewable Compressed Natural Gas
SCAQMD	South Coast Air Quality Management District
SKR	Stephen's kangaroo rat
TIA	Traffic Impact Assessment
VMT	Vehicle Miles Traveled
WQMP	Water Quality Management Plan

ADDENDUM NO. 1 TO THE MULTI-USE TRAVELERS CENTER CONDITIONAL USE PERMIT NO. 03370 INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

1. PROJECT DESCRIPTION

A. 2003 Approved Conditional Use Permit No. 03370 Project

In July 2003 the County of Riverside (County) approved Conditional Use Permit (CUP) No. 03370 to allow development of a Multi-Use Travelers Center on an approximate 11.5-acre site, located on unincorporated land just north of the City of Perris, California. CUP No. 03370 was proposed to be developed in two phases: Phase I has been constructed and consists of a fueling facility, auto lube and oil center, with a full-service carwash, a 1,600 square foot (sf) quick serve restaurant (not drive through); and an 14,500 sf building that includes a convenience store (including beer and wine sales), souvenir shop and patio area. Phase II of the project (encompassing about 5.37 acres) has not yet been constructed, but was approved for the following components: 21 truck/RV parking spaces, a weigh station, two free standing drive-through restaurants, and a free-standing restaurant. Total building square footage (Phases I and II) is identified as 40,174 sf. The three restaurants identified for Phase II include two drive through restaurants and one sit down restaurant. Total square footage for these three structures is estimated to be approximately 28,374 sf.

The project site is located at the southeast corner of Cajalco Expressway and Harvill Avenue, just west of the Interstate 215 Freeway. Figure1 shows the project area; Figure 2 shows the approved CUP 03370; and Figure 3 shows the existing project site with the Phase II undeveloped parcel boundary outlined in black. The Notice of Determination (NOD) for the Initial Study/Mitigated Negative Declaration (IS/MND) was posted in July 2003. The Phase II project site is presently a mixed graded dirt and paved pad that appears to be used short term for large truck and trailer parking. The reader of this Addendum is referred to the attached copy of the IS/MND for this project (which is reproduced in Appendix 1) for a more detailed discussion of the approved project.

B. Proposed Modifications

As indicated above, Phase II has not yet been developed but the site remains graded and ready for development. Clean Energy is requesting a modification to CUP 03370 to allow installation of a Time Fill Renewable Compressed Natural Gas (RCNG) Fueling Station. Refer to Figure 4. Under this proposed modification, the County is being requested to grant entitlements that would allow the approximate 5.37-acre Phase II site to be constructed as a paved parking lot consisting of 93 RCNG Time Fill spaces and 90 regular auto parking spaces and 93 commercial vehicle spaces.

The parking area will be surrounded by a decorative wrought iron fence to control access with two gated access gates. Perimeter landscaping will also be provided. The RCNG generation system is currently located in the southwest corner of the project site as shown on Figure 4. Onsite bioretention basins to control future runoff water quality and volume will be installed on the south side of the project site.

The vehicles serviced (filled with RCNG) will be commercial fleet vehicles, with dedicated time-fill sites for a contracted commercial fleet customer. Clean Energy will not own or rent vehicles and this site will not function as a "truck transportation yard" because it does not include servicing or truck maintenance; the customer may perform minor repairs to vehicles. Trucks will be parked at the proposed Facility for fueling purposes only. The car parking spaces are intended for the truck drivers to park personal vehicles during working hours. The Facility will be available to authorized fleet customers 24 hours per day, 7 days per week. The Facility will operate as a "cardlock" access operation with no dedicated onsite employees and Facility activation by card readers. This Facility will be monitored by camera and a company service representative call center 24-hours/7-days per week. Clean Energy technicians will dispatch to the site for regularly scheduled maintenance and on demand, as required. Fuel dispensing is only available by authorized fleet vehicles that will enter the facility through controlled access entry gates. Daily operations will typically consist of a truck driver arriving in the early morning; the driver will park his/her vehicle adjacent to a filled truck and leaving for the day to conduct deliveries; and the driver will return the truck at the end of the work day for a RCNG refill and leave the project site in his/her vehicle. Thus, on a typical day, the project site will generate about 180 vehicle trips

This Addendum document compiles the necessary information required to update the County's CEQA certified IS/MND in accordance with Sections 15162 and 15164 of the State CEQA Guidelines.

C. Environmental Review Process

The County has prepared this Addendum in accordance with the current (2022) CEQA Statute and Guidelines for implementing CEQA. State CEQA Guidelines Section 15164 includes the following procedures for the preparation and use of an Addendum:

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary and none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

(c) An addendum need not be circulated for public review, but can be included in or attached to the Final EIR or adopted negative declaration.

(d) The decision-making body shall consider the addendum with the Final EIR or adopted negative declaration prior to making a decision on the project.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

Note that Section 15164(b) addresses use of an Addendum in conjunction with a negative declaration, which is the procedure being used in this document. If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency may: (1) prepare a subsequent EIR if the criteria of State CEQA Guidelines Section 15162(a) are met, (2) prepare a subsequent negative declaration, (3) prepare an addendum, or (4) prepare no further documentation. (State CEQA Guidelines Section 15162(b)) When only minor technical changes or additions to an adopted negative declaration (ND) are necessary and none of the conditions described in Section 15162 calling for the

preparation of a subsequent EIR or ND have occurred, CEQA allows the lead agency to prepare and adopt an Addendum. (State CEQA Guidelines, Section 15164(b)).

Under Section 15162, a subsequent EIR is required only when:

(1) Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the negative declaration was adopted, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous negative declaration;
   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternative; or
   (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Based on the data contained in this environmental document, the County has concluded that an Addendum is the appropriate environmental determination for this second-tier environmental review process to comply with the CEQA.

D. Summary of Project Modifications Being Considered by the County of Riverside

In summary, the following modifications have been made to the project originally approved in 2003 for the CUP 03370. The three restaurants envisioned for development in the originally approved CUP 03370 will be replaced with a Time Fill RCNG Fueling Station. The uses are different, public food service compared to fuel supply for a commercial fleet, but the function of each use is consistent with the authorized use under CUP 03370, which is a “multi-use travelers center.” However, the audience/participants for the original and proposed use are different. Regardless, as subsequently illustrated, none of the changes would result in any new significant physical environmental impacts nor in any increased physical impacts beyond the impacts that were already evaluated for the original project.

2. PROCEDURAL CONSIDERATIONS

In 2003 the County of Riverside adopted an IS/MND CUP 03370, the Multi-Use Travelers Center Project. The County must now determine whether the proposed project described in Section 1.B

and D above results in new significant impacts that were not evaluated in the adopted IS/MND, which could trigger the need for an alternative CEQA environmental determination. The County must also decide whether an Addendum is the appropriate environmental determination for this modified project if it chooses to approve the proposed revised project entitlements. The adopted 2003 IS/MND provides a baseline and cumulative environmental evaluation and determination for the activities permitted by the entitlement approved for the original project.

This Addendum No. 1 has been prepared in order to determine whether the proposed project modifications, summarized above, would result in conditions that would require a subsequent or supplemental environmental impact report, Negative Declaration (ND) and/or Mitigated Negative Declaration (MND) to be prepared because of new or additional adverse environmental impacts. This Addendum also reviews any new information of substantial importance that was not known and could not have been known with exercise of reasonable diligence at the time the IS/MND was adopted in July 2003. This examination includes an analysis in accordance with the provisions of Sections 15164 and 15162 of the State CEQA Guidelines (summarized above), which outline the criteria and procedures for preparing an Addendum to a previously adopted IS/MND.

Also pursuant to CEQA and the State CEQA Guidelines, the County's environmental review of the proposed project modifications is limited to examining the environmental effects associated with the physical changes in the environment from implementing the modified project in comparison to the approved project, i.e., addressing the effects of a different type of public serving activities. This narrow focus is due to the fact that the IS/MND has already addressed the environmental impacts of constructing and occupying the original project.

This Addendum, combined with the original adopted IS/MND, serves as the basis for this second-tier environmental review of the County's decision to consider the revised Multi-Use Travelers Center Project, CUP 03370. Addendum No. 1 modifies the IS/MND adopted by the County in 2003 as its California Environmental Quality Act (CEQA) environmental determination. No other changes than those outlined in the preceding text are proposed at this time.

Pursuant to the provisions of CEQA and the State CEQA Guidelines, the County of Riverside is the Lead Agency for the proposed project revisions and is charged with the responsibility of deciding whether or not to approve the proposed modifications to the project as described above and relying on this Addendum as a second-tier CEQA environmental determination. As part of its decision-making process, the County is required to review and consider the potential environmental effects that could result from implementing the modified project relative to the previously approved project. The County has compiled this Addendum as the basis for making a second-tier CEQA environmental determination for the modified project being proposed by Clean Energy.

3. ENVIRONMENTAL ANALYSIS OF THE PROJECT MODIFICATION

Following the County's receipt of the revised application from Clean Energy for the project site, it became clear to the County that the project was modified to an extent that when combined with new environmental issues that have been incorporated into the CEQA review process since 2003, a second-tier environmental document/determination would be needed to support an entitlement decision for the revised project. After reviewing the data compiled for this Addendum, a decision was made by the County to prepare and process an Addendum to provide an evaluation of potential project changes that could result from approving the proposed project modifications compared to the project described and approved under the 2003 adopted Mitigated Negative Declaration. This is a relative comparison of the revised Phase II Project to the original approved

Phase II entitlements to assess the potential environmental impacts that would result from these project changes, in comparison to the impact forecast contained in the 2003 IS/MND. The following evaluation provides a comparative analysis of potential environmental impacts in relation to the facts and findings contained in the original adopted IS/MND document. The following conclusions were developed regarding potential impacts from approval and implementation of the Phase II project modifications. This analysis follows the format for determining significance included at the end of a standard Initial Study Environmental Checklist Form.

a) *POTENTIAL TO DEGRADE: Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less Than Significant Impact / No Changes or No New Information Requiring Preparation of an additional environmental document.

Biology: The biology issue is evaluated in the 2003 Initial Study/Mitigated Negative Declaration (IS/MND) in Section 6, pages 7 and 8, and in the "General Biological Survey Results for 11.5 acres near the City of Perris in Riverside County, California," dated June 14, 2002 by the Chambers Group, Inc. Prior to grading the whole 11.5-acre site, the project developer implemented the one biology mitigation measure, payment of the Stephen's Kangaroo Rat (SKR) fees. The 5+ acre Phase II site was mass graded concurrently with the whole project site and has occasionally been used for temporary parking to trailer-truck rigs. However, the graded Phase II site has not been developed over the intervening 19 years. The Phase II project site is presently a graded site, surrounded by a chain link fence with fabric inserts that serve to limit visual access to the site, and it does not contain any native biological resources. The ruderal vegetation on the site is periodically mowed. The site also contains stored dirt piles and vegetation debris piles. Minimal landscape vegetation (a few palm trees) is located on the exterior of the fence. The project area is entirely disturbed and provides very little natural biological resource value. Based on the lack of any native biological resources, there would be very limited adverse impact to such resources. No additional biological mitigation is required to support the implementation of the proposed project modifications. Based on previous implementation of the SKR mitigation measure, the proposed modified project represents a reduction in potential biological resource impacts compared to the original project.

Cultural Resources: The Cultural Resource issues are evaluated in the IS/MND in Sections 8, pages 8 and 9. The analysis in this section found that the site had been previously graded and concluded that based on this previous ground disturbance there was no potential for any historical or archaeological resources to exist on the site with any integrity. The Phase II project site is presently a totally disturbed graded site, surrounded by a chain link fence with fabric inserts that serve to limit visual access to the site, and due to past disturbances, it cannot contain any historical or archaeological resource with any contextual value. Based on the level of historic and current disturbance, there would be very limited potential to adversely impact any cultural resources. No additional cultural resource mitigation is required to support the implementation of the proposed project modifications. Thus, the proposed modified project represents a comparable condition relative to the previous findings for cultural resource impacts compared to the original project.

In conclusion, relative to the biological and cultural resource impacts forecast in the 2003 IS/MND, no significant adverse change or affect in the scope of impacts for biology or cultural resources

are forecast to occur in approving this Addendum and implementing the proposed project modifications incorporated in the RCNG Fueling Station Site Plan than the project that was approved in the original 2003 IS/MND. No additional biological or cultural resource mitigation is required to support the implementation of the proposed project modifications. The proposed modified project does not represent any change in the project impacts to the existing environment that could cause new or different biological or cultural resource effects.

b) *CUMULATIVE IMPACTS: Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future project.)*

Those environmental resources or issues subject to cumulative effects include the following: aesthetics, agriculture/forestry resources, air quality, energy, greenhouse gas emissions, hydrology/water quality, land use/planning, noise, population and housing, public services and recreation, transportation, tribal cultural resources and utilities/service systems. Since the 2003 IS/MND was adopted, several additional issues have been added to the CEQA Initial Study Environmental Checklist Form that may have the potential to create cumulative impacts: forestry resources, energy, greenhouse gas emissions, traffic vehicle miles traveled, tribal cultural resources, and wildfire. Cumulative biology and cultural resource impacts are addressed in the preceding section and no new adverse cumulative impacts to these resources were identified. All environmental issues were determined <u>not</u> to experience any significant project specific or cumulative adverse environmental impact in the 2003 IS/MND, with some issues requiring implementation of mitigation measures. The modified project will modify the total scope of the approved project, by transitioning what was a commercial restaurant site to a time fill RCNG Fueling Station serving a specific commercial client. Further, based on the type of project and the potential environmental effects from constructing and operating the current proposed project, no new or additional significant cumulative effects (i.e., cumulatively considerable) will result from approval and implementation of the new RCNG Fueling Station Site Plan. The following evaluation of each potential cumulative impact issue is provided to substantiate this broad finding.

<u>Aesthetics</u>*:* Aesthetics issues are discussed in the 2003 IS/MND, on pages 4 through 6. The project site at that time was a graded 11.5-acre lot. The IS/MND concluded that the site was not located adjacent to a Scenic Highway Corridor and that it did not contain any scenic resources or unique landmarks. Due to the site being located within Zone B of the Mt. Palomar ordinance (Ordinance 655, Riverside County) mitigation was imposed to require hooded/low sodium lighting at the project site. Since the project was approved, the front one-half of the property bordering Cajalco Expressway has been developed as envisioned. The Phase II site remains undeveloped and is currently surrounded by an exclusionary chain link fence with fabric inserts to minimize visual access to the site. Most of the surrounding properties have been developed with a mix of commercial and industrial uses, including a gas station, truck weigh station, truck parking area, light industrial warehouse and hotel. The current view of the site is that of a highly disturbed, graded parcel of land with dirt and waste piles and some ruderal vegetation. The site has minimal aesthetic value within the neighborhood at present.

A major consequence of the modified project is that the three structures originally proposed at this location will be replaced by the RCNG Fueling Station which will have no structures and when developed will have the appearance of a parking lot, with low risers to extend the time fill RCNG lines to the commercial vehicles (vans and perhaps a few pick-up trucks). The site will be landscaped in accordance with current County design requirements and a decorative wrought iron fence will be installed around the perimeter of the approximate 5.4-acre site. The proposed

project will be less visually intrusive than the original proposed buildings and their signs, as the facility's infrastructure would be lower in elevation overall from the prior proposal. All exterior lighting for the RCNG Fueling Station will be required to comply with the Ordinance No. 655 light design mitigation requirements, as was the original project. Thus, the proposed implementation of the modified project is not forecast to cause any significant negative alteration of any aesthetic or visual impacts when compared to the 2003 IS/MND. No new or cumulatively considerable negative aesthetic impacts will result from implementing the modified project. The end result will still be an urban industrial visual setting of comparable or better quality than the currently approved visual setting.

Agricultural and Forestry Resources: Agricultural resources were evaluated in the 2003 IS/MND on page 6. Since 2003, the State CEQA Guidelines expanded to include Forestry Resources under the same topic, hence Agricultural and Forestry Resources. Although in 2003 the project site was identified as containing Farmland as Local Importance, the loss of this agricultural resource was deemed less than significant because the site was no longer being used for farming and the site had previously been graded. Due to the proximity to major transportation corridors, Cajalco Expressway and I-215, the land had already been designated Highway Commercial. No mitigation measures were proposed in the 2003 IS/MND and none are required for the modified project. Historically, the project site was a mix of grassland and shrubland, with no known forestry resources. That condition remains the same. Therefore, no cumulatively significant adverse farmland or forestry resource impacts can result from implementing the revised project. This finding is consistent with the finding in the 2003 IS/MND.

Air Quality: Air quality issues are discussed in the 2003 IS/MND in Section 5, pages 6 and 7. The County primarily based its findings on the following report: "Air Quality Technical Report, Riverside County Travel Zone, Riverside County, California", dated August 9, 2002, prepared by Glenn T. Reed. All impacts were found less than significant, during both construction and operation without any mitigation but by complying with existing South Coast Air Quality Management District (SCAQMD) rules and regulations. Since 2003 regional air quality has improved as SCAQMD has implemented more stringent air quality management rules and regulations and additional requirements through the more current Air Quality Management Plans. Other improvements have included reductions in fugitive dust emissions and equipment exhaust since 2003 and major improvements in vehicle exhaust, building energy consumption (current 2019 State Building and Energy codes), and the contribution of the renewable energy generation component of Southern California Edison's energy generation portfolio (currently estimated to be about 39%).

In order to make a comparative evaluation of air emissions between the approved use of the Phase II site and the current proposed project, Clean Energy authorized a comparison of the operational emissions for the two alternatives. Construction activities of the original project and the proposed project both require paving the site and installing underground utilities. However, the Phase II proposed project does not require any above ground structures; therefore, construction emissions will be inherently lower than the original project. To support the operational emission analysis Linscott, Law & Greenspan Engineers (LLG) compiled a comparative evaluation of trip generation for both projects and Giroux & Associates then prepared a comparative emission evaluation using current emission models.

LLG prepared the Trip Generation comparison provided in Table 1 below. Using reasonable assumptions regarding size of the two fast food restaurants and the high turnover sit down restaurant, Table 1 forecasts average daily trips for the Phase II parcel original approved project. These entitled uses are forecast to generate 2,873 daily two-way trips (refer to Table 1 for details). This can be compared to the daily two-way trip generation for the proposed Phase II Clean Energy

RCNG Fueling Station, identified as 470 trips per day. Giroux & Associates compared the emissions generated by the original and proposed Phase II uses in a short letter-report provided as Appendix 2 to this document. The estimate of emissions from the commercial vehicles using the RCNG required more detailed evaluation, but the daily emissions for both projects are provided in Table 2 below. Based on the data in Table 2, emissions from both projects would fall below SCAQMD significance thresholds, but the emissions from the Clean Energy RCNG Fueling Station will be substantially less than that for the approved restaurant uses. Based on this information, no cumulative adverse air quality impacts can result from implementing the revised project. This finding is consistent with the finding in the 2003 IS/MND. The SCAQMD does not require any permits for this type of facility.

Table 1
TRIP GENERATION COMPARISON[1]
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 932: High Turnover Sit Down Restaurant (TE/TSF)	127.15	52%	48%	11.52	61%	39%	10.92
▪ 934: Fast-Food Restaurant with Drive-Thru Window (TE/TSF)	496.12	51%	49%	53.11	52%	48%	34.64
Proposed Project Generation Forecast:							
[A] – CNG Fueling Station Addition[2]	***470***	***20***	***30***	***50***	***36***	***24***	***60***
Entitled Land Uses Generation Forecast: [3]							
Fast-Food Rest. W/Drive-Thru Window No. 1 (3.000 TSF)	1,488	81	78	159	54	50	104
Pass-By (Daily: 25%, AM: 49%, PM: 50%)[4]	-372	-40	-38	-78	-27	-25	-52
Subtotal	*1,116*	*41*	*40*	*81*	*27*	*25*	*52*
Fast-Food Rest. W/Drive-Thru Window No. 2 (3.000 TSF)	1,488	81	78	159	54	50	104
Pass-By (Daily: 25%, AM: 49%, PM: 50%)[4]	-372	-40	-38	-78	-27	-25	-52
Subtotal	*1,116*	*41*	*40*	*81*	*27*	*25*	*52*
High Turnover Sit Down Restaurant (5.600 TSF)	712	34	31	65	37	24	61
Pass-By (Daily: 10%, AM: 10%, PM: 43%)[4]	-71	-4	-3	-7	-16	-10	-26
Subtotal	*641*	*30*	*28*	*58*	*21*	*14*	*35*
[B] – Total Entitled Land Uses	***2,873***	***112***	***108***	***220***	***75***	***64***	***139***
Total Net Trip Generation Forecast [A] – [B]	***-2,403***	***-92***	***-78***	***-170***	***-39***	***-40***	***-79***

Note:
- IE/ISF = Trip End per Thousand Square Feet

1 Source: *Trip Generation, 7th Edition*, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2003)].

2 Source: *Traffic Impact Assessment for the CNG Fueling Station Addition Project*, prepared by LLG Engineers, dated November 12, 2021.

3 It should be noted that the sizes of the three entitled land uses have been estimated by scaling off the dimensions from the Project Site Plan, dated June 2003, resulting in approximately 3,000 SF for each fast-food restaurant with drive-through use and 5,600 SF for the high-turnover sit down restaurant use.

4 Source: *Trip Generation Handbook*. The following pass-by reductions have been assumed for each land use.
- ITE Land Use 932: High Turnover Sit Down Restaurant = 10% daily (estimated), 10% AM (estimated), and 43% PM
- ITE Land Use 934: Fast-Food Restaurant with Drive-Thru = 25% daily (estimated), 49% AM and 50% PM

Table 2
2023 DAILY OPERATIONAL IMPACTS COMPARISON

	Operational Emissions (lbs/day)					
Source:	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Approved Restaurant Use	7.11	6.64	40.39	0.07	6.94	1.93
Clean Energy Use	0.30	1.96	16.36	0.00	0.02	0.01
SCAQMD Threshold	55	55	550	150	150	55

Energy: The topic of Energy was not included in the 2003 IS/MND. However, the use of energy by the proposed Phase II project will substantially reduce both short-term (construction) and long-term energy use at the site. First, the construction use of energy, primarily deliveries and onsite construction activities, will be substantially reduced for the proposed RCNG Fueling Station Project. None of the three buildings will be constructed and there will be no need for employee trips to support this effort during construction. For the proposed project the natural gas will be delivered to the project site through a natural gas pipeline and the trips to the site will be limited to the employees driving to the site; parking their private vehicles; leaving the site to make deliveries in delivery trucks (powered by natural gas) and then returning; and finally picking up personal vehicles for the trip home (470 trips per day). This can be compared to the 2,873 trips generated by the Phase II restaurant operations on the project site, which results in a substantial reduction in trips, i.e., 2,403 trips. This can be compared to the continuous energy demand by the three restaurants and the reduction in overall demand for electricity and continuous water consumption by the restaurants. Trips to the site will be reduced by an estimated 2,400 trips during future operations at the site relative to the approved restaurant uses. Thus, based on the data and findings for this project, the proposed modified project will consume less overall energy during construction and operation than the approved project. Thus, the RCNG Fueling Station Project will meet the requirement to minimize energy consumption both through replacing liquid fuel with RCNG and to not conflict with existing energy regulations.

Greenhouse Gas Emissions: The topic of Greenhouse Gas (GHG) Emissions was not included in the 2003 IS/MND. Thus, in order to compare the GHG emissions for the approved project and proposed project, Giroux & Associates developed a GHG emissions forecast using the most current SCAQMD model (CALEEMOD2020.4.0). Table 3 provides the modeling results for both project operational emissions. As was the case for criteria air pollutant emissions, both projects' emissions are less than significant using SCAQMD GHG significance thresholds, but the proposed RCNG Fueling Station Project GHG emissions are about 40% of the approved project's GHG emissions. Thus, based on the data and findings presented under the preceding air quality discussion and Appendix 2, the proposed modified project will generate less GHG emissions compared to the original approved project. The major source of emission typically associated with most projects are mobile source related. Because the fuel origin for this project is RCNG, it is automatically associated as being air quality positive. By providing a RCNG fuel source for the CNG based vehicles, the project is considered to be GHG positive. Thus, this proposed RCNG Fueling Station Project will have a net overall benefit to Greenhouse Gas emissions and will, therefore, be consistent with the Riverside County 2019 Climate Action Plan Update.

Table 3
OPERATIONAL EMISSIONS

Consumption Source	Approved Restaurant	Proposed Clean Energy
Area Sources	0.0	na
Energy Utilization	265.2	na
Mobile Source	1,177.8	628.1
Waste	68.3	na
Water	13.4	na
Total	**1524.7**	**628.1**
Guideline Threshold	3,000	

Hydrology/Water Quality: The hydrology and water quality (water) issues are discussed on pages 14-16 of the 2003 IS/MND. The evaluation in the IS/MND concluded that all hydrology water quality impacts from the approved project would be less than significant, with the implementation of several mitigation measures described in the IS/MND. Hydrology and Water Quality is an issue similar to Air Quality in that it has the potential to result in both cumulative impact and the potential to have direct adverse impacts (flooding and water pollution) on humans. This discussion of Hydrology and Water Quality focuses on cumulative effects from project implementation. With the implementation of the mitigation measures identified in the IS/MND (called conditions of approval in that document) the potential cumulative impacts were identified as being less than significant. These mitigation measures (comply with NPDES prior to grading; and install Water Quality Management Plan (WQMP) measures prior to grading and issuance of building permits). Thus, the RCNG Fueling Station Project site plan has been designed to capture the increased runoff and treat/store it onsite as part of the WQMP. Please refer to the Drainage Report prepared by Site Design Collaborative, October 11, 2021, provided as Appendix 3 of this document. Drainage from the site has already been integrated into the County's local drainage and water quality management systems and by controlling discharge from the approximate 5.4-acre site by capturing runoff and incorporating it in the project's onsite drainage and water quality management plan, the modified project will collectively reduce runoff from the site. Site conditions have not changed since grading was completed. Thus, the proposed modified project will not cause or contribute to site specific or cumulative hydrology or water quality impacts at this location.

Land Use/Planning: Land use and planning issues were evaluated in the 2003 IS/MND, on pages 16 and 17. The analysis in the IS/MND concluded that the proposed project would be consistent with the County's General Plan designation and zone classification (Industrial/Commercial and Manufacturing-Service Commercial (M-SC)). Neither the original or proposed modified projects would physically divide a community nor would they conflict with other development plans. The project site is surrounded by a mix of M-SC uses including: the gas station and convenience to the northwest (Phase I of CUP #03370); gas station convenience store and fast-food restaurant to the north; a hotel to the northeast; a truck parking area and a light industrial warehouse to the south; and a RCNG fueling station to the west. Since the approval in 2003, there have been minimal changes in the area environment and the planning context, other than compatible land uses being developed on adjacent parcels. The proposed project is consistent with the existing surrounding land uses and no land use conflicts have been identified based on these surrounding land uses. Since no residences are located in the project vicinity, no potential environmental justice issues have been identified. Thus, the land use and planning impacts from the modified project will be comparable (less than significant impact), and perhaps better than the original project because it reduces the volume of traffic that will ultimately be generated within the Phase II project area.

Mineral Resources: Mineral Resources was a topic considered in the 2003 IS/MND on pages 17 and 18. There were no mineral resource values identified for the project site. Therefore, implementation of the proposed modified development plan for the property has no potential to cause any adverse impact to mineral resource values.

Noise: The noise issue is evaluated in the 2003 IS/MND on pages 18 through 20. Noise impacts from and to the original project were found to be a mix of less than significant noise from four sources, March Air Reserve Base/March Inland Port, the railroad, the I-215 Freeway and Cajalco Expressway, all of which are part of the background sound levels at the project site. The IS/MND concluded that impacts would be less than significant due to the proposed land uses that are not sensitive to noise. In addition to the background sounds in 2002-3, the truck parking areas, industrial warehouse and the ARCO fueling facility also contribute to a relatively high background sound level at the Phase II site in 2022. Of most importance, the proposed RCNG Fueling Station Project will generate substantially less noise than the approved project. This will occur because the proposed project will generate less than 1/5 of the traffic that the approved project would generate (470 trips per day versus 2873 trips). This will result in less onsite noise, as well as a decrease in offsite ambient noise from the prior project. In addition, there would be no restaurant activities at the site in the future. Because the project is not noise sensitive and will generate less noise during operations, the proposed project will result in less overall noise impact than the approved project.

The evaluation of temporary construction noise impacts concluded that due to the lack of sensitive receptors in the project vicinity, construction noise would not be adverse and no mitigation was required. As previously noted, the approved project and the proposed project will require final grading and noise levels would be comparable for this construction activity. However, because the proposed project will not require construction of any above ground structures, the overall construction noise of the proposed project will be less than that caused by the approved project. The only unique noise source at this site is he periodic noise of the compressor which results in an intermittent noise of about 70 dBA for a few minutes per day. Thus, from a noise perspective the proposed RCNG Fueling Station Project site will have a reduced noise impact relative to the originally approved project. Therefore, the proposed project will result in a less than significant contribution to cumulative noise on the surrounding area.

Population/Housing: The population and housing issue is evaluated in the 2003 IS/MND on pages 20 and 21. Neither the approved project nor the proposed project proposes any housing; therefore, no direct population or housing would be impacted by either project. Indirectly, the approved project, with three restaurants, might generated 50 jobs, and some new employees could choose to live locally. The proposed Phase II RCNG Fueling Station Project will serve existing businesses and will typically not be manned. Thus, no new employees will require housing in the project area. Therefore, the proposed modified project will result in a less than significant contribution to cumulative population impacts in the surrounding area.

Public Services and Recreation: The public services/recreation issues are evaluated in the 2003 IS/MND on pages 21 through 23. No significant adverse impacts to any public services were identified with payment of mitigation fees (Development Impact Fees, DIF) and implementation of design requirements from the Fire and Sheriff's Departments. Although the various public service infrastructure systems will have expanded since the IS/MND was approved in 2003, the County still relies upon the payment of DIF to offset the demand for new services, i.e., to reduce potential impacts to Public Services to a less than significant impact. By eliminating the approved restaurant project and replacing it with the RCNG Fueling Station Project the overall demand for all public services will be reduced, except for fire hazards. Through implementation of the

standard conditions of approval and mitigation measures referenced in the 2003 IS/MND, potential demands for all public services can be reduced to a less than significant impact level for the modified project. Therefore, the proposed modified project will result in a similar less than significant contribution to demand for public services. With payment of fees, the modified project will have a less than significant impact on Public Services.

Transportation/Traffic: The transportation and traffic issues are evaluated in the 2003 IS/MND, on pages 23 and 24. A traffic study is referenced in the IS/MND, but was not readily accessible for review and reference. Based on the discussion of this issue in the 2003Initial Study, the project would not adversely impact traffic flow on Interstate 215 and project implementation was determined not to exceed a level of service standard established by the County congestion management agency. The project was conditioned to comply with Transportation Department conditions of approval regarding traffic loads, hazardous design features and road improvements.

As part of the evaluation for the proposed Phase II RCNG Fueling Station Project, three studies have been compiled by Linscott Law Greenspan Engineers (LLG) for the Phase II RCNG Fueling Station Project: "Traffic Impact Assessment for the CNG Fueling Station Addition Project" November 12, 2021; trip generation comparison table, April 15, 2022; and "Vehicle Miles Traveled (VMT) Assessment for the CNG Fueling Station Addition Project, County of Riverside," May 3, 2022. These reports are provided in Appendix 4a and Appendix 4b of this document, respectively.

From the standpoint of a comparison, LLG's April 15, 2022 memorandum generated a 2022 trip generation comparison between the original, approved Phase II project and the proposed Phase II RCNG Fueling Station Project. This comparison is summarized on Table 1, which concluded that the proposed RCNG Fueling Station Project will generate 2,403 fewer daily two-way trips than the approved project. This information is a key to the VMT evaluation discussed below and allowed the emission forecast presented under the Air Quality and GHG topics discussed above.

Based on the TIA findings regarding trip generation, the proposed project meets the County exemption requirements, but after conferring with the County, a decision was made to perform a focused traffic impact analysis. Five intersections were evaluated in the immediate project vicinity for existing plus ambient growth (Year 2023) and for existing plus ambient growth (2023) plus project traffic conditions. This analysis included both an intersection capacity analysis and an intersection queuing evaluation. The following findings were made:

- Based on the number of trips during morning and evening peak hours, LLG concluded that the proposed RCNG Fueling Station Project meets the County exemption requirements and the proposed project will not significantly impact the existing surrounding transportation network.
- Based on the intersection capacity analysis the RCNG Fueling Station Project will not impact any of the five key intersections analyzed for the two 2023 conditions referenced above.
- Adequate storage is provided at all eight locations evaluated for the two 2023 conditions referenced above.

Vehicle Miles Traveled (VMT) analysis was mandated by the State as a topic for evaluation beginning in 2020. LLG performed a VMT analysis of the proposed RCNG Fueling Station Project to determine whether it could exceed County VMT significance thresholds. LLG compared the project to the County's VMT Impact Screening Criteria in the May 3, 2022 LLG Assessment referenced above. Based on the "Air Quality GHG Impact Analysis" (Giroux & Associates, April 2022), the RCNG Fueling Station Project GHG emissions would be 628.1 MTCO2e. Since this

is below the SCAQMD threshold, the proposed project would screen out under the "Small Projects" criterion. In addition, the RCNG Fueling Station Project would also screen out under "Local-Serving Retail criterion. Thus, the RCNG Fueling Station Project will screen out from the VMT analysis and be presumed to have a less than significant VMT impact.

Thus, based on these referenced studies and their findings, the modified project will not cause any new significant adverse impacts under the traffic and circulation system issues and the VMT issue.

Tribal Cultural Resources: The topic of Tribal Cultural Resources was not included in the 2003 IS/MND. This topic only became an issue in the Initial Study Checklist form in 2015. Regardless, since the approval of the project in 2003, both the Phase I and Phase II sites were mass graded. Due to this ground disturbance, the project site no longer has any potential for cultural resources with any integrity or value. Since an Addendum does not require AB 52 consultation, no further action is required to address the Tribal Cultural Resource issue.

Utilities/Service Systems: Utilities and service systems are evaluated in the 2003 IS/MND on pages 24 through 26. The IS/MND concluded that all utilities could be provided at the site from connections to adjacent utility systems with implementation of mitigation measures. Water will be supplied to the proposed project for landscaping and fire protection purposes only. Unlike the approved project, the RCNG Fueling Station Project will not consume water during operations. Also, the proposed project will not require a connection to the local sewer collection system because it will not generate any wastewater. The project will also not generate any solid waste that will require disposal. Electricity and natural gas were already extended to the project site. Specifically, the electrical service as already completed as part of the Perris Phase 2 Project (fast fill station) as was the natural gas line. All electrical equipment (switchgear, transformer, etc.) from the existing fast fill station will be utilized in the new time fill parking lot. Thus, these service connections are already in place and there are no new electrical or gas service upgrades for this project. Based on the proposed project's minimal new demand for utilities, the proposed modified project will result in a less than significant contribution to cumulative demand for these utilities and service systems than the approved project.

Based on a direct comparison of the original and modified project, no new significant adverse cumulative impacts will occur. Thus, implementation of the modified project is not forecast to cause any new or more significant cumulatively considerable impacts.

c) *ADVERSE IMPACTS ON HUMANS: Does the project have environmental effects on human beings, either directly or indirectly?*

Less Than Significant Impact / No Changes or New Information Requiring Preparation of an EIR. Those project-related environmental resources or issues that pose a potential to have direct or indirect adverse effects on human beings include the following: air quality, geology and soils, hazards and hazardous materials, hydrology/water quality, noise, and wildfire. The 2003 IS/MND concluded that none of the above environmental issues would experience any significant project specific or cumulative adverse environmental impacts to human beings (people). Based on the analysis in support of this Addendum, implementation of the RCNG Fueling Station Project will result in less adverse impacts on humans than identified for the approved project evaluated in the 2003 IS/MND. All environmental issues with impacts to human beings under the modified project were determined to not experience any direct or indirect significant adverse environmental impact. Thus, based on the type of project and the potential environmental effects from constructing and

operating RCNG Fueling Station Project, no new or additional significant effects on human beings will result from implementing the proposed project.

The following evaluation of each potential impact issue is provided to substantiate this finding.

Air Quality: Air quality issues are discussed in the 2003 IS/MND, in Section 5, pages 6 and 7. The County primarily based its findings on the following report: "Air Quality Technical Report, Riverside County Travel Zone, Riverside County, California", dated August 9, 2002, prepared by Glenn T. Reed. All impacts were found to be less than significant, during both construction and operation without any mitigation, but by complying with existing South Coast Air Quality Management District (SCAQMD) rules and regulations. Since 2003 regional air quality has improved as SCAQMD has implemented more stringent air quality management rules and regulations and additional requirements through the more current Air Quality Management Plans. Other improvements have included reductions in fugitive dust emissions and equipment exhaust since 2003 and major improvements (reductions) in vehicle exhaust, building energy consumption (current 2019 State Building and Energy codes), and the contribution of the renewable energy generation component of Southern California Edison's energy generation portfolio (currently estimated to be about 39%).

In order to make a comparative evaluation of air emissions between the approved use of the Phase II site and the current proposed project, Clean Energy authorized a comparison of the operational emissions for the two alternatives. Construction activities of the original project and the proposed project both require paving the site and installing underground utilities. However, the Phase II proposed project does not require any above ground structures and related construction emissions; therefore, construction emissions will be inherently lower than the original project. To support the operational emission analysis Linscott, Law & Greenspan Engineers (LLG) compiled a comparative evaluation of trip generation for both projects and Giroux & Associates then prepared a comparative emission evaluation using current emission models.

LLG prepared the Trip Generation comparison provided in Table 1 below. Using reasonable assumptions regarding size of the two fast food restaurants and the high turnover sit down restaurant, Table 1 forecasts average daily trips for the Phase II parcel original approved project. These entitled uses are forecast to generate 2,873 daily two-way trips (refer to Table 1 for details). This can be compared to the daily two-way trip generation for the proposed Phase II Clean Energy RCNG Fueling Station, identified as 470 trips per day. Giroux & Associates compared the emissions generated by the original and proposed Phase II uses in a short letter-report provided as Appendix 2 to this document. The estimate of emissions from the commercial vehicles using the RCNG required more detailed evaluation, but the daily emissions for both projects are provided in Table 2. Based on the data in Table 2, emissions from both projects would fall below SCAQMD significance thresholds, but the emissions from the Clean Energy RCNG Fueling Station will be substantially less than that for the approved restaurant uses. Based on this information, project specific adverse degradation of air quality will result from implementing the proposed revised project. This finding is consistent with the finding in the 2003 IS/MND, but with lower emissions.

Thus, the modified project air quality impacts will be substantially lower and remain less than significant when compared to the original approved project. No new, direct air quality health impacts can result from implementing the revised project. This finding is consistent with the finding in the 2003 IS/MND. Thus, the revised project air quality impacts remain less than significant, and no new mitigation measures need to be implemented. Based on this finding, the proposed project will not contribute to any significant adverse air quality impacts to human beings.

Geology and Soils: The geology and soil issues are evaluated in the 20003 IS/MND on pages 9 through 13. The project site was identified as having minimal geologic or soil constraints. There are no active faults, no landslide risk, minimal known subsidence hazards, and no expansive soils. The site is subject to ground-shaking from regional seismic events. The 2003 IS/MND required a geotechnical report to be prepared in conformance with standard County requirements and this report will also be required to address the proposed modified project. Project site geology and soil resources and hazards remain the same as identified in the 2003 IS/MND. Equally important, there will be very limited persons on this site and none for substantial lengths of time. Thus, based on the preceding findings, the proposed revised project will not contribute to new or greater geology or soil impacts to human beings.

Hazards and Hazardous Materials: The hazards and hazardous materials issues are evaluated in the 2003 IS/MND, on pages 13 and 14. As part of the original approved project, Phase I contained a large gas station and mitigation was required to address management of hazardous wastes at this facility. The revised Phase II project would require an Emergency/Contingency Plan that would establish procedures to follow in the event of an emergency situation (such as a fire or hazardous spill). Specifically, please refer to the attached Emergency Response Plan (ERP) for the Perris Project (Appendix 5). This ERP was for the existing station; however, it was approved by Riverside County several months ago and it has not been modified. The ERP contains the requested information and code information (fx: NFPA-52) which outlines procedures in the event of certain emergency events. Also attached is the CUPA Permit for reference as well. Oversight for this Plan is provided by the Riverside County Department of Environmental Health Hazardous Materials Branch, and would be reviewed annually and renewed every three years. Based on the preceding findings, the proposed project will not contribute to new or greater significant hazards or hazardous materials impacts to human beings with implementation of required mitigation.

Hydrology and Water Quality: The hydrology and water quality (water) issues are discussed on pages 14-16 of the 2003 IS/MND. The evaluation in the IS/MND concluded that all hydrology water quality impacts from the approved project would be less than significant, with the implementation of several mitigation measures described in the IS/MND. Hydrology and Water Quality is an issue similar to Air Quality in that it has the potential to result in both cumulative impact and the potential to have direct adverse impacts (flooding and water pollution) on humans. The project site is not exposed to significant flood hazards, including the modified project area. By implementing the Drainage Report prepared by Site Design Collaborative, October 11, 2021, provided as Appendix 3 of this document, the revised Phase II project would not cause downstream flooding or degradation of water quality because it will be integrated into the surface water management plan for the project area. With submittal and approval of a new WQMP, the proposed modified project will not cause or contribute to site-specific hydrology or water quality impacts at this location that could ultimately harm humans. Based on the preceding findings, the proposed project will not contribute to new or greater significant hydrology or water quality impacts to human beings.

Noise: The noise issue is evaluated in the 2003 IS/MND on pages 18 through 20. Noise impacts from and to the original project were found to be a mix of less than significant noise from four sources, March Air Reserve Base/March Inland Port, the railroad, the I-215 Freeway and Cajalco Expressway, all of which are part of the background sound levels at the project site. The IS/MND concluded that impacts would be less than significant due to the proposed land uses that are not sensitive to noise. The modified Phase II project site will have no sensitive noise receptors and

will contribute less overall traffic to the surround circulation system, thus contributing less noise than the approved Phase II project.

Wildfire: Wildfire is a new issue added to the Initial Study Checklist Form in 2019. However, it was addressed under the Hazards discussion on page 14 of the 2003 IS/MND. The IS/MND found that the project site is a totally urbanized area and has been for a substantial period of time. The nearest wildfire/urban interface is located about one mile to the west south of Cajalco Expressway. This circumstance also applied to the project site in 2003 and continues to be valid for the modified project. Therefore, the proposed modified project will result in a less than significant exposure to wildland fire hazards and poses no significant new wildfire hazard if the modified project is approved. Please refer to Appendix 5 which contains copies of the ERP and the CUPA Permit that specifically address the regulations that the proposed facility must address for both emergency response and fire hazard issues.

Based on a direct comparison of the original and modified project, no new significant adverse human impacts will occur from implementing the modified project. Thus, implementation of the revised project is not forecasted to cause any new or more significant human impacts.

4. CONCLUSION

The information presented in the 2003 IS/MND for the RCNG Fueling Station Project was used as a basis for the analysis in this Addendum, updated with current information from sources cited, referenced, and attached. Upon review of the 2003 IS/MND, the information and findings in this Addendum and all supporting evidence, it is the conclusion of this Addendum that the potential adverse environmental impacts from implementing the proposed revised project, as described in Section 1.B of this document, will not cause any new or more significant impacts to the environment than forecasted in the 2003 IS/MND document as summarized in this Addendum and provided in Appendix 1. The proposed RCNG Fueling Station Project will be required to comply with the adopted 2003 IS/MND mitigation measures and conditions of approval as applicable for construction and operation of the facility. A copy of all mitigation measures is provided for review in Appendix 6 of this document. There are no new or more significant impacts that result from the proposed revised project modifications, based on continuing to implement the commitments in the 2003 IS/MND. For most issues the impacts from the RCNG Fueling Station Project will be less than would occur if the approved project was implemented.

This Addendum provides the County of Riverside with new and updated information substantiating the conclusion that the proposed revised project modifications will not cause substantial new or more significant physical changes to the environment that would require preparation and processing of a new negative declaration or a new environmental impact report. Such documentation would only be required due to the involvement of new significant environmental effects, new mitigation measures being available or required, or substantial increase in the severity of previously identified significant effects from implementing the original project (Section 15162, State CEQA Guidelines). The facts and findings cited above and provided in this Addendum allow the County to use an Addendum in accordance with Section 15164 of the State CEQA Guidelines for considering approval of the RCNG Fueling Station Project.

Pursuant to CEQA Section 15164, the IS/MND adopted in 2003, as updated with this Addendum, can be relied upon for documentation of the effects of approving the RCNG Fueling Station Project. Because the changes in this project do not exceed the thresholds outlined in Sections 15162 and 15164 of the State CEQA Guidelines, no further analysis of the environmental impacts

of the project is required in a Supplemental/Subsequent EIR or MND. The proposed revised project does not substantially alter the conclusions contained in the IS/MND as adopted by the County in 2003. The analysis presented above of the changes to the approved Phase II project justifies the issuance of Addendum No. 1 to the County's original 2003 IS/MND.

This Addendum No. 1 to the 2003 IS/MND for the proposed RCNG Fueling Station Project includes the changes or additions necessary to make the adopted environmental document adequate under CEQA for the proposed project modifications and new entitlement. This Addendum incorporates the adopted 2003 IS/MND, this document, and all staff reports and information submitted to the decision-makers regarding environmental issues affected by the proposed revised project. This Addendum is intended as a document containing additional information to provide decision makers and others, as appropriate, with an objective assessment of the potential environmental impacts associated with the implementation of the proposed project as defined in the RCNG Fueling Station Project Site Plan entitlement.

5. REVIEW AUTHORITY

The County of Riverside serves as the CEQA lead agency for this project. It is recommended that an Addendum be adopted as the appropriate CEQA environmental determination for the proposed project modifications, which are outlined in modification to CUP 03370 to allow installation of a Time Fill RCNG Fueling Station, the supporting application, and the supporting findings and conditions of approval. All documents supporting the addendum, as well as the prior environmental documents, are located at the County of Riverside Planning Department at 4080 Lemon Street, 12th Floor, Riverside, CA 92501.

6. CERTIFICATION

Timothy Wheeler	8/1/22
Signature	Date
Tim Wheeler	For: John Hildebrand
Project Planner	*Planning Director*
Printed Name	

FIGURES

n:\4400\2214456 - cng fueling station addition, county of riverside\dwg\4456 f-2.dwg LDP 13:27:58 09-13-2021 tucker

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

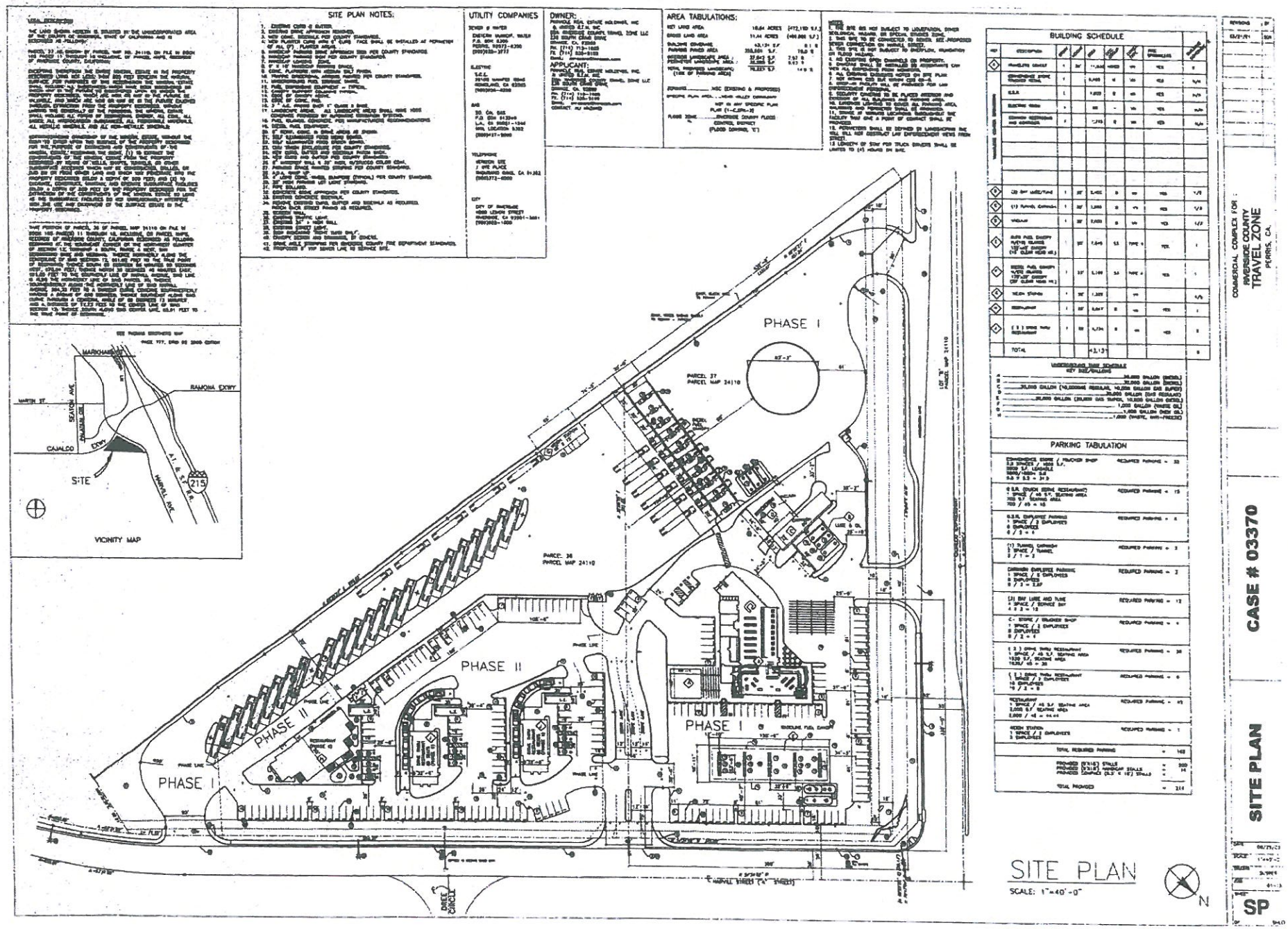
= PROJECT SITE

FIGURE 2

EXISTING SITE AERIAL

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Ex. "BOS", 6/26/03


SITE PLAN NOTES:
UTILITY COMPANIES
OWNER:
APPLICANT:
AREA TABULATIONS:
BUILDING SCHEDULE
PARKING TABULATION
VICINITY MAP
SITE
MARKHAM ST.
RAMONA EXWY
CAMILO
PHASE I
PHASE II
PARCEL 37
PARCEL MAP 24110
PARCEL 38
PARCEL MAP 24110
SITE PLAN
SCALE: 1"=40'-0"
N
COMMERCIAL COMPLEX FOR:
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.
CASE # 03370
SITE PLAN
SP

Map My County Map

Legend

- Parcels
- County Centerline Names
- County Centerlines
- Blueline Streams
- City Areas
- World Street Map

0 385 770 Feet

IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

REPORT PRINTED ON... 10/19/2021 1:38:03 PM

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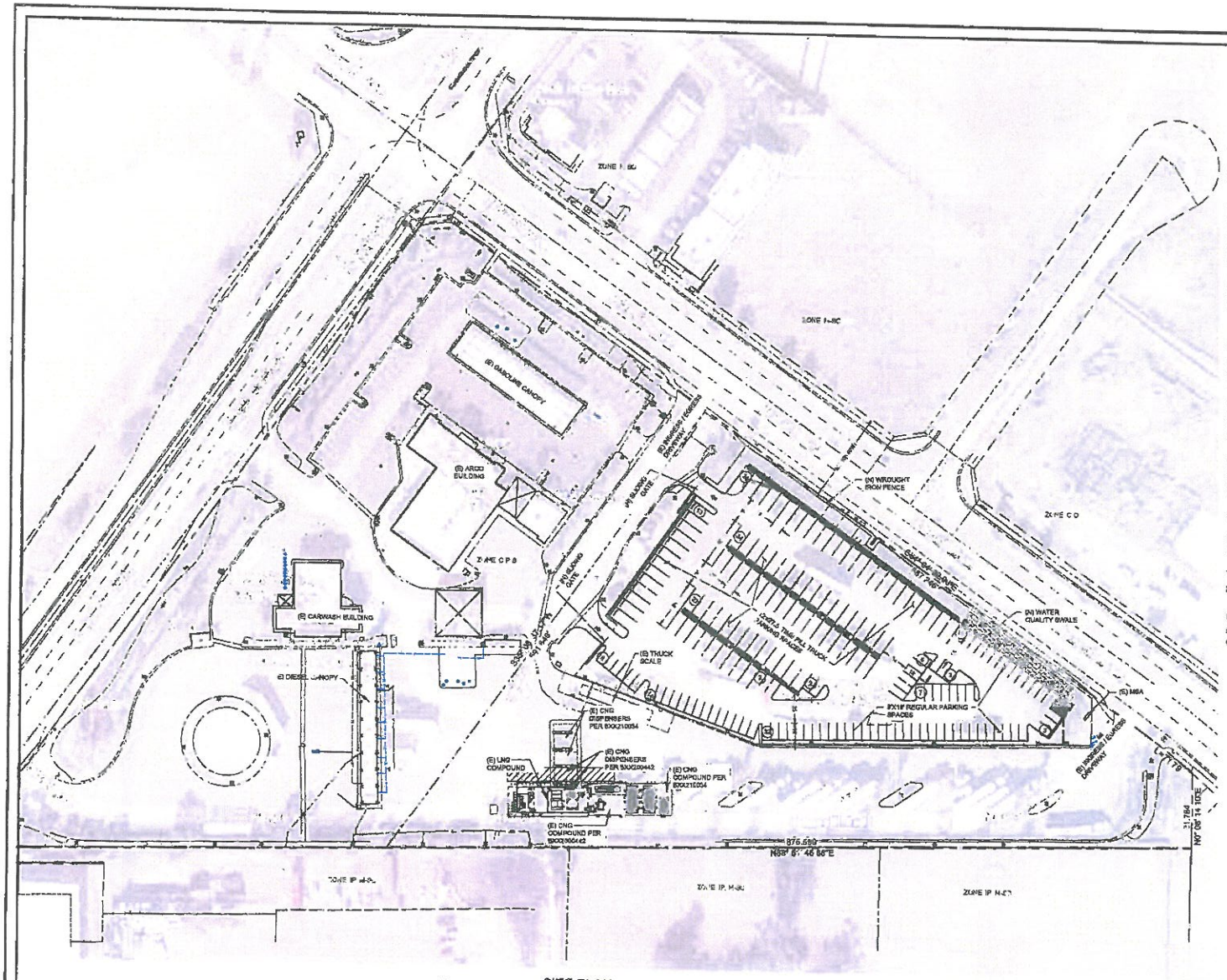
Notes



SITE PLAN

GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

PROJECT NAME: CNG FUELING STATION ADDITION - TIME FILL
PROJECT ADDRESS: 19295 HARVILL AVE.
PERRIS, CA 92570

PROJECT DESCRIPTION

CONSTRUCTION OF A PAVED PARKING LOT CONSISTING OF 90 CNG TIME FILL SPACES AND 91 REGULAR PARKING SPACES. THE PARKING LOT WILL CONTAIN PERIMETER CHAIN LINK FENCE AND LANDSCAPING WITH TWO GATED DRIVEWAYS.

LEGAL DESCRIPTION

BEING A DIVISION OF A PORTION OF THE NORTHWEST ONE-QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, S.B.M, AS SHOWN BY MAP ON FILE IN PM 185 PG. 11, SUBDIVISION PM 24110 LOT 36, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA. IN SECTION 12- T.4 S., R.4 W., S.B.M.

ZONING INFORMATION

ZONING CLASSIFICATION: C-P-S (SCENIC HIGHWAY COMMERCIAL)
GENERAL PLAN: MEAD VALLEY AREA PLAN - NORTH PERRIS PLANNING AREA

SITE DATA:

APN: 317-110-034
GROSS PARCEL AREA: 5.57 AC
NET PARCEL AREA: 5.37 AC

TOTAL PAVED AREA:
PROPOSED = 92,200 SF
TOTAL LANDSCAPED AREA:
PROPOSED = 15,850 SF

PARKING AND SITE REQUIREMENTS

PARKING:	PROVIDED
STANDARD 9'X18'	90
TRACTOR 12'X25':	93

PARKING AREA = 108,000 SF

OCCUPANCY CLASSIFICATION:

GROUP M - MERCANTILE

TYPE OF CONSTRUCTION

IIA

COMPRESSOR INFORMATION

93 TRUCKS AT 36 DGE/ TRUCK PER 9 HOUR WINDOW = 970 SCFM
(4) 300 HP TIME FILL MODULE AT 1200 SCFM EACH

CNG FUELING STATION
ARCO TRAVEL ZONE CENTER
19295 HARVILL AVENUE
PERRIS, CA 92570
SITE PLAN

DATE: 10/29/2021
DRAWN BY: CP
CHECKED BY: BL
SCALE: AS NOTED
SHEET: C1.0

APPENDIX 1

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Planning Department

Richard K. Lashbrook
Agency Director

Robert C. Johnson
Planning Director

July 14, 2003

TO: Transportation Dept. - Russ Garrett
Dept. of Building & Safety
Environmental Health Dept.
Fire Dept.
Flood Control District
Riverside County EDA

RE: Conditional Use Permit No. 03370 (FTA# 2001-02)
Environmental Assessment No. 38638
Regional Team No. 2

On JULY 1, 2003, the Riverside County ☒ Board of Supervisors ☐ Planning Director took the following action on the above referenced Conditional Use Permit:

☒ **APPROVED the conditional use permit subject to the conditions located in the LMS (Sierra System).**

☐ DENIED conditional use based on the staff report findings and conclusions.

☐ APPROVED tentative map subject to attached conditions and DENIED request for waiver of the final map.

The action on this conditional use permit is considered FINAL. Conditions for the conditional use permit are available in the land management system.

Sincerely,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Robert C. Johnson, Planning Director

R. James Fagelson

R. James Fagelson, Principal Planner

Riverside Office • 4080 Lemon Street, 9th Floor
P. O. Box 1409 • Riverside, California 92502-1409
(909) 955-3200 • FAX (909) 955-3157

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Rm 209 • Indio, California 92201
(760) 863-7055 • FAX (760) 863-7015

Murrieta Office •39493 Los Alamos Road
Murrieta, California 92563
(909) 600-6170 • FAX (909) 600-6145

PINKS

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: TLMA - Planning Department

SUBMITTAL DATE:
August 22, 2005

SUBJECT: NOTICE OF DECISION OF THE PLANNING COMMISSION REGARDING REQUEST FOR EXTENSION OF TIME FOR CONDITIONAL USE PERMIT NO. 3370.

ORIGINAL DATE OF APPROVAL: July 1, 2003

RECOMMENDED MOTION:

RECEIVE AND FILE the Notice of Decision by the Planning Commission on August 3, 2005, regarding the request for an Extension of Time for the following:

CONDITIONAL USE PERMIT NO. 3370 - EA38638 - Pinnacle Real Estate Holdings - First Supervisorial District - North Perris Zoning Area - Mead Valley Area Plan - Located east of Seaton Avenue and south of Cajalco Expressway - 11.5 Acres - Manufacturing-Service Commercial (M-SC) Zoning - EXTENSION OF TIME TO JULY 1, 2006 - FIRST EXTENSION

The Planning Commission Approved the requested Extension of Time.

The decision of the Planning Commission is considered final and no action by the Board of Supervisor's is required unless, within 10 days after the Notice of Decision appears on the Board's agenda, the applicant or an interested person files an appeal with the Clerk of the Board accompanied by the fee set forth in Ordinance No. 671.

David Mares

Robert C. Johnson
Planning Director

RCJ:sn

Departmental Concurrence

☐ Policy ☐ Policy

☐ Consent ☐ Consent

Dep't Re: Per Exec. Ofc.:

RECEIVED AND FILED
SEP 13 2005
BY BOARD OF SUPERVISORS

Prev. Agn. Ref.	District: First	Agenda Number:

Agenda Item No.: 1.3
Area Plan: Mead Valley
Zoning Area: North Perris
Supervisorial District: First
Project Planner: Jim Fagelson

CONDITIONAL USE PERMIT NO. 3370
FIRST EXTENSION OF TIME
Planning Commission: August 3, 2005
Applicant: Pinnacle Real Estate Holdings

COUNTY OF RIVERSIDE PLANNING DEPARTMENT
PLANNING COMMISSION CONSENT CALENDAR STAFF REPORT

The applicant of the below listed tentative map has requested an extension of time to allow for recordation of a final map. The following will be presented to the Planning Commission as a consent calendar item. Unless specifically requested by the applicant at the time of consideration this item may not be discussed and is subject to action by the Commission under a single motion.

CEQA: The following map has conformed to the requirements of the California Environmental Quality Act. It has been determined that the individual map has one or more potentially significant environmental changes and may have a significant effect upon the environment.

GENERAL PLAN: Unless otherwise noted, the following map has been determined to be consistent with the General Plan and all of its elements.

ORDINANCE NO. 659: It has been determined that in order to insure public health, safety and welfare, the map listed below will be required to pay all fees in accordance with Ordinance No. 659.

ORIGINAL APPROVAL DATE: July 1, 2003

RECOMMENDATION:

APPROVAL of the FIRST EXTENSION OF TIME REQUEST to JULY 1, 2006 for:

CONDITIONAL USE PERMIT NO. 3370 - EA38638 - Pinnacle Real Estate Holdings - First Supervisorial District - North Perris Zoning Area - Mead Valley Area Plan - Located east of Seaton Avenue and south of Cajalco Expressway - 11.5 Acres - Manufactureing-Service Commercial (M-SC) Zoning - EXTENSION OF TIME TO JULY 1, 2006 - FIRST EXTENSION

JF:sn
7/25/05
Y:\Planning Case Files-Riverside office\CUP03370\CUP03370.EOT#1. Staff Report.doc

PINKS

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: TLMA - Planning Department **SUBMITTAL DATE:** May 13, 2003

SUBJECT: FAST TRACK NO. 2001-02 - CONDITIONAL USE PERMIT NO. 3370 - EA 38638 - Riverside County Travel Zone - First Supervisorial District - Mead Valley Area - 11.5 Acres - M-SC Zoning - Located on the southeast corner of Cajalco Expressway and Harvill Avenue, west of the 215 freeway - REQUEST: The project proposes a multi-use travelers center to be constructed in two phases. Phase I will consist of 52 truck parking spaces , a weigh station, truck fuel station, auto gas station, auto lube & oil center with carwash, and a 14, 500 square foot building that will include a convenience store (with beer and wine sales), trucker's shop, quick serve restaurant (drive-thru), trucker's services (shower, laundry, restrooms) and a patio area. Phase II will consist of a free standing drive-thru restaurant and a free standing restaurant.

CONTROVERSIAL ISSUES: None

ISSUES OF POTENTIAL CONCERN: Security Issues from the Sheriff's Department.

RECOMMENDED MOTION:

THE PLANNING DEPARTMENT RECOMMENDS:

ADOPTION of a MITIGATED NEGATIVE DECLARATION for ENVIRONMENTAL ASSESSMENT NO. 38638, based on the findings and mitigations incorporated in the initial study and the conclusion that the project, as conditioned, will not have a significant effect on the environment; and,

APPROVAL of CONDITIONAL USE PERMIT NO. 3370, subject to the attached conditions of approval, based on the findings and conclusions incorporated in the staff report.

Ron Goldman, Interim Planning Director

RG:ar

CEO. RECOMMENDATION:

County Executive Office Signature

APPROVED
JUL 1 2003
BY BOARD OF SUPERVISORS

Depart. Recommendation: ☐ Consent ☐ Policy

Per Executive Office: ☐ Consent ☐ Policy

Prev. Agn. Ref. **Dist.** First **AGENDA NO.**

Board of Supervisors: July 1, 2003
Area Plan: Mead Valley
Supervisorial District: First
Project Planner: Dianna Zandbergen

FAST TRACK NO. 2001-02
CONDITIONAL USE PERMIT NO. 03370
E.A. NO.: 38638
Applicant: Riverside County Travel Zone
Engineer/Rep.: Ali Mazarei

COUNTY OF RIVERSIDE
PLANNING DEPARTMENT STAFF REPORT

PROJECT DESCRIPTION AND LOCATION: The project site is 11.5 acres in the North Perris Zoning Area. The project proposes a multi-use travelers center to be constructed in two phases. Phase I will consist of a fueling facility, auto lube and oil center with a full service carwash, a 1,600 square foot quick service restaurant (no drive thru) and an 11,800 square foot building that will include a convenience store (with beer and wine sales), souvenir shop and a patio area. Phase II, will consist of 21 truck/RV parking spaces, a weigh station, two free standing drive-thru restaurants and a free standing restaurant.

The project site is located on the southeast corner of Cajalco Expressway and Harvill Avenue, west of the 215 Freeway.

ISSUES OF POTENTIAL CONCERN: In a letter dated April 30, 2003, the Sheriff's department raised concerns regarding public safety. The project has been conditioned for Developer Impact Fees (DIF), which include funds for Sheriff's services. Additionally, the project has been conditioned to comply with the recommendations in the Sheriff's letter, which include a video camera system, adequate exterior lighting, signage that gives a point of contact to report crime and perimeter fencing and landscaping.

RECOMMENDATIONS:

ADOPTION of a MITIGATED NEGATIVE DECLARATION for ENVIRONMENTAL ASSESSMENT NO. 38638, based on the findings and mitigations incorporated in the initial study and the conclusion that the project, as conditioned, will not have a significant effect on the environment.

APPROVAL of CONDITIONAL USE PERMIT NO. 3370, subject to the attached conditions of approval, based on the findings and conclusions incorporated in the staff report.

CONCLUSIONS:

1. The proposed project is in conformance with the Riverside County Comprehensive General Plan.

2. The proposed project is consistent with the zoning classification of Ordinance No. 348 and all other applicable provisions of Ordinance No. 348.

3. As proposed the project is designed to protect public health, safety and general welfare.

4. The proposed project is compatible with the present and future logical development of the area.

5. The proposed project will not have a significant effect on the environment.

FINDINGS:

1. The project site is currently vacant.

2. The land uses on surrounding parcels include vacant properties to the north, east and south and an existing sheet metal factory to the west.

3. The zone on the subject site is M-SC (Manufacturing-Service Commercial).

4. Adjacent surrounding zoning is also M-SC.

5. The Comprehensive General Plan Open Space designation on the site is Areas Not Designated As Open Space (ANDAOS).

6. The Comprehensive General Plan designation on the site is I-C, SPA-2 (Industrial/Commercial, Special Planning Area No. 2), per the Mead Valley Community Plan.

7. The Comprehensive General Plan land use designation on surrounding properties is also I-C, SPA-2, to the north and east and I, SPA-2 (Industrial) to the south and west.

8. The proposed use is permitted with a conditional use permit in the M-SC zone.

9. The proposed use is permitted in the Industrial/Commercial designation.

10. According to the Alcohol and Beverage Control Department (ABC), Census Tract 429.04 allows five (5) licenses for the sale of alcohol, there are two (2) existing. The proposed project would be the third allowed in the Census Tract, thus a finding for Public Convenience and Necessity (PC&N) is not required. Attached is the application from ABC verifying that no PC&N is required.

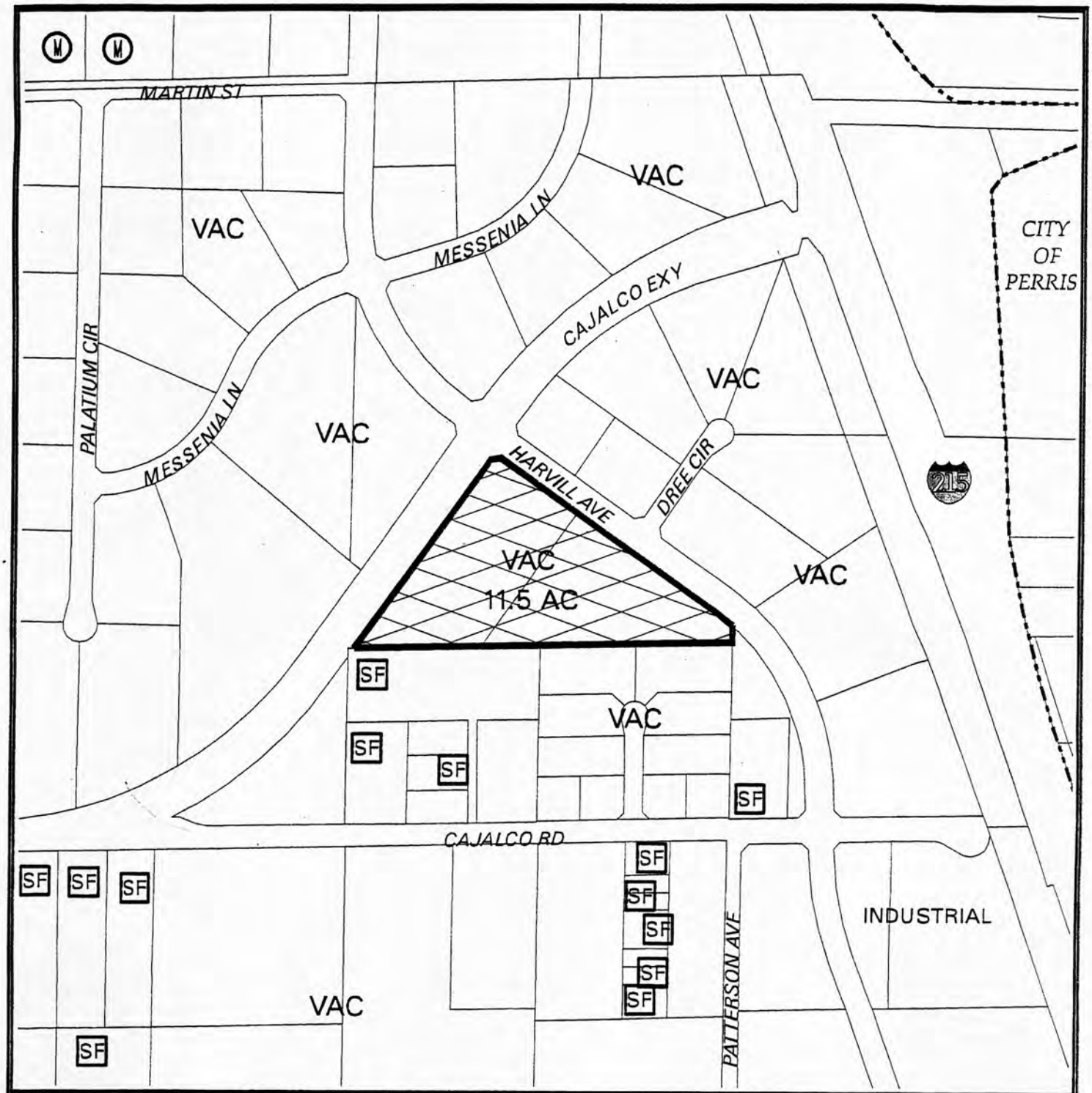
10. Those issues identified in Environmental Assessment No. 38638 will be fully mitigated by the measures indicated in the environmental assessment, conditions of approval, and attached agency letters. No other significant impacts were identified.

INFORMATIONAL ITEMS:

1. As of this writing, Planning Staff has received no letters in support or opposition to this development proposal.

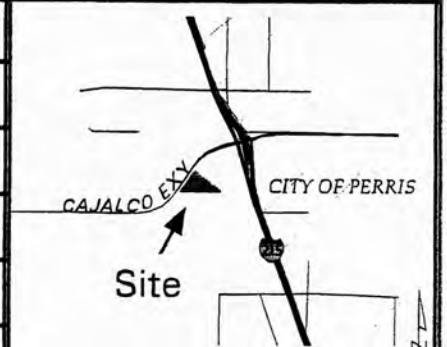
2. The project site is not located within:
   a. an Alquist-Priolo earthquake fault hazard study zone.
   b. a General Plan hazardous fire area.
   c. a California gnatcatcher, Quino checkerspot butterfly, or a Delhi sands flower-loving fly area.
   d. a recreation and park district.
   e. a 100 year flood plain or dam inundation area.

3. The project site is located within:
   a. the City of Perris sphere of influence.
   b. a Stephens kangaroo rat fee area.
   c. the Val Verde Unified School District.
   d. the Perris Valley Area Drainage Plan (ADP).

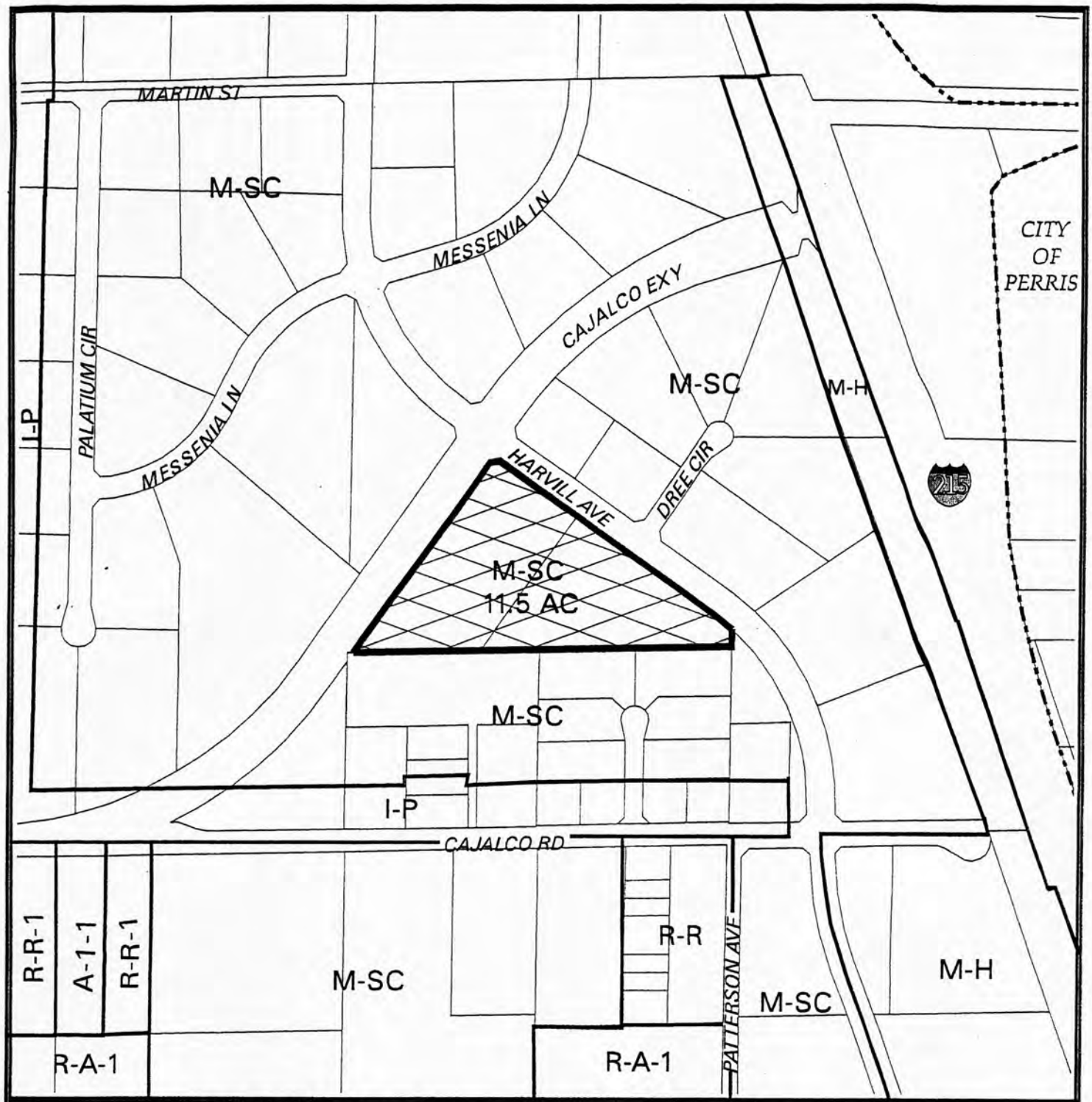


CUP03370			
LAND USE			Ex. 1
Sec. 12 T4SR4W		Bk./Pg. Assessors	317-11
Zone Area	NORTH PERRIS	Sup. Dist.	1ST
Thomas Bros. Pg.	777 D2	Date Drawn 04/01/2003	Drawn By: lp
RIVERSIDE COUNTY PLANNING DEPARTMENT			

1" = 500'



LOCATIONAL MAP



CUP03370

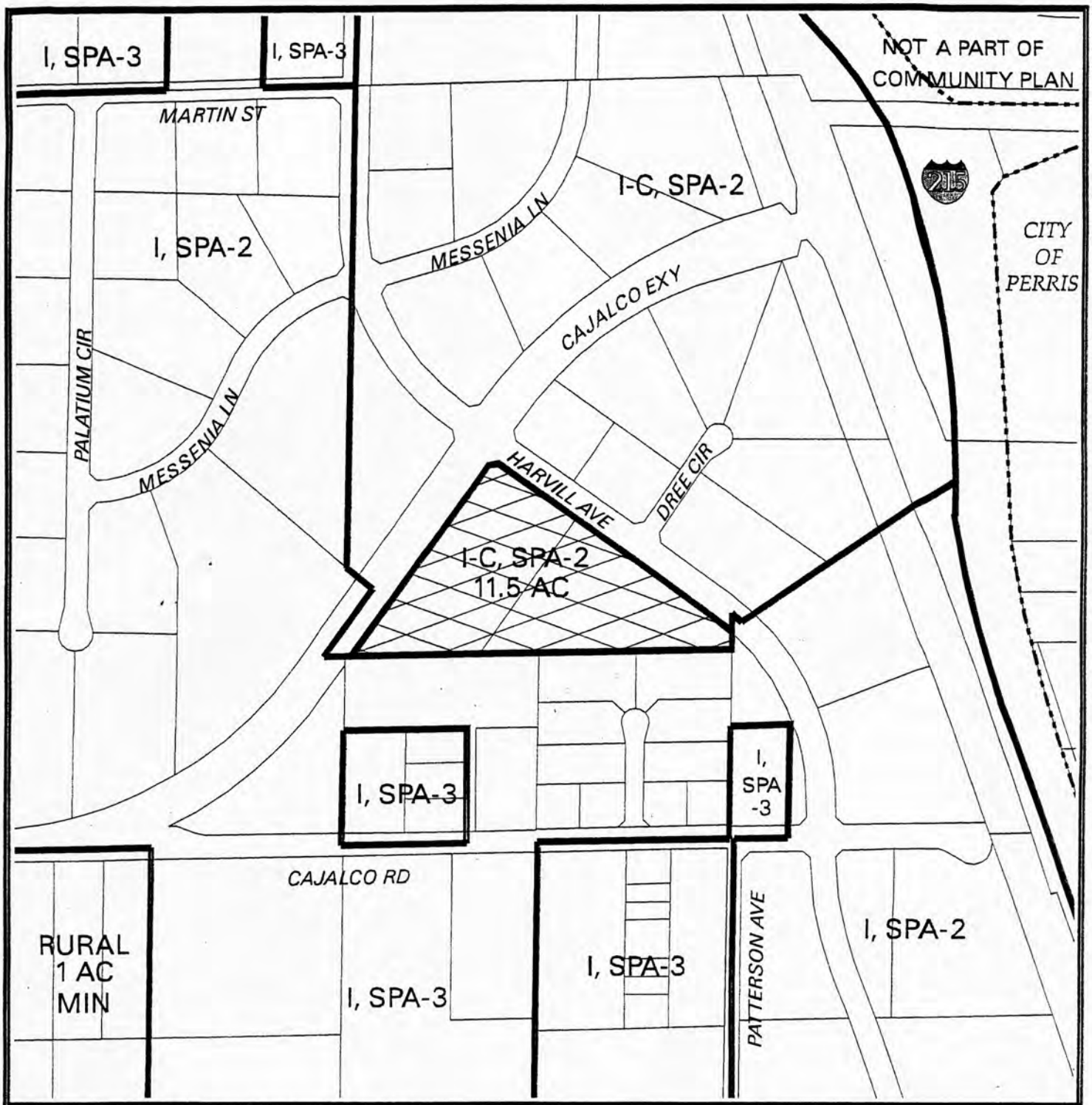
EXISTING ZONING — Ex. 3

Sec.	12 T4SR4W	Bk./Pg. Assessors	317-11
Zone Area	NORTH PERRIS	Sup. Dist.	1ST
Thomas Bros.Pg.	777 D2	Date Drawn	04/01/2003
		Drawn By:	lp

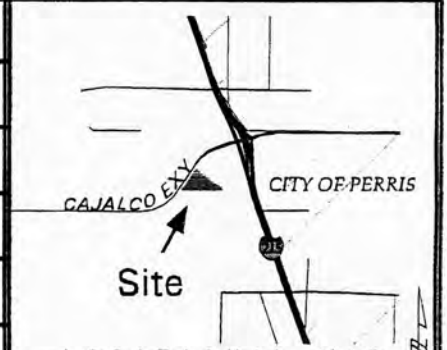
RIVERSIDE COUNTY PLANNING DEPARTMENT

1" = 500'

LOCATIONAL MAP

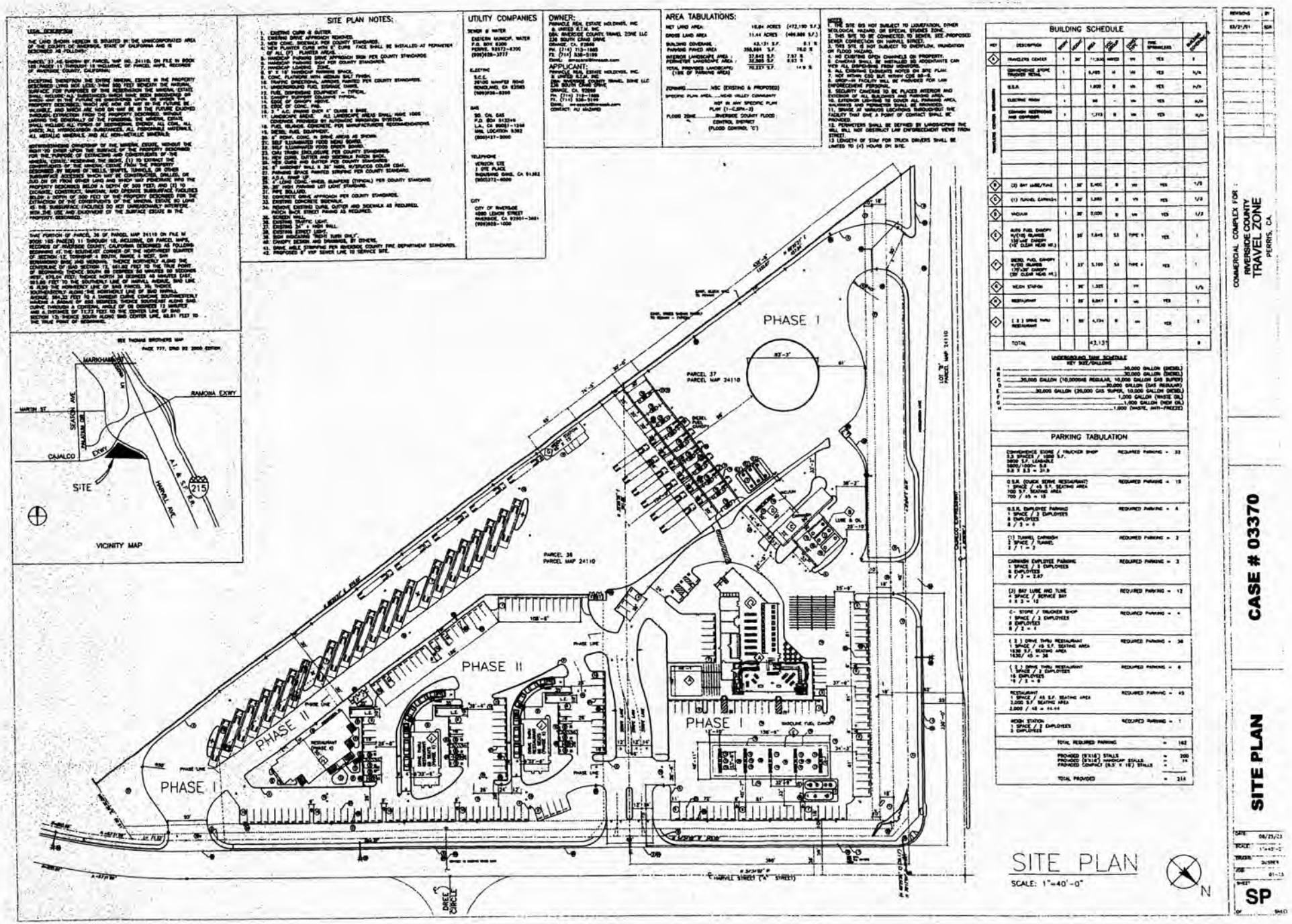


CUP03370			
COMMUNITY PLAN			Ex. 5
Sec. 12 T4SR4W		Bk./Pg. Assessors	317-11
Zone Area	NORTH PERRIS		Sup. Dist. 1ST
Thomas Bros.Pg.	777 D2	Date Drawn 04/02/2003	Drawn By: lp
1" = 500'	RIVERSIDE COUNTY PLANNING DEPARTMENT		



LOCATIONAL MAP

Ex. "BOS", 6/26/03


SITE PLAN NOTES:
UTILITY COMPANIES
OWNER:
APPLICANT:
AREA TABULATIONS:
BUILDING SCHEDULE
PARKING TABULATION
PHASE I
PHASE II
PARCEL 37
PARCEL MAP 24110
PARCEL 38
PARCEL MAP 24110
VICINITY MAP
SITE
MARKHAM ST
RAMONA EXWY
CAJALCO EXWY
HARVILL AVE
SEATON AVE
ZAMORA DR
I.I. & E.P.R.R.
215
SITE PLAN
SCALE: 1"=40'-0"
N
CASE # 03370
SITE PLAN
SP

LEGAL DESCRIPTION

THE LAND SHOWN HEREON IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

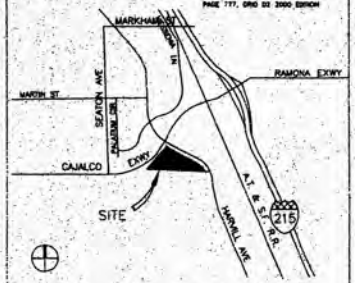
PARCEL 37 AS SHOWN BY PARCEL MAP NO. 24116, ON FILE IN BOOK 189 PAGE(S) 11 THROUGH 16, INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THE ENTIRE MINERAL ESTATE IN THE PROPERTY DESCRIBED LYING NOT LESS THAN 500 FEET BENEATH THE NATURAL SURFACE THEREOF. THE RESERVATION THEREUNDER SHALL EXPRESSLY SHALL INCLUDE ALL SUBSTANCES WHICH HAVE BEEN DESIGNATED ON WHICH MAY IN THE FUTURE BE DESIGNATED UPON OR UNDER THE PROPERTY DESCRIBED, WHICH ARE NOW OR MAY IN THE FUTURE BE VALUABLE AND WHICH ARE NOW OR MAY BE IN THE FUTURE, EXTRACTED THROUGH EXTRACTION FROM THE PROPERTY DESCRIBED, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, THE MINERAL ESTATE SHALL INCLUDE ALL FORMS OF GEOTHERMAL ENERGY, ALL COAL, ALL GASES, ALL HYDROCARBON SUBSTANCES, ALL FISSIONABLE MATERIALS, ALL METALLIC MINERALS, AND ALL NON-METALLIC MINERALS.

NOTWITHSTANDING DISPOSITION OF THE MINERAL ESTATE, WITHOUT THE RIGHT TO ENTER UPON THE SURFACE OF THE PROPERTY DESCRIBED FOR THE PURPOSE OF EXTRACTING AND CONSTITUENTS OF THE MINERAL ESTATE RESERVING THE RIGHT, (1) TO EXTRACT THE CONSTITUENTS BY MEANS OF WELLS, TUNNELS OR SHAFTS, BUT OTHER SURFACE ACCESSES WHICH MAY BE CONSTRUCTED, DRILLED, OR DUG ON OR FROM OTHER LAND AND WHICH MAY PENETRATE INTO THE PROPERTY DESCRIBED BELOW A DEPTH OF 500 FEET, AND (2) TO EXCAVATE, CONSTRUCT, MAINTAIN, AND OPERATE SUBSURFACE FACILITIES BELOW A DEPTH OF 500 FEET OF THE PROPERTY DESCRIBED FOR THE EXTRACTION OF THE CONSTITUENTS OF THE MINERAL ESTATE SO LONG AS THE SUBSURFACE FACILITIES DO NOT UNREASONABLY INTERFERE WITH THE USE AND ENJOYMENT OF THE SURFACE ESTATE IN THE PROPERTY DESCRIBED.

THAT PORTION OF PARCEL 36 OF PARCEL MAP 24116 ON FILE IN BOOK 189 PAGE(S) 11 THROUGH 16, INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN; THENCE NORTHERLY ALONG THE CENTERLINE OF SAID SECTION 12, 661.82 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 50 MINUTES 00 SECONDS WEST, 670.04 FEET; THENCE NORTH 36 DEGREES 45 MINUTES EAST, 841.94 FEET TO THE SOUTHERLY LINE OF MARKHAM AVENUE, SAID LINE IS ALSO THE NORTHERLY LINE OF SAID PARCEL 36; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SAID MARKHAM AVENUE, 384.32 FEET TO A TANGENT CURVE, CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 1050 DEGREES; THENCE SOUTHEAST ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 08 DEGREES 12 MINUTES, AND A DISTANCE OF 71.73 FEET TO THE CENTER LINE OF SAID SECTION 12; THENCE SOUTH ALONG SAID CENTER LINE, 82.61 FEET TO THE TRUE POINT OF BEGINNING.

SEE THOMAS BROTHERS MAP
PAGE 777, GRID D2 2000 EDITION



VICINITY MAP

UTILITY COMPANIES

SEWER & WATER
EASTERN MUNICIP. WATER
P.O. BOX 8300
PERRIS, 92572-8300
(909)928-3777

ELECTRIC
S.C.E.
39100 WASHPIE ROAD
ROMOLAND, CA. 92585
(909)926-8399

GAS
SO. CAL GAS
P.O. BOX 512249
L.A., CA 90051-1249
MAIL LOCATION 1392
(800)427-2000

TELEPHONE
VERIZON SITE
1 SITE PLACE
THOUSAND OAKS, CA 91362
(805)372-6000

CITY
CITY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92501-3651
(909)858-1000

OWNER:
PINNACLE REAL ESTATE HOLDINGS, INC
A UNITED R.T.H. INC.
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
1356 SOUTH COAST DRIVE
ORANGE, CA. 92868
PH. (714) 715-1680
FX. (714) 538-5105
EMAIL: xxxxxxx@xxxxxx.xxx

APPLICANT:
PINNACLE REAL ESTATE HOLDINGS, INC.
A UNITED R.T.H. INC.
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
1356 SOUTH COAST DRIVE
ORANGE, CA. 92868
PH. (714) 715-1680
FX. (714) 538-5105
EMAIL: xxxxxxx@xxxxxx.xxx
CONTACT: ALI MAZAHERI

AREA TABULATIONS:

NET LAND AREA:	10.84 ACRES	(472,190 S.F.)
GROSS LAND AREA	11.44 ACRES	(498,586 S.F.)
BUILDING COVERAGE	63,131 S.F.	13.1 %
PARKING PAVED AREA	358,864 S.F.	78.0 %
EXTERIOR LANDSCAPE AREA	37,843 S.F.	7.87 %
PERMITTED LANDSCAPE AREA	37,842 S.F.	8.83 %
TOTAL PROVIDED LANDSCAPE (12% OF PARKING AREA)	10,227 S.F.	14.8 %

ZONING.....MSC (EXISTING & PROPOSED)
SPECIFIC PLAN AREA.....MEAD VALLEY COMMUNITY
NOT IN ANY SPECIFIC PLAN
PLAN (1-C.SPA.-2)
FLOOD ZONE.....RIVERSIDE COUNTY FLOOD CONTROL DISTRICT (FLOOD CONTROL "C")

NOTES:
1. THE SITE DOE NOT SUBJECT TO LIQUEFATION, OTHER GEOLOGICAL HAZARD OR SPECIAL STUDIES ZONE.
2. THIS SITE TO BE CONNECTED TO SEWER. SEE PROPOSED SEWER CONNECTION ON MARSHALL STREET.
3. THIS SITE IS NOT SUBJECT TO OVERFLOW, INUNDATION OR FLOOD HAZARD.
4. NO EXISTING OPEN CHANNELS ON PROPERTY.
5. CAMERAS SHALL BE INSTALLED SO ADDITIONAL CAN VIEW ALL DISPENSING FROM MONITORS.
6. ALL EXISTING EASEMENTS NOTED ON SITE PLAN.
7. NOT WITHIN CEQ BUT WITHIN CEQ 88-8.
8. SECURITY CAMERAS TO BE PLACED INTERIOR AND EXTERIOR OF ALL BUILDINGS AND PARKING AREA.
9. EXTERIOR LIGHTING TO COVER ALL PARKING AREA, WALKWAYS AND DRIVEWAYS SHALL BE PROVIDED.
10. SIGNAGE AT VARIOUS LOCATIONS THROUGHOUT THE FACILITY THAT ONE A POINT OF CONTACT SHALL BE PROVIDED.
11. PUMPKINS SHALL BE DEFINED BY LANDSCAPING THE WALL WILL NOT OBSTRUCT LAW ENFORCEMENT VIEWS FROM STREET.
12 LENGTH OF STAY FOR TRUCK DRIVERS SHALL BE LIMITED TO (4) HOURS ON SITE.

NOTES:
A. INT/EXT C-STORE & TRUCKER SHOP.
B. OFF STORAGE ROOM & MANAGER OFFICES.
C. WOMEN RESTROOM.
D. MEN RESTROOM.
E. INT/EXT DELI STORAGE ROOM.
F. DSR (NO DRIVE THRU)
G. CAR WASH & LUBE WAITING AREA

BUILDING SCHEDULE

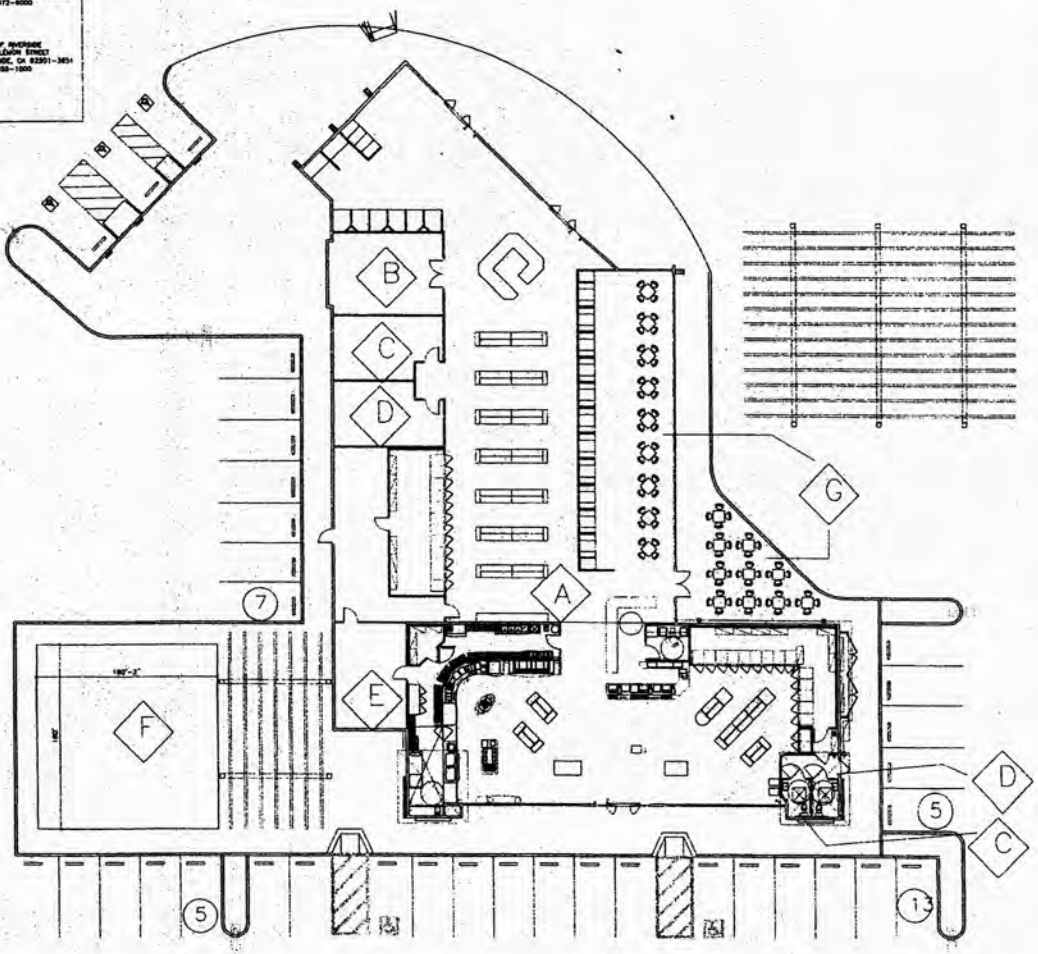
KEY	DESCRIPTION	STORY	HEIGHT	AREA	OCCUPANCY	CONSTRUCTION	FIRE SPRINKLERS	FIRE RATING
A	TRAVELERS CENTER	1	28'	11,800 MIXED	M	VN	YES	3
B	CONVENIENCE STORE / TRUCKER RETAIL	1		8,486	M	VN	YES	N/A
C	D.S.R.	1		1,850	B	VN	YES	N/A
D	ELECTRIC ROOM	1		99	-	VN	YES	N/A
E	COMMON RESTROOMS AND CONNEXION	1		1,719	B	VN	YES	N/A
F	(7) BAY LUBE/TUNE	1	20'	2,400	B	VN	YES	1/2
G	(1) TUNNEL CARWASH	1	20'	1,080	B	VN	YES	1/2
H	VACUUM	1	28'	2,025	B	VN	YES	1/2
I	AUTO FUEL CANOPY 9(120) ISLANDS 120'-0" CANOPY (18' CLEAR HEIGHT)	1	28'	7,848	S3	TYPE II	YES	1
J	DIESEL FUEL CANOPY 9(120) ISLANDS 176'-0" CANOPY (24' CLEAR HEIGHT)	1	28'	5,100	S3	TYPE II	YES	1
K	WOSH STATION	1	28'	1,325		VN		1/2
L	RESTAURANT	1	28'	5,047	B	VN	YES	1
M	(2) DRIVE THRU RESTAURANT	1	28'	4,734	B	VN	YES	2
	TOTAL			43,115				3

UNDERGROUND TANK SCHEDULE
KEY SIZE/GALLONS

A	30,000 GALLON (DIESEL)
B	30,000 GALLON (DIESEL)
C	20,000 GALLON (10,000GAS REGULAR, 10,000 GALLON GAS SUPER)
D	30,000 GALLON (GAS REGULAR)
E	30,000 GALLON (20,000 GAS SUPER, 10,000 GALLON DIESEL)
F	1,000 GALLON (WASTE OIL)
G	1,000 GALLON (NEW OIL)
H	1,000 (WASTE ANTI-FREEZE)

PARKING TABULATION

CONVENIENCE STORE / TRUCKER SHOP 3.5 SPACES / 1000 S.F. 8800 S.F. LEASABLE 8800/1000= 8.8 8.8 X 3.5 = 31.9	REQUIRED PARKING = 32
D.S.R. (DINER DRIVE RESTAURANT) 1 SPACE / 45 S.F. SEATING AREA 700 S.F. SEATING AREA 700 / 45 = 15	REQUIRED PARKING = 15
D.S.R. EMPLOYEE PARKING 1 SPACE / 3 EMPLOYEES 6 EMPLOYEES 6 / 3 = 1	REQUIRED PARKING = 1
(1) TUNNEL CARWASH 2 SPACE / TUNNEL 2 / 1 = 2	REQUIRED PARKING = 2
CARWASH EMPLOYEE PARKING 1 SPACE / 3 EMPLOYEES 6 EMPLOYEES 6 / 3 = 1.87	REQUIRED PARKING = 2
(7) BAY LUBE AND TUNE 1 SPACE / SERVICE BAY 4 X 3 = 12	REQUIRED PARKING = 12
C- STORE / TRUCKER SHOP 1 SPACE / 3 EMPLOYEES 8 EMPLOYEES 8 / 3 = 4	REQUIRED PARKING = 4
(2) DRIVE THRU RESTAURANT 1 SPACE / 45 S.F. SEATING AREA 1650 S.F. SEATING AREA 1650/ 45 = 36	REQUIRED PARKING = 36
(2) DRIVE THRU RESTAURANT 1 SPACE / 2 EMPLOYEES 18 EMPLOYEES 18 / 2 = 8	REQUIRED PARKING = 8
RESTAURANT 1 SPACE / 45 S.F. SEATING AREA 2,000 S.F. SEATING AREA 2,000 / 45 = 44.44	REQUIRED PARKING = 45
WOSH STATION 1 SPACE / 2 EMPLOYEES 2 EMPLOYEES	REQUIRED PARKING = 1
TOTAL REQUIRED PARKING	= 162
PROVIDED (9'X18') STALLS PROVIDED (9'X18') HANDICAP STALLS PROVIDED COMPACT (8.5 X 16') STALLS	= 301 = 14 =
TOTAL PROVIDED	= 315



FLOOR PLAN

Exhibit C-1, dated 6/26/03

N

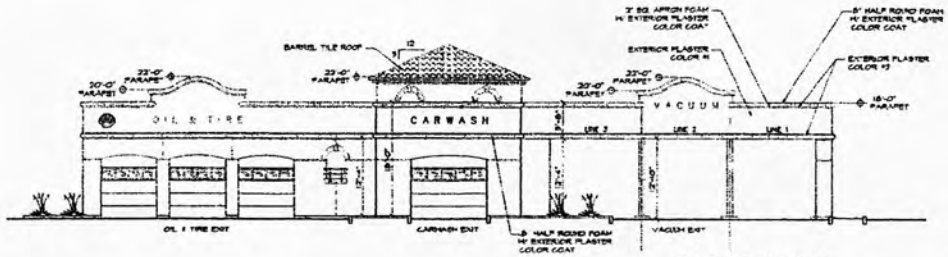
REVISIONS | BY
10/21/03 SCH

COMMERCIAL COMPLEX FOR:
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

CASE # 03370

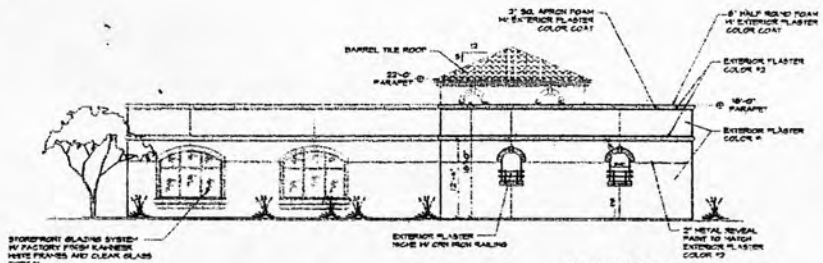
FLOOR PLAN

DATE 04/12/02
SCALE 1"=40'-0"
DESIGN SCHEER
JOB 01-15
SHEET SP
OF SHEETS



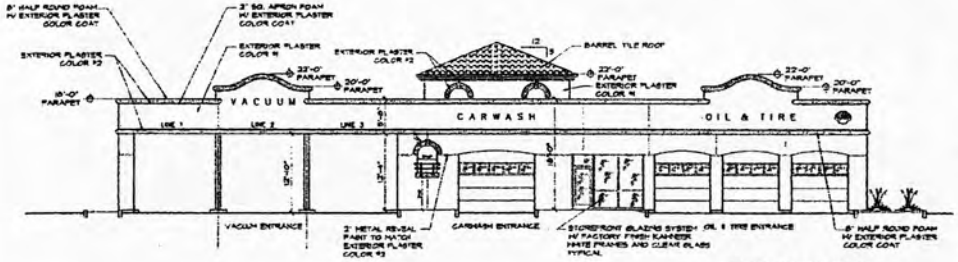
ELEVATION 3

SCALE 1/8"=1'-0"



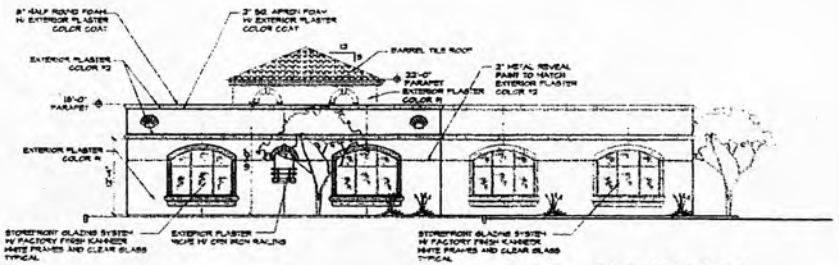
ELEVATION 4

SCALE 1/8"=1'-0"



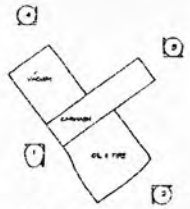
ELEVATION 1

SCALE 1/8"=1'-0"



ELEVATION 2

SCALE 1/8"=1'-0"



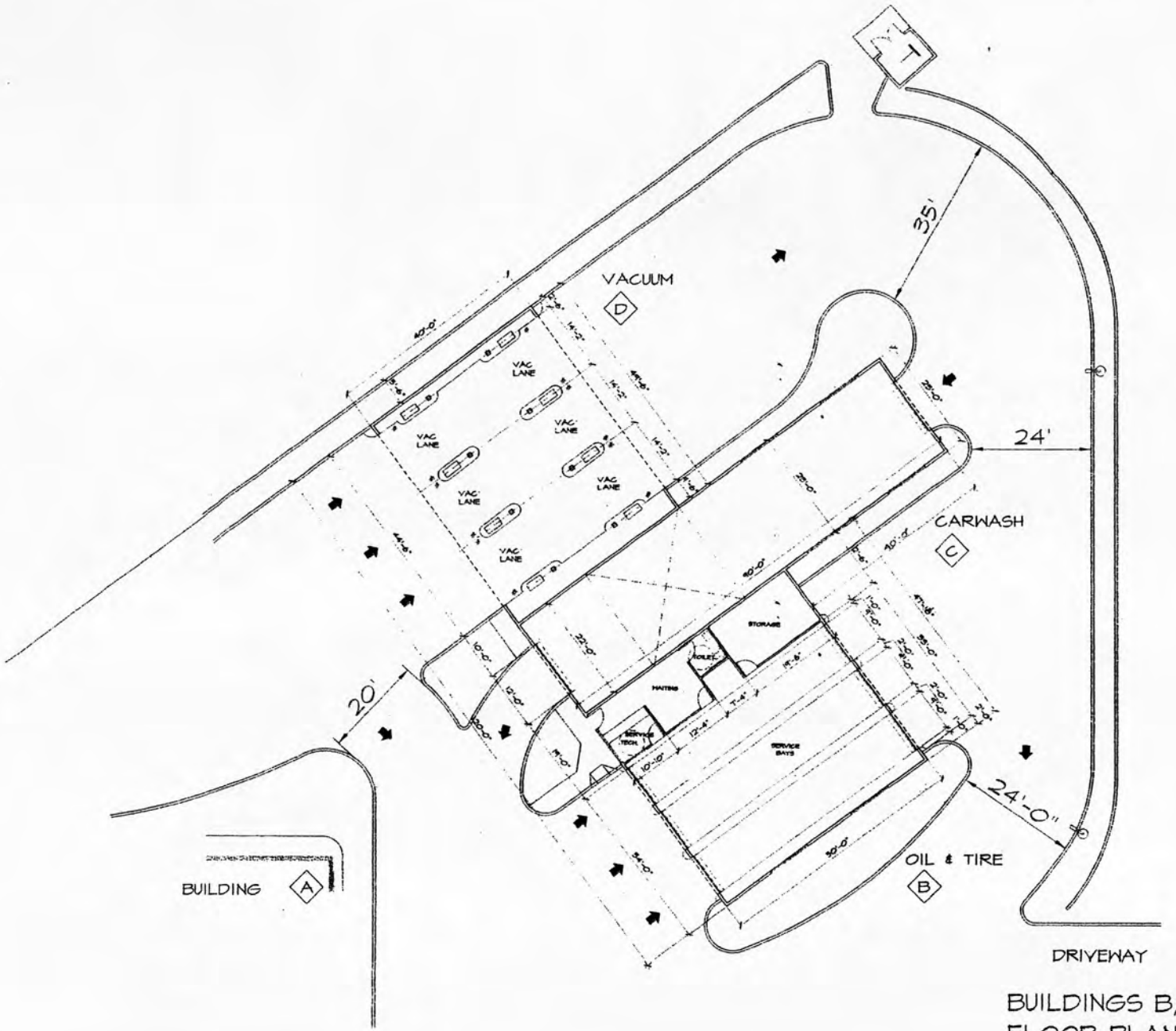
ELEVATION KEY

COMMERCIAL COMPLEX FOR :
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

ROBERT A. MARTINEZ
ARCHITECT / ASSOCIATES

BUILDINGS B, C & D
ELEVATIONS

DATE 01/01/03
SCALE 1/8"=1'-0"
DRAWN BY
JOB 01-0
SHEET A4
OF SHEETS



BUILDINGS B, C & D
FLOOR PLAN
SCALE: 1/8"=1'-0"

N

COMMERCIAL COMPLEX FOR:
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

ROBERT A. MARTINEZ
ARCHITECT / ASSOCIATES

BUILDINGS B, C & D
FLOOR PLAN

A3

RIVERSIDE COUNTY
ENVIRONMENTAL ASSESSMENT FORM: INITIAL STUDY

Environmental Assessment (E.A.) Number: 38638
Project Case Type (s) and Number(s): Conditional Use Permit No. 03370
Lead Agency Name: County of Riverside Planning Department
Address: 4080 Lemon Street, 9th Floor
Contact Person: Dianna Zandbergen
Telephone Number: (909) 955-1852
Applicant's Name: Riverside County Travel Zone
Applicant's Address: 236 S Craig Drive, Orange, CA 92869

I. PROJECT INFORMATION

A. Project Description: This proposal is for a multi-use travelers center to be constructed in two phases. Phase I, will consist of a fueling facility, auto lube and oil center with a full service carwash, a 1,600 square foot quick service restaurant (no drive thru) and an 11,800 square foot building that will include a convenience store (with beer and wine sales), souvenir shop and a patio area. Phase II, will consist of 21 truck/RV parking spaces, a weigh station, two free standing drive-thru restaurants and a free standing restaurant.

B. Type of Project: Site Specific ☒; Countywide ☐; Community ☐; Policy ☐.

C. Total Project Area: 11.5

Residential: Acres	; **Lots**	; **Units**	; **Projected No. of Residents** .	
Commercial: Acres 11.5	; **Lots** 2	; **Sq. Ft. of Bldg. Area**		; **Est. No. of Employees**
Industrial: Acres	; **Lots**	; **Sq. Ft. of Bldg. Area**		; **Est. No. of Employees**
Other:				

Assessor's Parcel No(s): 317-110-034 and 317-110-035

D. Street References: Southeast corner of Cajalco Expressway and Harvill Avenue, west of the 215 Freeway.

E. Section, Township & Range Description or reference/attach a Legal Description: Section 12, Township 4 South, Range 4 West

F. Brief description of the existing environmental setting of the project site and its surroundings: The project site is located within the Mead Valley Redevelopment Area on the outskirts of the City of Perris. The site has been previously rough graded and is flat with no native vegetation existing on the site. To the north, east and west are vacant M-SC (manufacturing-service commercial) zoned parcels, and an existing sheet metal factory to the south.

II. APPLICABLE GENERAL PLAN LAND USE POLICIES AND ZONING

A. Open Space and Conservation Map Designation(s): Areas Not Designated As Open Space (ANDAOS)

B. Land Use Planning Area (L.U.P.A.) Information

1. **L. U. P. A. Name(s):** Perris Valley Land Use Planning Area
2. **Subarea, if any:** None
3. **Community Policy Area, if any:** None

C. Community Plan Land Use Allocation Map Information

1. **Community Plan, if any:** Mead Valley Community Plan
2. **Community Plan Land Use Designation, if any:** I-C, SPA-2 (Industrial/Commercial, Special Planning Area No. 2)

D. Adopted Specific Plan Information

1. **Name and Number of Specific Plan, if any:** None
2. **Specific Plan Planning Area, and Policies, if any:** None

E. Existing Zoning: M-SC (Manufacturing Service Commercial)

F. Proposed Zoning, if any: None

G. Adjacent and Surrounding Zoning: Adjacent zoning is M-SC, surrounding zoning includes M-H (Manufacturing-Heavy) and I-P (Industrial Park).

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below (☒) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Hazards & Hazardous Materials	☒ Public Services
☐ Agriculture Resources	☒ Hydrology/Water Quality	☐ Recreation
☐ Air Quality	☐ Land Use/Planning	☒ Transportation/Traffic
☒ Biological Resources	☐ Mineral Resources	☒ Utilities/Service Systems
☐ Cultural Resources	☒ Noise	☐ Other
☒ Geology/Soils	☒ Population/Housing	☐ Mandatory Findings of Significance

IV. DETERMINATION:

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED
☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED
☐ I find that although the proposed project could have a significant effect on the environment **NOTHING FURTHER IS REQUIRED** because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project.
☐ I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An **ADDENDUM** to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.
☐ I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the project in the changed situation; therefore a **SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT** is required that need only contain the information necessary to make the previous EIR adequate for the project as revised.

☐ I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and a **SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required: (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or,

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the project on the environment, but the project proponents decline to adopt the mitigation measures or alternatives.

Dianna Zandbergen — March 28, 2003

Signature — *Date*

Dianna Zandbergen, Planner III — For Ron Goldman, Interim Planning Director

Printed Name

V. ENVIRONMENTAL ISSUES ASSESSMENT

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 - 21178.1), this Initial Study has been prepared to analyze the proposed project to determine any potential significant impacts upon the environment that would result from construction and implementation of the project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of Riverside, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS Would the project				
1. Scenic Resources				
a) Have a substantial effect upon a scenic highway corridor within which it is located?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?	☐	☐	☒	☐

Source: Riverside County Comprehensive General Plan (CGP) Fig. VI.45

Findings of Fact: The project is not located within a Scenic Highway Corridor. The project will not damage resources or unique landmarks. The site is in a relatively open area slated for redevelopment and manufacturing uses. The project site is located approximately 1/4 mile west of the I-215 freeway and directly off of Cajalco Expressway.

Mitigation: No mitigation required.

Monitoring: No monitoring required.

2. Mt. Palomar Observatory Interfere with the night time use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?	☐	☒	☐	☐

Source: GIS data base, Ord. No. 655, CGP Fig. II.27

Findings of Fact: The project site is located within Zone B, 40.11 miles as shown in Ordinance 655.

Mitigation: The project is conditioned that all lighting shall be hooded and low sodium so as to not affect nighttime views in the area and all lighting plans are to be checked for compliance with Ordinance 655 prior to building permit issuance. (COA 10. PLANNING.3 and 80. PLANNING.21)

Monitoring: Riverside County's building permit process will ensure that lighting mitigation is accomplished.

3. Other Lighting Issues a) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
b) Expose residential property to unacceptable light levels?	☐	☐	☒	☐

Source: Site visit, GIS database

Findings of Fact: The project will create a new source of light in the area, but would not adversely affect day or nighttime views. The area the project is located within is a M-SC zone and there are no residential properties that would be affected by the lights of the project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: The project is conditioned to hood all lighting and to comply with Ordinance 655. (COA 10.PLANNING.3 and 80.PLANNING.21)

Monitoring: Riverside County's building permit process will ensure that all lighting issues will be mitigated.

AGRICULTURE RESOURCES Would the project

4. Agriculture				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing agricultural use, or a Williamson Act (agricultural preserve) contract (Riv. Co. Agricultural Land Conservation Contract Maps)?	☐	☐	☐	☒
c) Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 Right-to-Farm)?	☐	☐	☐	☒
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Source: CGP Fig. VI.34-VI.35, Ordinance No. 625

Findings of Fact: While this property is located in an area designated as Farmland of Local Importance the proposed project would not convert the site to non-agricultural uses, since it is currently not being used for agricultural purposes and was previously rough graded. This property is not within an Agricultural Preserve. The project will not cause non-agricultural uses within 300 feet of agriculturally zoned property and will not involve other changes in the existing environment which could result in the conversion of Farmland to non-agricultural uses.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

AIR QUALITY Would the project

5. Air Quality Impacts				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors which are located within 1 mile of the project site to project substantial point source emissions?	☐	☐	☐	☒
e) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Source: Site visit, project description and "Air Quality Technical Report, Riverside County Travel Zone, Riverside County, California", dated August 9, 2002, prepared by Glenn T. Reed.

Findings of Fact: According to the above referenced report, estimates of construction and operational emissions show that impacts will not be significant in accordance with guidance from the South Coast Air Quality Management District. Estimated construction emissions include backfilling, grading, asphalt paving, concrete paving, and application of architectural coatings. Estimated operational emissions include motor vehicle operation, fueling operations, food preparation, electricity and natural gas usage. The report estimated that there will be 1,000 trucks and 400 vehicles per day using the facility. Emissions from gasoline dispensing are controlled by the SCAQMD. No emissions were estimated for diesel dispensing because emissions from diesel fuel handling are much less than those from gasoline because diesel fuel has a much lower vapor pressure than does gasoline.

This project will not conflict with or obstruct implementation of the applicable air quality plan. The proposed project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. There are no sensitive receptors located within 1 miles of the project site that would be exposed to substantial point source emissions. The project does not involve the construction of a sensitive receptor. The project will create objectionable odors, but they will not affect a substantial number of people.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

BIOLOGICAL RESOURCES Would the project				
6. Wildlife & Vegetation				
a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?	☐	☒	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☐	☐	☐	☒
c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Source: CGP Fig. VI.36-VI.40, "General Biological Survey Results for 11.5 acres near the City of Perris in Riverside County, California, dated June 14, 2002 by Chambers Group, Inc. (PDB2194).

Findings of Fact: According to PDB2194 field assessment of the 11.5 acre site, it was observed that the vegetation on site consists mostly of non-native grasses with the presence of some coastal sage scrub species characteristic of a highly disturbed coastal sage scrub community. The site is within a Stephen's kangaroo rat Fee Assessment area. The site is not located in any Critical Habitat or Multi Species Habitat Conservation Plan (MSHCP) area. No sensitive species or plants or wildlife were observed on site at the time the surveys were conducted, therefore no additional studies or permits will be required.

The site has been previously rough graded. No endangered species' habitat was identified on the project site. This project will not impact federally protected wetlands. Furthermore, this project will not conflict with any local policies or ordinances protecting biological resources.

Mitigation: The project is conditioned that Stephen's Kangaroo Rat fees are to be paid prior to grading permit issuance. (COA 60. PLANNING. 8)

Monitoring: Riverside County's building permit process will ensure that mitigation fees are paid.

CULTURAL RESOURCES Would the project

7. Historic Resources a) Alter or destroy an historic site?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?	☐	☐	☐	☒

Source: Site visit and project description

Findings of Fact: The project site has been previously rough graded, as such, the proposed project will not alter or destroy an known historic site nor cause a substantial adverse change in the significance of a historical resource.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

8. Archaeological Resources a) Alter or destroy an archaeological site.	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
d) Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	☒

Source: CGP Fig. VI.32-VI.33 & VI.46-VI.48

Findings of Fact: The project site has been previously rough graded. The proposed project will not alter or destroy a known archaeological site. The project will not disturb any human remains, including those interred outside of formal cemeteries, nor restrict existing religious or sacred uses within the potential impact area.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

9. Paleontological Resources Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Source: CGP Paleontological Sensitivity Resources Map

Findings of Fact: According to the Paleontolgical Sensitivity Resources Map the project site will not directly or indirectly destroy a unique paleontolgical resource or site or unique geologic feature.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

GEOLOGY AND SOILS

Definitions for Land Use Suitability Ratings

Where indicated below, the appropriate Land Use Suitability Rating(s) has been checked.

NA - Not Applicable S - Generally Suitable PS - Provisionally Suitable

U - Generally Unsuitable R - Restricted

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

10. Alquist-Priolo Earthquake Fault Zone or County Fault Hazard Zones Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒

A-P Zones NA ☒ PS ☐ U ☐ R ☐

CFH Zones NA ☒ PS ☐ U ☐ R ☐

Source: CGP Fig. VI.1 - VI.3

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: The proposed project is not within a Alquist-Priolo or County Fault Hazard zone.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

11. Liquefaction Potential Zone

Seismic-related ground failure, including liquefaction? ☐ ☐ ☐ ☒

NA ☒ S ☐ PS ☐ U ☐ R ☐

Source: CGP Fig. VI.4

Findings of Fact: The project site is not within a liquefaction potential zone.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

12. Groundshaking Zone

Strong seismic ground shaking? ☐ ☒ ☐ ☐

NA ☐ S ☐ PS ☐ U ☒ R ☐

Source: CGP Fig. VI.5

Findings of Fact: The project site is located within groundshaking zone III-D. Gas stations which are designated a normal-high risk land use are considered generally unsuitable in this groundshaking zone. Within zone III-D, expected levels of groundshaking generally exceed design levels as defined in the Uniform Building Code by a factor ranging from approximately 2 to 5.

Mitigation: The project is conditioned that prior to grading permit issuance a geotechnical report for groundshaking hazards is required. (COA 60. PLANNING.13)

Monitoring: Riverside County's building permit process shall ensure that any mitigation for groundshaking hazards shall be met.

13. Landslide Risk

Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards? ☐ ☐ ☐ ☒

NA ☒ S ☐ PS ☐ U ☐ R ☐

Source: Riv. Co. 800 Scale Seismic Maps or On-site Inspection, CGP Fig. VI.6

Findings of Fact: The project site is flat and has been previously rough graded. The project site is located within soils that are in the Hanford-Tujunga-Greenfield association characterized by very deep, well-drained to excessively

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

drained, nearly level to moderately steep soils that have a surface layer of sand to sandy loam, on alluvial fans and flood plains. The shrink swell potential for this soil type is low. The soil would not become unstable as a result of the project, nor result in on-or off-site landslide, lateral spreading, collapse or rockfall hazards.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

14. Ground Subsidence Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in ground subsidence?	☐	☐	☐	☒

Source: Resolution No. 94-125

Findings of Fact: The project site is flat and has been previously rough graded. The project site is located within soils that are in the Hanford-Tujunga-Greenfield association characterized by very deep, well-drained to excessively drained, nearly level to moderately steep soils that have a surface layer of sand to sandy loam, on alluvial fans and flood plains. The shrink swell potential for this soil type is low. The soil would not become unstable as a result of the project, nor potentially result in ground subsidence.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

15. Other Geologic Hazards Such as seiche, mudflow or volcanic hazard?	☐	☐	☐	☒

Source: Staff review.

Findings of Fact: The project site is not subject to seiche, mudflow or volcanic hazards. Not other geologic hazards were identified.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

b. Would the project:

16. Slopes a) Change topography or ground surface relief features?	☐	☐	☐	☒
b) Create cut or fill slopes greater than 2:1 or higher than 10 feet?	☐	☐	☐	☒
c) Result in grading that affects or negates subsurface sewage disposal systems?	☐	☐	☐	☒

Source: Riv. Co. 800 Scale Slope Maps

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: The project does not propose to change topography or ground surface relief features. The site has been previously rough graded and is relatively flat. The project will not create cut or fill slopes great than 2:1 or higher than 10 feet nor result in grading that affects or negates subsurface sewage disposal systems.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

17. Soils				
a) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
b) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒

Source: U.S.D.A. Soil Conservation Service Soil Surveys

Findings of Fact: The project site is flat and has been previously rough graded. The project site is located within soils that are in the Hanford-Tujunga-Greenfield association characterized by very deep, well-drained to excessively drained, nearly level to moderately steep soils that have a surface layer of sand to sandy loam, on alluvial fans and flood plains. The shrink swell potential for this soil type is low. The soil would not become unstable as a result of the project. The entire site is proposed to be covered in asphaltic concrete paving, soil erosion will be less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

18. Erosion				
a) Change deposition, siltation or erosion which may modify the channel of a river or stream or the bed of a lake?	☐	☐	☐	☒
b) Result in any increase in water erosion either on or off site?	☐	☐	☒	☐

Source: U.S.D.A. Soil Conservation Service Soil Surveys, staff review

Findings of Fact: The proposed project will not change deposition, siltation or erosion which may modify the channel of a river or stream or the bed of a lake. The entire site is proposed to be covered in asphaltic concrete paving, this impermeable surface will concentrate water flows which may increase water erosion off-site.

Mitigation: The project is conditioned to provide proper drainage facilities. (COA FLOOD.RI. 13)

Monitoring: Riverside County's building permit process will ensure that mitigation for erosion is accomplished.

19. Wind Erosion and Blowsand from project either on or off site				
Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source: CGP Fig. VI.1-VI.2, Ord. 460, Sec. 14.2 & Ord. 484

Findings of Fact: The project site is not located within an area of wind erosion or blowsand.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

HAZARDS AND HAZARDOUS MATERIALS Would the project				
20. Hazards and Hazardous Materials				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	☐	☐	☐	☒
d) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

Source: Staff review.

Findings of Fact: The project proposal includes a gas station, diesel fuel station, oil change and car wash, all which could cause hazardous conditions.

Mitigation: The project will be responsible for having the correct permits to ensure that the gasoline and other hazardous materials will be kept away from the general public. Riverside County Hazardous Materials has requested a business emergency plan for storage of hazardous materials. If further review is needed the Hazardous Materials Department reserves the right to regulate further. Review of the tanks used to store the hazardous materials will be reviewed by the County Health Department. (COA 90. E. HEALTH. 1,2,3,4,5)

Monitoring: Riverside County's building permit process and Environmental Health Department will monitor that hazardous materials mitigation is accomplished.

21. Airports				
a) Result in an inconsistency with an Airport Master Plan?	☐	☒	☐	☐
b) Require review by the Airport Land Use Commission?	☐	☒	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐
d) For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐

Source: CGP Fig. II.18.2-II.18.4, II.18.8-II.18.10 & IV. 27-IV.36, County of Riverside, Airport Land Use Commission (ALUC) Staff Report, dated July 18, 2002.

Findings of Fact: The project site is located within the area of influence study area for the March Air Reserve Base/March Inland Port, Influence Area II. The proposed project was heard before the ALUC on July 18, 2002. The staff recommendation was a finding of consistency for the project subject to the conditions outlined in the staff report, dated July 18, 2002.

Mitigation: The project is conditioned to comply with the conditions outlined in the staff report from ALUC, dated July 18, 2002. (COA 10. PLANNING.38, 39 and 80. PLANNING.16)

Monitoring: Riverside County's building permit process will ensure that airport mitigation is accomplished.

22. Hazardous Fire Area				
Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Source: CGP Fig. VI.30 - VI.31

Findings of Fact: The project site is not within a County designated hazardous fire area.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

HYDROLOGY AND WATER QUALITY Would the project				
23. Water Quality Impacts				
a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
b) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
c) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
e) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
f) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
g) Otherwise substantially degrade water quality?	☐	☐	☐	☒

Source: Staff review and Riverside County Flood Control Department Review (Flood Hazard Report)

Findings of Fact: Except for nuisance local runoff that may traverse portions of the property, the project is considered free from ordinary storm flood hazard. However, a storm of unusual magnitude could cause some damage. The applicant's engineer is proposing to collect the onsite storm runoff with catch basins and to connect to the District's Perris Line E storm drain with a 24-inch RCP. Perris Line E will serve this project as an adequate outlet; therefore mitigation for increased runoff will not be necessary. An encroachment permit will be required from the District.

The site is located within the bounds of the Perris Valley Area Drainage Plan (ADP) for which drainage fees have been established by the Board of Supervisors. Applicable ADP fees will be due (in accordance with the Rules and Regulations for Administration of Area Drainage Plans) prior to permits for this project. Although the current fee for this ADP is $ 1,070 per acre, the fee due will be based on the fee in effect at the time of payment.

The project site is 11.5 acres and as such is required to comply with the National Pollution Discharge Elimination System (NPDES) to mitigate for water quality impacts. The project will also be responsible for having the correct permits to ensure that the gasoline and other hazardous materials will be kept away from the general public. Riverside County Hazardous Materials has requested a business emergency plan for storage of hazardous materials. If further review is needed the Hazardous Materials Department reserves the right to regulate further. Review of the tanks used to store the hazardous materials will be reviewed by the County Health Department.

Mitigation: The project is conditioned to comply with NPDES prior to grading permits. (COA 10.PLANNING.33 and 60. PLANNING.1) The project is also conditioned by the Riverside County Flood Control District, to achieve the goals mentioned in the flood hazard report prior to grading and prior to building permit issuance. (COA 60. FLOOD RI. 6,9,10 and 80.FLOOD RI.1,2) The project is conditioned for appropriate permits regarding hazardous materials.(COA 90.E.HEALTH.1-5 and 90. PLANNING.34)

Monitoring: Riverside County's building permit process will ensure that mitigation for flood hazard and water quality is accomplished.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

24. Floodplains

Degree of Suitability in 100-Year Floodplains. As indicated below, the appropriate Degree of Suitability has been checked.

NA - Not Applicable ☐ U - Generally Unsuitable ☐ R - Restricted ☐

a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
b) Changes in absorption rates or the rate and amount of surface runoff?	☐	☒	☐	☐
c) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area)?	☐	☐	☐	☒
d) Changes in the amount of surface water in any water body?	☐	☐	☐	☒

Source: CGP Fig. VI.7 & CGP Fig. VI.8, Riverside County Flood District- Flood Hazard Report.

Findings of Fact: Except for nuisance local runoff that may traverse portions of the property, the project is considered free from ordinary storm flood hazard. However, a storm of unusual magnitude could cause some damage. The applicant's engineer is proposing to collect the onsite storm runoff with catch basins and to connect to the District's Perris Line E storm drain with a 24-inch RCP. Perris Line E will serve this project as an adequate outlet; therefore mitigation for increased runoff will not be necessary. An encroachment permit will be required from the District.

The entire site will be covered by asphaltic concrete paving, which changes the absorption rates and the amount of surface runoff. However, the project will not change the amount of surface water in any water body and is not located within a Dam Inundation Area.

Mitigation: In order to achieve the goals in the flood hazard report, Riverside County Flood Control District has conditioned the project prior to grading permit issuance and prior to building permit issuance. (COA 60.FLOOD RI. 6,9,10 and 80.FLOOD RI. 1,2)

Monitoring: Riverside County's building permit process will ensure that flood mitigation is accomplished.

LAND USE/PLANNING Would the project

25. Land Use

a) Result in a substantial alteration of the present or planned land use of an area?	☐	☐	☐	☒
b) Affect land use within a city sphere of influence and/or within adjacent city or county boundaries?	☐	☐	☐	☒

Source: Staff review

Findings of Fact: The project site is currently zoned M-SC and the Comprehensive General Plan designates the site

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

as Industrial/Commercial. Surrounding adjacent zoning is also M-SC and additional zoning in the project vicinity includes I-P and M-H. Although the project sites are currently vacant, a gas station, convenience store, fast food restaurant and carwash have been approved directly across the street from the project site on the southeast corner of Harvill Avenue and Cajalco Expressway and a similar project on the northeast corner. The proposed project will not substantially alter the present or planned land use of the area.

The project site is located within the City of Perris sphere of influence. Since the site is designated Light Industrial by the City of Perris General Plan Land Use Element and zoning classification, and the City's LI zone permits trucking terminals, the use is consistent with the City of Perris General Plan.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

26. Planning				
a) Be consistent with the site's existing or proposed zoning?	☐	☐	☐	☒
b) Be compatible with existing surrounding zoning?	☐	☐	☐	☒
c) Be compatible with existing and planned surrounding land uses?	☐	☐	☐	☒
d) Be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan)?	☐	☐	☐	☒
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☒

Source: Staff Review

Findings of Fact: The project site is currently zoned M-SC and the Comprehensive General Plan designates the site as Industrial/Commercial. Surrounding adjacent zoning is also M-SC and additional zoning in the project vicinity includes I-P and M-H. Although the project sites are currently vacant, a gas station, convenience store, fast food restaurant and carwash have been approved directly across the street from the project site on the southeast corner of Harvill Avenue and Cajalco Expressway and a similar project on the northeast corner. The proposed project will not substantially alter the present or planned land use of the area, nor disrupt or divide the physical arrangement of an established community.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

MINERAL RESOURCES Would the project				
27. Mineral Resources				
a) Result in the loss of availability of a known mineral resource in an area classified or designated by the State that would be of value to the region or the residents of the State?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
c) Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?	☐	☐	☐	☒
d) Expose people or property to hazards from proposed, existing or abandoned quarries or mines?	☐	☐	☐	☒

Source: CGP Fig. VI.41-VI.42

Findings of Fact: The project site is not located within an area of potential mineral resources.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

NOISE Would the project result in

Definitions for Noise Acceptability Ratings

Where indicated below, the appropriate Noise Acceptability Rating(s) has been checked.

NA - Not Applicable A - Generally Acceptable B - Conditionally Acceptable

C - Generally Unacceptable D - Land Use Discouraged

28. Airport Noise				
a) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels? NA ☐ A ☒ B ☐ C ☐ D ☐	☐	☒	☐	☐
b) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? NA ☐ A ☒ B ☐ C ☐ D ☐	☐	☒	☐	☐

Source: CGP Fig. II.18.5, II.18.11 & Vi.121984 AICUZ Report, M.A.F.B.

Findings of Fact: The project site is located within the area of influence study area for the March Air Reserve Base/March Inland Port, Influence Area II. The proposed project was heard before the ALUC on July 18, 2002. The staff recommendation was a finding of consistency for the project subject to the conditions outlined in the staff report, dated July 18, 2002. The 1998 AICUZ report indicated the noise level at the property to be less 55CNEL. Previous AICUZ indicated that the noise level was as high was 60CNEL, however the proposed use is not a noise sensitive use.

Mitigation: The project is conditioned to comply with the conditions outlined in the staff report from ALUC, dated July 18, 2002. (COA 10. PLANNING 38, 39 and 80. PLANNING.16)

Monitoring: Riverside County's building permit process will ensure that airport mitigation is accomplished.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
29. Railroad Noise NA ☐ A ☒ B ☐ C ☐ D ☐	☐	☐	☒	☐

Source: CGP Fig. VI.11, VI.13 - VI.16

Findings of Fact: The nearest railroad is less than 1/4 mile to the east of the property. However, since the project is in a manufacturing zone and does not involve any residences, the impacts of railroad noise are less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

30. Highway Noise NA ☐ A ☒ B ☐ C ☐ D ☐	☐	☐	☒	☐

Source: CGP Fig. VI.11, VI.17 - VI.29

Findings of Fact: The project site is less than a 1/4 mile to the west of the 215 Freeway. However, since the project is in a manufacturing zone and does not involve any residences, the impacts of highway noise are less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

31. Other Noise NA ☒ A ☐ B ☐ C ☐ D ☐	☐	☐	☐	☒

Source: CGP Fig. VI.11

Findings of Fact: No other noise impacts were identified.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

32. Noise Effects on or by the Project				
a) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
b) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
d) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

Source: CGP Fig. VI.11, Staff Review

Findings of Fact: The proposed project will result in a substantial permanent increase in ambient noise levels in the project vicinity, due to auto and truck traffic. Also, the project proposes 21 truck parking spaces which would result in truck idling which will increase the noise levels in the area. A temporary increase in ambient noise will result from the construction of the facility. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance is less than significant. Exposure of persons to or generation of excessive groudborne vibration or noise levels is less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

POPULATION AND HOUSING Would the project				
33. Housing				
a) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
b) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
d) Affect a County Redevelopment Project Area?	☐	☒	☐	☐
e) Cumulatively exceed official regional or local population projections?	☐	☐	☐	☒
f) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Source: Staff Review

Findings of Fact: The property is currently a vacant, M-SC zoned property, as such the proposed project will not displace any housing or people. Although the project will provide employment to more than 50 people, the demand for additional housing would be less than significant. The project site is in the Mead Valley Redevelopment Area, more specifically located in the I-215 Corridor Redevelopment Agency Project Area in the Mead Valley Sub-Area. The project has been reviewed by the Economic Development Agency and approved with conditions per their letter dated February 26, 2003. The proposed project will cause incremental population growth in the area, however the affects will be less than significant.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: The project is conditioned to comply with the conditions of the Economic Development Agency, letter dated February 26, 2003, prior to building permit issuance. (COA 80. PLANNING.27)

Monitoring: Riverside County's building permit process will ensure that mitigation for projects in redevelopment areas is accomplished.

PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

34. Fire Services	☐	☐	☒	☐

Source: CGP Fig. IV.16-IV.18

Findings of Fact: The addition of the proposed project will incrementally increase the demand for fire services within Riverside County. The project site would be currently serviced by the Mead Valley Fire Station, located at 19450 Clark Street, Perris, CA 92570, approximately 2 miles west of the property.

Mitigation: This project has been conditioned to comply with the requirements of the Riverside County Fire Department and for the payment of mitigation fees pursuant to Ordinance No. 659. (COA 10. FIRE 1-8 and 80. FIRE 1,2 and 90. PLANNING.31).

Monitoring: Riverside County's building permit process will ensure that fire mitigation is accomplished.

35. Sheriff Services	☐	☒	☐	☐

Source: CGP Fig. IV.17-IV.18

Findings of Fact: The proposed project would be serviced by the Perris Station located at 403 E. 4th Street, Perris. Since the proposed project would consist of facilities that draw a significant amount of customers, the project is expected to impact local law enforcement. This, coupled with the fact that this project is located in the unincorporated area of the county for which the Sheriff response time is limited by both geography and staffing levels, brings public safety concerns to the forefront.

Mitigation: The project is conditioned that prior to building permit issuance a clearance letter is required from the Riverside County Sheriff department, stating their conditions and concerns have been addressed. (COA 80.PLANNING.26) The project has been conditioned for payment of mitigation fees pursuant to Ord. 659. (COA 90.PLANNING.31)

Monitoring: Riverside County's building permit process will ensure that Sheriff mitigation is accomplished.

36. Schools	☐	☒	☐	☐

Source: CGP Fig. IV.17-IV.18

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: The project site is located within the Val Verde Unified School District.

Mitigation: The project is conditioned for the payment of school impact fees in accordance with state law. (COA 80. PLANNING.18)

Monitoring: Riverside County's building permit process will ensure that school mitigation is accomplished.

37. Libraries	☐	☒	☐	☐

Source: CGP Fig. IV.17-IV.18

Findings of Fact: The proposed project will not create a significant demand for library services.

Mitigation: The project has been conditioned for the payment of mitigation fees pursuant to Ordinance 659. (COA 90.PLANNING.31)

Monitoring: Riverside County's building permit process will ensure that mitigation for library services is accomplished.

38. Health Services	☐	☐	☒	☐

Source: CGP Fig. IV.17-IV.18

Findings of Fact: The proposed project will have a less than significant effect on health services in the area.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

RECREATION

39. Parks and Recreation

a) Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
b) Would the project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
c) Is the project located within a C.S.A. or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?	☐	☐	☐	☒

Source: CGP Fig. IV.19-IV.20, Ord. No. 460, Section 10.35, Ord. No. 659

Findings of Fact: The proposed project does not include recreational facilities. The project is commercial in nature and as such would not include the use of existing neighborhood or regional parks. The project is not located within a C.S.A. or recreation and park district with a Community Parks and Recreation Plan (Quimby fees).

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

40. Recreational Trails.	☐	☐	☐	☒

Source: CGP Fig. IV.19-IV.24, Riv. Co. 800 Scale Equestrian Trail Maps, Open Space and Conservation Map for Western County trail alignments

Findings of Fact: The project will not have an adverse impact on designated equestrian or recreational trails.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

TRANSPORTATION/TRAFFIC Would the project

41. Circulation				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b) Result in inadequate parking capacity?	☐	☐	☒	☐
c) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated road or highways?	☐	☐	☒	☐
d) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
e) Alter waterborne, rail or air traffic?	☐	☐	☐	☒
f) Substantially increase hazards to a design feature (e.g. , sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☒	☐	☐
g) Cause an effect upon, or a need for new or altered maintenance of roads?	☐	☒	☐	☐
h) Cause an effect upon circulation during the project's construction?	☐	☐	☒	☐
i) Result in inadequate emergency access or access to nearby uses?	☐	☐	☐	☒
j) Conflict with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☐	☒

Source: CGP Fig. IV.1-IV.11, Staff Review

Findings of Fact: The proposed project will cause an increase in traffic, in relation to the existing traffic load and

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

capacity of the existing street system. A traffic study has been prepared on the site. The State of California, Department of Transportation (CalTrans) has reviewed the project, and concluded that the project approval is not expected to result in a direct or adverse impact on nearby State transportation facilities. The project meets County Ordinance 348 standards for parking requirement. The project will not exceed a level of service standard established by the county congestion management agency. The project will not alter waterborne, rail or air traffic.

The project will incrementally increase hazards to a design feature, by creating possibly dangerous situations concerning turns into and out of the property and merging traffic. The project mixes slow moving, less agile truck and trailers with cars. There are four access points to the property, however, truck traffic is restricted to the rear of the property and to access only at the driveways furthest from the intersection of Harvill Avenue and Cajalco Expressway.

Mitigation: The project is conditioned to comply with those conditions of the Transportation Department regarding traffic loads, hazardous design features and road improvements. (COA 80.TRANS.8,15 and 90. TRANS.1,2,7,8,10,11,13,14)

Monitoring: Riverside County's building permit process will ensure that traffic impact mitigation is accomplished.

42. Bike Trails	☐	☐	☐	☒

Source: CGP Fig. IV.12-IV.3

Findings of Fact: The Transportation Department has found that no additional right-of-way for bike trails will be required for this project.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

UTILITY AND SERVICE SYSTEMS Would the project

43. Water				
a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐

Source: CGP Fig. IV.14 - IV.15

Findings of Fact: The Eastern Municipal Water District has issued a water and sewer will serve letter, stating that EMWD is willing to provide water and/or sewer service to the subject project. The provisions of service are contingent upon the developer completing the necessary arrangement in accordance with EMWD rules and regulations.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: The project is conditioned to comply with the requirements of the Riverside County Department of Environmental Health regarding water and sewer connections, prior to building permit issuance. (COA 80. E. HEALTH.1,4)

Monitoring: Riverside County's building permit process and Environmental Health Department permit process will ensure that water mitigation is accomplished.

44. Sewer				
a) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?	☐	☐	☒	☐
b) Result in a determination by the wastewater treatment provider which serves or may service the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Source: CGP Fig. IV.14

Findings of Fact: The Eastern Municipal Water District has issued a water and sewer will serve letter, stating that EMWD is willing to provide water and/or sewer service to the subject project. The provisions of service are contingent upon the developer completing the necessary arrangement in accordance with EMWD rules and regulations.

Mitigation: The project is conditioned to comply with the requirements of the Riverside County Department of Environmental Health regarding water and sewer connections, prior to building permit issuance. (COA 80. E.HEALTH.1 and 80.E.HEALTH.4)

Monitoring: Riverside County's building permit process and Environmental Health Department permit process will ensure that sewer mitigation is accomplished.

45. Solid Waste				
a) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☒	☐	☐
b) Comply with federal, state, and local statutes and regulations related to solid wastes (including the CIWMP (County Integrated Waste Management Plan)?	☐	☒	☐	☐

Source: CGP Fig. IV.17-IV.18

Findings of Fact: The project proposal was reviewed by the Riverside County Waste Management Department. In accordance with the California Solid Waste Reuse and Recycling Access Act of 1991, all commercial projects must provide adequate areas for collecting and loading recyclable materials. The project will have an incremental impact on solid waste disposal needs.

Mitigation: The project is conditioned prior to building permit issuance that a Recycling Collection and Landing Area is approved by the Waste Management Department, and prior to final inspection that such facility is built. (COA 80. PLANNING.17 and 90.PLANNING.40)

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring: Riverside County's building permit process will ensure that mitigation for solid waste is accomplished.

46. Utilities

Would the project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities; the construction of which could cause significant environmental effects?

a) Electricity?	☐	☒	☐	☐
b) Natural gas?	☐	☒	☐	☐
c) Communications systems?	☐	☒	☐	☐
d) Storm water drainage?	☐	☐	☒	☐
e) Street lighting?	☐	☐	☒	☐
f) Maintenance of public facilities, including roads?	☐	☐	☒	☐
g) Other governmental services?	☐	☐	☒	☐
h) Conflict with adopted energy conservation plans?	☐	☐	☐	☒

Source: CGP Fig. IV.25-IV.26

Findings of Fact: The project will increase the need for the above mentioned utilities. The project was transmitted to the appropriate utility providers for review. As of this writing, none of the utilities have commented on the project.

Mitigation: Potential impacts to utility companies shall be mitigated through compliance with the requirements and conditions of the applicable utility company.

Monitoring: Monitoring will occur by the individual utility companies.

OTHER

47. Other:	☐	☐	☐	☒

Source: Staff review

Findings of Fact: No other significant issues have been identified.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

48. Other:	☐	☐	☐	☒

Source: Staff review

Findings of Fact: No other significant issues have been identified.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

49. Other:	☐	☐	☐	☒

Source: Staff review

Findings of Fact: No other significant issues have been identified.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

MANDATORY FINDINGS OF SIGNIFICANCE

50. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal to eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒

Source: Above checklist

Findings of Fact: The preceding analysis does not identify any significant impacts related to the general environmental quality, fish and wildlife resources, or cultural resources.

51. Does the project have the potential to achieve short-term environmental goals, to the disadvantage of long-term environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	☐	☐	☐	☒

Source: Above checklist.

Findings of Fact: The project will not achieve short-term environmental goals, to the disadvantage of long-term environmental goals.

52. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in California Code of Regulations, Section 15130)?	☐	☐	☒	☐

Source: Above checklist

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact: The project does contain impacts which are individually limited, but cumulatively considerable, especially relating to air quality and traffic. However, the preceding analysis has identified mitigation measures which will mitigate the affects of these impacts to less than significant.

53. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Source: Above checklist

Findings of Fact: The preceding assessment does not identify any significant potential adverse impacts on human beings. CEQA and the County's procedures for implementing CEQA provide a mechanism for reevaluation of this finding in the event that the specific nature of the future use of the proposed project presents the potential for substantial adverse impacts on humans.

VI. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any:

CGP	Riverside County Comprehensive General Plan, Fourth Edition, Adopted March 6, 1984
GIS	Riverside County Geographic Information System
Biological Report	"General Biological Survey Results for 11.5 Acres near the City of Perris in Riverside County, California", by Chambers Group, Inc., dated June 14, 2002.
Air Quality Report	"Air Quality Technical Report, Riverside County Travel Zone, Riverside County, California", by Chambers Group, Inc., dated August 9, 2002

Location Where Earlier Analyses, if used, are available for review:

Riverside County Planning Department
4080 Lemon Street, 9th Floor
P.O. Box 1409
Riverside, CA 92502-1409

APPROVED
JUL 1 2003
BY BOARD OF SUPERVISORS

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

EVERY DEPARTMENT

10. EVERY. 1 USE - PROJECT DESCRIPTION INEFFECT

The use hereby permitted is for a multi-use travelers center to be constructed in two phases. Phase I, will consist of a fueling facility, auto lube and oil center with a full service carwash, a 1,600 square foot quick service restaurant(no drive thru) and an 11,800 square foot building that will include a convenience store (with beer and wine sales), souvenir shop and a patio area. Phase II, will consist of 21 truck/RV parking spaces, a weigh station, two free standing drive-thru restaurants and a free standing restaurant.

10. EVERY. 2 USE - HOLD HARMLESS INEFFECT

The applicant/permittee or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside (COUNTY) its agents, officers, or employees from any claim, action, or proceeding against the COUNTY, its agents, officers, or employees to attack, set aside, void, or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning CUP03370. The COUNTY will promptly notify the applicant/permittee of any such claim, action, or proceeding against the COUNTY and will cooperate fully in the defense. If the COUNTY fails to promptly notify the applicant/permittee of any such claim, action, or proceeding or fails to cooperate fully in the defense, the applicant/permittee shall not, thereafter, be responsible to defend, indemnify, or hold harmless the COUNTY.

10. EVERY. 3 USE - DEFINITIONS INEFFECT

The words identified in the following list that appear in all capitals in the attached conditions of Conditional Use Permit No. 3370 shall be henceforth defined as follows:

APPROVED EXHIBIT BOS = Site Plan for Conditional Use Permit No. 3370, Exhibit BOS, dated 6/26/03.

APPROVED EXHIBIT C-1 = Floor Plans of Building A, dated 6/26/03.

APPROVED EXHIBIT B-2 = Elevations of Buildings B, C and D, Amended No. 1, dated 1/17/03.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10. EVERY. 3 USE - DEFINITIONS (cont.) INEFFECT

APPROVED EHXIBIT C = Floor Plans of Buildings B, C and D, Amended No. 1, dated 1/17/03.

APPROVED EXHIBIT L = Conceptual Landscaping Plans, dated 6/26/03.

10. EVERY. 4 USE - 90 DAYS TO PROTEST INEFFECT

The project developer has 90 days from the date of approval of these conditions to protest, in accordance with the procedures set forth in Government Code Section 66020, the imposition of any and all fees, dedications, reservations and/or other exactions imposed on this project as a result of this approval or conditional approval of this project.

BS GRADE DEPARTMENT

10.BS GRADE. 1 USE -GIN INTRODUCTION INEFFECT

Improvements such as grading, filling, over excavation and recompaction, and base or paving which require a grading permit are subject to the included Building and Safety Department Grading Division conditions of approval.

10.BS GRADE. 3 USE-G1.2 OBEY ALL GDG REGS INEFFECT

All grading shall conform to the Uniform Building Code, Ordinance 457, and all other relevant laws, rules, and regulations governing grading in Riverside County and prior to commencing any grading which includes 50 or more cubic yards, the applicant shall obtain a grading permit from the Building and Safety Department.

10.BS GRADE. 4 USE-G1.3 DISTURBS NEED G/PMT INEFFECT

Ordinance 457 requires a grading permit prior to clearing, grubbing, or any top soil disturbances related to construction grading.

10.BS GRADE. 5 USE-G1.6 DUST CONTROL INEFFECT

All necessary measures to control dust shall be implemented by the developer during grading. PM10 plan may be required at the time a grading permit is issued.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.BS GRADE. 6 USE-G2.3SLOPE EROS CL PLAN INEFFECT

Erosion control - landscape plans, required for manufactured slopes greater than 3 feet in vertical height, are to be signed by a registered landscape architect and bonded per the requirements of Ordinance 457 (refer to dept. form 284-47).

10.BS GRADE. 7 USE-G2.5 2:1 MAX SLOPE RATIO INEFFECT

Graded slopes shall be limited to a maximum steepness ratio of 2:1 (horizontal to vertical) unless otherwise approved.

10.BS GRADE. 10 USE-G2.8MINIMUM DRNAGE GRADE INEFFECT

Minimum drainage grade shall be 1% except on portland cement concrete where .35% shall be the minimum.

FIRE DEPARTMENT

10.FIRE. 1 USE -"H"EXHIBIT 6-24-03 INEFFECT

ALL CONDITIONS ARE PER EXHIBIT "H" DATED 6-24-03

10.FIRE. 2 USE-#50-BLUE DOT REFLECTOR INEFFECT

Blue retroreflective pavement markers shall be mounted on private street, public streets and driveways to indicate location of fire hydrants. Prior to installation, placement of markers must be approved by the Riverside County Fire Department.

10.FIRE. 3 USE-#23-MIN REQ FIRE FLOW INEFFECT

Minimum required fire flow shall be 1625 GPM for a 2 hour duration at 20 PSI residual operating pressure, which must be available before any combustible material is placed on the job site. Fire flow is based on type VN construction per the 2001 CBC and Building(s) having a fire sprinkler system.

10.FIRE. 4 USE-#20-SUPER FIRE HYDRANT INEFFECT

Super fire hydrant(s) (6"x4"x2 1/2") shall be located not less than 25 feet or more than 165 feet from any portion of the building as measured along approved vehicular travel ways.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.FIRE. 5 USE-#84-TANK PERMITS INEFFECT

Applicant or Developer shall be responsible for obtaining under/aboveground fuel, chemical and mixed liquid storage tank permits, from the Riverside County Fire Department and Environmental Health Departments. Plans must be submitted for approval prior to installation. Aboveground fuel/mixed liquid tanks(s) shall meet the following standard: Tank must be tested and labeled to UL2085 Protected Tank Standard or SwRI 93-01. The test must include the Projectile Penetration Test and the Heavy Vehicle Impact Test. A sample copy of the tank's label from an independent test laboratory must be included with your plans. (current plan check deposit base fee is $217.00 for first tank, each additional tank $32.00.)

10.FIRE. 6 USE-#89-RAPID HAZMAT BOX INEFFECT

Rapid entry Hazardous Material data and key storage cabinet shall be installed on the outside of the building. Plans shall be submitted to the Riverside County Fire Department for approval prior to installation. (current plan check deposit base fee is $126.00.)

10.FIRE. 7 USE-#25-GATE ENTRANCES INEFFECT

Gate entrances shall be at least two feet wider than the width of the traffic lane(s) serving that gate. Any gate providing access from a road to a driveway shall be located at least 35 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on the road. Where a one-way road with a single traffic lane provides access to a gate entrance, a 40 foot turning radius shall be used.

10.FIRE. 8 USE-#88A-AUTO/MAN GATES INEFFECT

Gate(s) shall be automatic or manual operated, minimum 24 feet in width, with a setback of 35 feet from face of curb/flow line. Gate access shall be equipped with a rapid entry system. Plans shall be submitted to the Fire Department for approval prior to installation. Automatic/manual gate pins shall be rated with shear pin force, not to exceed 30 foot pounds. Automatic gates shall be equipped with emergency backup power. Gates activated by the rapid entry system shall remain open until closed by the rapid entry system. (current plan check deposit

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.FIRE. 8 USE-#88A-AUTO/MAN GATES (cont.) INEFFECT

base fee is $126.00)

10.FIRE. 9 USE-#005-ROOFING MATERIAL INEFFECT

All buildings shall be constructed with class B roofing material as per the California Building Code.

FLOOD RI DEPARTMENT

10.FLOOD RI. 13 USE FLOOD HAZARD RPT INEFFECT

CUP 3370 is a proposal to construct retail buildings on an 11.5-acre parcel in the Perris area. The property is located south of Cajalco Expressway and Harvill Avenue intersection.

Except for nuisance nature local runoff that may traverse portions of the property, the project is considered free from ordinary storm flood hazard. However, a storm of unusual magnitude could cause some damage. New construction should comply with all applicable ordinances.

The applicant's engineer is proposing to collect the onsite storm runoff with catch basins and to connect to the District's Perris Line E storm drain with a 24-inch RCP. Perris Line E will serve this project as an adequate outlet; therefore mitigation for increased runoff will not be necessary. An encroachment permit will be required from the District.

The site is located within the bounds of the Perris Valley Area Drainage Plan (ADP) for which drainage fees have been established by the Board of Supervisors. Applicable ADP fees will be due (in accordance with the Rules and Regulations for Administration of Area Drainage Plans) prior to permits for this project. Although the current fee for this ADP is $1,070 per acre, the fee due will be based on the fee in effect at the time of payment.

PLANNING DEPARTMENT

10.PLANNING. 1 USE - COMPLY WITH ORD./CODES INEFFECT

The development of these premises shall comply with the standards of Ordinance No. 348 and all other applicable Riverside County ordinances and State and Federal codes.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 1 USE - COMPLY WITH ORD./CODES (cont.) INEFFECT

The development of the premises shall conform substantially with that as shown on APPROVED EXHIBIT BOS, unless otherwise amended by these conditions of approval.

10.PLANNING. 2 USE - FEES FOR REVIEW INEFFECT

Any subsequent submittals required by these conditions of approval, including but not limited to grading plan, building plan or mitigation monitoring review, shall be reviewed on an hourly basis (research fee), or other such review fee as may be in effect at the time of submittal, as required by Ordinance No. 671. Each submittal shall be accompanied with a letter clearly indicating which condition or conditions the submittal is intended to comply with.

10.PLANNING. 3 USE - LIGHTING HOODED/DIRECTED INEFFECT

Any outside lighting shall be hooded and directed so as not to shine directly upon adjoining property or public rights-of-way.

10.PLANNING. 5 USE - LAND DIVISION REQUIRED INEFFECT

Prior to the sale of any individual structure as shown on APPROVED EXHIBIT BOS, a land division shall be recorded in accordance with Riverside County Ordinance No. 460, and any other pertinent ordinance.

10.PLANNING. 7 USE - BASIS FOR PARKING INEFFECT

Parking for this project was determined primarily on the basis of County Ordinance No. 348, Section 18.12. a.(2).b),

General Retail - 5.5 spaces/1,000 square feet of net leasable floor area.

Restaurants, drive-thrus - 1 space/200 square feet of serving area and 1 space/2 employees.

Automobile service stations - 4 spaces, plus 4 spaces/service bay.

Automobile washing establishments - 2 spaces/stall.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 11 USE - PHASES ALLOWED INEFFECT

Construction of this project may be done in two (2) phases as shown on APPROVED EXHIBIT BOS. Any additional phases, or modifications to the approved phasing, may be permitted provided a plan for each phase of development is submitted to and approved by the Planning Department. Phasing approval shall not apply to the requirements of any agency other than the Planning Department unless otherwise indicated by the affected agency.

10.PLANNING. 13 USE - LANDSCAPE SPECIES INEFFECT

Drought tolerant and native plant species shall be preferred over non-drought tolerant and non-native species. However, the quantity and extent of those species shall depend on the project's climatic zones. Alternative types of low volume irrigation are encouraged to be used in order to conserve water.

10.PLANNING. 14 USE - LANDSCAPE SCREENING INEFFECT

Landscaping shall be in substantial conformance with Approved Exhibit L. A minimum ten (10) foot strip of landscaping is required along all property lines adjacent to road right-of- ways. The 10 foot strip of landscaping shall be located outside of the road right-of-way. A landscaped berm minimum three (3) foot high and five (5) foot wide is required along all road right-of-ways. Planting within ten (10) feet of an entry or exit driveway shall not be permitted to grow higher than thirty (30) inches and no trees shall be planted within 10 feet of driveways, alleys, or street intersections.

10.PLANNING. 18 USE - NO SECOND FLOOR INEFFECT

No tenant improvement permit, or any other building permit, shall be granted for any second story, second floor, mezzanine, or interior balcony unless a plot plan, conditional use permit, public use permit, substantial conformance or a revised permit is approved by the Planning Department pursuant to Section 18.12 of Ordinance No. 348 in order to assure adequate parking remains within the property. Only a one story building was approved as part of this permit and reviewed for parking standards.

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10. GENERAL CONDITIONS

10.PLANNING. 20 USE - MAINTAIN LICENSING INEFFECT

At all times during the conduct of the permitted use the permittee shall maintain and keep in effect valid licensing approval from Alcohol and Berverage Control (ABC), or equivalent agency as provided by law. Should such licensing be denied, expire or lapse at any time in the future, this permit shall become null and void.

10.PLANNING. 21 USE - EXTERIOR NOISE LEVELS INEFFECT

Exterior noise levels produced by any use allowed under this permit, including, but not limited to, any outdoor public address system, shall not exceed 45 db(A), 10-minute LEQ, between the hours of 10:00 p.m. to 7:00 a.m., and 65 db(A), 10-minute LEQ, at all other times as measured at any residential, hospital, school, library, nursing home or other similar noise sensitive land use. In the event noise exceeds this standard, the permittee or the permittee's successor-in-interest shall take the necessary steps to remedy the situation, which may include discontinued operation of the facilities.

10.PLANNING. 22 USE - NOISE MONITORING REPORTS INEFFECT

The permit holder may be required to submit periodic noise monitoring reports as determined by the Department of Building and Safety as part of a code enforcement action. Upon written notice from the Department of Building and Safety requiring such a report, the permittee or the permittee's successor-in-interest shall prepare and submit an approved report within thirty (30) calendar days to the Department of Building and Safety, unless more time is allowed through written agreement by the Department of Building and Safety. The noise monitoring report shall be approved by the Office of Industrial Hygiene of the Health Service Agency (the permittee or the permittee's successor-in-interest shall be required to place on deposit sufficient funds to cover the costs of this approval prior to commencing the required report).

10.PLANNING. 23 USE - VIABLE LANDSCAPING INEFFECT

All plant materials within landscaped areas shall be maintained in a viable growth condition throughout the life of this permit.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 25 USE - CAUSES FOR REVOCATION INEFFECT

In the event the use hereby permitted under this permit, a) is found to be in violation of the terms and conditions of this permit, b) is found to have been obtained by fraud or perjured testimony, or c) is found to be detrimental to the public health, safety or general welfare, or is a public nuisance, this permit shall be subject to the revocation procedures.

10.PLANNING. 26 USE - CEASED OPERATIONS INEFFECT

In the event the use hereby permitted ceases operation for a period of one (1) year or more, this approval shall become null and void.

10.PLANNING. 27 USE - BEER & WINE RESTRICTIONS INEFFECT

The following development standards shall apply to the concurrent sale of motor vehicle fuels and beer and wine for off-premises consumption:

a. Only beer and wine may be sold.

b. The owner and the management shall educate the public regarding driving under the influence of intoxicating beverages, minimum age for purchase and consumption of alcoholic beverages, driving with open containers and the penalty associated with violation of these laws. In addition, the owner and management shall provide health warnings about the consumption of alcoholic beverages. This educational requirement may be met by posting prominent signs, decals or brochures at points of purchase. In addition, the owner and management shall provide adequate training for all employees at the location as to these matters.

c. No displays of beer, wine or other alcoholic beverages shall be located within five feet of any building entrance or checkout counter.

d. Cold beer or wine shall be sold from, or displayed in, the main, permanently affixed electrical coolers only.

e. No beer, wine or other alcoholic beverage advertising shall be located on gasoline islands; and, no lighted advertising for beer, wine or other alcoholic beverages shall be located on the exterior of buildings or within

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 27 USE - BEER & WINE RESTRICTIONS (cont.) INEFFECT

window areas.

f. Employees selling beer and wine between the hours of 10:00 p.m. and 2:00 a.m. shall be at least 21 years of age.

g. No sale of alcoholic beverages shall be made from a drive-in window.

h. All alcoholic beverage displays and storage areas, and all electrical coolers containing alcoholic beverages shall be locked between the hours of 2:00 a.m. and 6:00 a.m. in order to prevent public access to alcoholic beverages during those hours.

10.PLANNING. 32 USE - MT PALOMAR LIGHTING AREA INEFFECT

Within the Mt. Palomar Special Lighting Area, as defined in Ordinance No. 655, low pressure sodium vapor lighting or overhead high pressure sodium vapor lighting with shields or cutoff luminares, shall be utilized.

10.PLANNING. 33 USE - COMPLY WITH NPDES (1) INEFFECT

Since this project is one (1) acre or more, the permit holder shall comply with all of the applicable requirements of the National Pollution Discharge Elimination System (NPDES) and shall conform to NPDES Best Management Practices for Stormwater Pollution Prevention Plans during the life of this permit.

10.PLANNING. 34 USE - ORD 810 O S FEE (1) INEFFECT

In accordance with Riverside County Ordinance No. 810, to assist in providing revenue to acquire and preserve open space and habitat, an Interim Open Space Mitigation Fee shall be paid for each development project or portion of an expanded development project to be constructed in Western Riverside County. The amount of the fee for commercial or industrial development shall be calculated on the basis of "Project Area," which shall mean the net area, measured in acres, from the adjacent road right-of-way to the limits of the project development. Any area identified as "NO USE PROPOSED" on the APPROVED EXHIBIT shall not be included in the Project Area.

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 35 USE - PERMIT SIGNS INEFFECT

No signs are approved pursuant to this project approval. Prior to the installation of any on-site advertising or directional signs, a signing plan shall be submitted to and approved by the Planning Department pursuant to the requirements of Section 18.30 (Planning Department review only) of Ordinance No. 348.

10.PLANNING. 36 USE - OCCUPANT CHANGE INEFFECT

Prior to tenant/occupant change, or upon change in commercial use, the permit holder shall provide a letter from the Planning Department to Building & Safety verifying no need for further environmental, hazardous materials or air quality review as a result of the change.

10.PLANNING. 37 USE - ELECTRICAL HOOK-UPS INEFFECT

Electrical hook-ups for refrigerated trailers shall be provided for five (5) trailer parking spaces. The intent of this condition is to provide electrical hook-ups for refrigerated trailers that will be parked on the site for more than 15 minutes. The use of truck engines or auxiliary power units to power refrigerated trailers for extended periods of time is not allowed.

10.PLANNING. 38 USE - PROHIBITED USES INEFFECT

1. The following uses shall be prohibited:

a. Any use which would direct a steady light or flashing light of red, white, green or amber colors assoicated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach towrd a landing at an airport, orther than an FAA-approved navigational signal light or visual approach slope indicator.

b. Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landsing at an airport.

c. Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

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10. GENERAL CONDITIONS

10.PLANNING. 38 USE - PROHIBITED USES (cont.) INEFFECT

d. Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

2. The above ground storage of explosives or flammable materials shall be prohibited, with the exception of a single propane tank as provided in Condition No. 10. FIRE. 5 and contingent upon approval by the Airport Land Use Commission.

10.PLANNING. 39 USE - AGENCY LETTERS (ALUC) INEFFECT

Per the Airport Land Use Commission (ALUC) staff report dated July 18, 2002;

Any structures over 48 feet in height will require further review.

10.PLANNING. 40 USE - ORD. 659 DIF FEE (1) INEFFECT

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 659, which requires the payment of the appropriate fee set forth in the Ordinance. Riverside County Ordinance No. 659 has been established to set forth policies, regulations and fees related to the funding and installation of facilities and the acquisition of open space and habitat necessary to address the direct and cummulative environmental effects generated by new development projects described and defined in this Ordinance, and it establishes the authorized uses of the fee collected.

The amount of the fee for commercial or industrial development shall be calculated on the basis of the "Project Area", as defined in the Ordinance, which shall mean the net area, measured in acres, from the adjacent road right-of-way to the limits of the project development. The project area for Conditional Use Permit No. 3370 is calculated to be 10.84 acres net.

In the event Riverside County Ordinance No. 659 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 659 be rescinded and superseded by a subsequent mitigation fee

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.PLANNING. 40 USE - ORD. 659 DIF FEE (1) (cont.) INEFFECT

ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

10.PLANNING. 41 USE - ABC20 OFF SALE BEER/WINE INEFFECT

OFF SALE BEER & WINE - (Package Store) Authorizes the sale of beer and wine for consumption off the premises where sold. Minors are allowed on the premises.

10.PLANNING. 42 USE - NO LONG TERM PARKING INEFFECT

Long term parking is limited to three (3) hours maximum.

10.PLANNING. 43 USE - NO OVERNIGHT PARKING INEFFECT

No overnight parking for cars, trucks, vans or other motorized vehicles and occupants thereof is permitted.

10.PLANNING. 44 USE - NO TRUCK MAINTENANCE INEFFECT

No truck repair or maintenance is allowed under this approval.

10.PLANNING. 45 USE - AGENCY CLEARANCE/SHERIFF INEFFECT

The project applicant/developer shall comply with those comments and conditions from the Riverside County Sheriff Department, Perris Station, in their letters dated 4/30/03 and 6/25/03.

TRANS DEPARTMENT

10.TRANS. 3 USE - ASSESS/BENEFIT DIST INEFFECT

Should this project lie within any assessment/benefit district, the project proponent shall, prior to issuance of a building permit, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are deferred to building permit.

10.TRANS. 7 USE - UTILITY INSTALL. 1 INEFFECT

Electrical power, telephone, communication, street lighting, and cable television lines shall be placed underground in accordance with Ordinance 460 and 461. This

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

10. GENERAL CONDITIONS

10.TRANS. 7 USE - UTILITY INSTALL. 1 (cont.) INEFFECT

also applies to existing overhead lines which are 33.6 kilovolts or below along the project frontage and within the project boundaries.

10.TRANS. 8 USE - STD INTRO 3(ORD 460/461) INEFFECT

With respect to the conditions of approval for the referenced tentative exhibit, the landowner shall provide all street improvements, street improvement plans and/or road dedications set forth herein in accordance with Ordinance 460 and Riverside County Road Improvement Standards (Ordinance 461). It is understood that the exhibit correctly shows acceptable centerline elevations, all existing easements, traveled ways, and drainage courses with appropriate Q's, and that their omission or unacceptability may require the exhibit to be resubmitted for further consideration. These Ordinances and all conditions of approval are essential parts and a requirement occurring in ONE is as binding as though occurring in all. All questions regarding the true meaning of the conditions shall be referred to the Transportation Department.

10.TRANS. 9 USE - TS/CONDITIONS 1 INEFFECT

The Transportation Department has reviewed the traffic study submitted for the subject project. The study has been prepared in accordance with County-approved guidelines. We generally concur with the findings relative to traffic impacts.

The Comprehensive General Plan circulation policies require a minimum of Level of Service 'C', except that Level of Service 'D' may be allowed with Board of Supervisors' approval in urban areas at intersections of any combination of major highways, arterials, expressways or state highways within one mile of a freeway interchange.

The study indicates that it is possible to achieve a Level of Service 'C' (or Level of Service 'D' within one mile of a freeway interchange) for the following intersections based on the traffic study assumptions:

Seaton Avenue (NS) at: Cajalco Expressway (EW)
Project West Driveway (NS) at: Cajalco Expressway (EW)
Project East Driverway (NS) at: Cajalco Expressway (EW)

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10. GENERAL CONDITIONS

10.TRANS. 9 USE - TS/CONDITIONS 1 (cont.) INEFFECT

Harvill Avenue (NS) at: Cajalco Expressway (EW)
Project North Driveway (EW)
Project South Driveway (EW)
I-215 SB Ramps (NS) at: Ramona Expressway (EW)
I-215 NB Ramps (NS) at: Ramona Expressway (EW)

As such, the proposed project is consistent with this General Plan policy.

The associated conditions of approval incorporte mitigation measures identified in the traffic study, which are necessary to achieve or maintain the required level of service.

20. PRIOR TO A CERTAIN DATE

PLANNING DEPARTMENT

20.PLANNING. 2 USE - LIFE OF THE PERMIT INEFFECT

The life of Conditional Use Permit No. 3370 shall terminate 20 years after the effective approved date. This permit shall thereafter be null and void and of no effect whatsoever.

20.PLANNING. 4 USE - EXPIRATION DATE-CUP INEFFECT

This approval shall be used within two (2) years of the approval date; otherwise, it shall become null and void and of no effect whatsoever. By use is meant the beginning of substantial construction contemplated by this approval within two (2) year period which is thereafter diligently pursued to completion or to the actual occupancy of existing buildings or land under the terms of the authorized use. Prior to the expiration of the two year period, the permittee may request a one (1) year extension of time in which to begin substantial construction or use of this permit. Should the one year extension be obtained and no substantial construction or use of this permit be initiated within three (3) years of the approval date this permit, shall become null and void.

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60. PRIOR TO GRADING PRMT ISSUANCE

BS GRADE DEPARTMENT

60.BS GRADE. 1 USE-G1.4 NPDES/SWPPP INEFFECT

Prior to issuance of any grading or construction permits - whichever comes first - the applicant shall provide the Building and Safety Department evidence of compliance with the following: "Effective March 10, 2003 owner operators of grading or construction projects are required to comply with the N.P.D.E.S. (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of "ONE" acre or larger. The owner operator can comply by submitting a "Notice of Intent" (NOI), develop and implement a STORM WATER POLLUTION PREVENTION PLAN (SWPPP) and a monitoring program and reporting plan for the construction site. For additional information and to obtain a copy of the NPDES State Construction Permit contact the SWRCB at (916) 657-1146.

Additionally, at the time the county adopts, as part of any ordinance, regulations specific to the N.P.D.E.S., this project (or subdivision) shall comply with them.

60.BS GRADE. 2 USE-G2.1 GRADING BONDS INEFFECT

Grading in excess of 199 cubic yards will require performance security to be posted with the Building and Safety Department. Single Family Dwelling units graded one lot per permit and proposing to grade less than 5,000 cubic yards are exempt.

60.BS GRADE. 3 USE-G2.2 IMPORT / EXPORT INEFFECT

In instances where a grading plan involves import or export, prior to obtaining a grading permit, the applicant shall have obtained approval for the import/export location from the Building and Safety Department. Additionally, if either location was not previously approved by an Environmental Assessment, prior to issuing a grading permit a Grading Environmental Assessment shall be submitted to the Planning Director for review and comment and to the Building and Safety Department Director for approval.

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60. PRIOR TO GRADING PRMT ISSUANCE

60.BS GRADE. 5 USE-G2.4GEOTECH/SOILS RPTS INEFFECT

Geotechnical soils reports, required in order to obtain a grading permit, shall be submitted to the Building and Safety Department's Grading Division for review and approval prior to issuance of a grading permit.

All grading shall be in conformance with the recommendations of the geotechnical/soils reports as approved by Riverside County.*

*The geotechnical/soils, compaction and inspection reports will be reviewed in accordance with the RIVERSIDE COUNTY GEOTECHNICAL GUIDELINES FOR REVIEW OF GEOTECHNICAL AND GEOLOGIC REPORTS.

60.BS GRADE. 6 USE-G2.7DRNAGE DESIGN Q100 INEFFECT

All drainage facilities shall be designed in accordance with the Riverside County Flood Control & Water District's letter regarding this application, or if not specifically addressed in their letter, to accommodate 100 year storm flows.

60.BS GRADE. 8 USE-G2.14OFFSITE GDG ONUS INEFFECT

Prior to the issuance of a grading permit, it shall be the sole responsibility of the owner/applicant to obtain any and all proposed or required easements and/or permissions necessary to perform the grading herein proposed.

FLOOD RI DEPARTMENT

60.FLOOD RI. 6 USE ENCROACHMENT PERMIT REQ INEFFECT

An encroachment permit shall be obtained for any work within the District right of way or with District facilities.

60.FLOOD RI. 9 USE MITCHARGE INEFFECT

The County Board of Supervisors has adopted the Perris Valley Area Drainage Plan (ADP) for the purpose of collecting drainage fees. This project may require earlier construction of downstream ADP facilities. To mitigate this effect, the District recommends that this project be required to pay a flood mitigation fee. The mitigation fee should be based upon the fee structures set for land

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60. PRIOR TO GRADING PRMT ISSUANCE

60.FLOOD RI. 9 USE MITCHARGE (cont.) INEFFECT

divisions having comparable anticipated impermeable surface areas.

The entire site is located within the limits of the Perris Valley Area Drainage Plan for which drainage fees have been adopted to help mitigate the impacts of this development. The mitigation charge for this proposal shall equal the prevailing Area Drainage Plan fee rate multiplied by the area of the new development. This new development has a total of 9.8 acres subject to the fee. The charge is payable to the Flood Control District by cashier's check or money order only, and shall be paid after final approval of the staff report/conditions of approval by the Board of Supervisors and prior to issuance of permits.

60.FLOOD RI. 10 USE ADP FEE PORTION EXEMPT INEFFECT

This project is located within the limits for the Perris Valley Area Drainage Plan (ADP) for which fees have been adopted by the Board of Supervisors. It should also be noted that the project is located within Communities Facilities District (CFD) 88-8, which has constructed portions of Line E, Lateral E-8, Lateral E-9, and Lateral E-10 of the Perris Valley ADP. This construction exempts this proposal from the ADP fees except the $1,070 per acre portion allocated for the Perris Valley Channel. This fee shall be paid prior to permit issuance.

PLANNING DEPARTMENT

60.PLANNING. 1 USE - NPDES COMPLIANCE (2) INEFFECT

Since this project will disturb one (1) or more acres or is part of a larger project that will disturb five or more acres, it will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board. Clearance for grading shall not be given until either the district or the Department of Building and Safety has determined that the project has complied with the current County requirements regarding the NPDES Construction General Permit.

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60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 8 USE - SKR FEE CONDITION INEFFECT

Prior to the issuance of a grading permit, the applicant shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary depending upon a variety of factors, including the type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the approved development project which is anticipated to be 11.5 acres (gross) in accordance with APPROVED EXHIBIT NO. A. If the development is subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

60.PLANNING. 11 USE - C/I SWPPP BMP REQD INEFFECT

Since the project is one (1) acre or more, the permit holder shall provide written proof of compliance with the California Regional Water Quality Control Board, Santa Ana Region's Watershed-wide waste discharge requirements as follows:

The management and maintenance of the project site shall be in accordance with the projects approved Storm Water Pollution Prevention Plans (SWPPPs), Monitoring Programs, and Post Construction Management Plans to include the following best management practices (BMPs) to reduce storm water pollution:

The permit holder of this site shall provide educational materials to the facility manager and employees on good house keeping practices which contribute to the protection of storm water quality. These educational materials shall be provided by the Riverside County Flood Control and Water Conservation District and shall be distributed by the Property Owners' Association or other property management entity. These materials shall address good housekeeping practices associated with the sites's land use and or uses (e.g., good housekeeping practices for office, commercial,

60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 11 USE - C/I SWPPP BMP REQD (cont.) INEFFECT

retail commercial, vehicle-related commercial, or industrial land use). Employers at this site shall adapt these materials for training their employees in good housekeeping practices (BMP N1 & N13);

Only pesticide applicators who are certified by the State of California as Qualified Applicators or who are directly supervised by a Qualified Applicator shall apply pesticides to common area landscaping. The applicator shall apply all pesticides in strict accordance with pesticide application laws as stated in the California Food and Agricultural Code. Fertilizer shall be applied to common area landscaping in accordance with the manufacturer's recommendations. Application to hardscape surfaces shall be avoided (BMP N3);

The "catch basins, more particularly described on Exhibit P shall be inspected and, if necessary, cleaned by the permit holder no later than October 15th of each year. "ONLY RAIN IN THE DRAIN' and 'NO DUMPING' stencils shall be repainted as necessary to maintain legiblity (BMP N4 & S12);

The permit holder shall keep the area free of litter. Litter receptacles shall be emptied at least once a month. Where improper disposal of trash has occurred, the permit holder shall take corrective action within forty-eight hours of discovery (BMP N5);

The 'water quality inlet(s), oil/water seperator(s) and trash rack(s)', more particularly described on Exhibit 'P', shall be inspected and, if necessary, cleaned by the permit holder no later that October 15th of each year (BMP S4 & S13);

The streets and parking lot(s), more particularly described on Exhibit 'P', shall be swept by the permit holder at least once a year and shall be swept no later than October 15th of each year (BMP N6);

The permit holder shall keep loading docks in a clean and orderly condition through a regular program of sweeping, litter control, and the immediate cleanup of spills and broken containers. In accordance with the Riverside County Ordinance No. 754, Establishing Storm Water/Urban Runoff Management and Discharge Controls, illicit discharges and

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60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 11 USE - C/I SWPPP BMP REQD (cont.) (cont.) INEFFECT

non-storm water discharges (e.g., wash water) from loading docks to storm water drains shall not be allowed (BMP N12);

The permit holder shall maintain an up-to-date list identifying the party or parties responsible for the implemenation and maintenance of each of the BMPs described herein. The list shall include the party's name, organization, address, a phone number at which the party may be reached 24 hours a day, and a description of the party's responsibility for implementation and maintenance of a particular BMP (BMP N14).

60.PLANNING. 12 USE - FEE STATUS INEFFECT

Prior to the issuance of grading permits for Conditional Use Permit No. 3370, the Planning Department shall determine the status of the deposit based fees. If the fees are in a negative status, the permit holder shall pay the outstanding balance.

60.PLANNING. 13 USE - GROUNDSHAKING HAZARDS INEFFECT

A geotechnical investigation to address, but not necessarily limited to, slope stability, rock fall hazards, collapsible or expansive soils, wind erosion and groundshaking. The report shall be required to be reviewed and approved by the County Engineering Geologist prior to grading permit issuance. Please coordinate this report directly with the County Engineering Geologist, reached at (909) 955-3211, with regards to proper methodology and report submission requirements (including additional review fees and number of report copies to submit). The report for this project shall specifically address groundshaking hazards, due to the fact that the County General Plan shows the property to be in Zone III-D.

80. PRIOR TO BLDG PRMT ISSUANCE

BS GRADE DEPARTMENT

80.BS GRADE. 1 USE* -G3.1NO B/PMT W/O G/PMT INEFFECT

Prior to issuance of any building permit, the property owner shall obtain a grading permit and/or approval to construct from the Grading Division of the Building and Safety Department.

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80. PRIOR TO BLDG PRMT ISSUANCE

E HEALTH DEPARTMENT

80.E HEALTH. 1 USE - WATER WILL SERVE INEFFECT

A "Will-Serve" letter is required from the appropriate water agency.

80.E HEALTH. 2 USE - FOOD PLANS REQD INEFFECT

A total of three complete set of plans for each food establishment are needed including a fixture schedule, a finish schedule, and a plumbing schedule in order to ensure compliance with the California Uniform Retail Food Facilities Law.

80.E HEALTH. 3 USE - LEA CLEARANCE INEFFECT

Clearance from the Environmental Resources Management Division LEA

80.E HEALTH. 4 USE - PERC TEST REQD INEFFECT

satisfactory detailed soils percolation test in accordance with the procedures outlined in the Riverside County Waste Disposal Booklet entitled "Waste Disposal for Individual Homes, Commercial and Industrial".

FIRE DEPARTMENT

80.FIRE. 1 USE-#17A-BLDG PLAN CHECK $ INEFFECT

Building Plan check deposit base fee of $1,056.00, shall be paid in a check or money order to the Riverside County Fire Department after plans have been approved by our office.

80.FIRE. 2 USE-#4-WATER PLANS INEFFECT

The applicant or developer shall separately submit two copies of the water system plans to the Fire Department for review and approval. Calculated velocities shall not exceed 10 feet per second. Plans shall conform to the fire hydrant types, location and spacing, and the system shall meet the fire flow requirements. Plans shall be signed and approved by a registered civil engineer and the local water company with the following certification: "I certify that the design of the water system is in accordance with the requirements prescribed by the Riverside County Fire Department."

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80. PRIOR TO BLDG PRMT ISSUANCE

FLOOD RI DEPARTMENT

80.FLOOD RI. 1 USE MITCHARGE INEFFECT

The County Board of Supervisors has adopted the Perris Valley Area Drainage Plan (ADP) for the purpose of collecting drainage fees. This project may require earlier construction of downstream ADP facilities. to mitigate this effect, the District recommends that this project be required to pay a flood mitigation fee. The mitigation fee should be based upon the fee structures set for land divisions having comparable anticipated impermeable surface areas.

The entire site is located within the limits of the Perris Valley Area Drainage Plan for which drainage fees have been adopted to help mitigate the impacts of this development. The mitigation charge for this proposal shall equal the prevailing Area Drainage Plan fee rate multiplied by the area of the new development. This new development has a total of 9.8 acres subject to the fee. The charge is payable to the Flood Control District by cashier's check or money order only, and shall be paid after final approval of the staff report/conditions of approval by the Board of Supervisors and prior to issuance of permits.

80.FLOOD RI. 2 USE ADP FEE PORTION EXEMPT INEFFECT

This project is located within the limits for the Perris Valley Area Drainage Plan (ADP) for which fees have been adopted by the Board of Supervisors. It should also be noted that the project is located within Communities Facilities District (CFD) 88-8, which has constructed portions of Line E, Lateral E-8, Lateral E-9, and Lateral E-10 of the Perris Valley ADP. This construction exempts this proposal from the ADP fees except the $1,070 per acre portion allocated for the Perris Valley Channel. This fee shall be paid prior to permit issuance.

PLANNING DEPARTMENT

80.PLANNING. 3 USE - PHASE I,CONFORM TO ELEV. INEFFECT

Elevations for buildings B,C, and D in Phase I, submitted for building plan check approval shall be in substantial conformance with the elevations shown on APPROVED EXHIBIT B-2.

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 4 USE - PHASE I,CONFORM TO FL PL INEFFECT

Floor plans for buildings A,B,C and D in Phase I, shall be in substantial conformance with that shown on APPROVED EXHIBIT C and C-1.

80.PLANNING. 5 USE - PHASE I BLDG PERMITS INEFFECT

Prior to issuance of building permits for Phase I, an uncirculated substantial conformance is required for the fuel canopies related to the truck fueling station and auto gas station and elevations for Building A, as shown on APPROVED EXHIBIT BOS. The plans shall include the elevations (height), floor plans (if applicable), building footprint, colors and materials. The substantial conformance shall be approved by the Planning Department, however, if the Planning Department deems it necessary to circulate the plans for further review a circulated substantial conformance may be required.

In addition to the above information, color and materials shall be submitted for approval by the Planning Department for Buildings B,C and D.

80.PLANNING. 6 USE - PHASE II, BLDG PERMITS INEFFECT

Prior to building permit issuance for Phase II, a Transmitted Plot Plan (exempt from CEQA)is required for Buildings H, I and J as shown on Exhibit BOS. The Plot Plan application shall also include floor plans, elevations, color and materials to be approved.

80.PLANNING. 7 USE - ROOF EQUIPMENT SHIELDING INEFFECT

Roof mounted equipment shall be shielded from ground view. Screening material shall be subject to Planning Department approval.

80.PLANNING. 8 USE - LANDSCAPING SECURITIES INEFFECT

Performance securities, in amounts to be determined by the Director of Building and Safety to guarantee the installation of plantings, walls and/or fences, in accordance with the approved plan, shall be filed with the Department of Building and Safety. The performance security shall be released one year after structural final and the inspection report provides the plantings have been adequately installed and maintained. A cash security shall

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 8 USE - LANDSCAPING SECURITIES (cont.) INEFFECT

be required when the estimated cost is $2,500.00 or less.

80.PLANNING. 16 USE - AGENCY CLEARANCE (ALUC) INEFFECT

A clearance letter from the Airport Land Use Commission (ALUC) shall be provided to the Riverside County Planning Department verifying compliance with the conditions contained in their letter dated July 18, 2002, summarized as follows:

Prior to project development or sale to an entity exempt from the Subdivision Map Act, the project proponents shall convey an avigation easement to the MARB/MIP Airport. (Tel.909-656-7000).

80.PLANNING. 17 USE - WASTE MGMT. CLEARANCE INEFFECT

A clearance letter from Riverside County Waste Management District shall be provided to the Riverside County Planning Department verifying compliance with the conditions contained in their letter dated May 1, 2002, summarized as follows: The developer shall provide adequate areas for collecting and loading recyclable materials such as paper products, glass and green waste in commercial, industrial, public facilities and residential development projects.

80.PLANNING. 18 USE - SCHOOL MITIGATION INEFFECT

Impacts to the Val Verde School District shall be mitigated in accordance with California State law.

80.PLANNING. 21 USE - LIGHTING PLANS INEFFECT

All parking lot lights and other outdoor lighting shall be shown on electrical plans submitted to the Department of Building and Safety for plan check approvaland shall comply with the requirements of Riverside County Ordinance No. 655 and the Riverside County Comprehensive General Plan.

80.PLANNING. 22 USE - PRKNG/LNDSCPNG PLN INEFFECT

Prior to issuance of building permits, seven (7) copies of a Shading, Parking, Landscaping, and Irrigation Plan shall be submitted to and approved by the Planning Department.

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 22 USE - PRKNG/LNDSCPNG PLN (cont.) INEFFECT

The location, number, genus, species, and container size of plants shall be shown. Plans shall meet all requirements of Ordinance No. 348, Sections 18.12, and 19.300 through 19.304 and as specified herein.

The irrigation plan shall include a rain shut-off device which is capable of shutting down the entire system. In addition, the plan will incorporate the use of in-line check valves, or sprinkler heads containing check valves to prohibit low head drainage.

80.PLANNING. 23 USE - FEE STATUS INEFFECT

Prior to issuance of building permits for Conditional Use Permit No. 3370, the Planning Department shall determine the status of the deposit based fees for project. If the case fees are in a negative state, the permit holder shall pay the outstanding balance.

80.PLANNING. 27 USE - AGENCY CLEARANCE/EDA INEFFECT

A clearance letter fron the Economic Development Agency (EDA) shall be provided to the Riverside County Planning Department verifying compliance with the conditions of their letter dated February 26, 2003, summarized as follows:

A site illumination plan, landscape lighting plan, landscape maintenance plan and signage plan shall be submitted and approved by EDA prior to building permit issuance.

TRANS DEPARTMENT

80.TRANS. 8 USE - STREET LIGHTS-CSA/LMD INEFFECT

The landowner shall contact the County Service Area (CSA) Administrator who determines whether the development is within an existing CSA. If the project is within an existing CSA, the landowner shall, pursuant to Governmental Code Section 56000, file an application, including a Street Light Plan approved by the Transportation Department, with the Local Agency Formation Commission (LAFCO) for annexation into the existing CSA. If the project is outside the boundaries of a CSA, the landowner shall contact the Transportation Department and establish a Lighting

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80. PRIOR TO BLDG PRMT ISSUANCE

80.TRANS. 8 USE - STREET LIGHTS-CSA/LMD (cont.) INEFFECT

Maintenance District.

80.TRANS. 15 USE - TS/GEOMETRICS 1 INEFFECT

The intersection of Project West Driveway/Cajalco Expressway shall be restricted to right-out only.

The intersection of Project East Driveway/Cajalco Expressway shall be restricted to right-in/right-out only.

Note: Installation of a curbed, landscaped median along Cajalco Expressway is required.

The intersection of Harvill Avenue (NS)/Project North Driveway (EW) shall be improved to provide the following geometrics:

Northbound: One left turn lane, two through lanes.

Southbound: Two through lanes.

Eastbound: One left turn lane, one right turn lane.

Westbound: N/A

The intersection of Harvill Avenue(NS)/Project South Driveway (EW) shall be improved to provide the following geometrics:

Northbound: One left turn lane, two through lanes.

Southbound: Two thorugh lanes.

Eastbound: One shared left/right turn lane.

or as approved by the Transportation Department. Any off-site widening required to provide these geometrics shall be the responsibility of the landowner/developer.

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90. PRIOR TO BLDG FINAL INSPECTION

BS GRADE DEPARTMENT

90.BS GRADE. 1 USE*G4.3PAVING INSPECTIONS INEFFECT

The developer/applicant shall be responsible for obtaining the paving inspections required by Ordinance 457.

E HEALTH DEPARTMENT

90.E HEALTH. 1 USE - HAZMAT BUS PLAN INEFFECT

The facility will require a business emergency plan for the storage of hazardous materials greater than 55 gallons, 200 cubic feet or 500 pounds, or any acutely hazardous materials or extremely hazardous substances.

90.E HEALTH. 2 USE - HAZMAT REVIEW INEFFECT

If further review of the site indicates additional environmental health issues, the Hazardous Materials Management Division reserves the right to regulate the business in accordance with applicable County Ordinances.

90.E HEALTH. 3 USE - HAZMAT CONTACT INEFFECT

Contact the Hazardous Materials Management Division, Doug Thompson at (909) 358-5055 for any additional requirements.

90.E HEALTH. 4 USE - HAZMAT WASTE INEFFECT

The facility requires a hazardous waste permit if a hazardous waste is generated as defined in Title 22 of the California Code of Regulations, Section 66260.10 and 66261.3. The report and fee is due.

90.E HEALTH. 5 USE - HAZMAT TANKS INEFFECT

Construction plans must be reviewed and approved by the Hazardous Materials Division prior to the installation of the underground storage tank (UST) system. There is a construction fee based on the number of UST's installed. Permits from the Hazardous Materials Division must be obtained for the operation of the UST's prior to occupancy.

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90. PRIOR TO BLDG FINAL INSPECTION

FIRE DEPARTMENT

90.FIRE. 1 USE-#45-FIRE LANES INEFFECT

The applicant shall prepare and submit to the Fire Department for approval, a site plan designating required fire lanes with appropriate lane painting and/or signs.

90.FIRE. 2 USE-#12-SPRINKLER SYSTEM INEFFECT

Install a complete fire sprinkler system per NFPA 13 1996 edition (13D and 13R system are not allowed) in all buildings requiring a fire flow of 1500 GPM or greater. Sprinkler system(s) with pipe sizes in excess of 4" in diamter will require the project structural engineer to certify (wet signature) the stability of the building system for seismic and gravity loads to support the sprinkler system. All fire sprinkler risers shall be protected from any physical damage. The post indicator valve and fire department connection shall be located to the front, within 50 feet of a hydrant, and a minimum of 25 feet from the building(s). A statement that the building(s) will be automatically fire sprinkled must be included on the title page of the building plans. (current sprinkler plan check deposit base fee is $614.00 per riser)

pplicant or developer shall be responsible to install a .L. Central Station Monitored Fire Alarm System. Monitoring system shall monitor the fire sprinkler system(s) water flow, P.I.V.'s and all control valves. Plans must be submitted to the Fire Department for approval prior to installation. Contact fire department for guideline handout (current monitoring plan check deposit base fee is $192.00)

90.FIRE. 3 USE-#27-EXTINGUISHERS INEFFECT

Install portable fire extinguishers with a minimum rating of 2A-10BC and signage.Fire Extinguishers located in public areas shall be in recessed cabinets mounted 48" (inches) to center above floor level with maximum 4" projection from the wall. Contact Fire Department for proper placement of equipment prior to installation.

90.FIRE. 4 USE-#36-HOOD DUCTS INEFFECT

A U.L. 300 hood duct fire extinguishing system must be

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90. PRIOR TO BLDG FINAL INSPECTION

90.FIRE. 4 USE-#36-HOOD DUCTS (cont.) INEFFECT

installed over the cooking equipment. Wet chemical extinguishing system must provide automatic shutdown of all electrical componets and outlets under the hood upon activation. System must be installed by a licensed C-16 contractor. Plans must be submitted with current fee to the Fire Department for review and approval prior to installation. NOTE: A dedicated alarm system is not required to be installed for the exclusive purpose of monitoring this suppression system. However, a new or pre-existing alarm system must be connected to the extinguishing system. (* separate fire alarm plans must be submitted for connection) (current plan check deposit base fee is $215.00)

PLANNING DEPARTMENT

90.PLANNING. 3 USE - PARKING PAVING MATERIAL INEFFECT

A minimum of two hundred twelve (212) auto parking spaces shall be provided as shown on the APPROVED EXHIBIT BOS, unless otherwise approved by the Planning Department. Phase I shall include 91 auto parking spaces. Phase II shall contain 121 auto parking spaces. The parking area shall be surfaced with asphaltic concrete or concrete to current standards as approved by the Department of Building and Safety.

90.PLANNING. 4 USE - ACCESSIBLE PARKING INEFFECT

A minimum of fourteen (14) accessible parking spaces for persons with disabilities shall be provided as shown on APPROVED EXHIBIT BOS. Each parking space reserved for persons with disabilities shall be identified by a permanently affixed reflectorized sign constructed of porcelain on steel, beaded text or equal, displaying the International Symbol of Accessibility. The sign shall not be smaller than 70 square inches in area and shall be centered at the interior end of the parking space at a minimum height of 80 inches from the bottom of the sign to the parking space finished grade, or centered at a minimum height of 36 inches from the parking space finished grade, ground, or sidewalk. A sign shall also be posted in a conspicuous place, at each entrance to the off-street parking facility, not less than 17 inches by 22 inches, clearly and conspicuously stating the following:

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90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 4 USE - ACCESSIBLE PARKING (cont.) INEFFECT

"Unauthorized vehicles not displaying distinguishing placards or license plates issued for physically handicapped persons may be towed away at owner's expense. Towed vehicles may be reclaimed at ___ or by telephoning ___."

In addition to the above requirements, the surface of each parking space shall have a surface identification sign duplicating the symbol of accessibility in blue paint of at least 3 square feet in size.

90.PLANNING. 6 USE - LOADING SPACES INEFFECT

A minimum of four (4) loading spaces, one each for Buildings A,H,I, and J shall be provided in accordance with Section 18.12.a.(2)f(3).b. of Ordinance 348, and as shown on APPROVED EXHIBIT BOS. The loading spaces shall be surfaced with six (6) inches of concrete over a suitable base and shall not be less than 10 feet wide by 35 feet long, with 14 feet vertical clearance.

The loading space for Building A, shall be shown on the approved Landscaping, Irrigation, and Shading Plans.

90.PLANNING. 8 USE - ROOF EQUIPMENT SHIELDING INEFFECT

Roof-mounted equipment shall be shielded from ground view. Screening material shall be subject to Planning Department approval.

90.PLANNING. 11 USE - UTILITIES UNDERGROUND INEFFECT

All utilities, except electrical lines rated 33 kV or greater, shall be installed underground. If the permittee provides to the Department of Building and Safety and the Planning Department a definitive statement from the utility provider refusing to allow underground installation of the utilities they provide, this condition shall be null and void with respect to that utility.

90.PLANNING. 12 USE - SPECIMEN TREES REQUIRED INEFFECT

Landscaping plans shall incorporate the use of specimen (24" box or greater) canopy trees long streets and within the parking areas. All trees and shrubs shall be drawn to reflect the average specimen size at 15 years of age. All

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90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 12 USE - SPECIMEN TREES REQUIRED (cont.) INEFFECT

trees shall be double-staked and secured with non-wire ties.

90.PLANNING. 13 USE - CURBS ALONG PLANTERS INEFFECT

A six inch high curb with a twelve (12) inch wide walkway shall be constructed along planters on end stalls adjacent to automobile parking areas. Public parking areas shall be designed with permanent curb, bumper, or wheel stop or similar device so that a parked vehicle does not overhang required sidewalks, planters, or landscaped areas.

90.PLANNING. 14 USE - WALL/BERM REQUIRED INEFFECT

A minimum three (3) foot high, five (5) foot wide landscaped earthen berm shall be constructed along Cajalco Expressway and Harvill Avenue. The required berm shall be subject to the approval of the Director of the Department of Building and Safety and the Planning Director and the appropriate flood control agency, and shall be shown on all grading and landscaping plans.

90.PLANNING. 16 USE - TRASH ENCLOSURES INEFFECT

Three (3) trash enclosures which are adequate to enclose a minimum of two (2) bins each, shall be located as shown on the APPROVED EXHIBIT BOS, and shall be constructed prior to the issuance of occupancy permits. The enclosures shall be a minimum of six (6) feet in height and shall be made with masonry block and landscaping screening and a solid gate which screens the bins from external view. Additional enclosed area for collection of recyclable materials shall be located within, near or adjacent to each trash and rubbish disposal area. The recycling collection area shall be a minimum of fifty percent (50%) of the area provided for the trash/rubbish enclosure(s) or as approved by the Riverside County Waste Management Department. All recycling bins shall be labeled with the universal recycling symbol and with signage indicating to the users the type of material to be deposited in each bin.

90.PLANNING. 17 USE - COMPLETE LANDSCAPING INEFFECT

Prior to occupancy of any buildings in Phase I, all landscaping shall be installed, including that portion in Phase II along Harvill Avenue. (Only the interior

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90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 17 USE - COMPLETE LANDSCAPING (cont.) INEFFECT

landscaping for Phase II, can be deferred to occupancy permits in Phase II).

90.PLANNING. 18 USE - COMPLY W/ LANDSCAPE PLAN INEFFECT

All required landscape planting and irrigation shall have been installed in accordance with approved Landscaping, Irrigation, and Shading Plans and be in a condition acceptable to The Land Mangement Agency - Land Use Division. The plants shall be healthy and free of weeds, disease or pests. The irrigation system shall be properly constructed and determined to be in good working order.

90.PLANNING. 19 USE - CERTIFY LANDSCAPE COMPLY INEFFECT

The permit holder's landscape architect or other state licensed party responsible for preparing landscaping and irrigation plans shall provide a Compliance Letter to the Planning Department and the Department of Building and Safety stating that the landscape and irrigation system has been installed in compliance with the approved landscaping and irrigation plans. The Compliance letter shall be submitted at least three (3) working days prior to final inspection of the structure or issuance of occupancy permit, whichever occurs first.

90.PLANNING. 23 USE - PHASES MUST BE COMPLETE INEFFECT

If the project has been phased, all facilities meant to serve the current phase of development shall be installed in a usable condition. Project landscaping may not all be deferred until the final phase.

90.PLANNING. 30 USE - ORD 810 O S FEE (2) INEFFECT

Prior to the issuance of a certificate of occupancy,or upon building permit final inspection prior to use or occupancy for cases without final inspection or certificate of occupancy (such as an SMP)], whichever comes first, the applicant shall comply with the provisions of Riverside County Ordinance No. 810, which requires the payment of the appropriate fee set forth in the Ordinance. The amount of the fee will be based on the "Project Area" as defined in the Ordinance and the aforementioned Condition of Approval. The Project Area for Conditional Use Permit No. 3370 is calculatecd to be 10.84 acres net. In the event Riverside

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 30 USE - ORD 810 O S FEE (2) (cont.) INEFFECT

County Ordinance No. 810 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 810 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

90.PLANNING. 31 USE - ORD NO. 659 (DIF) INEFFECT

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 659, which requires the payment of the appropriate fee set forth in the Ordinance. Riveside County Ordinance No. 659 has been established to set forth policies, regulations and fees related to the funding and installation of facilities and the acquisition of open space and habitat necessary to address the direct and cummulative environmental effects generated by new development project described and defined in this Ordinance, and it establishes the authorized uses of the fees collected.

The amount of the fee for commercial or industrial development shall be calculated on the basis of the "Project Area," as defined in the Ordinance, which shall mean the area, measured in acres, from the adjacent road right-of-way to the limits of the project development. The Project Area for Conditional Use Permit No. 03370 has been calculated to be 10.84 acres net.

In the event Riverside County Ordinance No. 659 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 659 be rescinded and superseded by a subsquent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

90.PLANNING. 32 USE - EXTENDED TRUCK IDLING INEFFECT

Signs stating that "EXTENDED IDLING TRUCK ENGINES IS NOT PERMITED" shall be located at the entrance to the facility and at the truck parking area.

The signs at the entrance to facility shall not be less than twenty four inches square and will provide directions

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 32 USE - EXTENDED TRUCK IDLING (cont.) INEFFECT

to truck parking spaces with electrical hookups.

The hookups will provide power for refrigerated trailers that need to be parked on-sight for more than 15 minutes.

90.PLANNING. 33 USE - COLOR/FINISH COMPLIANCE INEFFECT

The permittee shall properly install approved color and finish products in accordance with these conditions of approval.

90.PLANNING. 34 USE - FUELING AREA PAVING INEFFECT

The fueling area shall be graded to prevent storm water from running onto the fueling area and to prevent runoff of fuel spills. The fueling area shall be paved with Portland cement. The cement shall extend a minimum of eight feet (8') from the side of the fuel dispenser (i.e., dispenser face) and four feet (4') from the front and back of the dispenser island. To contain fuel spills to the fueling area, the length of the hoses from the fuel dispenser shall limit fueling to the side of the vehicle nearest the dispenser face and shall not allow fueling to occur on the far side of the vehicle.

For storm water falling outside the fueling area, slab design shall be tapered to divert water away from the fueling area. Where slab design is not used to divert water away from the fueling area, an extruded curb, "speed bump", or equally effective alternative may be used instead.

Within the fueling area, slab design shall be tapered so that it diverts spills within the fueling area to a dead-end sump or equally effective alternative. (BMP S9)

A canopy shall be constructed over the concrete fueling area. The canopy shall at minimum cover the fueling area. Down spouts from the canopy shall route drainage away from the fueling area. (BMP S10)

90.PLANNING. 40 USE - WASTE MANAGEMENT INEFFECT

Prior to building final inspection of each commercial building, the applicant shall construct the recyclables collection and loading area in compliance with the

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 40 USE - WASTE MANAGEMENT (cont.) INEFFECT

Recyclables Collection and Loading Area plot plan, as approved and stamped by the Riverside County Waste Management Department, and as verified by the Riverside County Building and Safety Department through site inspection.

90.PLANNING. 42 USE - MONUMENT MAINTENANCE INEFFECT

A clearance letter shall be provided to the Riverside County Planning Department, stating maintenance of the monument sign and landscaped area, at the corner of Cajalco Expressway and Harvill Avenue, shall be maintained by an appropriate Community Facilities District or the property management entity.

90.PLANNING. 43 USE - TEMPORARY FENCING INEFFECT

To prevent the use of the undeveloped portion of the property (Phase II), a temporary 6 foot high fence shall be installed around the perimeter of Phase II, as shown on Approved Exhibit BOS. On that portion of Phase II adjacent to Harvill Avenue the fencing shall be located behind the landscaping.

TRANS DEPARTMENT

90.TRANS. 1 USE - IMPROVEMENTS INEFFECT

Cajalco Expressway is a County maintained road and shall be improved with concrete curb-and-gutter located 55 feet from centerline and match up asphalt concrete paving; reconstruction; or resurfacing of existing paving as determined by the Transportation Department within a 110 foot half-width dedicated right-of-way in accordance with County Standard No. 100A. (modified)

NOTE This will require a curbed landscaped median.

Harvill Avenue is a County maintained road and shall be improved with concrete curb-and-gutter located 38 feet from centerline and match up asphalt concrete paving; reconstruction; or resurfacing of existing paving as determined by the Transportation Department within a 59 foot half-width dedicated right-of-way in accordance with County Standard No. 101. (modified)

CONDITIONAL USE PERMIT Case #: CUP03370 Parcel: 317-110-035

90. PRIOR TO BLDG FINAL INSPECTION

90.TRANS. 2 USE - IMP PLANS INEFFECT

Improvement plans for the required improvements must be prepared and shall be based upon a design profile extending a minimum of 300 feet beyond the project boundaries at a grade and alignment as approved by the Riverside County Transportation Department. Completion of road improvements does not imply acceptance for maintenance by County.

90.TRANS. 7 USE - LANDSCAPING G.P. INEFFECT

The project proponent shall comply with the parkway landscaping requirements of Ordinance 499 for all General Plan Circulation Element roads. Landscaping shall be installed along Cajalco Expressway and Harvill Avenue and shall be maintained by annexation into a County Service Area and/or Assessment District or enter into a continuous maintained agreement. Landscaping plans shall be submitted with the street improvement plans for approval.

90.TRANS. 8 USE - SIGNING & STRIPING INEFFECT

A signing and striping plan is required for this project. The project proponent shall be responsible for any additional paving and/or striping removal caused by the striping plan. Traffic signing and striping shall be performed by County forces with all incurred costs borne by the applicant, unless otherwise approved by the County Traffic Engineer.

90.TRANS. 10 USE - STREET LIGHTS - INSTALL INEFFECT

Install street lights along the streets associated with the development in accordance with the standards of County Ordinances 460 and 461*and**County procedures**or Imperial Irrigation District (IID) Standards**.

90.TRANS. 11 USE - STREET LIGHT PLAN INEFFECT

A separate street light plan is required for this project. Street lighting shall be designed in accordance with Street Light Specification Chart found in Specification Section 22 of Ordinance 461. For projects within SCE boundaries use County of Riverside Ordiance 461, Standard No's 1000 or 1001. For projects within Imperial Irrigation District (IID) use IID's pole standard.

CITY OF PERRIS

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
101 N. "D" Street, Perris, CA 92570-2200
TEL: (909) 943-5003 FAX: (909) 943-3293

OLIVIA GUTIERREZ, DIRECTOR

April 19, 2002

Dianna Zandbergen, Project Planner
County of Riverside
Riverside Planning Department
9th Floor PO Box 1409
Riverside, CA 92502-1409

Subject: Conditional Use Permit No. 03370 – Riverside County Travel Zone

Dear Ms. Zandbergen:

The City of Perris would like to thank you for the opportunity to review the Riverside County Travel Zone project.

The proposed project lies within the City's sphere of influence, and is designated Light Industrial (LI) by the City of Perris General Plan Land Use Element. The City of Perris zoning classification which corresponds with the LI designation is also Light Industrial (LI). If the project had been located in the City, the City's LI zone would "permit" a trucking terminal; therefore the use is consistent with the General Plan's Land Use element.

The City of Perris General Plan Circulation Element establishes Cajalco Expressway and Harvell Street as a Freeway/Expressway and a Primary Arterial, respectively. The City's Master Circulation Plan establishes Freeway/Expressway ultimate right of way widths at 118 feet with a fourteen feet median; and Primary Arterial ultimate right-of-way widths at 88 feet, including a 10 feet wide, two-way center turn lane.

City of Perris staff has concerns that the proposal may have significant circulation impacts. **It is requested that the County of Riverside provide 2 copies of the project traffic analysis to the City of Perris , specifically addressing the interchange of I-215 and Cajalco/Ramona Expressway.**

Once again, thank you for allowing Perris the opportunity to review the project. If I can be of further assistance, please do not hesitate to contact me at (909) 943-5003 x271.

Sincerely,

Jay Eastman
Contract Planner

cc. Olivia Gutierrez, Director of Planning and Community Development
Habib Motlagh, City Engineer
Nelson Miller, Contract Planner

S:\Planning\Jay Eastman\County Correspondance\Co_CUP-Travel Zone.doc

RIVERSIDE COUNTY
BOB DOYLE, SHERIFF

Sheriff
PERRIS STATION

June 25, 2003

County of Riverside, T.L.M.A
Attn: Dianna Zandbergen, Planner
4080 Lemon St., 9th Floor
P.O. Box 1409
Riverside, Ca. 92502

Ms. Zandbergen,

Thank you for providing Perris Sheriff Station with the revised plans for the Riverside County Travel Zone Truck Stop, located at Cajalco Rd., and Harvill Rd. Lieutenant Robinson and I have reviewed the project and concur on the following issues:

- The increased amount of calls for service generated from the project may impact the ability of our patrol units to provide a timely response to priority calls in the communities of Mead Valley, Woodcrest and Lake Mathews/Gavilan Hills area.

- We have not noticed any traffic flow improvements proposed within the project to the freeway on/off ramps at Cajalco and I-215. Although traffic enforcement in the unincorporated area falls within the jurisdiction of the California Highway Patrol, any added congestion resulting from the project (big-rigs,etc) would constitute a public safety concern for the Sheriff's Department.

Please do not hesitate to contact either myself or Lieutenant Boris Robinson, should you have any questions.

Sincerely,

Peter J. Herrera, Lieutenant
Boris Robinson, Lieutenant
Perris Sheriff Station
909-940-6329

PERRIS STATION
403 E. 4th Street, Perris, CA 92501 (909) 940-6200

Inter-Departmental Memorandum

To: Dianna Zandbergen (TLMA) **Date:** 043003

From: Lieutenant Peter Herrera

Reference: Conditional Use Permit #3370 Cajalco/Harvill Truck Stop

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Regarding the plans for the multi-use travelers center proposed for the First Supervisorial District-North Perris Zoning Area, north of Old Cajalco Rd. and west of Harvill Avenue. The Riverside County Sheriff's Department has the following issues of public safety concern:

1. We recommend office space be made available suitable for a deputy sheriff to remain on the premises if necessary, in order conduct interviews, write reports, etc.. This increases police presence in the area.

2. Recommend a video camera system that covers the interior of the business as well as the exterior truck park, weigh station, truck wash and adjoining food service establishments.

2. Recommend exterior lighting to cover all the parking areas, walkways and perimeter.

3. Recommend signage at various locations throughout the facility that give a point of contact for reporting crime.

4. Recommend perimeters should be defined by landscaping or fencing. Fences should be designed to maintain visibility from street.

Since the proposed project would consist of facilities (food services, car-wash, convenience store and fuel station) that draw a significant amount of customers, the impact on local law enforcement is anticipated to be significant. This, coupled with the fact that this project is located in the unincorporated area of the county of which our response time is limited by both geography and staffing levels, brings additional public safety concerns to the forefront. These are only a few of the challenges the community would face with the inception of the project.

We would request the opportunity to discuss this matter with your agency at the earliest convenience.

Sincerely,

Peter J. Herrera, Lieutenant
Perris Station
(909) 940-6329

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
464 W Fourth Street, 6th Floor MS 726
San Bernardino, CA 92401-1400
PHONE (909) 383-6327
FAX (909) 383-6890

July 3, 2002

08-Riv-215-30.900

Ms. Dianna Zanbergen
Riverside County Planning Department
9th Floor, CAC
P.O. Box 1409
Riverside, CA 92502-1409

Dear Ms. Zanbergen

CUP 03370, Multi-use Travelers Center, Riverside County Travel Zone, Applicant.

We have received the Land Development Committee notification of pending Initial Case Acceptance for the above project. This project is located west of Interstate 215, at the northeast corner of the intersection of Cajalco Expressway and Harvill Avenue. This project proposes a multi-use traveler center on 11.5 acres of land that consists of 51,784 square feet of retail buildings with 200 parking spaces and 72 truck parking spaces.

This project is located some distance from I-215 right-of-way; we do not expect project approval and construction to result in a direct or adverse impact to nearby State transportation facilities. However, our concern with "cumulative" traffic impacts resulting from continued growth in this area remains. Impact mitigation compliance may include payment of "fair-share" fees to a local fund designated for use in upgrading or repairing area transportation infrastructure and/or facilities.

Because of the magnitude of this project, we recommend preparation of a traffic impact analysis (TIA) be made a condition of development for this project. Analysis should include existing and future volumes, turning movements and travel speeds along the State right-of-way to identify any appropriate improvements required to effectively mitigate impacts affecting I-215. Please forward a copy of the TIA to this office for review as soon as it becomes available.

Thank you for the opportunity to offer our comments concerning the Multi-use Travels Center. If you have any questions regarding this letter, please contact Mr. Kee T. Ooi at (909)-383-4149 for assistance.

Sincerely,

Linda Grimes

LINDA GRIMES, Chief
Office of Forecasting/IGR-CEQA Review
Transportation Planning Division

RIVERSIDE COUNTY

EDA
ECONOMIC DEVELOPMENT AGENCY

Economic & Community Development

◇ Housing

◇ Housing Authority

◇ Redevelopment Agency

◇ County Service Areas

◇ Workforce Development

◇ Edward-Dean Museum & Gardens

◇ Aviation

◇ County Fair & National Date Festival

LAND DEVELOPMENT COMMITTEE PROJECT REVIEW

To: Dianna Zandbergen, Project Planner
CC: Kathy Thomas, Tina English, EDA

From: Serena Chow, Senior Development Specialist, EDA

Date: February 26, 2003

Case: CUP03370 commercial complex for Travel Zone, Perris

Project Description: The project consists of the construction of miscellaneous commercial and truck services on 11.5 acres at the intersection of Cajalco Expressway and Harvill Avenue in the Mead Valley area in the 1st Supervisorial District. The architect has done an exceptional job with the design and placement of the buildings on the site. APN: 317-110-034,35.

The project is located in the I-215 Corridor Redevelopment Agency Project Area in the Mead Valley Sub-Area.

CONDITIONS OF APPROVAL

Illumination

(1) Site Illumination: A Site Lighting Plan shall be submitted to and approved by the Riverside County Redevelopment Agency located at 3525 14th Street, Riverside, CA 92501.

(2) Landscape Lighting: must meet county standards for structural stability and foundation design.

- Landscape lighting: landscape lighting shall be limited to uplights, backlighting, and accent lighting of plant material (trees, shrubs, and vines). No flood lighting of landscape areas will be permitted.

Landscaping

(3) Maintenance Plan: A Landscape and Irrigation Maintenance Plan shall be submitted to and approved by the Riverside County Redevelopment Agency located at 3525 14th Street, Riverside, CA 92501 prior to occupancy. All landscaped areas and irrigation shall be maintained and installed in a healthy and growing condition. Dead plants shall be removed immediately and replaced with equal size and species material.

Signage

(4) Sign Plan Submittal: A Sign Plan shall be submitted to and approved by the Riverside County Redevelopment Agency located at 3525 14th Street, Riverside, CA 92501. Signage shall be compatible with existing building colors, materials, finishes, etc. and free from fabricator's advertisements. All electrical service shall be fully concealed. All fittings and connectors shall be a non-corrosive high-quality material.

[illegible]

3525 Fourteenth Street, Riverside, CA 92501-3813 ◇ Telephone 909/955-8916 ◇ Facsimile 909/955-6686
Website www.rivcoeda.org

FEB-26-2003 WED 01:36 PM FAX NO. P. 02

COUNTY OF RIVERSIDE
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: VI. C

HEARING DATE: July 18, 2002

CASE SUMMARY

CASE NUMBER: MA-02-145 – Riverside County Travel Zone
APPROVING JURISDICTION: County of Riverside
JURISDICTION CASE NO: CUP 3370

PROJECT DESCRIPTION:

A Conditional Use Permit for a full service travel stop with retail on approximately 11.5 acres.

PROJECT LOCATION:

The site is situated south of Cajalco Road and west of Harvill Ave., within the County of Riverside, approximately 10,000 ft. south of the south end of RWY 14/32 March Air Reserve Base.

Adjacent Airport: March Air Reserve Base/March Inland Port

a. Airport Influence Area: Within Area of Influence Study Area
b. Land Use Policy: Influence Area II
c. Noise Levels: See Below

BACKGROUND:

The ALUC has been active in protecting the airport from intrusion since the inception of the Commission in the early 1970's. The first AIR INSTALLATION COMPATIBILITY USES ZONE (AICUZ) protection was initiated by a Board of Supervisors request in November of 1971. The original Interim Influence Area was designated in February of 1972 and was redrawn in 1975 based upon a 1972 AICUZ.

In 1983 the ALUC redrew the boundaries to reflect the 1979 AICUZ. In April of 1984 the ALUC adopted the Riverside County Airport Land Use Plan (RCALUP). In May of 1986 the ALUC again redrew the boundaries to reflect the 1983 AICUZ. In 1992 and again in 1998 the AICUZ reports were redone to reflect the mission changes of the two Base Realignments: however, no changes were made to the Interim Influence Zone created in 1986.

In 1990 the ALUC was able to obtain Department of Defense funding for a Comprehensive Land Use Plan (CLUP) that resulted in the 1994 Draft. This was about the time that the second base realignment was announced and it was consequently never adopted. The current 98/99 Draft CLUP effort was prepared utilizing the 1998 AICUZ in conjunction with the 1993 CalTrans Handbook.

Since we have not adopted the CLUP for MARB, we will utilize five resources for our review:

1. RCALUP: 1984 with Interim boundaries for March Air Force Base: 1986
2. CalTrans Airport Land Use Planning Handbook: 2002
3. Draft CLUP for March Air Force Base: 1994
4. Noise Data from the Air Installation Compatibility Use Zone Study: 1998 March Air Reserve Base
5. Draft 98/99 CLUP for MARB/MIP

MAJOR ISSUES:

Land Use: The proposed site is located approximately 10,000 feet south of Runway 14-32. The proposal is for a Conditional Use Permit on 11.5 acres. The proposed use includes a truck stop with retail. The proposal is near one flight track and within the conical surface. The current generalized flight tracks are described in the AICUZ report and are on Exhibit B.

The 1984 Plan places an emphasis upon the type of airport, the type of aircraft using the airport, planned and existing approach profiles, actual flight tracks, noise levels, or a combination of these factors. The site is located in Area II, which allows commercial and industrial land use with a few restrictions. Industrial uses are allowed subject to certain constraints. The 1994 Draft CLUP placed the property inside of the 60 CNEL. The proposed land use designation would be consistent with allowed land uses within this area contingent upon noise and height issues.

Density and Coverage: The proposed site is 11.5 acres (net). The proposal includes 31,789 sq. ft of buildings and about 54,000 sq. ft. of canopies on 11.5 acres. The structural coverage for the structure will be less than 22%.

Part 77: The elevation at the site is approximately 1,509-1,524 feet. The height of the tallest structure is 22.5 ft. Any structures over 1,588 MSL feet in elevation will require an FAA 7460 review. Part 77 obstruction criteria are not a concern with this project.

Noise: The site has been shown to have some noise over the property with each of the AICUZ reports. The 1998 AICUZ indicated the noise level at the property to be less 55 CNEL. Previous AICUZ indicated that the noise level was as high as 60CNEL. The proposed use is not a noise sensitive use.

CONDITIONS:

1. Prior to project development or sale to an entity exempt from the Subdivision Map Act, the project proponents shall convey an avigation easement to the MARB/MIP Airport. (Tel.909-656-7000)

2. Any structures over 48 feet in height will require further review.

3. The following uses shall be prohibited:

   a. Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

   b. Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

   c. Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

   d. Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

4. The above ground storage of explosives or flammable materials shall be prohibited.

RECOMMENDATION: Staff recommends a finding of consistency for the project subject to the conditions outlined above.

Riverside County
Waste Management Department
Robert A. Nelson, General Manager-Chief Engineer

May 1st, 2002

Dianna Zandbergen, Project Planner
Riverside County Planning Department
9th Floor, CAC – P. O. Box 1409
Riverside, CA 92502-1409

RE: Conditional Use Permit (CUP) No. 03370
Proposal: To construct a multi-use travelers center, consisting of 72 truck parking spaces, weigh station, truck (diesel) fuel station, auto gas station, 8,156 sq ft retail building, drive-thru restaurant, auto lube and oil center with carwash and a 15,670 sq ft building that will include a convenience store, truckers shop, quick serve restaurant (drive-thru), truckers services (shower, laundry, restrooms) and a patio area.

Dear Ms. Zandbergen:

The Riverside County Waste Management Department has reviewed the proposed project located west of the City of Perris, specifically situated north of Old Cajalco Road, south of Cajalco Expressway, east of Seaton Avenue and west of Harvill Avenue. The site is also located within the North Perris Zoning Area. The proposed multi-use travelers center is subject to the State Model Ordinance, implemented 9/1/94 in accordance with AB 1327, Chapter 18, California Solid Waste Reuse and Recycling Access Act of 1991, which requires that all commercial, industrial and multi-family residential projects provide adequate area(s) for collecting and loading recyclable materials (i.e., paper products, glass and other recyclables).

At the development stage, the project proponent is required to implement the following standard conditions of approval:

1. **Prior to building permit issuance for each commercial building,** the applicant shall submit three (3) copies of a Recyclables Collection and Landing Area plot plan to the Riverside County Waste Management Department for review and approval. The plot plan shall conform to ***Design Guidelines for Recyclables Collection and Loading Areas,*** provided by the Waste Management Department, and shall show the location of and access to the collection area for recyclable materials, along with its dimensions and construction detail, including elevation/façade, construction materials and signage.

2. **Prior to building final inspection of each commercial building,** the applicant shall construct the recyclables collection and loading area in compliance with the Recyclables Collection and Loading Area plot plan, as approved and stamped by the Riverside County Waste Management Department, and as verified by the Riverside County Building and Safety Department through site inspection.

In addition, the project proponent is encouraged to consider the following measures to help reduce the project's potential solid waste impacts and to help in the County's efforts to comply with State law in diverting solid waste from landfill disposal:

1. Green waste generated by the project should be kept separate from other waste types and either composted onsite or directed to local wood grinding and/or composting operations.

2. The use of mulch and/or compost in the development and maintenance of landscape areas is recommended.

3. Construction and demolition waste should be reduced and/or diverted from landfill disposal by the use of onsite grinders or by directing the materials to recycling facilities.

4. The proposed project includes a lube and tune service bay. Oil is considered a hazardous material. Hazardous materials **are not** accepted at the Riverside County landfills. Any hazardous wastes, including paint, used during construction must be properly disposed of at a licensed facility in accordance with local, state and federal regulations. Please contact the Riverside County Health Department for further information.

Thank you for the opportunity to review this proposal. If you have any questions, please call me at (909) 955-4363.

Sincerely,

MPurkart

Mirtha Purkart, Planner III

MP:LBL/mp:lbl
Ref Doc #4048

FORMATION AND INSTRUCTIONS -
CTION 23958.4 B&P

tructions This form is to be used for all applications for original issuance or premises to premises transfer of licenses.

- Part 1 is to be completed by an ABC employee, given to applicant with pre-application package, with copy retained in holding file or applicant's district file.
- Part 2 is to be completed by the applicant, and returned to ABC.
- Part 3 is to be completed by the local governing body or its designated subordinate officer or body, and returned to ABC.

RT 1 - TO BE COMPLETED BY ABC

PLICANT'S NAME: RIVERSIDE COUNTY TRAVEL ZONE LLC

REMISES ADDRESS (Street number and name, city, zip code): 03601 Cajalco Expressway Perris, CA

3. LICENSE TYPE: 20

YPE OF BUSINESS

- [ ] Full Service Restaurant
- [ ] Deli or Specialty Restaurant
- [ ] Cafe/Coffee Shop
- [ ] Bed & Breakfast:
  - [ ] Wine only
  - [ ] All
- [ ] Hofbrau/Cafeteria
- [ ] Comedy Club
- [ ] Brew Pub
- [ ] Theater
- [ ] Cocktail Lounge
- [ ] Night Club
- [ ] Tavern: Beer
- [ ] Tavern: Beer & Wine
- [ ] Private Club
- [ ] Veterans Club
- [ ] Fraternal Club
- [ ] Wine Tasting Room

- [ ] Supermarket
- [ ] Liquor Store
- [ ] Drug/Variety Store
- [ ] Other - describe:
- [ ] Membership Store
- [ ] Department Store
- [ ] Florist/Gift Shop
- [ ] Service Station
- [ ] Convenience Market
- [X] Convenience Market w/Gasoline
- [ ] Swap Meet/Flea Market
- [ ] Drive-in Dairy

COUNTY POPULATION

6. TOTAL NUMBER OF LICENSES IN COUNTY: [ ] On-Sale [ ] Off-Sale

7. RATIO OF LICENSES TO POPULATION IN COUNTY: [ ] On-Sale [ ] Off-Sale

CENSUS TRACT NUMBER: 0429.04

9. NO. OF LICENSES ALLOWED IN CENSUS TRACT: 5 [ ] On-Sale [X] Off-Sale

10. NO. OF LICENSES EXISTING IN CENSUS TRACT: 2 [ ] On-Sale [X] Off-Sale

11. IS THE ABOVE CENSUS TRACT OVERCONCENTRATED WITH LICENSES? (i.e., does the ratio of licenses to population in the census tract exceed the ratio of licenses to population for the entire county?

- [ ] Yes, the number of existing licenses exceeds the number allowed
- [X] No, the number of existing licenses is lower than the number allowed

12. DOES LAW ENFORCEMENT AGENCY MAINTAIN CRIME STATISTICS?

- [ ] Yes (Go to Item #13)
- [ ] No (Go to Item #20)

13. CRIME REPORTING DISTRICT NUMBER

14. TOTAL NUMBER OF REPORTING DISTRICTS

15. TOTAL NUMBER OF OFFENSES IN ALL REPORTING DISTRICTS

16. AVERAGE NO. OF OFFENSES PER DISTRICT

17. 120% OF AVERAGE NUMBER OF OFFENSES

18. TOTAL NUMBER OF OFFENSES IN REPORTING DISTRICT

19. IS THE PREMISES LOCATED IN A HIGH CRIME REPORTING DISTRICT? (i.e., has a 20% greater number of reported crimes than the average number of reported crimes as determined from all crime reporting districts within the jurisdiction of the local law enforcement agency)

- [ ] Yes, the total number of offenses in the reporting district equals or exceeds the total number in item #17
- [ ] No, the total number of offenses in the reporting district is lower than the total number in item #17

20. CHECK THE BOX THAT APPLIES (check only one box)

- [X] a. If "*No*" is checked in both item #11 *and* item #19, *Section 23958.4 B&P does not apply* to this application, and no additional information will be needed on this issue. Advise the applicant to bring this completed form to ABC when filing the application.
- [ ] b. If "*Yes*" is checked in either item #11 *or* item #19, *and* the applicant is applying for a non-retail license, a retail bona fide public eating place license, a retail license issued for a hotel, motel or other lodging establishment as defined in Section 25503.16(b) B&P, or a retail license issued in conjuction with a beer manufacturer's license, or winegrower's license, advise the *applicant to complete Section 2* and bring the completed form to ABC when filing the application or as soon as possible thereafter.
- [ ] c. If "*Yes*" is checked in either item #11 *or* item #19, *and* the applicant is applying for an off-sale beer and wine license, an off-sale general license, an on-sale beer license, an on-sale beer and wine (public premises) license, or an on-sale general (public premises) license, advise the *applicant to take this form to the local governing body, or its designated subordinate officer or body to have them complete Section 3*. The completed form will need to be provided to ABC in order to process the application.

Governing Body/Designated Subordinate Name:

FOR DEPARTMENT USE ONLY

PREPARED BY (Name or Department Employee): S. Gomez

VAL VERDE UNIFIED SCHOOL DISTRICT

975 West Morgan Street • Perris, California 92571 • (909) 940-6100 • FAX (909) 940-6120

C. Fred Workman, Ed.D., Superintendent

April 22, 2002

Mike Harrod, Project Planner
COUNTY OF RIVERSIDE, Planning Department
9th Floor, CAC – P.O. Box 1409
Riverside, CA 92502-1409

Re:		
	Case No.:	N/A
	Project Description:	Multi-Use Travelers Center: 72 truck parking spaces, weigh station, fuel station, gas station, 8156sf retail building, drive-thru restaurant, auto lube & oil centerw/carwash, 15670sf building that will include convenience store, truckers shop, quick serve restaurant (drive thru), truckers services (shower, laundry, restrooms) and patio area.
	Location:	Southwest corner of Harvill and Cajalco
	Applicant:	Riverside County Travel Zone
	APN:	317-110-034, 317-110-035

Dear Mr. Harrod:

We have reviewed the above referenced project. The Val Verde Unified School District would like to make the following comments and/or recommendations:

1. The District recommends that all environmental health agencies within your jurisdiction take into consideration the health, safety and welfare of the students of the Val Verde Unified School District.
2. The District recommends that it be apprised of any traffic flow changes that might affect the health, safety and welfare of the students of the Val Verde Unified School District as well as the Val Verde District Office staff.
3. Val Verde Unified School District has adopted State statutory industrial/commercial fees. Companies within your jurisdiction will need to satisfy the appropriate fees prior to issuance of building permits.

We appreciate your requesting our input concerning this project. Should you have any questions or concerning regarding the District's recommendations, please don't hesitate to contact me at (909) 940-6100, ext. 1011.

Sincerely,

Sandee Hackett
Director, Facilities

SH/gjc

EASTERN MUNICIPAL WATER DISTRICT
SINCE 1950

April 26, 2002

Board of Directors

President
Rodger D. Siems

Vice President
Richard R. Hall

Marion V. Ashley
Randy A. Record
David J. Slawson

Board Secretary
Mary C. White

General Manager
Anthony J. Pack

Director of the Metropolitan Water District of So. Calif.
Marion V. Ashley

Treasurer
Joseph J. Kuebler, CPA

Legal Counsel
Redwine and Sherrill

County of Riverside
Environmental Health Department
PO BOX 1206
Riverside, CA 92502

Dear Colleague:

Re: SAN53-Water and/or Sewer Will Serve
Located on the southeast corner of Cajalco and Harvill
APN 317-110-035 and APN 317-110-034

EMWD is willing to provide water and/or sewer service to the subject project. The provisions of service are contingent upon the developer completing the necessary arrangements in accordance with EMWD rules and regulations. EMWD expects the developer to provide proper notification when a water demand assessment is required pursuant to Senate Bill 221 and/or 610. EMWD expects the developer to coordinate with the approving agency for the proper notification. Further arrangements for service from EMWD may also include plan check, facility construction inspection, jurisdictional annexation, and payment of financial participation charges. The developer is advised to contact EMWD's New Business Development Department early in the entitlement process to determine the necessary arrangements for service.

EMWD's ability to serve is subject to limiting conditions, such as water shortages, regulatory requirements, legal issues, or conditions beyond EMWD's control.

Thank you for your cooperation in serving our mutual customers. If you have any questions, please call me at (909) 928-3777, ext. 4468.

Sincerely,

Corey E. Wallace
Civil Engineering Associate II
New Business Development Dept.

CFW/jw

c: Ali Mazarei
Law Offices of Rayehe Mazarei
Fax: 760-690-7701

G:\ACCESS\New_Busi\DAD\Archives\Year2002\APN 317-110-035.doc

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (909) 928-3777 Fax: (909) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet: www.emwd.org

Comments Re: CUP 03370 AMD 1

This area has seen some very hard times during the 1990's and is in need of substantial economic stimulus. However, I will need exhaustive rationale as to why the proposed project is appropriate for this location. My primary concern is the extensive truck traffic that the project will generate at the I-215/Cajalco interchange and the ability of the interchange and local roads to handle the traffic. A detailed traffic analysis of current conditions, along with a list of required improvement and associated timetable is required. The area seems better suited to non-polluting light industrial than a major traffic generating and possibly polluting major truck stop.

John Roth
1st District PC

LAND DEVELOPMENT COMMITTEE
(*INITIAL CASE ACCEPTANCE) MEETING AGENDA
RIVERSIDE COUNTY PLANNING DEPARTMENT
9TH FLOOR, CAC - P.O. Box 1409
Riverside, CA 92502-1409

DATE: **April 15, 2002**

Transportation (4)
Environmental Health
Flood Control District
Fire Department
Building & Safety - Grading
Building & Safety-Mark Berg
Regional Parks & Open Space
Riv. County Sheriff's Dept.
Riv. Co. Waste
Supervisor Buster
Commissioner Roth
EDA
Water Quality Control Board

City of Perris
Val Verde Unified School Dist.
Caltrans Dist. #8
Eastern Municipal Water Dist.
So. Calif. Edison
So. Calif. Gas Co.
U.S. Fish & Wildlife Service
Calif. Dept. of Fish and Game
U.S. Postal Service/S.B.
EIC- Attachment "A"
Greater Lake Mathews Area Assoc.
South Coast Air Quality Mgmt. Dist.

CONDITIONAL USE PERMIT NO. 03370 - EA No. 38638 - Applicant: Riverside County Travel Zone - Engineer/Rep.: Ali Mazarei - First Supervisorial District - North Perris Zoning Area - Located north of Old Cajalco Road, south of Cajalco Expressway, east of Seaton Ave and west of Harvill Avenue - 11.5 acres - M-SC (Manufacturing- Service Commercial) zone **REQUEST:** This proposal is for a multi-use travelers center, which consists of 72 truck parking spaces, weigh station, truck (diesel) fuel station, auto gas station, 8,156 sq ft retail building, drive-thru restaurant, auto lube & oil center with carwash and a 15, 670 sq ft building that will include a convenience store, truckers shop, quick serve restaurant (drive-thru), truckers services (shower, laundry, restrooms) and a patio area. - Schedule: N/A - APN: 317-110-034 and 317-110-035 - Related Cases: N/A (1st LDC)

Please review the case described above, along with the attached tentative map/exhibit. This item will be discussed on **May , 2002,** by the Land Development Committee. All County LDC Agencies and Departments, please have draft conditions in the Land Management System by the LDC date. If you cannot clear the exhibit, please have LDC corrections in the system and DENY the routing. Once the route is complete, and the approval screen is approved with or without corrections, the case can be scheduled for a public hearing. All other agencies, please have your comments/conditions to the Planning Department as soon as possible, but no later than 14 days after the LDC date. Your comments/ recommendations/conditions are requested so that they may be incorporated in the staff report for this particular case.

Should you have any questions regarding this item, please do not hesitate to contact, **Dianna Zandbergen**, Project Planner, at **(909) 955-1852.**

COMMENTS:

DATE: SIGNATURE:
PLEASE PRINT NAME AND TITLE:
TELEPHONE:

If you do not use this letter for your response, please indicate the project planner's name. Thank you.

NOTICE OF PUBLIC HEARING BEFORE THE BOARD OF SUPERVISORS OF RIVERSIDE COUNTY ON A CONDITIONAL USE PERMIT FOR A MULTI-USE TRAVELERS CENTER WITHIN THE NORTH PERRIS DISTRICT, FIRST SUPERVISORIAL DISTRICT, NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN that a public hearing at which all interested persons will be heard, will be held before the Board of Supervisors of Riverside County, California, on the 1st Floor, County Administrative Center, Board of Supervisors Chambers, 4080 Lemon Street, Riverside, on May 20, 2003 at 1:30 P.M. to consider the application submitted by Riverside County Travel Zone on Conditional Use Permit 3370, which proposes a multi-use travelers center which consists of 52 truck parking spaces, weigh station, truck (diesel) fuel station, auto gas station, drive-thru restaurant, auto lube & oil center with carwash, restaurant and a 14,500 square foot building that will include a convenience store, truckers shop, quick serve restaurant (drive-thru), truckers services (shower, laundry, restrooms) and a patio area. The project site is located southeast corner of Cajalco Expressway and Harvill Avenue, west of the 215 Freeway in the North Perris area, First Supervisorial District.

The Planning Department has found that approval of the proposed project will not have a significant effect on the environment and has recommended adoption of a Mitigated Negative Declaration for Environmental Assessment No. 38638.

The proposed project case file may be viewed from the date of this notice until the public hearing, Monday through Friday, from 8:00 a.m. to 5:00 p.m. at the Clerk of the Board of Supervisors at 4080 Lemon Street, 1st Floor, Riverside, California 92501 and at the Riverside County Planning Department at 4080 Lemon Street, 9th Floor, Riverside, California 92501.

FOR FURTHER INFORMATION REGARDING THIS PROJECT, PLEASE CONTACT DIANNA ZANDBERGER, PROJECT PLANNER, AT (909) 955-1852.

Any person wishing to testify in support or in opposition to the proposed project or the proposed may do so in writing between the date of this notice and the public hearing, or may appear and be heard at the time and place noted above. All written comments received prior to the public hearing will be submitted to the Board of Supervisors and the Board of Supervisors will consider such comments, in addition to any oral testimony, before making a decision on the proposed project.

If you challenge the above item in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence to the Planning Commission or Board of Supervisors at, or prior to, the public hearing. Be advised that as a result of the public hearing and the consideration of all public comment, written and oral, the Board of Supervisors may amend, in whole or in part, the proposed project and/or the related environmental document. Accordingly, the designations, development standards, design or improvements, or any properties or lands within the boundaries of the proposed project, may be changed in a way other than specifically proposed.

Please send all written correspondence to:

Clerk of the Board
4080 Lemon Street, 1st Floor
Post Office Box 1147
Riverside, Ca 92502-1147

Dated: April 7, 2003

Nancy Romero
Clerk of the Board
By: Margie Lozano, Deputy

Publication: The Press Enterprise
3512 Fourteenth Street
Riverside, CA 92501

Publication Date: April 15, 2003, Tuesday

PROPERTY OWNERS CERTIFICATION FORM

I, VINNIE NGUYEN, certify that on
(Print Name)
CUP3370 3/6/2003 the attached property owners list
(Date)
was prepared by RIVERSIDE COUNTY
(Print Company or Individual's Name)

pursuant to application requirements furnished by the Riverside County Planning Department. Said list is a complete and true compilation of the owners of the subject property and all other property owners within 600 feet of the property involved, or if that area yields less than 25 different owners, all property owners within a notification area expanded to yield a minimum of 25 different owners, to a maximum notification area of 2,400 feet from the project boundaries, based upon the latest equalized assessment rolls. If the project is a subdivision with identified off-site access/improvements, said list includes a complete and true compilation of the names and mailing addresses of the owners of all property that is adjacent to the proposed off-site improvement/alignment.

I further certify that the information filed is true and correct to the best of my knowledge. I understand that incorrect or incomplete information may be grounds for rejection or denial of the application.

NAME: VINNIE NGUYEN

TITLE/REGISTRATION: GIS SPECIALIST III

ADDRESS: 4080 LEMON ST

RIVERSIDE, CA 92502

TELEPHONE (8 a.m. – 5 p.m.): (909) 955-8158

Water Quality Control Board
9771 Clairmont Mesa Bkvd. Ste B
San Diego, Ca 92124-1331

California Department of Fish and Game
Environmental Services Division
4775 Bird Farm Road
Chino Hills, Ca. 91709

CALTRANS District #8
CALTRANS Planning
464 W. Fourth Street
San Bernardino, CA 92401-1400

U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, Ca 92209

Val Verde Unified School District
975 E. Morgan Road
Perris, Ca 92571

City of Perris
101 North "D" Street
Perris, CA 92570

Southern California Edison
2244 Walnut Grove Avenue
Room 312
Rosemead, CA 91770-0800

Southern California Gas Company
Transmission Dept.
9400 Oakdale Ave.
Chatsworth, Ca. 91311-6511

EDA
Stop # 1330

Eastern Municipal Water District
P.O. Box 8300
Perris, Ca 92572-8300

U.S. Postal Service Growth Mgmt Coord.
San Bernardino MSC Mail Facility
San Bernardino, Ca 92403-9334

Eastern Information Center
Dept. of Anthrology
University of California
Riverside, Ca 92521

Greater Lake Mathews Area Association
Laura Taylor
14679 Descanso Dr.
Lake Mathews, Ca 92570

South Coast Air Quality Mgmt. District
21865 E Copley Drive
Diamond Bar, Ca 91765-4182

Building & Safety - Mark Berg
Stop # 2715

Transportation Dept.
Stop # 2016

Environmental Health
Stop # 3613

Flood Control Dist.
Stop # 2990

Fire Department
Stop # 2240

Building & Safety - Grading
Stop # 2715

Regional Parks & Open-Space
Stop # 2970

Sheriff's Dept.
Stop # 1450

Riverside Co. Waste
Stop # 5950

Commissioner Roth
Stop # 1070

Supervisor Buster
Stop # 1002

Executive Office
Jerry Norris
Stop # 1020

AGENCY LABLES FOR CUP03370
DIANNA ZANDBERGEN 4/1/03

317110046, ET AL
A & G
1501 E CERRITOS AVE
ANAHEIM CA 92805

317110034
ALI MAZAREI
236 S CRAIG DR
ORANGE CA 92869

317110040, ET AL
CAJALCO LLC
24560 NADINA AVE STE 7
MORENO VALLEY CA 92551

317110031, ET AL
CAJALCO LLC
C/O HARLEY KNOX & ASSOC
24560 NADINA AVE STE 7
MORENO VALLEY CA 92551

317110027
CAJALCO PLAZA
C/O ALBERT A WEBB ASSOC
3788 MCCRAY ST
RIVERSIDE CA 92506

317140009
CRAIG EDWARD APPLEBY
1236 TOLKIN RD
RIVERSIDE CA 92506

317140042
DARRELL WAYNE RITCHIE
428 13TH ST
LYONS OR 97358

317140037
DAVID M FANN
23455 CAJALCO RD
PERRIS CA 92570

317140036
DAVID M FANN
23455 CAJALCO RD
PERRIS CA. 92570

317140051, ET AL
DBP INV CO
P O BOX 3308
CITY OF INDUSTRY CA 91744

317100020, ET AL
DODLA VENKATA RAGH REDDY
2786 TROPICANA AVE
RIVERSIDE CA 92504

317140040
DURWARD B HOLMAN
C/O ESTHER A VADASZ
23473 CAJALCO RD
PERRIS CA 92570

317100015
E CRAIG PAUGH
C/O EDWARD CRAIG PAUGH
1460 BALBOA AVE
ONTARIO CA 91762

317140028
EDUARDO MARTIN MERCADO
23051 CAJALCO RD
PERRIS CA. 92570

317110006
EDWARD R MCWILLIAMS
185 S 18TH ST
REEDSPORT OR 97467

317110010, ET AL
ELMER COOKSEY
23320 CAJALCO RD
PERRIS CA 92570

317110009
ELMER COOKSEY
23320 CAJALCO RD
PERRIS CA 92570

317140043
ESTHER A VADASZ
23473 CAJALCO RD
PERRIS CA. 92570

317110028
FAYEZ S SEDRAK
2337 NORCO DR
NORCO CA 92860

317140038
GREGORY L NELSON
23459 CAJALCO RD
PERRIS CA. 92570

317140005
GUADALUPE OLIVAREZ
P O BOX 1025
PERRIS CA 92572

317140015
HELEN I TOTH
19543 PATTERSON AVE
PERRIS CA. 92570

317140004
HERIBERTO PUENTE VALLE
23050 CAJALCO RD
PERRIS CA. 92570

317100023
JAIME M AMOR
7947 TAPIA ST
FONTANA CA 92336

317110021
JAM HALL
C/O UNIVERSAL SPEC VEHICLES INC
19052 HARVILL AVE
PERRIS CA 92570

317110003
JAMES MICHAEL HALL
13925 CAROL LN
PERRIS CA 92570

317160042
JOEY M TOTH
C/O HELEN TOTH
19543 PATTERSON AVE
PERRIS CA 92570

317100025
MACTAVISH & MACDUFF OAKWOOD
23305 WESTWOOD ST
GRAND TERRACE CA 92313

317100014
MORLEY WILLIAMS
32723 RANCHOS LADERA
BONSALL CA 92003

317110035
PINNACLE REAL ESTATE HOLDINGS INC
236 S CRAIG DR
ORANGE CA 92869

317120019, ET AL
****
3560 UNIVERSITY AVE NO 100
RIVERSIDE CA 92501

317120016
STATE OF CALIF
DEPT OF TRANSPORTATION
464 W FOURTH ST 6TH FL
SAN BERNARDINO CA 92401

317140049
VANAGAN HOLDINGS INC
7411 VANTAGE WAY
DELTA BC CANADA V4G1C9

317140035
PAUL ARNOLD
23451 CAJALCO RD
PERRIS CA. 92570

317110024, ET AL
R R FINANCIAL
P O BOX 2209
NEWPORT BEACH CA 92659

317140016
ROBERT V LANGE
42814 BEEMAN DR
MURRIETA CA 92562

314300001, ET AL
THOMAS A THOMAS
2300 W SAHARA AVE BOX 1
LAS VEGAS NV 89102

317110037, ET AL
VINCENT J STAGLIANO
5501 ST ANDREWS CT
PLANO TX 75093

COUNTY OF RIVERSIDE M* REPRINTED * R0305446
SPECIALIZED DEPARTMENT RECEIPT
Permit Assistance Center

4080 Lemon Street	39493 Los Alamos Road	82675 Highway 111
Second Floor	Suite A	Room 209
Riverside, CA 92502	Murrieta, CA 92563	Indio, CA 92201
(909) 955-3200	(909) 694-5242	(760) 863-8271

****

Received from: RIVERSIDE COUNTY TRAVEL ZONE $1,314.00
paid by: CK 4048
FISH & GAME FOR EA38638 (CUP03370)
paid towards: CFG02450 CALIF FISH & GAME - NEG DECL
at parcel:
appl type: CFG1

By_____ Mar 24, 2003 16:39
ADANELYA posting date Mar 24, 2003

****

Account Code	Description	Amount
800713120100325100	CF&G TRUST	$1,250.00
800713120100325100	CF&G TRUST: RECORD FEES	$64.00

Overpayments of less than $5.00 will not be refunded!

COPY 2-TLMA ADMIN * REPRINTED *

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

MITIGATED NEGATIVE DECLARATION

Project/Case Number or Name: CUP 03370

Environmental Assessment No. EA38638

Based on the Initial Study, it has been determined that the proposed project will not have a significant effect upon the environment.

PROJECT DESCRIPTION, LOCATION, AND MITIGATION MEASURES REQUIRED TO POTENTIALLY SIGNIFICANT EFFECTS, IF ANY: *See attached Initial Study.*

COMPLETED/REVIEWED BY:

By: Dianna Zandbergen Title: Planner III

Date: March 28, 2003

Applicant/Project Sponsor: Riverside County Travel Zone

Date Submitted: April 3, 2002

ADOPTED BY:

☐ Board of Supervisors
☐ Planning Commission
☐ East Area Planning Council
☐ Planning Director
☐ Other _____

Person Verifying Adoption: _____

Title: _____

Date: _____

The Negative Declaration may be examined, along with documents referenced in the initial study, if any, at:

☒ Riverside County Planning Department, 4080 Lemon Street, 9th Floor, Riverside, CA 92501
☐ Riverside County Planning Department, 82-675 Highway 111, 2nd Floor, Indio, CA 92201
☐ Riverside County Transportation Department, 4080 Lemon Street, 8th Floor, Riverside, CA 92501

For additional information, contact, Dianna Zandbergen at (909) 955-1852.

C:\Documents and Settings\arossi\Desktop\EA38638.negdec.wpd

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

NOTICE OF DETERMINATION

TO:

☒ Office of Planning and Research (OPR)
1400 Tenth Street, Room 121
Sacramento, CA 95814

☒ County Clerk
County of Riverside

FROM:

Riverside County Planning Department

☒ 4080 Lemon Street, 9th Floor
P. O. Box 1409
Riverside, CA 92502-1409

☐ 82-675 Highway 111, 2nd Floor
Indio, CA 92201

Riverside County Transportation Department

☐ 4080 Lemon Street, 8th Floor
P. O. Box 1090
Riverside, CA 92502-1090

SUBJECT: Filing of Notice of Determination in Compliance with Section 21152 of the California Public Resources Code.

EA 38638 CONDITIONAL USE PERMIT NO. 3370 (FTA# 2001-02)
Project Title: *Case Numbers*

State Clearinghouse Number *Contact Person* *Area Code/No./Ext.*

Riverside County Travel Zone / Ali Mazarei
Project Applicant/Property Owner and Address

Located on the southeast corner of Cajalco Expressway and Harvill Avenue, west if the 215 Freeway.
Project Location

CUP03370, proposes a multi-use travelers center to be constructed in two phases. Phase I consists of 52 truck parking spaces, a weigh station, truck fuel station, auto gas station , auto lube & oil center with carwash, and a 14, 500 square foot building that will include a convenience store (with beer and wine sales), trucker's shop, quick serve restaurant, trucker's services (shower, laundry, restrooms) and a patio area. Phase II will consist of a free standing drive-thru restaurant and a free standing restaurant.
Project Description

This is to advise that the Riverside County_____has approved the above-referenced project on_____, and has made the following determinations regarding that project:

1. The project ☐ will, ☒ will not have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for the project and certified pursuant to the provisions of the California Environmental Quality Act. ($914 fee)
   ☐ An addendum to an Environmental Impact report was prepared for the project and certified pursuant to the provisions of the California Environmental Quality Act. ($64 fee)
   ☒ A Negative Declaration was prepared for the project pursuant to the provisions of the California Environmental Quality Act. ($1,314 fee)
   ☐ The project was undertaken pursuant to and in conformity with Specific Plan No. ?? (??) for which an Environmental Impact Report was certified or a Negative Declaration adopted. All potentially significant effects or the project were adequately analyzed in the earlier EIR or Negative Declaration and were avoided or mitigated pursuant to that earlier EIR or Negative Declaration. NO FURTHER ENVIRONMENTAL DOCUMENTATION REQUIRED. ($64 fee)
3. Mitigation Measures ☒ were, ☐ were not made a condition of the approval of the project.
4. Findings were made in accordance with Section 21081 of the California Public Resources Code.
5. A statement of Overriding Considerations ☐ , was, ☒ was not adopted for the project.
6. A de minimis finding ☐ was, ☒ was not made for the project in accordance with Section 711.4 of the California Fish and Game Code.

This is to certify that the Negative Declaration or Final EIR, with comments, responses and record of project approval is available to the general public at:

☒ Riverside County Planning Department, 4080 Lemon Street, 9th Floor, Riverside, CA 92501
☐ Riverside County Planning Department, 82-675 Highway 111, Room 209, Indio, CA 92201
☐ Riverside County Transportation Department, 4080 Lemon Street, 9th Floor, Riverside, CA 92501

TO BE COMPLETED BY OPR **Date Received for Filing and Posting at OPR:**	**FOR COUNTY CLERK'S USE ONLY** ***Please charge deposit fee case #:*** **EA38638 (CFG02450)**

COUNTY OF RIVERSIDE
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: V. B.

HEARING DATE: November 18, 2004 (continued from October 14)

CASE SUMMARY

CASE NUMBER: MA-04-144 (revision to MA-02-145) Travel Zone
APPROVING JURISDICTION: County of Riverside
JURISDICTION CASE NO: CUP 3370

PROJECT DESCRIPTION:

A Conditional Use Permit for a full service travel stop with retail on approximately 11.5 acres and a sign 70' high.

PROJECT LOCATION:

The site is situated south of Cajalco Road and west of Harvill Ave., within the County of Riverside, approximately 9,000 ft. south of the south end of RWY 14/32 March Air Reserve Base.

Adjacent Airport: March Air Reserve Base/March Inland Port

a. Airport Influence Area: Within Area of Influence Study Area
b. Land Use Policy: Influence Area II
c. Noise Levels: See Below

BACKGROUND:

The ALUC has been active in protecting the airport from intrusion since the inception of the Commission in the early 1970's. The first AIR INSTALLATION COMPATIBILITY USES ZONE (AICUZ) protection was initiated by a Board of Supervisors request in November of 1971. The original Interim Influence Area was designated in February of 1972 and was redrawn in 1975 based upon a 1972 AICUZ.

In 1983 the ALUC redrew the boundaries to reflect the 1979 AICUZ. In April of 1984 the ALUC adopted the Riverside County Airport Land Use Plan (RCALUP). In May of 1986 the ALUC again redrew the boundaries to reflect the 1983 AICUZ. In 1992 and again in 1998 the AICUZ reports were redone to reflect the mission changes of the two Base Realignments: however, no changes were made to the Interim Influence Zone created in 1986.

In 1990 the ALUC was able to obtain Department of Defense funding for a Comprehensive Land Use Plan (CLUP) that resulted in the 1994 Draft. This was about the time that the second base realignment was announced and it was consequently never adopted. The current 98/99 Draft CLUP effort was prepared utilizing the 1998 AICUZ in conjunction with the 1993 CalTrans Handbook.

Since we have not adopted the CLUP for MARB, we will utilize three resources for our review:

1. RCALUP: 1984 with Interim boundaries for March Air Force Base: 1986
2. CalTrans Airport Land Use Planning Handbook: 2002
3. Noise Data from the Air Installation Compatibility Use Zone Study: 1998 March Air Reserve Base
4. Draft 2004 ALUCP

MAJOR ISSUES:

Land Use: The proposed site is located approximately 9,000 feet south of Runway 14-32. The proposal is for a Conditional Use Permit on 11.5 acres. The proposed use includes a truck stop with retail. The proposal is near one flight track and within the conical surface. The current generalized flight tracks are described in the AICUZ report and are on Exhibit B.

The 1984 Plan places an emphasis upon the type of airport, the type of aircraft using the airport, planned and existing approach profiles, actual flight tracks, noise levels, or a combination of these factors. The site is located in Area II, which allows commercial and industrial land use with a few restrictions. Industrial uses are allowed subject to certain constraints. The proposed land use designation would be consistent with allowed land uses within this area contingent upon noise and height issues.

Density and Coverage: The proposed site is 11.5 acres (net). The proposal includes 31,789 sq. ft of buildings and about 54,000 sq. ft. of canopies on 11.5 acres. The structural coverage for the structure will be less than 22%.

Part 77: The elevation at the site is approximately 1,509-1,525 feet. The height of the tallest building is 22.5 ft. The runway end is at 1488MSL and any structures over 1,578 MSL feet in elevation will require an FAA 7460 review. The sign will be over that elevation Part 77 obstruction criteria are a concern with this project.

Noise: The site has been shown to have some noise over the property with each of the AICUZ reports. The 1998 AICUZ indicated the noise level at the property to be less 55 CNEL. Previous AICUZ indicated that the noise level was as high as 60CNEL. The proposed use is not a noise sensitive use.

CONDITIONS:

1. Prior to project development or sale to an entity exempt from the Subdivision Map Act, the project proponents shall convey an avigation easement to the MARB/MIP Airport. (Tel.909-656-7000)

2. An FAA Part 77 review shall be accomplished and any conditions required shall be met.

3. The following uses shall be prohibited:

   a. Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

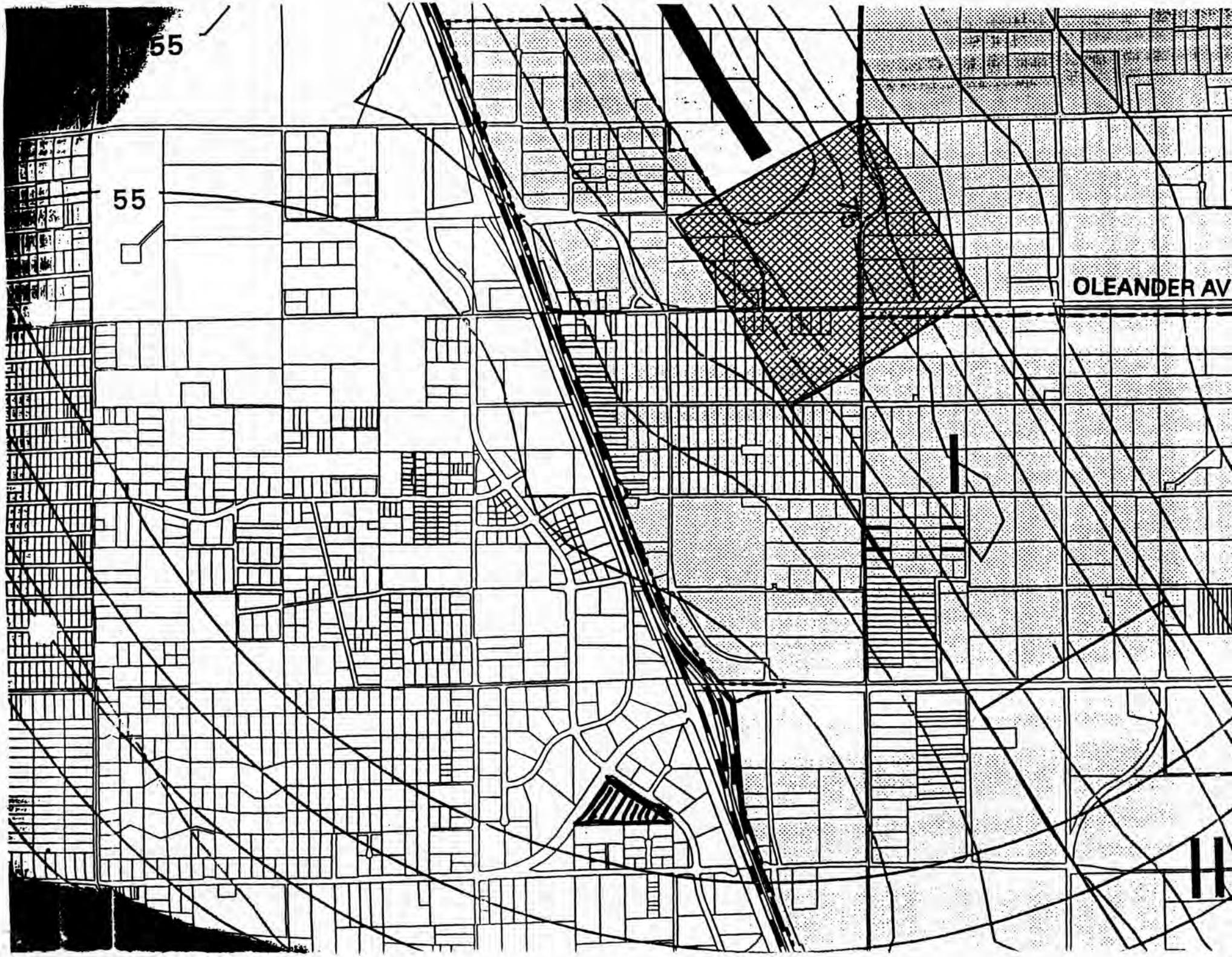
   b. Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

   c. Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

   d. Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

4. The above ground storage of explosives or flammable materials shall be prohibited.

RECOMMENDATION: October 14, Staff recommended a continuance until the FAA review is complete.
November 18, 2004: The FAA review is not complete and the case must be continued until December 9, 2005.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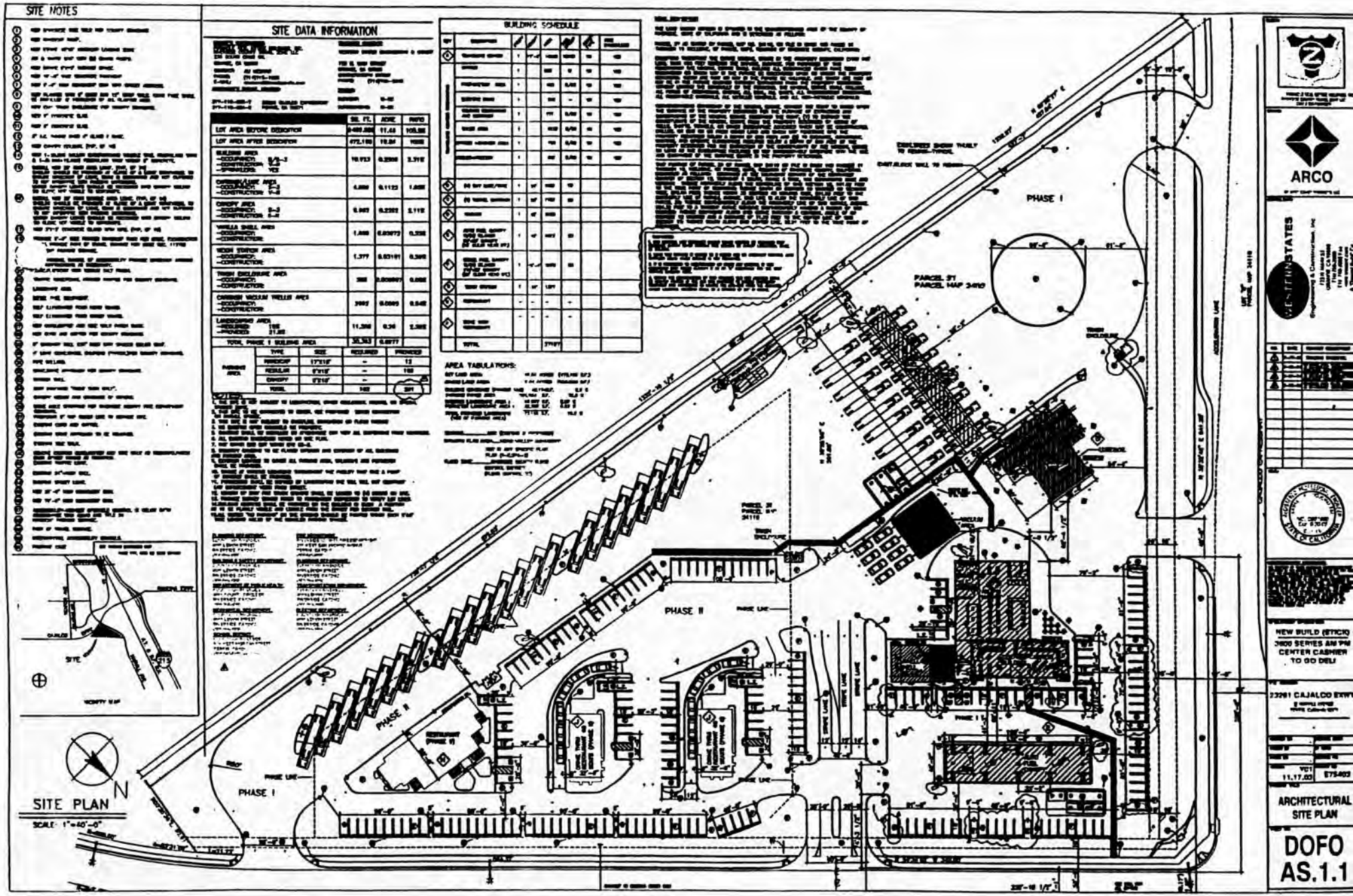
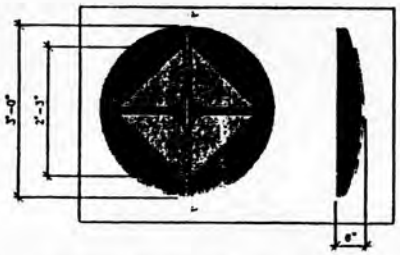

SITE NOTES
SITE DATA INFORMATION
BUILDING SCHEDULE
AREA TABULATIONS:
PHASE I
PHASE II
SITE PLAN
SCALE: 1"=40'-0"
ARCO
NEW BUILD (STICK)
3400 SERIES AM/PM
CENTER CASHIER
TO GO DELI
23261 CAJALCO EXWY
11.17.03
ARCHITECTURAL
SITE PLAN
DOFO
AS.1.1

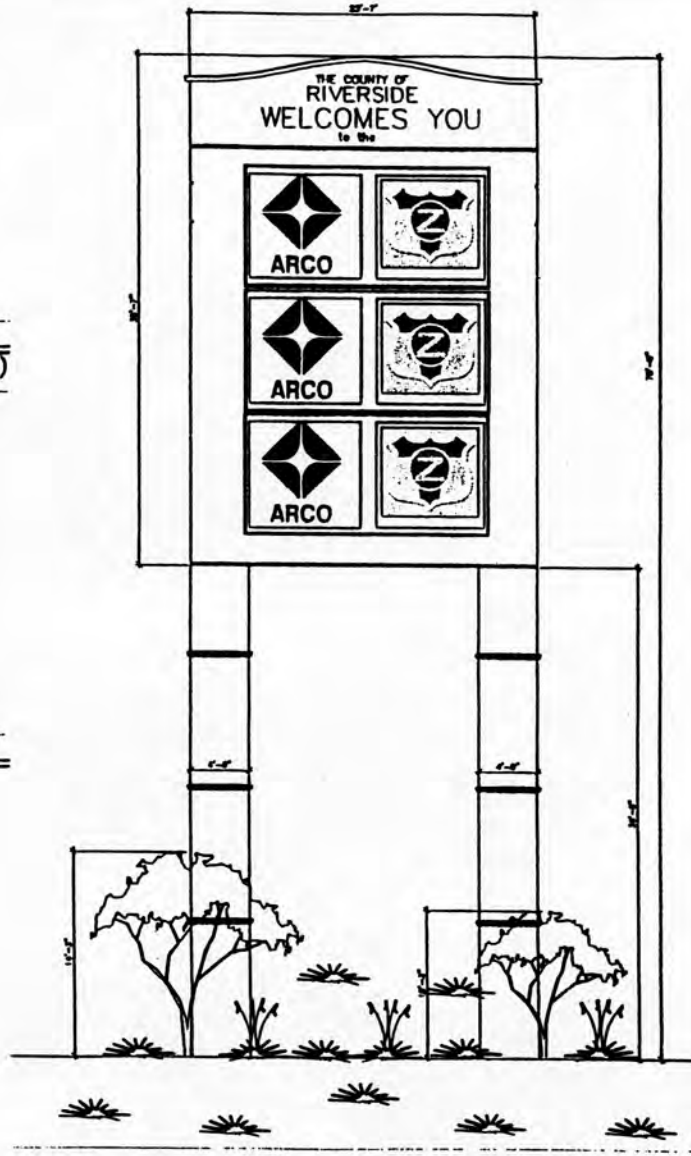
1 25' HIGH SIGNAGE ELEVATION
SCALE: 1/2"=1'-0"

4 CONVINIENCE STORE ENTRY SIGN
SCALE: 3/4"=1'-0" (INTERNALLY ILLUMINATED)

5 CONVENIENCE STORE WALL SIGN
SCALE: 3/4"=1'-0" (INTERNALLY ILLUMINATED)



6 CANOPY SPARK LOGO (ILLUMINATED)
SCALE: 1"=1'-0"



2 70' HIGH SIGNAGE ELEVATION
SCALE: 1/4"=1'-0"

ARCO

NEW BUILD (STICK)
3900 SERIES ANDW
CENTER CASHIER
TO GO DELI

23261 CAJALCO E...

SIGNAGE

DOFO
SG-1

RIVERSIDE COUNTY

EDA
ECONOMIC DEVELOPMENT AGENCY

LAND DEVELOPMENT COMMITTEE
EDA CLEARANCE
FAX 5-1817

Economic & Community Development

◇ Housing

◇ Housing Authority

◇ Redevelopment Agency

◇ County Service Areas

◇ Workforce Development

◇ Edward-Dean Museum & Gardens

◇ Aviation

◇ County Fair & National Date Festival

To: Dianna Ross
CC: Rob Moran

From: Serena Chow, Senior Development Specialist, EDA

Date: December 7, 2004

Case: CUP03370 Travel Zone, Phase 1

This letter shall serve as verification by the Riverside County Economic Development Agency (EDA) that the Planning Case referenced above has met the following LDC Conditions of Approval as per the EDA Land Development Committee Project Review letter dated February 6, 2003 which is attached as part of this Agency's clearance authorization:

List and Describe the LDC Conditions of Approval Items:

Sign Plan	Received 11/29/2004
Electrical Site Plan	Received 11/29/2004
Landscape/Irrigation Plan	Received 11/29/2004

Additional clearance required by the EDA: ☑ Yes ☐ No
(For Phase 2)

Signed,

Serena Chow

C:\Documents and Settings\serenac\My Documents\LDCclear.doc

P.O. Box 1180 Riverside, CA 92502 ◇ Telephone 951/343-5460 ◇ Facsimile 951/688-6714
Website www.rivcoeda.org

RIVERSIDE COUNTY

BOB DOYLE, SHERIFF

CUP03510

Sheriff

PERRIS STATION

July 29, 2004

Mr. Ali Mazarei
Pinnacle Real Estate Holdings, Inc.
236 South Craig Drive
Orange, CA. 92869

Re: Riverside County Travel Zone, 23261 Cajalco Expressway

Mr. Mazarei,

We have reviewed your architectural site plans for the Riverside County Travel Zone. We are satisfied that you have met our CPTED (Crime Prevention Through Environmental Design) requirements.

Please do not hesitate to contact me, should you have further requests regarding this project. We wish you good luck on this endeavor.

Sincerely,

BOB DOYLE, SHERIFF/CORONER

Capt GM Kestell

Guy M. Kestell, Captain
Perris Sheriff Station
909-940-6200

BD:GK:cb

USE PERMIT Case #: CUP03370 Parcel: 317-110-035

BNR 040065
66
67

PRIOR TO BLDG PRMT ISSUANCE

E HEALTH DEPARTMENT

80.E HEALTH. 1 USE - WATER WILL SERVE INEFFECT

A "Will-Serve" letter is required from the appropriate water agency.

80.E HEALTH. 2 USE - FOOD PLANS REQD INEFFECT

A total of three complete set of plans for each food establishment are needed including a fixture schedule, a finish schedule, and a plumbing schedule in order to ensure compliance with the California Uniform Retail Food Facilities Law.

80.E HEALTH. 3 USE - LEA CLEARANCE INEFFECT

Clearance from the Environmental Resources Management Division LEA

80.E HEALTH. 4 USE - PERC TEST REQD INEFFECT

satisfactory detailed soils percolation test in accordance with the procedures outlined in the Riverside County Waste Disposal Booklet entitled "Waste Disposal for Individual Homes, Commercial and Industrial".

FIRE DEPARTMENT

80.FIRE. 1 USE-#17A-BLDG PLAN CHECK $ INEFFECT

Building Plan check deposit base fee of $1,056.00, shall be paid in a check or money order to the Riverside County Fire Department after plans have been approved by our office.

80.FIRE. 2 USE-#4-WATER PLANS INEFFECT

The applicant or developer shall separately submit two copies of the water system plans to the Fire Department for review and approval. Calculated velocities shall not exceed 10 feet per second. Plans shall conform to the fire hydrant types, location and spacing, and the system shall meet the fire flow requirements. Plans shall be signed and approved by a registered civil engineer and the local water company with the following certification: "I certify that the design of the water system is in accordance with the requirements prescribed by the Riverside County Fire Department."

USE PERMIT Case #: CUP03370 Parcel: 317-110-035

PRIOR TO BLDG PRMT ISSUANCE

FLOOD RI DEPARTMENT

80.FLOOD RI. 1 USE MITCHARGE INEFFECT

The County Board of Supervisors has adopted the Perris Valley Area Drainage Plan (ADP) for the purpose of collecting drainage fees. This project may require earlier construction of downstream ADP facilities. to mitigate this effect, the District recommends that this project be required to pay a flood mitigation fee. The mitigation fee should be based upon the fee structures set for land divisions having comparable anticipated impermeable surface areas.

The entire site is located within the limits of the Perris Valley Area Drainage Plan for which drainage fees have been adopted to help mitigate the impacts of this development. The mitigation charge for this proposal shall equal the prevailing Area Drainage Plan fee rate multiplied by the area of the new development. This new development has a total of 9.8 acres subject to the fee. The charge is payable to the Flood Control District by cashier's check or money order only, and shall be paid after final approval of the staff report/conditions of approval by the Board of Supervisors and prior to issuance of permits.

80.FLOOD RI. 2 USE ADP FEE PORTION EXEMPT INEFFECT

This project is located within the limits for the Perris Valley Area Drainage Plan (ADP) for which fees have been adopted by the Board of Supervisors. It should also be noted that the project is located within Communities Facilities District (CFD) 88-8, which has constructed portions of Line E, Lateral E-8, Lateral E-9, and Lateral E-10 of the Perris Valley ADP. This construction exempts this proposal from the ADP fees except the $1,070 per acre portion allocated for the Perris Valley Channel. This fee shall be paid prior to permit issuance.

PLANNING DEPARTMENT

80.PLANNING. 3 USE - PHASE I,CONFORM TO ELEV. INEFFECT

Elevations for buildings B,C, and D in Phase I, submitted for building plan check approval shall be in substantial conformance with the elevations shown on APPROVED EXHIBIT B-2.

TO BLDG PRMT ISSUANCE

ANNING. 4 USE - PHASE I,CONFORM TO FL PL INEFFECT

Floor plans for buildings A,B,C and D in Phase I, shall be in substantial conformance with that shown on APPROVED EXHIBIT C and C-1.

80.PLANNING. 5 USE - PHASE I BLDG PERMITS INEFFECT

Prior to issuance of building permits for Phase I, an uncirculated substantial conformance is required for the fuel canopies related to the truck fueling station and auto gas station and elevations for Building A, as shown on APPROVED EXHIBIT BOS. The plans shall include the elevations (height), floor plans (if applicable), building footprint, colors and materials. The substantial conformance shall be approved by the Planning Department, however, if the Planning Department deems it necessary to circulate the plans for further review a circulated substantial conformance may be required.

In addition to the above information, color and materials shall be submitted for approval by the Planning Department for Buildings B,C and D.

80.PLANNING. 6 USE - PHASE II, BLDG PERMITS INEFFECT

Prior to building permit issuance for Phase II, a Transmitted Plot Plan (exempt from CEQA)is required for Buildings H, I and J as shown on Exhibit BOS. The Plot Plan application shall also include floor plans, elevations, color and materials to be approved.

80.PLANNING. 7 USE - ROOF EQUIPMENT SHIELDING INEFFECT

Roof mounted equipment shall be shielded from ground view. Screening material shall be subject to Planning Department approval.

80.PLANNING. 8 USE - LANDSCAPING SECURITIES INEFFECT

Performance securities, in amounts to be determined by the Director of Building and Safety to guarantee the installation of plantings, walls and/or fences, in accordance with the approved plan, shall be filed with the Department of Building and Safety. The performance security shall be released one year after structural final and the inspection report provides the plantings have been adequately installed and maintained. A cash security shall

USE PERMIT Case #: CUP03370 Parcel: 317-110-035

PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 8 USE - LANDSCAPING SECURITIES (cont.) INEFFECT

be required when the estimated cost is $2,500.00 or less.

80.PLANNING. 16 USE - AGENCY CLEARANCE (ALUC) INEFFECT

A clearance letter from the Airport Land Use Commission (ALUC) shall be provided to the Riverside County Planning Department verifying compliance with the conditions contained in their letter dated July 18, 2002, summarized as follows:

Prior to project development or sale to an entity exempt from the Subdivision Map Act, the project proponents shall convey an avigation easement to the MARB/MIP Airport. (Tel.909-656-7000).

80.PLANNING. 17 USE - WASTE MGMT. CLEARANCE INEFFECT

A clearance letter from Riverside County Waste Management District shall be provided to the Riverside County Planning Department verifying compliance with the conditions contained in their letter dated May 1, 2002, summarized as follows: The developer shall provide adequate areas for collecting and loading recyclable materials such as paper products, glass and green waste in commercial, industrial, public facilities and residential development projects.

80.PLANNING. 18 USE - SCHOOL MITIGATION INEFFECT

Impacts to the Val Verde School District shall be mitigated in accordance with California State law.

80.PLANNING. 21 USE - LIGHTING PLANS INEFFECT

All parking lot lights and other outdoor lighting shall be shown on electrical plans submitted to the Department of Building and Safety for plan check approvaland shall comply with the requirements of Riverside County Ordinance No. 655 and the Riverside County Comprehensive General Plan.

80.PLANNING. 22 USE - PRKNG/LNDSCPNG PLN INEFFECT

Prior to issuance of building permits, seven (7) copies of a Shading, Parking, Landscaping, and Irrigation Plan shall be submitted to and approved by the Planning Department.

Riverside County LMS
CONDITIONS OF APPROVAL

SE PERMIT Case #: CUP03370 Parcel: 317-110-035

OR TO BLDG PRMT ISSUANCE

PLANNING. 22 USE - PRKNG/LNDSCPNG PLN (cont.) INEFFECT

The location, number, genus, species, and container size of plants shall be shown. Plans shall meet all requirements of Ordinance No. 348, Sections 18.12, and 19.300 through 19.304 and as specified herein.

The irrigation plan shall include a rain shut-off device which is capable of shutting down the entire system. In addition, the plan will incorporate the use of in-line check valves, or sprinkler heads containing check valves to prohibit low head drainage.

80.PLANNING. 23 USE - FEE STATUS INEFFECT

Prior to issuance of building permits for Conditional Use Permit No. 3370, the Planning Department shall determine the status of the deposit based fees for project. If the case fees are in a negative state, the permit holder shall pay the outstanding balance.

80.PLANNING. 27 USE - AGENCY CLEARANCE/EDA INEFFECT

A clearance letter fron the Economic Development Agency (EDA) shall be provided to the Riverside County Planning Department verifying compliance with the conditions of their letter dated February 26, 2003, summarized as follows:

A site illumination plan, landscape lighting plan, landscape maintenance plan and signage plan shall be submitted and approved by EDA prior to building permit issuance.

TRANS DEPARTMENT

80.TRANS. 8 USE - STREET LIGHTS-CSA/LMD INEFFECT

The landowner shall contact the County Service Area (CSA) Administrator who determines whether the development is within an existing CSA. If the project is within an existing CSA, the landowner shall, pursuant to Governmental Code Section 56000, file an application, including a Street Light Plan approved by the Transportation Department, with the Local Agency Formation Commission (LAFCO) for annexation into the existing CSA. If the project is outside the boundaries of a CSA, the landowner shall contact the Transportation Department and establish a Lighting

USE PERMIT Case #: CUP03370 Parcel: 317-110-035

OR TO BLDG PRMT ISSUANCE

TRANS. 8 USE - STREET LIGHTS-CSA/LMD (cont.) INEFFECT

Maintenance District.

TRANS. 15 USE - TS/GEOMETRICS 1 INEFFECT

The intersection of Project West Driveway/Cajalco Expressway shall be restricted to right-out only.

The intersection of Project East Driveway/Cajalco Expressway shall be restricted to right-in/right-out only.

Note: Installation of a curbed, landscaped median along Cajalco Expressway is required.

The intersection of Harvill Avenue (NS)/Project North Driveway (EW) shall be improved to provide the following geometrics:

Northbound: One left turn lane, two through lanes.

Southbound: Two through lanes.

Eastbound: One left turn lane, one right turn lane.

Westbound: N/A

The intersection of Harvill Avenue(NS)/Project South Driveway (EW) shall be improved to provide the following geometrics:

Northbound: One left turn lane, two through lanes.

Southbound: Two thorugh lanes.

Eastbound: One shared left/right turn lane.

or as approved by the Transportation Department. Any off-site widening required to provide these geometrics shall be the responsibility of the landowner/developer.

COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY
Building and Safety Department
4080 Lemon Street, 2nd Floor
P. O. Box 1629
Riverside, California 92502-1440
Office: (909) 955-1800
Fax: (909) 955-1806

FOR IMMEDIATE DELIVERY

TO: Ali

Telefax Number/Location:

FROM: ANDREA ARCILLA

DATE: 7-9-04

Total Pages: 26
(Including Cover Sheet)

MESSAGE: Ali, we also need a MINOR Plot Plan to be submitted. Please call me as soon as you recieve this information

NON-RESIDENTIAL BLDG PMT Permit No: BNR040067 Parcel: 317-110-035

60. PRIOR TO GRADING PRMT ISSUANCE

B&S DEPARTMENT

60.B&S. 1 GP - CVWD FLOOD CLEARANCE REQD INEFFECT

Prior to the issuance of this grading permit, the applicant must obtain clearance from Coachella Valley Water District/Flood Control. It may be necessary to speak directly with a Water/Flood Control District representative in order to determine the exact requirements for their clearance.

80. PRIOR TO BLDG PRMT ISSUANCE

B&S DEPARTMENT

80.B&S. 1 BP - CVWD FLOOD CLEARANCE INEFFECT

CONTACT BY PHONE

Prior to the issuance of this permit, the applicant must obtain clearance from Coachella Valley Water/Flood Control District. It may be necessary to speak directly with a Flood Control District representative to determine the specific requirements for their clearance.

80.B&S. 2 BP - HEALTH CLEARANCE REQD INEFFECT

Prior to the issuance of this permit, the applicant must obtain clearance from Riverside County Enviromental Health Department.

80.B&S. 3 BP - FIRE CLEARANCE REQD INEFFECT

Prior to the issuance of this permit, the applicant must obtain clearance from Riverside Fire Department.

80.B&S. 4 BP - GRADING CLEARANCE REQMNT INEFFECT

Prior to the issuance of this permit, the applicant must obtain clearance from the Grading Division of the Department of Building & Safety. It may be necessary for the applicant to speak directly with a representative of the Grading Division to determine the specific requirements for their clearance.

80.B&S.999 BP - SCHOOL FEES REQD INEFFECT

Prior to the issuance of building permits, applicants are required to pay impact mitigation fees to the appropriate

NON-RESIDENTIAL BLDG PMT Permit No: BNR040067 Parcel: 317-110-035

80. PRIOR TO BLDG PRMT ISSUANCE

80.B&S.999 BP - SCHOOL FEES REQD (cont.) INEFFECT

school district(s). Written evidence from the appropriate school district(s) to Building & Safety authorizing the issuance of building permits for this project is required.

BS GRADE DEPARTMENT

80.BS GRADE. 1 USE* -G3.1NO B/PMT W/O G/PMT INEFFECT

Prior to issuance of any building permit, the property owner shall obtain a grading permit and/or approval to construct from the Grading Division of the Building and Safety Department.

E HEALTH DEPARTMENT

80.E HEALTH. 1 USE - FOOD PLANS REQUIRED INEFFECT

2. In the event the proposed kitchen in the community building is to be used or operated as a commercial food facility, as defined in the current California Uniform Retail Food Facility Law, it shall be designed to meet the minimum requirements of the Law. (NOTE: The Department of Environmental Health will need a signed statement from the owner indicating whether the above criteria will be pertinent to the building occupancy, prior to obtaining any building permits to construct.) Detailed, complete plans and specifications, in triplicate, pertaining to any commercial food facility installations, shall be submitted to this Department for our review and approval, prior to the issuance of any building permits.

80.E HEALTH. 3 USE- BUILDING PLANS REQUIRED INEFFECT

Detailed, complete, scaled plans and specifications for each building and structure installation, which shall include, but not be limited to, adequate floor plans and plumbing schedule for each building and structure, and all related site improvement installations, which shall include, but not be limited to, on-site lint trap and grease interceptor installations, on-site sanitary sewer line system installations, and on-site domestic, irrigation, and fire water line distribution system installations, shall be submitted to the Department of Environmental Health for our review and approval, prior to the issuance of any building permits. (NOTE: This Department recommends that approved sound control barriers

NON-RESIDENTIAL BLDG PMT Permit No: BNR040067 Parcel: 317-110-035

80. PRIOR TO BLDG PRMT ISSUANCE

80.E HEALTH. 3 USE- BUILDING PLANS REQUIRED (cont.) INEFFECT

(Example: Approved walls) be incorporated into the construction site improvements on the north, south, east, and west boundaries of the project developmental areas in order to mitigate the possible adverse impact noise may have on the occupants of the on-site mobilehome units. Please contact Industrial Hygiene for recommended requirements (Phone: (909) 358-5050).)

80.E HEALTH. 5 USE- WATER AND SEWER PLANS INEFFECT

Detailed, complete, engineered plans and specifications, in triplicate, pertaining to the on-site sanitary sewer line and on-site domestic, irrigation, and fire water line distribution system installations and construction for the mobilehome park and the related buildings on the indicated proposed parcel, shall be submitted to the Department of Environmental Health for our review and approval, prior to the issuance of any building permits.

80.E HEALTH. 6 USE- MOBILEHOME PARKS ACT INEFFECT

2. N/A

The mobilehome park shall be designed to meet the requirements of the current California Code of Regulations, Title 25, Chapter 2, Subchapter 1 (Mobilehome Parks Act). Detailed, complete, engineered plans and specifications, in triplicate, pertaining to all mobilehome park installations and construction and all related site improvement installations and construction, shall be submitted to the Department of Environmental Health for our review and approval, prior to the issuance of any building permits.

80.E HEALTH. 7 USE- PARCEL MAP RECORDATION INEFFECT

Tentative Parcel Map No. 29530 shall be recorded, in accordance with Riverside County Ordinance No. 460, prior to the issuance of any building permits. Three(3) copies of the recorded map shall be submitted to the Department of Environmental Health for our review, prior to this Department's approval of the issuance of any building permits.

80.E HEALTH. 9 USE- EXISTING EASEMENTS INEFFECT

No permanent buildings, mobilehomes, pools, and structures shall be constructed within any established easements, rights-of-way, dedications, or conveyances of record, nor

NON-RESIDENTIAL BLDG PMT Permit No: BNR040067 Parcel: 317-110-035

80. PRIOR TO BLDG PRMT ISSUANCE

80.E HEALTH. 9 USE- EXISTING EASEMENTS (cont.) INEFFECT

in the area of any existing Coachella Valley Water District's agricultural drain lines.

FIRE DEPARTMENT

80.FIRE. 4 PC-#17A-PLAN CHECK FEE INEFFECT

PAY

Building plans have been reviewed, however: a separate plan check deposit base fee of $197.00, made payable to the Riverside County Fire Department in the form of a check or money order only, must be submitted to the Fire Department. (reference your building permit number)

80.FIRE. 5 PC-#4-WATER PLANS INEFFECT

MUST CHECK WITH COUNTY

pplicant and/or develcper shall separately submit 2 sets of the water system plans to the Fire Department. Prior to Fire Department review and approval the water plans must be signed and approved by a registered Civil Engineer and/or the local water purveyor with the following statement: "I certify that the design of the water system is in accordance with the requirements prescribed by the Riverside County Fire Department." Calculated velocities shall not exceed 10 feet per second. Plans shall conform to the fire hydrant types, location, spacing and the system shall meet the fire flow requirements. Blue retroreflective pavement markers shall be mounted on private streets, public streets and driveways to indicate location of fire hydrants. (contact Fire Department for guideline handout for blue dot retroflectors). After mylars are signed by the fire department and/or water purveyor 2 copies of the approved water system shall be returned to the Riverside County Fire Department before a building permit will be issued.

PLANNING DEPARTMENT

80.PLANNING. 1 USE - CONFORM TO ELEVATIONS INEFFECT

Elevations of all buildings and structures submitted for building plan check approval shall be in substantial conformance with the elevations shown on Exhibit No. B.

NON-RESIDENTIAL BLDG PMT Permit No: BNR040067 Parcel: 317-110-035

80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 2 USE - CONFORM TO FLOOR PLANS INEFFECT

Floor plans shall be in substantial conformance with that shown on Exhibit No. C.

80.PLANNING. 3 USE - MAXIMUM DWELLING UNITS INEFFECT

N/A?, A maximum of 106 mobilehome space units and one (1) caretakers dwelling located within or near the community building are allowed under this permit.

80.PLANNING. 5 USE - SCHOOL MITIGATION INEFFECT

? Impacts to the Coachella Valley Unified School District shall be mitigated in accordance with California State law.

80.PLANNING. 6 USE - LANDSCAPING SECURITIES INEFFECT

Performance securities, in amounts to be determined by the Director of Building and Safety to guarantee the installation of plantings, walls and/or fences, in accordance with the approved plan, shall be filed with the Department of Building and Safety. The performance security shall be released one year after structural final and the inspection report provides the plantings have been adequately installed and maintained. A cash security shall be required when the estimated cost is $2,500.00 or less.

80.PLANNING. 7 USE - LANDSCAPING PLAN DESERT INEFFECT

Prior to the issuance of building permits, thirteen (13) folded copies of a Shading, Parking, Parking Lot Lighting, Landscaping and Irrigation Plan shall be submitted to and approved by the Planning Department pursuant to the requiremets of Ordinance No. 348, Sections 18.12 and 18.30 Planning Department only plot plan). It is recommended, to save unnecessary expense, that three (3) screen check copies of the proposed plan be initially submitted with a plot plan application and applicable fees, and thereafter providing the 13 final copies after completion of Planning Department review. The location, number, genus, species, and container size of plants shall be shown. Plans shall meet all requirements of Ordinance No. 348, Sections 18.12, and 19.300 through 19.304 and as specified herein.

The project landscaping and irrigation plans shall include the following:

SUBSTANTIAL CONFORMANCE Case #: CUP03370S2 Parcel: 317-110-034

10. GENERAL CONDITIONS

EVERY DEPARTMENT

10. EVERY. 1 USE - PROJECT DESCRIPTION INEFFECT

In compliance with COA 80.PLANNING.5 of CUP03370, case no. CUP03370S2 was submitted for:

A) A 28'-3" high carwash and lube station.
B) A 27'-3" high AM/PM building.
C) A 13'-11" high gas station canopy.

Submittal included both elevation and floor plans for the above listed structures.

The project site is located north of CAJALCO Road, east of CAJALCO Expressway, south of Messenia Lane, and west of Harvill Avenue.

10. EVERY. 2 USE - HOLD HARMLESS INEFFECT

The applicant/permittee or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside (COUNTY) its agents, officers, or employees from any claim, action, or proceeding against the COUNTY, its agents, officers, or employees to attack, set aside, void, or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning CUP03370S2. The COUNTY will promptly notify the applicant/permittee of any such claim, action, or proceeding against the COUNTY and will cooperate fully in the defense. If the COUNTY fails to promptly notify the applicant/permittee of any such claim, action, or proceeding or fails to cooperate fully in the defense, the applicant/permittee shall not, thereafter, be responsible to defend, indemnify, or hold harmless the COUNTY.

10. EVERY. 3 USE - DEFINITIONS INEFFECT

The words identified in the following list that appear in all capitals in the attached conditions of Conditional Use Permit No. 03370S2 shall be henceforth defined as follows:

APPROVED EXHIBIT B (ELEVATION DRAWINGS)= Exhibit B-1 through B-8, dated 9-3-04.
APPROVED EXHIBIT C (FLOOR PLANS) = Exhibit C-1 through C-4, dated 9-3-04.

COUNTY OF RIVERSIDE

TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Tony Carstens
Agency Director

Planning Department

Robert C. Johnson
Planning Director

November 2, 2004

Riverside County Travel Zone LLC
236 S. Craig Drive
Orange, CA. 92869

RE: CONDITIONAL USE PERMIT NO. 03370, SUBSTANTIAL CONFORMANCE NO. 2

The attached exhibits of the above referenced case has been reviewed by the Planning Department, and the Planning Department hereby considers this application to be substantially in conformance with the approved project.

Acknowledged Changes:
The proposed project will develop a 28'-3" high carwash, 27'-3" high AM/PM building, and a 13'-11" high gas station canopy as approved under the original CUP03370.

Approved Exhibits:
EXHIBIT B (Elevation drawings) = Exhibit B-1 through B-8, dated 9-3-04.
EXHIBIT C (Floor plans) = Exhibit C-1 through C-4, dated 9-3-04.

Note: **Only** those changes listed here are acknowledged and approved by the Planning Department under this permit.

Very truly yours,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Robert Johnson, Planning Director

Grace I. Williams, Project Planner

Riverside Office· 4080 Lemon Street, 9th Floor
P.O. Box 1409· Riverside, California 92502-1409
(909) 955-3200 · Fax (909) 955-3157

Indio Office· 82-675 Hwy 111, 2nd Floor
Room 209, Indio, California 92201
(760) 863-8277 · Fax (760) 863-7040

Murrieta Office· 39493 Los Alamos Rd.
Murrieta, California 92563
(909) 600-6170 · Fax (909) 600-6145

SUBSTANTIAL CONFORMANCE Case #: CUP03370S2 Parcel: 317-110-034

10. GENERAL CONDITIONS

PLANNING DEPARTMENT

10.PLANNING. 1 USE- SUB CONF W/ ORIGINAL INEFFECT

The Planning Department has determined this application to be substantially in conformance with the approved CUP03370. All conditions approved with CUP03370 shall be considered to be valid and in effect, unless superseded by these conditions of approval.

10.PLANNING. 2 USE- SC SITE CHANGES INEFFECT

Pursuant to approval of the SUBSTANTIAL CONFORMANCE, the following changes are being made to the APPROVED EXHIBIT B of CUP03370:

Elevations of Buildings A,B,C, and G shall now conform to APPROVED EXHIBIT B.

Floor Plans of buildings A and B shall now conform to APPROVED EXHIBIT C.

DOC # 2005-0537929
07/06/2005 08:00A Fee:NC
Page 1 of 8
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

When recorded mail to:

Authority Secretary's Office
March Inland Port Airport Authority
P. O. Box 7480
Moreno Valley, California 92552

FREE RECORDING

This instrument is for the benefit of the County of Riverside and the March Inland Port Airport Authority and is entitled to be recorded without fee (Government Code Section 6103)

M	S	U	PAGE	SIZE	DA	PCOR	NOCOR	SMF	MISC.
	1		8						
							✓		✓
A	R	L			COPY	LONG	REFUND	NCHG	EXAM

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FOR RECORDER'S OFFICE USE ONLY

Project: RIVERSIDE COUNTY TRAVEL ZONE LLC.

A.P.N. 317-110-035

Avigation Easement and Release

(March Air Reserve Base and March Inland Port)

WHEREAS RINNACLE REAL ESTATE HOLDINGS INC., hereinafter called the "Grantor", is/are the owner(s) in fee of that certain real property as described in Exhibit "A" attached hereto and incorporated herein by this reference, located in the County of Riverside, State of California, hereinafter called "Grantor's property"; and

WHEREAS Grantor's property is located within the Air Installation Compatible Use Zone (AICUZ) for March Air Reserve Base and the Airport Land Use Plan for March Inland Port, ("March Airfield"), in the County of Riverside, State of California that is operated as a joint use airport facility for both military operations and civilian uses (passenger and cargo air traffic), and within the flight path of aircraft operating from said March Airfield; and

WHEREAS the Grantor has sought approval from the County of Riverside for the development of Grantor's property by the project above-referenced; and

WHEREAS the County of Riverside has conditioned the approval of such project by requiring the granting of an avigation easement over the property of the Grantor; and

WHEREAS, Section 21652 of the Public Utilities Code authorizes the County of Riverside and the March Inland Port Airport Authority to acquire an avigation easement in such

airspace above the surface of property where necessary to permit imposition upon such property of excessive noise, vibration, discomfort, inconvenience, interference with use and enjoyment, and any consequent reduction in market value, due to the operation of aircraft to and from the March Airfield;

NOW, THEREFORE FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Grantor does hereby grant to the COUNTY OF RIVERSIDE, a California municipal corporation and the MARCH INLAND PORT AIRPORT AUTHORITY, a California Airport Authority, their successors, assigns, lessees, sublessees, licensees and invitees, (hereinafter referred to as "Grantees"), for the use and benefit of the public, including, but not limited to the United States Air Force, a perpetual easement and right of flight for the passage of aircraft, military and civilian, by whomsoever owned and operated in the airspace above the surface of the property of the Grantor as described in said Exhibit "A", together with the right to cause in said airspace such noise, sound or shock waves, vibrations, dust, smoke, light, odors, fumes, thermal waves, fuel particles, air quality changes, and other related conditions that may be inherent in the operation of aircraft, (hereinafter called "aircraft operation effects"). "Aircraft" is defined for the purposes of this instrument as any contrivance now known or hereinafter invented, used or designed for navigation of or flight in the air.

Grantor hereby acknowledges that March Airfield is an operating joint use airport facility subject to increases in the intensity of use and operation, including present and future aircraft operation effects, and Grantor hereby fully waives, remises and releases any right or cause of action which Grantor may now or in the future have against Grantees, their successors, assigns, lessees, sublessees, licensees and invitees, due to such aircraft operation effects that may be caused by the operation of aircraft landing at or taking off from, or operating at or on March Airfield or other airport or air facility which is or may be located at or near the site of said March Airfield. Said waiver and release shall include, but not be limited to, claims known or unknown for damages for physical or emotional injuries, discomfort, inconvenience, property damage, interference with use and enjoyment of property, diminution of property values, nuisance or inverse condemnation or for injunctive or other extraordinary or equitable relief.

Grantor agrees not to construct or permit the construction or growth of any structure, tree or other object that obstructs or interferes with the use of the rights herein granted or that creates interference with communication between any installation at March Airfield and aircraft, or to cause difficulty for pilots to distinguish between airport lights and other lights or to impair visibility in the vicinity of March Airfield, or to otherwise endanger the landing, take-off, or maneuvering of aircraft on or at said March Airfield.

Grantor agrees that Grantees shall have the right to mark and light as obstructions to air navigation any such building, structure, tree or other object now upon, or that in the future may be placed upon Grantor's property, together with the right of ingress to, egress from and passage over and within Grantor's property for the purpose of accomplishing such marking and lighting.

The foregoing grant of easement shall not be considered as otherwise prohibiting the use of Grantor's property for any lawful purpose below minimum flight altitudes for aircraft presently authorized or hereafter authorized by the appropriate federal or state authority, provided all applicable federal, state and local regulations pertaining to height restrictions are adhered to.

IT IS UNDERSTOOD AND AGREED that this easement and the rights and restrictions herein created shall run with the land and shall be binding upon the Grantor and the heirs, administrators, executors, successors and assigns of Grantor.

Dated 6/23/04

PINNACLE ~~REAL~~ ESTATE HOLDINGS, INC.

A. Mazarei

MOHAMMAD-ALI MAZAREI

COO / CO-FOUNDER / SECRETARY

GENERAL ACKNOWLEDGEMENT

State of California

County of ORANGE)ss
On, August 23, 2004 before me
(date)

Carol J. Young
(name)

a Notary Public in and for said State, personally appeared

Mohammad-Ali Mazarei
Name(s) of Signer(s)

~~Personally known to me -OR-~~ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and offical seal.

Signature

CAROL J. YOUNG
Commission # 1350287
Notary Public - California
Orange County
My Comm. Expires Apr 12, 2006

OPTIONAL SECTION

CAPACITY CLAIMED BY SIGNER

( ) Attorney-in-fact
(X) Corporate Officer(s)

Title COO
Title

( )
Guardian/Conservator
( ) Individuals(s)
( ) Trustee(s)
( ) Other

( ) Partner(s)
( ) General
( ) Limited

The party(ies) executing this document is/are representing:

GARY L. ORSO
COUNTY OF RIVERSIDE
ASSESSOR-COUNTY CLERK-RECORDER

Recorder
P.O. Box 751
Riverside, CA 92502-0751
(951) 486-7000

http://riverside.asrclkrec.com

NOTARY CLARITY

Under the provisions of Government Code 27361.7, I certify under the penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary: CAROL J. YOUNG

Commission #: 1350287

Place of Execution: ORANGE, CA

Date Commission Expires: APR 12, 2006

Date: August 23, 2006

Signature: Carol J. Young

Print Name: CAROL J. YOUNG

EXHIBIT A

LEGAL DESCRIPTION

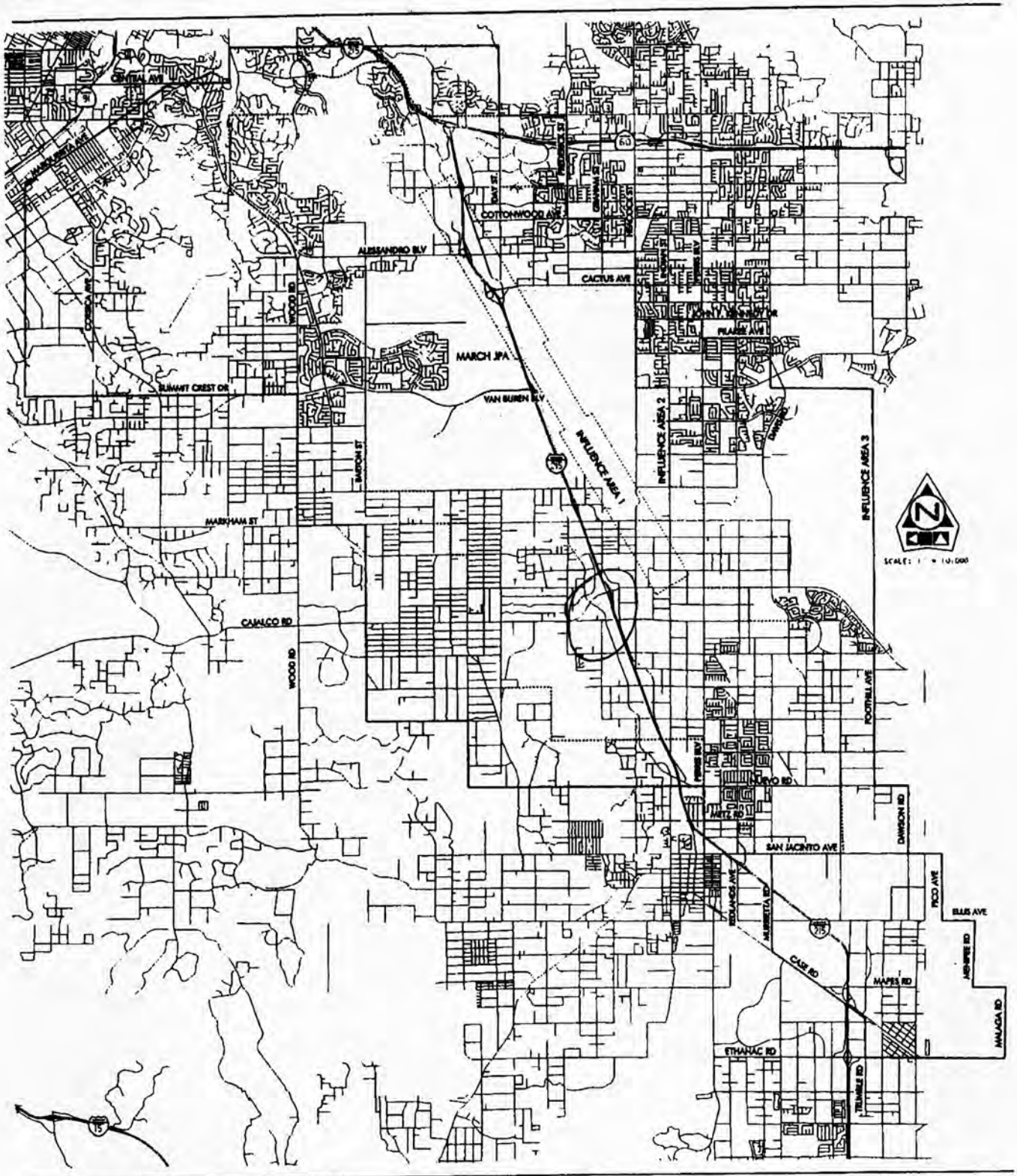
THE LAND SHOWN HEREON IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 37 AS SHOWN BY PARCEL MAP NO. 24110, ON FILE IN BOOK 165 PAGES 11 THROUGH 18 INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE ENTIRE MINERAL ESTATE IN THE PROPERTY DESCRIBED LYING NOT LESS, THAN 500 FEET BENEATH THE NATURAL SURFACE. FOR PURPOSES OF THIS RESERVATION THE MINERAL ESTATE SHALL INCLUDE ALL SUBSTANCES WHICH HAVE BEEN DISCOVERED OR WHICH MAY IN THE FUTURE BE DISCOVERED UPON OR UNDER THE PROPERTY DESCRIBED, WHICH ARE NOW OR MAY IN THE FUTURE BE VALUABLE, AND WHICH ARE NOW OR MAY BE IN THE FUTURE ENJOYED THROUGH EXTRACTION FROM THE PROPERTY DESCRIBED. WITHOUT LIMITING THE GENERALLY OF THE FORGOING, THE MINERAL ESTATE SHALL INCLUDE ALL FORMS OF GEOTHERMAL ENERGY, ALL COAL, ALL GASES, ALL HYDROCARBON SUBSTANCES, ALL FISSIONABLE MATERIALS, ALL METALLIC MINERALS, AND ALL NON-METALLIC MINERALS;

NOTWITHSTANDING OWNERSHIP OF THE MINERAL ESTATE, WITHOUT THE RIGHT TO ENTER UPON THE SURFACE OF THE PROPERTY DESCRIBED FOR THE PURPOSE OF EXTRACTING AND CONSTITUENTS OF THE MINERAL ESTATE. RESERVING THE RIGHT, (1) TO EXTRACT THE CONSTITUENTS OF THE MINERAL ESTATE FROM THE PROPERTY DESCRIBED BY MEANS OF WELLS, SHAFTS, TUNNELS, OR OTHER SUBSURFACE ACCESSES WHICH MAY BE CONSTRUCTED, DRILLED, OR DUG ON OR FROM OTHER LAND AND WHICH MAY PENETRATE INTO THE PROPERTY DESCRIBED BELOW A DEPTH OF 500 FEET; AND (2) TO EXCAVATE, CONSTRUCT, MAINTAIN, AND OPERATE SUBSURFACE FACILITIES BELOW A DEPTH OF 500 FEET OF THE PROPERTY DESCRIBED FOR THE EXTRACTION OF THE CONSTITUENTS OF THE MINERAL ESTATE SO LONG AS THE SUBSURFACE FACILITIES DO NOT UNREASONABLY INTERFERE WITH THE USE AND ENJOYMENT OF THE SURFACE ESTATE IN THE PROPERTY DESCRIBED.

Exhibit "B"



M.A.F.B. Airport - Influence Area

CERTIFICATE OF ACCEPTANCE

(Government Code Section 27281)

THIS IS TO CERTIFY that the interest in real property conveyed by the within instrument to the March Inland Port Airport Authority, a California public authority, is hereby accepted by the undersigned officer on behalf of the Joint Powers Commission of said Authority pursuant to authority conferred by Resolution No. 01-01 of said Joint Powers Commission adopted May 16 2001, and the grantee consents to recordation thereof by its duly authorized officer.

MARCH INLAND PORT AIRPORT AUTHORITY

Philip A. Kryp
Executive Director

Dated 6/22/05

DOC # 2005-0540384
07/06/2005 08:00A Fee:NC
Page 1 of 8
Recorded in Official Records
County of Riverside
Larry W. Ward
Assessor, County Clerk & Recorder

When recorded mail to:

Authority Secretary's Office
March Inland Port Airport Authority
P. O. Box 7480
Moreno Valley, California 92552

FREE RECORDING

This instrument is for the benefit of the County of Riverside and the March Inland Port Airport Authority and is entitled to be recorded without fee (Government Code Section 6103)

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FOR RECORDER'S OFFICE USE ONLY

Project: RIVERSIDE COUNTY TRAVEL ZONE LLC

A.P.N. 317-110-034

Avigation Easement and Release

(March Air Reserve Base and March Inland Port)

WHEREAS MOHAMMAD-ALI MAZAREI, hereinafter called the "Grantor", is/are the owner(s) in fee of that certain real property as described in Exhibit "A" attached hereto and incorporated herein by this reference, located in the County of Riverside, State of California, hereinafter called "Grantor's property"; and

WHEREAS Grantor's property is located within the Air Installation Compatible Use Zone (AICUZ) for March Air Reserve Base and the Airport Land Use Plan for March Inland Port, ("March Airfield"), in the County of Riverside, State of California that is operated as a joint use airport facility for both military operations and civilian uses (passenger and cargo air traffic), and within the flight path of aircraft operating from said March Airfield; and

WHEREAS the Grantor has sought approval from the County of Riverside for the development of Grantor's property by the project above-referenced; and

WHEREAS the County of Riverside has conditioned the approval of such project by requiring the granting of an avigation easement over the property of the Grantor; and

WHEREAS, Section 21652 of the Public Utilities Code authorizes the County of Riverside and the March Inland Port Airport Authority to acquire an avigation easement in such

airspace above the surface of property where necessary to permit imposition upon such property of excessive noise, vibration, discomfort, inconvenience, interference with use and enjoyment, and any consequent reduction in market value, due to the operation of aircraft to and from the March Airfield;

NOW, THEREFORE FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Grantor does hereby grant to the COUNTY OF RIVERSIDE, a California municipal corporation and the MARCH INLAND PORT AIRPORT AUTHORITY, a California Airport Authority, their successors, assigns, lessees, sublessees, licensees and invitees, (hereinafter referred to as "Grantees"), for the use and benefit of the public, including, but not limited to the United States Air Force, a perpetual easement and right of flight for the passage of aircraft, military and civilian, by whomsoever owned and operated in the airspace above the surface of the property of the Grantor as described in said Exhibit "A", together with the right to cause in said airspace such noise, sound or shock waves, vibrations, dust, smoke, light, odors, fumes, thermal waves, fuel particles, air quality changes, and other related conditions that may be inherent in the operation of aircraft, (hereinafter called "aircraft operation effects"). "Aircraft" is defined for the purposes of this instrument as any contrivance now known or hereinafter invented, used or designed for navigation of or flight in the air.

Grantor hereby acknowledges that March Airfield is an operating joint use airport facility subject to increases in the intensity of use and operation, including present and future aircraft operation effects, and Grantor hereby fully waives, remises and releases any right or cause of action which Grantor may now or in the future have against Grantees, their successors, assigns, lessees, sublessees, licensees and invitees, due to such aircraft operation effects that may be caused by the operation of aircraft landing at or taking off from, or operating at or on March Airfield or other airport or air facility which is or may be located at or near the site of said March Airfield. Said waiver and release shall include, but not be limited to, claims known or unknown for damages for physical or emotional injuries, discomfort, inconvenience, property damage, interference with use and enjoyment of property, diminution of property values, nuisance or inverse condemnation or for injunctive or other extraordinary or equitable relief.

Grantor agrees not to construct or permit the construction or growth of any structure, tree or other object that obstructs or interferes with the use of the rights herein granted or that creates interference with communication between any installation at March Airfield and aircraft, or to cause difficulty for pilots to distinguish between airport lights and other lights or to impair visibility in the vicinity of March Airfield, or to otherwise endanger the landing, take-off, or maneuvering of aircraft on or at said March Airfield.

Grantor agrees that Grantees shall have the right to mark and light as obstructions to air navigation any such building, structure, tree or other object now upon, or that in the future may be placed upon Grantor's property, together with the right of ingress to, egress from and passage over and within Grantor's property for the purpose of accomplishing such marking and lighting.

The foregoing grant of easement shall not be considered as otherwise prohibiting the use of Grantor's property for any lawful purpose below minimum flight altitudes for aircraft presently authorized or hereafter authorized by the appropriate federal or state authority, provided all applicable federal, state and local regulations pertaining to height restrictions are adhered to.

IT IS UNDERSTOOD AND AGREED that this easement and the rights and restrictions herein created shall run with the land and shall be binding upon the Grantor and the heirs, administrators, executors, successors and assigns of Grantor.

Dated 8/23/04

M. Maza

MOHAMMAD-ALI MAZAREI

GENERAL ACKNOWLEDGEMENT

State of California

County of ORANGE)ss
On, August 23, 2004 before me
(date)

CAROL J. YOUNG
(name)

a Notary Public in and for said State, personally appeared

MOHAMMAD - ALI MAZAREI
Name(s) of Signer(s)

~~Personally known to me OR~~ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Carol J. Young
Signature

CAROL J. YOUNG
Commission # 1350287
Notary Public - California
Orange County
My Comm. Expires Apr 12, 2006

OPTIONAL SECTION

CAPACITY CLAIMED BY SIGNER

( ) Attorney-in-fact
(X) Corporate Officer(s)

Title COO
Title

( )
Guardian/Conservator
( ) Individuals(s)
( ) Trustee(s)
( ) Other

( ) Partner(s)
( ) General
( ) Limited

The party(ies) executing this document is/are representing:

GARY L. ORSO
COUNTY OF RIVERSIDE
ASSESSOR-COUNTY CLERK-RECORDER

Recorder
P.O. Box 751
Riverside, CA 92502-0751
(951) 486-7000

http://riverside.asrclkrec.com

NOTARY CLARITY

Under the provisions of Government Code 27361.7, I certify under the penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary: Carol J. Young

Commission #: 1350287

Place of Execution: Orange, CA

Date Commission Expires: Apr 12, 2006

Date: August 23, 2004

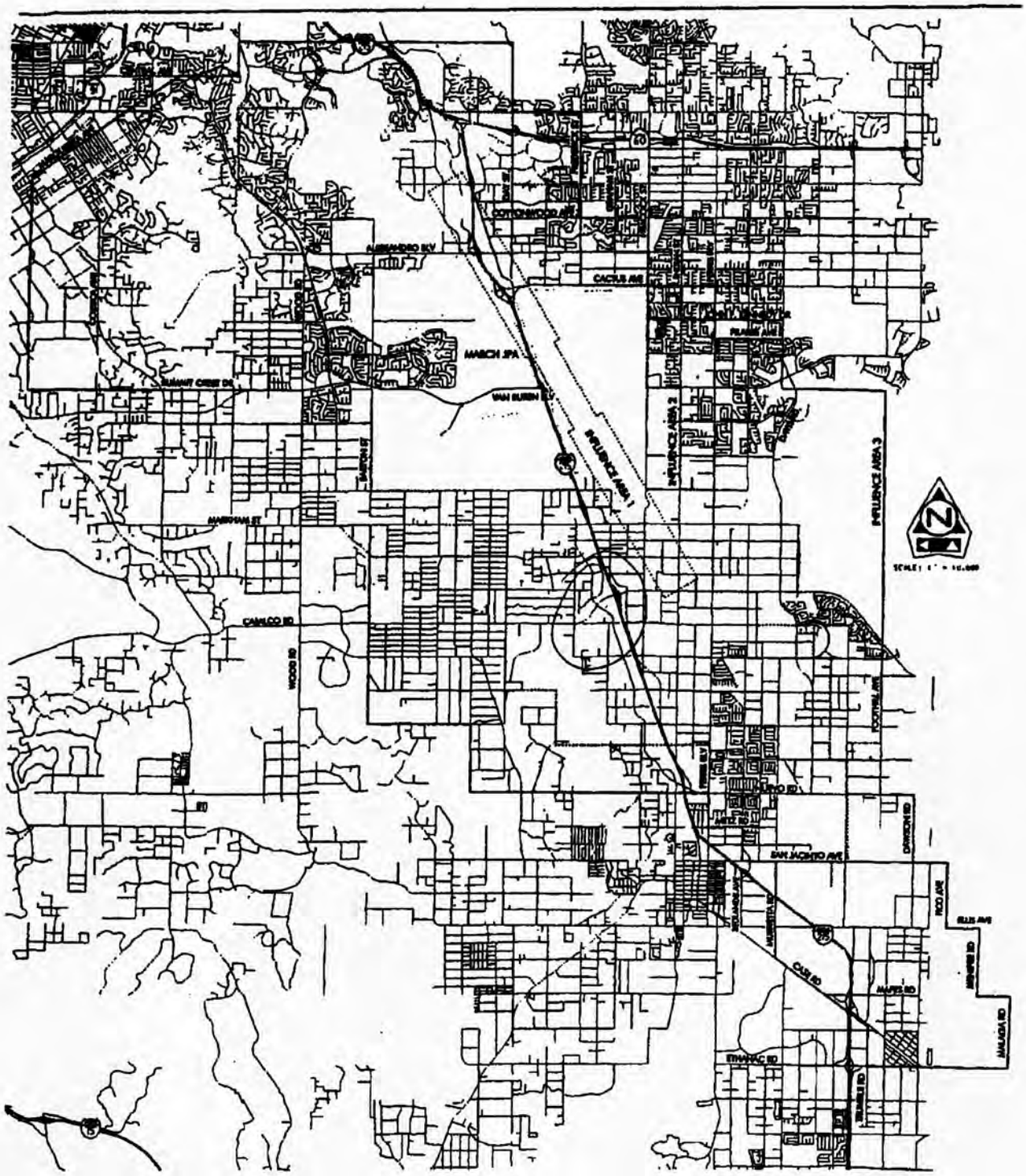
Signature: Carol J. Young

Print Name: Carol J. Young

EXHIBIT A

THAT PORTION OF PARCEL 36 OF PARCEL MAP 24110 ON FILE IN BOOK 165 PAGE(S) 11 THROUGH 18, INCLUSIVE, OR PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERDIAN; THENCE NORTHERLY ALONG THE CENTERLINE OF SIAD SECTION 12, 661.82 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 50 MINUTES 00 SECONDS WEST, 875.04 FEET; THENCE NORTH 36 DEGREES 45 MINUTES EAST, 591.86 FEET TO THE SOUTHERLY LINE OF HARVILL AVENUE, SIAD LINE IS ALSO THE NORHTERLY LINE OF SAID PARCEL 36; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SIAD HARVILL AVENUE, 584.32 FEET TO A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVEING A RADIUS OF 850 DEGREES; THENCE SOUTHEAST ALONG SAID CURVE THROUGH A CENTERAL ANGLE OF 08 DEGREES 12 MINUTES AND A DISTANCE OF 71.73 FEET TO THE CENTER LINE OF SIAD SECTION 12; THENCE SOUTH ALONG SIAD CENTER LINE, 82.91 FEET TO THE TRUE POINT OF BEGINNING.

Exhibit "B"



M.A.F.B. Airport - Influence Area

CERTIFICATE OF ACCEPTANCE

(Government Code Section 27281)

THIS IS TO CERTIFY that the interest in real property conveyed by the within instrument to the March Inland Port Airport Authority, a California public authority, is hereby accepted by the undersigned officer on behalf of the Joint Powers Commission of said Authority pursuant to authority conferred by Resolution No. 01-01 of said Joint Powers Commission adopted May 16 2001, and the grantee consents to recordation thereof by its duly authorized officer.

MARCH INLAND PORT AIRPORT AUTHORITY

Philip A. Rizzo
Executive Director

Dated 6/22/05

RIVERSIDE COUNTY

EDA
ECONOMIC DEVELOPMENT AGENCY

AIRPORT LAND USE COMMISSION
RIVERSIDE COUNTY

March 14, 2005

CHAIR
Ric Stephens
Riverside

VICE CHAIRMAN
Dave Hogan, Alt.
City of Temecula

COMMISSIONERS

Arthur Butler
Riverside

Simon Housman
Rancho Mirage

Jon Goldenbaum
Riverside

Marge Tandy
City of Hemet

Sam Pratt
City of Temecula

Mark Lightsey
Hemet

STAFF
Keith D. Downs
Executive Director
A.I.C.P., A.A.A.E

5555 Arlington Ave.
Riverside, CA 92504
Tel: (951) 343-5493

Website: www.rcaluc.org

County of Riverside, Planning Dept.
4080 Lemon St., 9th Floor
Riverside, CA 92502-1440
Attn: Kathleen Laufenberger
MAIL STOP # 1070

RE: AIRPORT LAND USE COMMISSION (ALUC) DEVELOPMENT REVIEW
File No.: MA-04-144
Related File No.: CUP 3370
APN: 317-110-034

Dear Applicant:

On March 10, 2005, the Riverside County Airport Land Use Commission (ALUC) found the above-referenced project consistent with the Airport Land Use Plan for March Air Base.

1. Prior to project development or sale to an entity exempt from the Subdivision Map Act, the project proponents shall convey an Avigation Easement to the MARB/MIP Airport. (Tel. 951-656-7000)

2. An FAA Part 77 review shall be accomplished and any conditions required shall be met.

3. The following uses shall be prohibited:

   (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

   (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

   (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.

   (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

4. The above ground storage of explosives or flammable materials shall be prohibited.

Should you have any questions regarding this action, please contact me at (951) 343-5493.

Sincerely,

RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Keith D. Downs, A.I.C.P., A.A.A.E.
Executive Director

KDD:jg

cc: ALUC Staff
Pinnacle Real Estate Holdings, Inc.

F:\Shared\EDCOM\AIRPORTS\ALUC\March\MA-04-144.LTR.doc

MARCH JOINT POWERS COMMISSION

of the

MARCH JOINT POWERS AUTHORITY

City of Moreno Valley · City of Riverside · City of Perris · County of Riverside

FAX TRANSMITTAL

Number of Pages (including cover): 4

Date: June 23, 2005

To:	**Ali Mazarei**	**From:**	**Natalie Mayberry**
At:		**At:**	**March Joint Powers Authority**
Phone:		**Phone:**	**(951) 656-7000**
Fax:	**714-538-5199**	**Fax:**	**(951) 653-5558**

Comments: Per your request, the original letters and memos will be mailed to you today, June 23, 2005. Please do not hesitate to call with any questions.

P. O. Box 7480

Moreno Valley, CA 92552

MARCH JOINT POWERS AUTHORITY

MEMORANDUM

TO: County of Riverside

FROM: Natalie Yaye Mayberry
March Joint Powers Authority

DATE: June 23, 2005

SUBJECT: Avigation Easement

Pinnacle Real Estate Holdings, Inc. has satisfied the requirement to provide the March Inland Port Airport an avigaiton easement for the property obtaining the A.P.N. 317-110-035. The March JPA mailed the original easement to the Riverside County Recorder's office on June 23, 2005. Please accept this memorandum as proof of completion of the avigation easement process.

If you have any questions regarding this item please call me at (951) 656-7000.

P.O. BOX 7480 ★ MORENO VALLEY, CALIFORNIA 92552 ★ (951) 656-7000 ★ FAX (951) 653-5558
E-MAIL: invest@marchjpa.com ★ WEBSITE: www.marchjpa.com

MARCH JOINT POWERS AUTHORITY

MEMORANDUM

TO: County of Riverside

FROM: Natalie Yaye Mayberry
March Joint Powers Authority

DATE: June 23, 2005

SUBJECT: Avigation Easement

Mohammad-Ali Mazarei has satisfied the requirement to provide the March Inland Port Airport an avigaiton easement for the property obtaining the A.P.N. 317-110-034. The March JPA mailed the original easement to the Riverside County Recorder's office on June 23, 2005. Please accept this memorandum as proof of completion of the avigation easement process.

If you have any questions regarding this item please call me at (951) 656-7000.

P.O. BOX 7480 ★ MORENO VALLEY, CALIFORNIA 92552 ★ (951) 656-7000 ★ FAX (951) 653-5558
E-MAIL: invest@marchjpa.com ★ WEBSITE: www.marchjpa.com

MARCH JOINT POWERS AUTHORITY

June 23, 2005

Ali Mazarei
236 S. Craig Drive
Orange, CA 92869

Re: Avigation Easements

Dear Mr. Mazarei:

Please find the enclosed original verification memos that you may submit as a receipt to the County of Riverside. Please note that the March Joint Powers Authority will not be sending the verification memos to the County. However, the March JPA will be mailing the avigation easements to the Riverside County Recorder's Office to complete the easement process. I will forward you a copy of the recorded easements as soon as I receive the originals from the Recorder's Office (generally 6-8 week turnaround time). Please feel free to call (951) 656-7000 with any questions.

Sincerely,

Natalie Yaye Mayberry
Receptionist

Enclosure

P.O. BOX 7480 ★ MORENO VALLEY, CALIFORNIA 92552 ★ (951) 656-7000 ★ FAX (951) 653-5558
E-MAIL: invest@marchjpa.com ★ WEBSITE: www.marchjpa.com

GEO-ETKA, INC.

Established 1965

Soil Engineering, Geology And Environmental Engineering
Material Testing And Inspections

739 N. MAIN STREET, ORANGE, CALIFORNIA 92868 PHONE: (714) 771-6911 FAX: (714) 771-1278

PRELIMINARY FOUNDATION SOILS EXPLORATION AND PAVEMENT DESIGN RECOMMENDATIONS

AT

23261 Cajalco Expressway
Corner of Harvill Avenue
Perris, California 92571

FOR

Riverside County Travel Zone, Inc.
C/o Pinnical Real Estate Holdings, Inc.
236 South Craig Drive
Orange, California 92869

Date: January 5, 2004
Job No: FR- 10088-04

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APPENDICES

I Soil Classification and Sampler

II Limitations

Scope

This report presents the results of our Foundation Soils Exploration and Pavement Design Recommendations of the site of the proposed construction for Riverside County Travel Zone, Inc. to be located at 23261 Cajalco Expressway, Corner of Harville Avenue, Perris, California 92571.

The physical location and approximate dimensions of the site are shown on the attached Plot Plan, Plate "A". This plans accuracy is as good as was submitted to our office, for dimension of the property use plans by surveyors or civil engineers.

An investigation was authorized to determine the existing soil conditions at the site and to provide data and specific recommendations relative to the foundation design for the proposed structure(s) in accordance with our signed proposal dated 10/27/03.

Refer to Appendix II for an explanation of the limitations inherent in this field.

Proposed Construction

Proposed Phase I plans are to construct a facility with a truck and auto fueling facility, a carwash, a mini-mart store. Driveway, parking areas, planters and landscaping will complete the project.

Wall and Column loads of (1,000 to 2,200 p.l.f.) and 12 to 25 kips, respectively, have been assumed and utilized in the preparation of this report.

This preliminary report is issued for the above design values. If the final project parameters, i.e. building size, building location, foundation loads etc., vary significantly from those noted above this office should be notified. At that time, this report will be revised to comply with the new design values.

This report is prepared for the client/owner, the project engineers and the governing agencies. Use of its contents by third parties will be at their own risk.

Chemical testing for detection of hydrocarbons or other potential contaminants is beyond the scope of this report. Environmental assessment is not a part of the work undertaken.

Site Condition

The site of the proposed construction is a fairly level, triangular shaped lot. It is bounded on the north, northwest by Cajalco Expressway, on the east, northeast by Harvill Street, and on the west, southwest by industrial property.

Site (cont'd)

With reference to the site investigated, all 4 of the adjoining properties are about the same elevation as the subject lot.

Drainage is down towards the streets by sheetflow.

A heavy growth of weeds and grass forms the ground cover.

Soil Condition

The on site soil is composed of layers of silty sand, clayey sand and sandy silt, extending to the depth of the borings, 20 feet. Note that soil variations in soil type may occur between the borings.

For a detailed soil classification, refer to the logs of the borings, Plates B-1" through "B-10".

Ground water was not noted in any of the 10 borings.

Man-placed fill was not encountered during the course of the field investigation. Any fill found irrespective of depth or lateral extent must be removed and replaced as compacted soil tested to 90% of its maximum dry density.

Exploration

The subsurface was explored by drilling 10 borings, 6 inches in diameter to a maximum depth of 20 feet below the existing ground surface using a continuous flight auger. The borings were placed in strategic locations where the major structure is to be constructed in a manner to determine the subsurface conditions. Approximate locations of the borings are shown on the attached Plot Plan, Plate "A".

All of the borings were logged by our soils technician. Samples of both undisturbed and disturbed soils encountered were obtained for laboratory testing and observation. Logs of the borings are shown on Plates "B-1" through "B-10". The soils are classified in accordance with the Unified Soil Classification System described on an attached Plate. This Plate also shows the type of sampler used in obtaining undisturbed samples.

Laboratory Testing

The field moisture content and dry densities of the soils encountered were determined by performing tests on the undisturbed samples. The results of these tests are shown on the Logs of Borings, Plates "B-1" through "B-10". Density and field moisture information is useful as indicators of the nature and quality of the material.

Laboratory Testing (cont'd)

Direct shear tests were performed on selected, undisturbed samples of the soils in order to determine the strengths and supporting capacities of the soils. The method of performing these tests is to saturate the sample, to extrude the sample into the test apparatus, to apply the normal load, and than to allow sufficient time to elapse to dissipate any excess hydrostatic pressure. The sample is then subjected to a strain-controlled single plane shear test. The method of applying the normal and shearing load is such as to allow the sample to change in volume without producing an associated change in the normal stress. The shearing stress is measured at a constant rate of strain of approximately 0.05 inches per minute.

Selected samples of soil were tested at confining pressures similar to those of the materials in in-in-situ. Additional specimens from the same samples were also tested at increased normal pressures in order to determine the increase in shear strengths associated with increased inter granular pressure. The test results are plotted graphically on Plates "C-1" and "C-2". The resulting values are as follows:

Soil Type	Angle of Internal Friction (degrees)	Cohesion (p.s.f.)
Silty sand	20	40
Silty sand	27 ½	45
Silty sand	23 ½	125
Silty sand	17 ½	100

Consolidation tests were performed on saturated specimens of the typical foundations soils. Consolidometers are designed to receive the undisturbed soil samples and brass rings in the field condition.

Porous stones placed at the top and bottom of each specimen permit free flow of water into or from the specimen during the test.

Successive load increments were applies to the top of the specimen and progressive and final settlements under each increment were recorded to an accuracy of 0.0001 inch. The final settlements so obtained are plotted to determine curves shown on Plates "D-1 through "D-4".

CONCLUSIONS

Suitability of the Project

The site is suitable for its intended use; namely a mini-mart convenience store, car wash, storage tanks and fueling facility. In designing the proposed structures, the criteria given in the design section should be adhered to.

A) The construction of this project will not affect the stability of the surrounding structures, such as walls, electric poles, etc., provided all precautions needed are followed.

B) The latest applicable unified building code is to be followed as required.

C) This report is subject to approval by the governing agencies.

Strength Characteristics

The load bearing soils possess strength parameters adequate to support the proposed construction.

Expansion Potential

The on site surficial-soil is classified as slightly expansive with an expansion index of 42 as per **U.B.C.** Standard 18-2.

Resistance "R" Value

The Resistance "R" Value test data is presented on Plate "E".

Chemical Test Data

The on site soil at an approximate depth of 12 to 18 inches was tested for the following chemical content.

pH	=	7.3
Sulphate	=	235 ppm
Resistivity	=	1241 ohm cms.

Based on the above test data, special cement concrete must be utilized. See **UBC 97, Table 19-A-4.** Special protection is required for underground metallic utility pipes, for corrosives.

Plasticity Index

The 3 samples taken to the laboratory resulted in the following:

Sample No.	LL	PL	PI	Represents
Boring 1 @ 4'	23	18	5	0' – 4'
Boring 1 @ 8'	25	20	5	4' – 13'
Boring 1 @ 14'	21	17	4	13' – 15'

UBC Section **1815.4.2** should be used in the footing/slab design along with our minimum recommendations. The Following parameters are recommended for the site.

Weighted Plasticity Index	= 5
Climactic Rating	= 15
Cs	= 1.1
Co	= 1.6

Effective Plasticity index = 5 x 1.1 x 1.6 = 8.8 use 9

Seismic Parameters

The seismic zone factors are as follows per the **1997 UBC.**

Source Type	= B
Soil Profile Type	= S_D
Seismic Zone	= 4
Zone Factors, Z	= 0.40
Seismic Coefficient (C_a)	= $0.44N_a$
Seismic Coefficient (C_v)	= $0.64N_v$
N_a	= 1.3
N_v	= 1.6

RECOMMENDATIONS

Foundation Design

Continuous footings, isolated pad footings or a combination of both may be utilized for the design of the foundation to support the proposed structures.

Bearing Values

A bearing value of (1,500 p.s.f.) may be used. The footings should be at least 15 inches wide and a minimum of 18 inches below the lowest adjacent grade, resting on a pad of compacted soil that is 2.5 feet thick.

Bearing Values(cont'd)

This value may be increased by (150 p.s.f.) per foot width to a maximum of 3,000 p.s.f.

The above bearing values may be increased 1/3 when resisting loads caused by wind or seismic forces, provided that the resultant size is not less than that obtained with dead load and live load only.

Sign Footing

Pole type footings supporting signage may be designed for an end bearing of 2,500 p.s.f. using a minimum of 12 inches in diameter pole at a depth of 10 feet, for each added foot of embedment add 200 p.s.f. to a maximum of 3,200 p.s.f.

Settlement – Total and Differential (Static)

Based on the design criteria, settlement should not exceed 0.2 inch for the continuous footings and 0.5 inch for the isolated pad footings.

The overall differential settlement is expected to be 0.3 inch. Approximately ½ of the settlement will occur during the construction period. Once constructed, the differential settlement will be ¼ inch or less.

The maximum differential settlement should not exceed ½ inch over a 20 feet span.

Earth Pressures

Lateral loads will be resisted by the friction between the floor slab and sub-grade as well as the passive resistance of the soils against footings. A coefficient of friction of 0.35 inch may be used between slabs, footings and sub-grade. The passive resistance of the soil may be taken to be (250 p.c.f.) of **E F. D.**

The active lateral soil pressure may be taken as (42 and 58 p.c.f.) of **E. F. D.** for level and cantilever conditions. Active pressure must be adjusted for all surcharge loads; see plate "F" for backfill criteria.

Slab on Grade

It is recommended that all footings should be reinforced with at least four number 5-bars, 2 at the top and 2 at the bottom.

The slabs on grade should be at least 5 inches thick and be reinforced with Number 3 bars at 18 inches on center or fiber mesh may be utilized if desired. This should be underlain by a moisture barrier.

Slab on Grade (cont'd)

The moisture barrier should consist of 2 inches of clean, medium to coarse sand placed above a 6- mil poly vinyl chloride sheet or comparable impervious material and 2 inches below.

Pavement Design

Based on the test results, (see reference report), the design sections given below should be approved or amended as necessary by the city prior to construction.

			ALTERNATE 1		ALTERNATE II
Traffic Index TI	**Use**	**Options**	**Asphalt Paving in inches**	**Base-rock Thickness in inches**	**PCC in inches**
4.5	Auto traffic and parking	1	3	7	5.0
		2	4	5	
5.5	Truck areas and driveways	1	3	11	6.0
		2	4	9	
		3	5	7	

The concrete driveway should be reinforced with number 3 bars at 18 inches on center to help reduce concrete cracks. Alternately fiber mesh may be utilized if desired.

Tank Excavation

We understand that the excavation required to install the new tanks will be up to 14 feet deep.

Most of the excavation can be made by sloping the cuts or by slot cut procedure detailed on Plates "G" and "H", however; in areas where deep cuts are not allowed due to set back requirements, shoring, may be needed, for this condition use the following design values for shoring design.

Tank Excavation Shoring

In view of restrictions and existing easement structure, essentially vertical lateral support will be necessary for the proposed excavation.

Underpinning and lateral support of the adjacent utility will require special considerations in shoring design and/or excavation planning. An unsupported sloping excavation may not be feasible.

Following are more specific data, observations, conclusions and recommendations.

Excavation and Construction Feasibility

It is understood that an excavation depth of about 14 feet will be required to accomplish the planned construction. It is anticipated that excavation of the existing earth material will be accomplished fairly readily with normal excavation equipment.

Excavation Shoring

Vertical excavation cuts requiring shoring will be necessary in lieu of sloping excavations. Providing adequate lateral and vertical load support for the existing structures. It is recommended that a typical solider pile-earth anchor system be considered for support of the planned 18 feet deep excavation.

The recommended earth pressure distribution for the design of the shoring is presented on Plates "F". The recommended pressure distribution assumes level retained earth, which is consistent with present site conditions. As shown on Plate "H" the maximum lateral pressure in pounds per square foot is equal to 20 times the height of the excavation in feet.

Surcharge loads associated with adjacent or nearby footings, floor slabs, and other structures should also be considered in the design of shoring.

Their additional influence on design values will depend on the size of the various loads, as well as their locations and elevations relative to the excavation face and can be estimated when this data has been established.

Soldier piles typically consist of vertical steel "H" beams installed in borings drilled along the perimeter prior to major excavation. It should be noted that groundwater and associated caving difficulties might be experienced during drilling operation sand casing of the holes may be necessary. The lower section of the soldier pile extending below the excavation bottom may be employed for lateral support by passive soil pressure and, where required, for vertical support underpinning of existing adjacent structures. The lower portion of the soldier pile shaft should, therefore, be filled with structural concrete back up to near the excavation bottom. Each pile hole should be cleared of all significant caving debris, mud, etc., prior to placing concrete.

Concrete may be placed below water provided the top of the tremie hose is maintained below the surface of the rising concrete column during pumping.

Concrete strength should be increased by (1,000 p.s.i.) above design strength when utilized below water table, if such conditions occur.

Soldier piles spaced at least two diameters on center may be designed for a minimum allowable lateral passive bearing value of 500 pounds per square foot of depth to a maximum of 7,500 pounds per square foot provided there is positive contact between the buried concrete shaft and the adjacent natural undisturbed soils.

Excavation Shoring (cont'd)

Recommended values for analysis of friction resistance to vertical loads by the concrete pile shaft circumference are as follows:

Depths Below Top Of Concrete Shaft (feet)	**Frictional Resistance (p s f)**
0 - 5	300
5 - 10	570
10 - 15	990
15 - 20	1520

The remaining upper portion of the soldier piles should be filled with a weak sand-cement mix. This will provide a firm positive contact between the steel "H" beam and the retained earth, and can be readily chipped away on the opposite open excavation side to allow for other construction installations. A coefficient of friction of 0.5 may be used between the retained earth and soldier pile for resistance of downward earth anchor load components.

For temporary shoring, the active soil pressure should be taken as (20 and 28 p.c.f.) for cantilever and restrained conditions. Angle of slip plane should be taken as 55 from horizontal, friction of tie back as 500 p.s.f.

It may be necessary to employ friction earth anchors in conjunction with the soldier piles for lateral support of the excavation sidewalls. Anchors are commonly installed at angles ranging from approximately 15 to 40 degrees below the horizontal. Caving difficulties associated with clean sand strata and/or groundwater seepage may be experienced during anchor drilling operations and the use of a hollow-stem auger may be necessary to allow for proper installation. The anchor shaft should be filled with pumped concrete from the tip out to active wedge line. The remaining section to the excavation face may be filled with pumped clean sand.

The effective load bearing section of the anchor shaft should be assumed to begin at an "active " plane defined as a 55 degree line (from horizontal) projected up from the base of the excavation; also, the tip of the anchor should extend at least 20 feet beyond this active wedge line.

A frictional resistance value of 500 pounds per square foot is recommended for preliminary design purposes. Only that portion of the anchor extending beyond the active wedge line should be considered in load capacity analysis.

It is suggested that continuous lagging between soldier piles be employed where the excavation is located adjacent existing structures, i.e. northeast property line. Lagging will also be necessary along potential caving and/or water seepage areas.

Excavation Shoring (cont'd)

The predominant firm clayey silty sand soils anticipated to be exposed along the excavation walls may effectively arch across closely spaced soldier piles (generally 5 feet or less) allowing for the omission of lagging. A final evaluation as to areas that do not require lagging, however, should be made as excavation work proceeds downward.

Due to complexity of soil conditions and subsurface stress relationships, attempts to predict lateral deflections at the top of the excavation could possibly be on the order of 1.0 inch. Potential deflections could be reduced by designing for higher active pressure values.

It is recommended that a precise survey system to monitor both lateral and vertical deflections be employed with periodic readings made during excavation and subsequent subterranean operations, of particular concern would be to restrict movement adjacent existing building structures, sidewalks, utilities, etc., to tolerable amounts.

It is also suggested that existing structures be carefully examined, surveyed and marked, photographed, and/or otherwise recorded with respect to existing cracks, apparent deflections, etc.

Sloped Excavation

As previously mentioned unsupported sloped excavation is not planned, however; it is recommended that the excavation side-slope be made no steeper than 1:1 (horizontal to vertical), if needed.

Actual conditions encountered during excavation may warrant modifications to the recommended excavation slope, with particular consideration given to avoiding possible undermining of existing nearby structures, buildings, etc., as well as the safety of the construction personnel working close to or inside the excavation.

Remarks

These conditions may not necessarily represent other areas between or beyond the test boring. All shoring and bracing should be in accordance with current requirements of **CAL-OSHA**, the Industrial Accident Commission of the State of California, and all other public agencies having jurisdiction. A reasonable effort was made to restore drill hole sites to their original condition.

This included backfilling and tamping of the test borings, and general surface cleanup. It should be noted that as with any backfill, residual consolidation and surface subsidence resulting in a possible hazardous condition could occur at the test borings. The client is cautioned to periodically examine the test boring site, and if necessary, backfill any resulting depressions.

Demolition (if required)

Special note should be taken during the grading so as to locate all underground items, e.g. pipe, conduit, storage tanks, septic tanks, cesspools or leach lines, water wells, irrigation pipe, etc.

Any septic tank found should be removed from the site.

Any topsoil test data for seepage pit or cesspool found shall be pumped dry and filled with clean sand. The top and sides should be broken and removed if they are within 5 feet of finished grade. If a water well is found, it shall be cut off and capped, 5 feet below finished grade.

Any metal pipe found shall be excavated and cleared from the site. Any vitrified clay leaching lines may be broken in place.

Any tree, that has to be removed due to the construction, should be completely removed and the cavity backfilled as described in grading section.

Any root found shall be excavated and cleared from the site or mulched for future landscaping use.

All cavities should be cut in a "V" shape so that compaction equipment will not bridge during grading which should be conducted in the manner noted below.

It is recommended that the demolition be observed so as to prevent debris from remaining on or being buried on site. The demolition of the below grade items such as pipes and tree root systems must be checked by the soil engineer or his representative.

Grading (Building and Parking Areas)

Prior to the controlled grading operations, the construction area should be stripped of all vegetation that is present and the debris removed from the site or stockpiled and mulched for later use in the planter areas. The topsoil should be over-excavated such that a 4.0 feet thick blanket of re-compacted soil is provided in the building pad areas. See required compacted soil under footings of 1.5 feet under bearing design section. All over-excavation must extend at least 2.5 feet beyond the footprint of the structure except when restricted by an adjoining structure or limited by a property line condition.

All uncertified fill found during grading must be removed to firm native soil and replaced as compacted soil at 90%. During the course of grading if pumping occurs it is advisable to bridge the bottom with a 1-inch self-compacting rock layer at least 2 feet thick. In such cases lightweight track equipment is recommended. Note that all compaction reports must be submitted to this office for review; in the absence of an approved compaction report all fill will have to be removed and replaced as certified fill tested to 90%.

Grading (cont'd)

A moderate amount of grading is anticipated in the development of this site. It is recommended that all surface which is loose that will support floor slabs or asphalt concrete paving and all surface which will receive fill or backfill, be scarified to a depth of 8 inches, watered or dried to near Optimum Moisture Content and re-compacted to a minimum of 90%.

Where fill or backfill is required, it should be placed in a maximum of 6-inch loose layers and each layer compacted at near Optimum Moisture Content to at least 90% compaction. Clean on site soils may be utilized as fill material. Imported fill soil should be predominantly granular, non-expansive and capable of developing the bearing strength required for the project. This office prior to bringing to the site must approve all import soil.

Where re-compacted soil is required for footing support, the over excavation must extend $2/3^{rd}$'s the width of the footing on either side.

All retaining walls and utility trenches backfilled should be tested at a maximum of 2 feet in vertical height.

In the parking area, using full thickness asphalt the soil should be placed and compacted to at least 95% of the compaction standard, if **AC/AB, PCC/AB** or **PCC** are utilized, the soil may be compacted to 90% of its relative dry density.

The asphalt should be compacted to at least 96% of its maximum density.

The asphalt used should be **AR 4000** or **AR 8000** or equivalent.

The base-rock should be per Green Book, Cal Trans **Class II** California Specifications or equivalent.

Compaction Standard: **A.S.T.M. D-1557.**

The water-soluble sulphate content will be determined at the conclusion of the grading if requested by the client or required by the approving agency.

If required by the approving agency, Expansion Index Test (**U.B.C. 18-2**) will be run at the time of rough grading.

A grading and a foundation plan should be submitted to this office prior to starting the grading. A pre-grade meeting is recommended.

In order for us to provide better service, a minimum of 48 hours notice should be provided to schedule or cancel any geo-technical work.

Grading (cont'd)

GEO-ETKA, INC., should be retained to observe all grading operations and the required testing for implementing the recommendations of this report. If a change in the consultants occur **Geo-Etka, Inc.**, must be notified in writing and all liability will shift to the client and his consultants of record.

If conditions are encountered during the design, approval by the governing agencies, and/or the construction period that appear to be contrary to the findings of this report, this office must be notified so that proper modifications may be made.

Respectfully submitted,
GEO-ETKA, INC.

Ghayas A. Khan, P.E.
Civil Engineer,
C-38344, (Expires 3-31-05)

Ahmed Ali, President
REA No. 04808
(Expires 6-30-04)

GAK/AA/bg

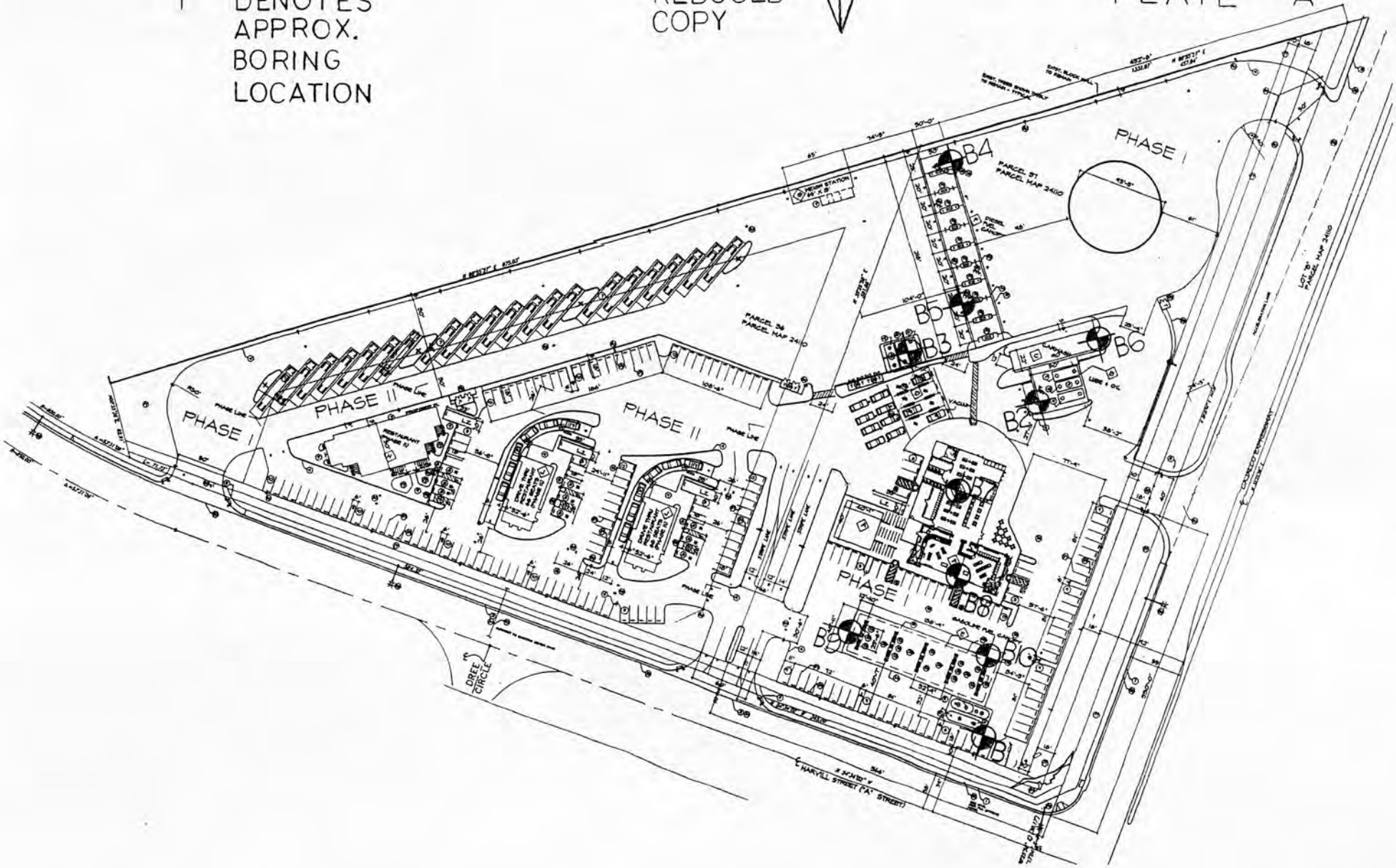
PLOT PLAN

GEO-ETKA, INC.
SOIL ENGINEERS AND GEOLOGISTS
Orange-Main Business Park
739 N. Main Street
Orange, CA 92868
(714) 771- 6911

JOB NO: FR-10088-04
PLATE "A"

B — DENOTES APPROX. BORING LOCATION

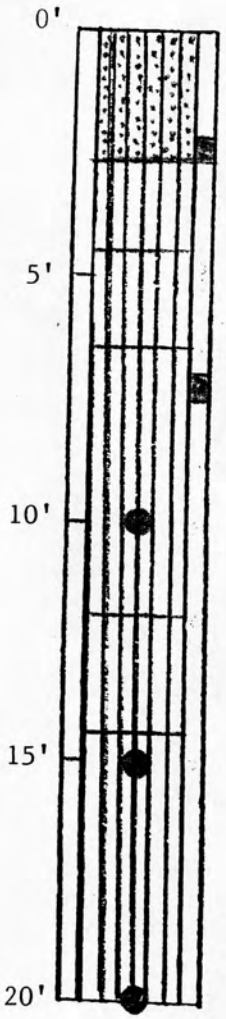
REDUCED COPY



GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-1"

Boring One



Classification	Percent Moisture	Dry Density
SM Brown, silty fine, sand, slightly moist, loose, "cultivated".		
ML Brown, slightly clayey, fine sandy, silt slightly moist, firm.	6.6	104.0
ML Brown, fine sandy, clayey, silt, slightly moist, firm.		
ML Brown, fine sandy silt, moderately, moist, firm.	10.6	99.0
	7.4	
ML Brown, fine to medium sandy, silt, moderately moist, firm.		
ML Brown, fine sandy, silt, moderately moist, stiff.	7.5	
End of boring.	7.3	

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

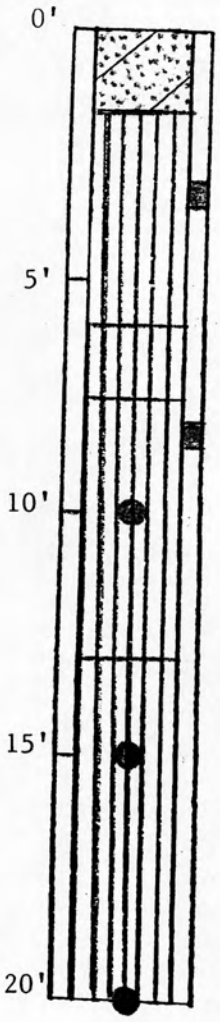
▽ Groundwater

Vertical Scale 1" = 4'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-2"

Boring Two



Classification	Percent Moisture	Dry Density
SC Light brown, clayey, fine sand, slightly moist, loose.		
ML Light brown, fine sandy, silt, slightly moist, slightly soft.	**8.0**	**107.7**
ML Light brown, fine to medium sandy, silt, slightly moist, firm.		
ML Light brown, fine sandy, silt, slightly moist, firm.	**4.9**	**111.9**
	5.2	
ML Brown, fine to medium sandy, silt, slightly moist, firm.		
	7.4	
End of boring.	**10.4**	

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

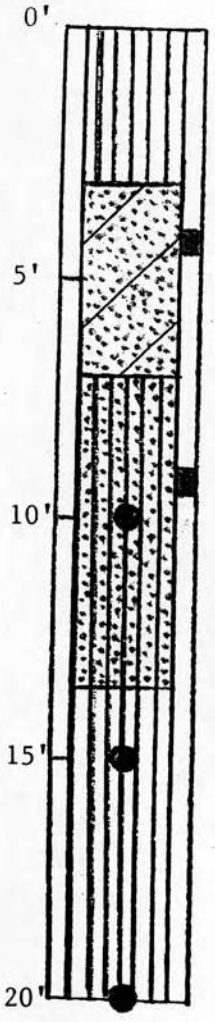
Vertical Scale 1" = 4'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-3"

Boring Three

Classification	Percent Moisture	Dry Density
ML Light brown, fine sandy, silt, slightly moist, soft.		
SC Brown, clayey, fine to medium sand, slightly moist, slightly dense.	5.1	112.3
SM Light brown, very silty, fine, to medium sand, slightly moist, dense.	5.6	118.8
ML Brown, fine sandy, silt, slightly moist, firm.	7.6	
End of boring.	7.8	



● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

Vertical Scale 1" = 4'

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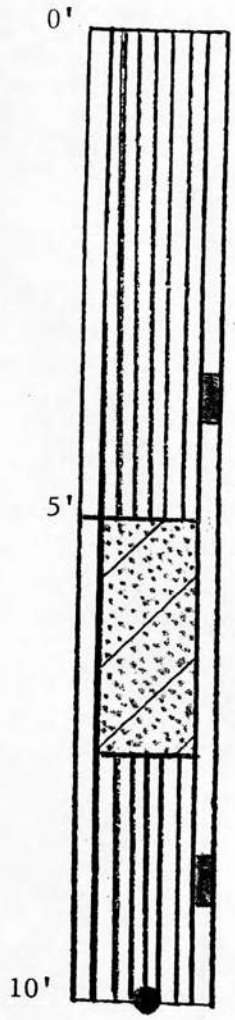
JOB NO: FR-10088-04

PLATE "B-4"

Boring Four

Classification	Percent Moisture	Dry Density
0'		
ML Brown, slightly clayey, fine sandy, silt, slightly moist, slightly soft.		
	4.0	113.7
5'		
SC Light brown, slightly clayey, fine sandy, slightly moist, dense.		
ML Light brown, fine sandy, silt, slighlty moist, firm.		
	4.9	109.4
10'		
End of boring.	7.0	



● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

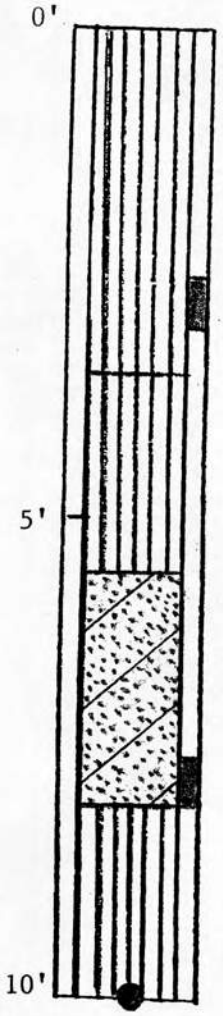
Vertical Scale 1" = 2'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-5"

Boring Five

Classification	Percent Moisture	Dry Density
0'		
ML Brown, slightly clayey, fine sandy, silt, slightly moist, slightly soft.	4.7	109.5
ML Light brown, fine sandy, silt, slightly moist, firm.		
5'		
SC Brown, clayey, fine to medium sand, moderately moist, slightly dense.	5.7	101.6
ML Light brown, fine sandy, silt, moderately moist, slightly soft.		
10' End of boring.	7.5	



● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

Vertical Scale 1" = 2'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-6"

Boring Six

Classification	Percent Moisture	Dry Density
SC Brown, slightly clayey, fine sand, slightly moist, slightly dense.	6.4	107.0
ML Light brown, fine sandy, silt, slightly moist, slightly soft.	5.2	110.7
ML Light brown, fine sandy, silt, slightly moist, slightly soft.	7.3	
ML Brown, fine to medium sandy, silt, moderately moist, firm.	6.5	
End of boring.		

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

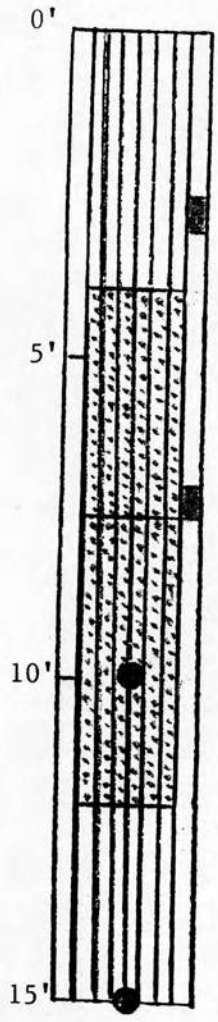
▽ Groundwater

Vertical Scale 1" 3'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-7"

Boring Seven



Classification	Percent Moisture	Dry Density
ML Brown, fine to medium sandy, silt, slightly moist, slightly soft.	7.3	113.1
SM Brown, very silty, fine sand, slightly moist, slightly dense.		
SM Brown, very silty, fine to medium, sand, moderately moist, dense.	5.9	111.6
	7.8	
ML Light brown, fine sandy, silt, moderately moist, firm.		
End of boring.	6.3	

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

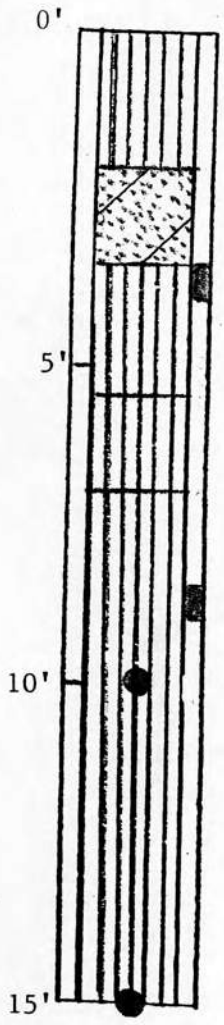
▽ Groundwater

Vertical Scale 1" = 3'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-8"

Boring Eight



Classification	Percent Moisture	Dry Density
ML Brown, fine to medium sandy, silt, dry, soft.		
SC Brown, clayey, fine sand, slightly moist, slightly dense.		
ML Light brown, fine sandy, silt, dry, slightly soft.	6.6	98.1
ML Brown, slightly clayey, fine sandy, silt, slightly moist, firm.		
ML Brown, fine sandy, silt, moderately moist, firm.		
	6.3	114.2
	4.2	
End of boring.	6.8	

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

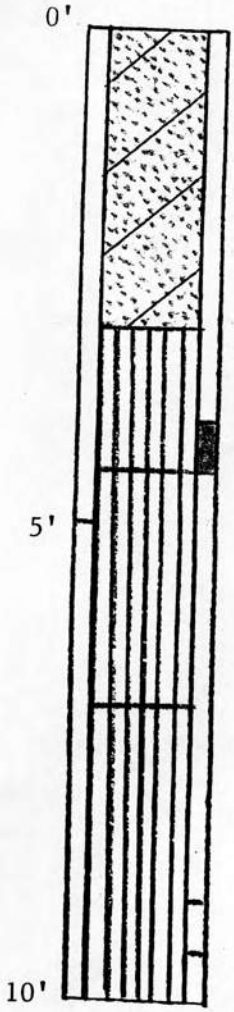
Vertical Scale 1" = 3'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-9"

Boring Nine

Classification	Percent Moisture	Dry Density
0' SC Brown, clayey, fine sand, slightly moist, slightly dense.		
ML Brown, clayey, fine sandy, silt, dry, soft.	5.5	102.4
5' ML Light brown, fine sandy, silt, slightly moist, firm.		
ML Light brown, fine sandy, silt, slightly moist, hard.	5.5	
10' End of boring.		



● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

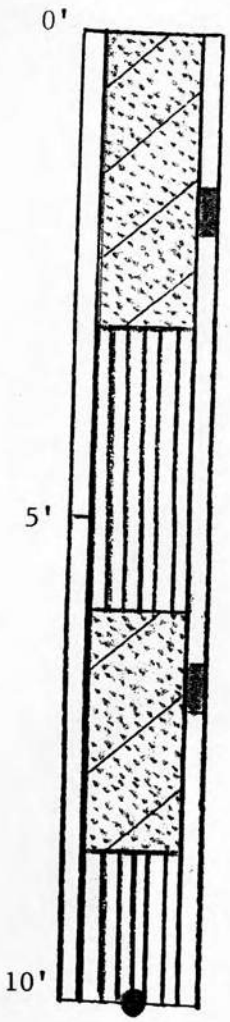
▽ Groundwater

Vertical Scale 1" = 2'

GEO-ETKA, INC
JOB NO: FR-10088-04

PLATE "B-10"

Boring Ten



Classification	Percent Moisture	Dry Density
SL Brown, clayey, fine sand, slightly moist, loose.	8.2	107.8
ML Brown, fine sandy, silt, slightly moist, slightly soft.		
SC Light brown, slightly clayey, fine sand, slightly moist, dense.	7.6	104.7
ML Brown, fine to medium, sandy, silt, slightly moist, firm.		
End of boring.	5.2	

● Depth of bag sample

■ Depth of undisturbed sample

□ No recovery

▽ Groundwater

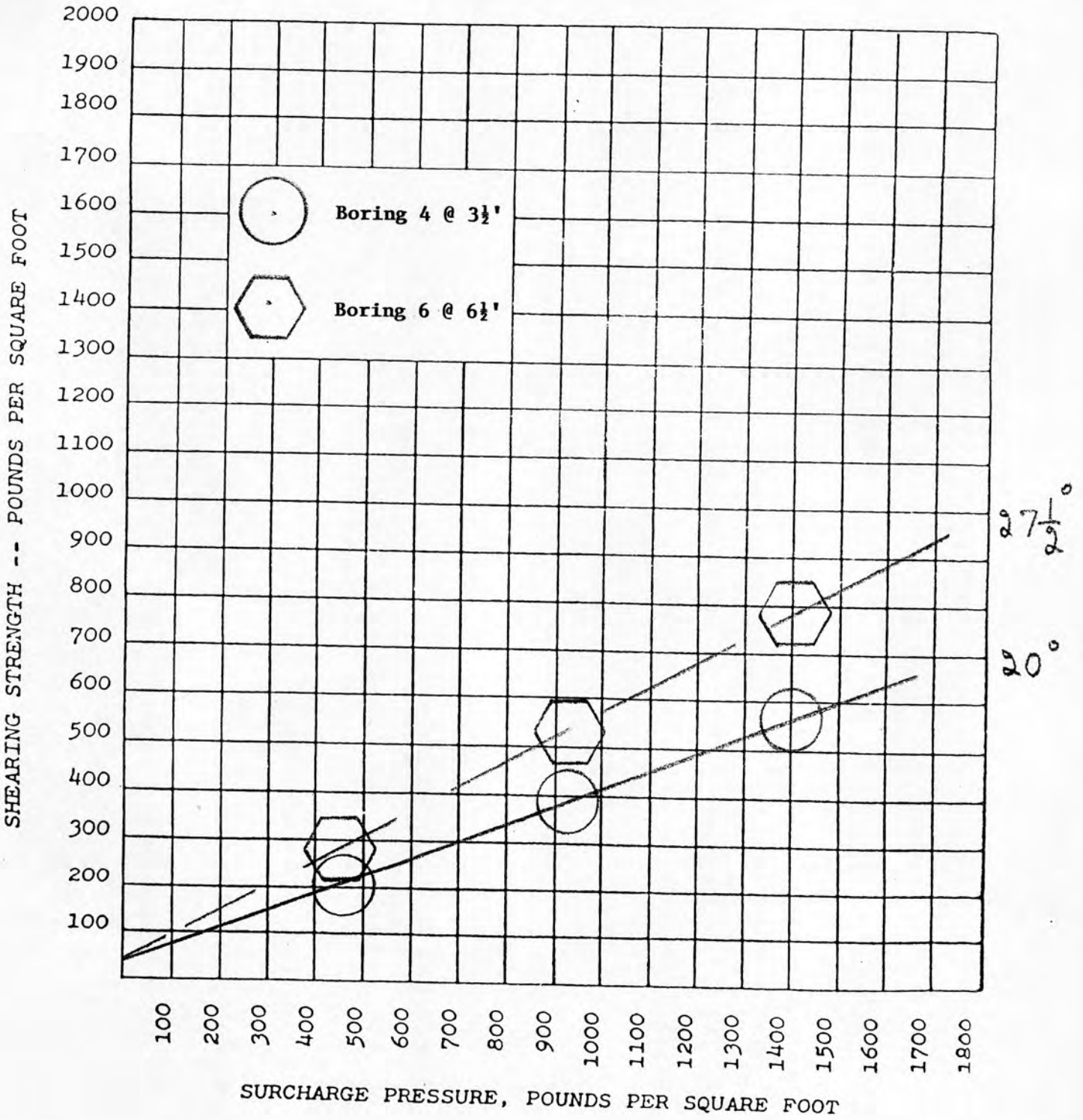
Vertical Scale 1" = 2'

GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "C-1"

DIRECT SHEAR TEST

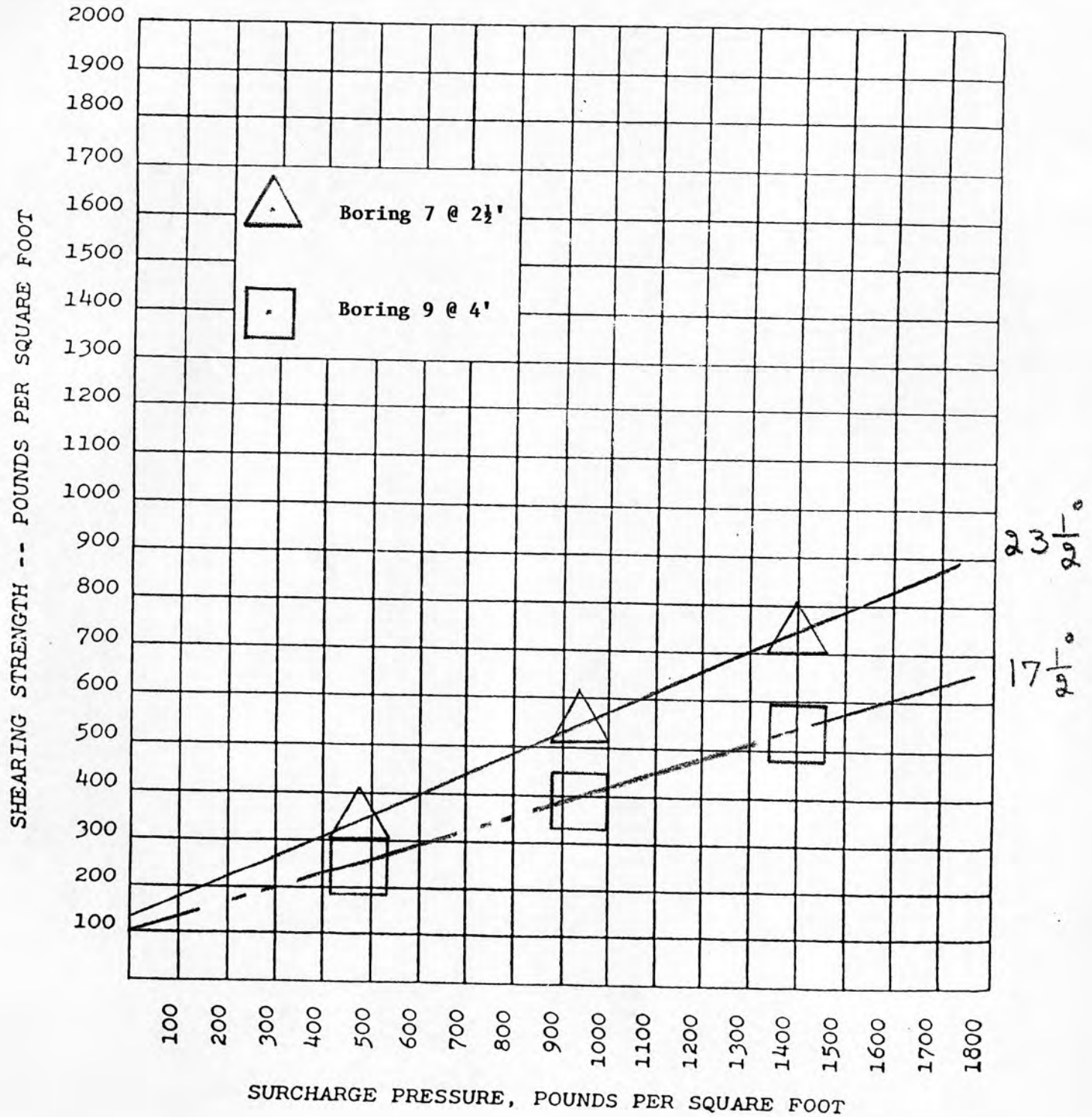


GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "C-2"

DIRECT SHEAR TEST



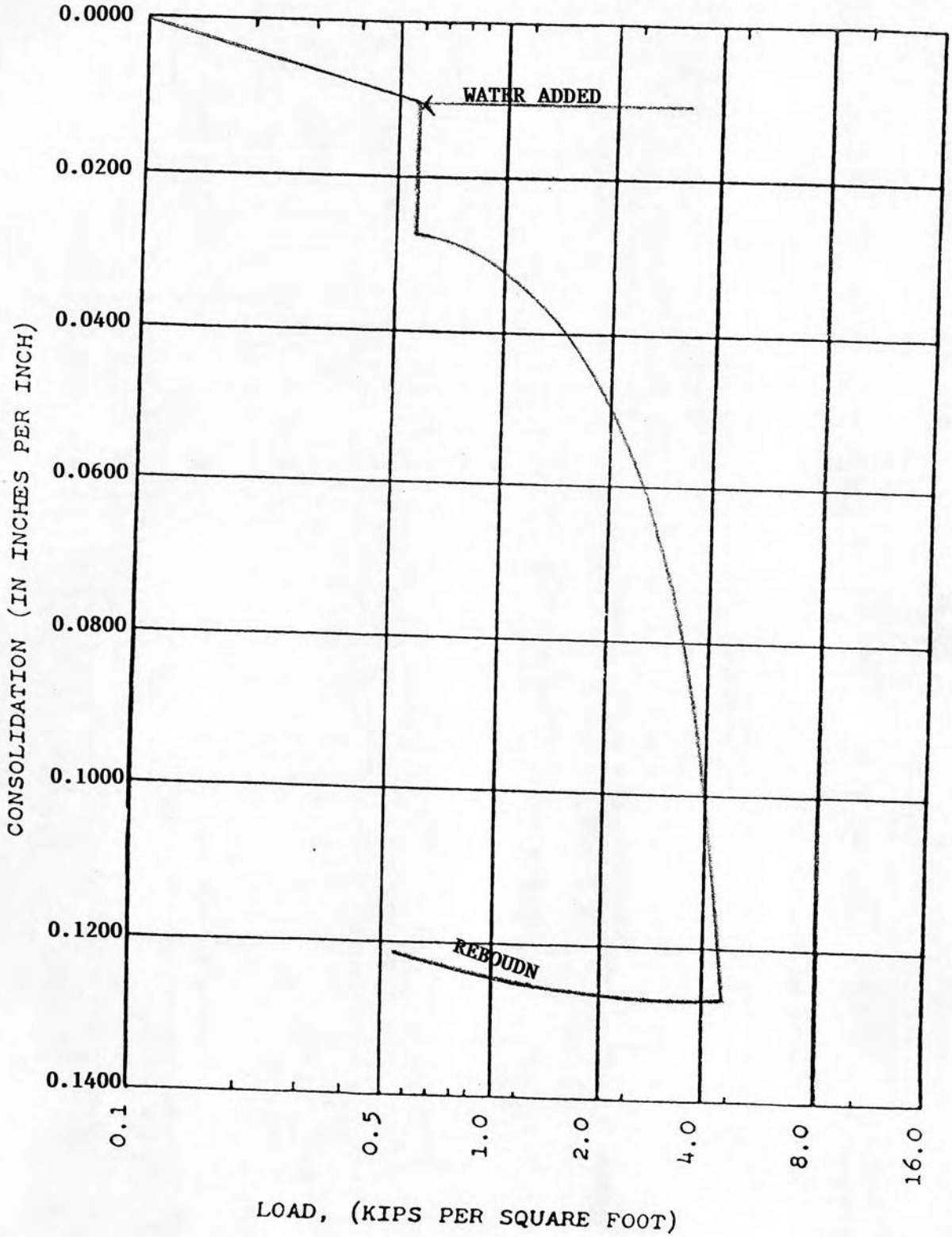
GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "D-1"

Boring 4 @ 3½'

CONSOLIDATION TEST DATA



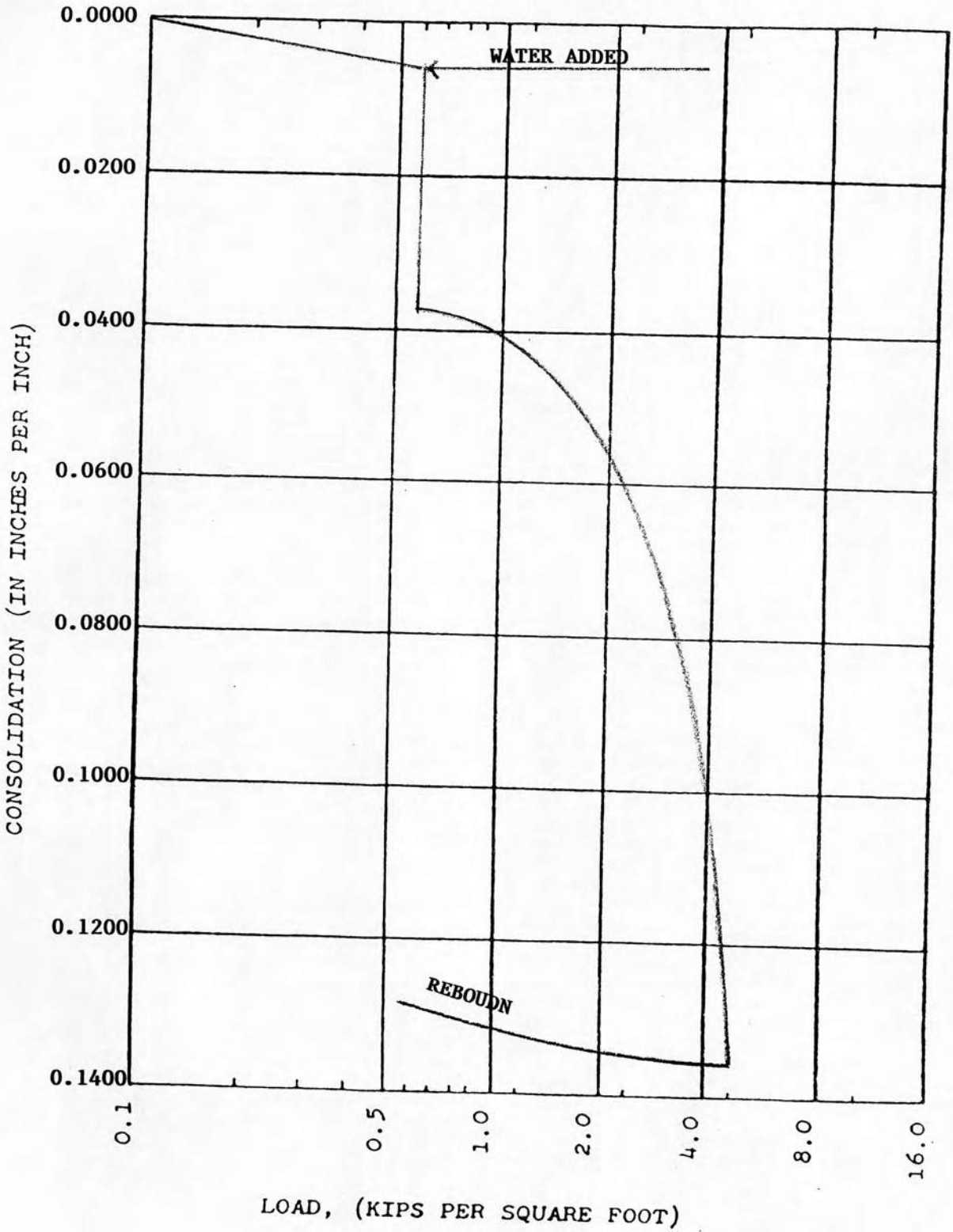
GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "D-2"

Boring 6 @ 6½'

CONSOLIDATION TEST DATA



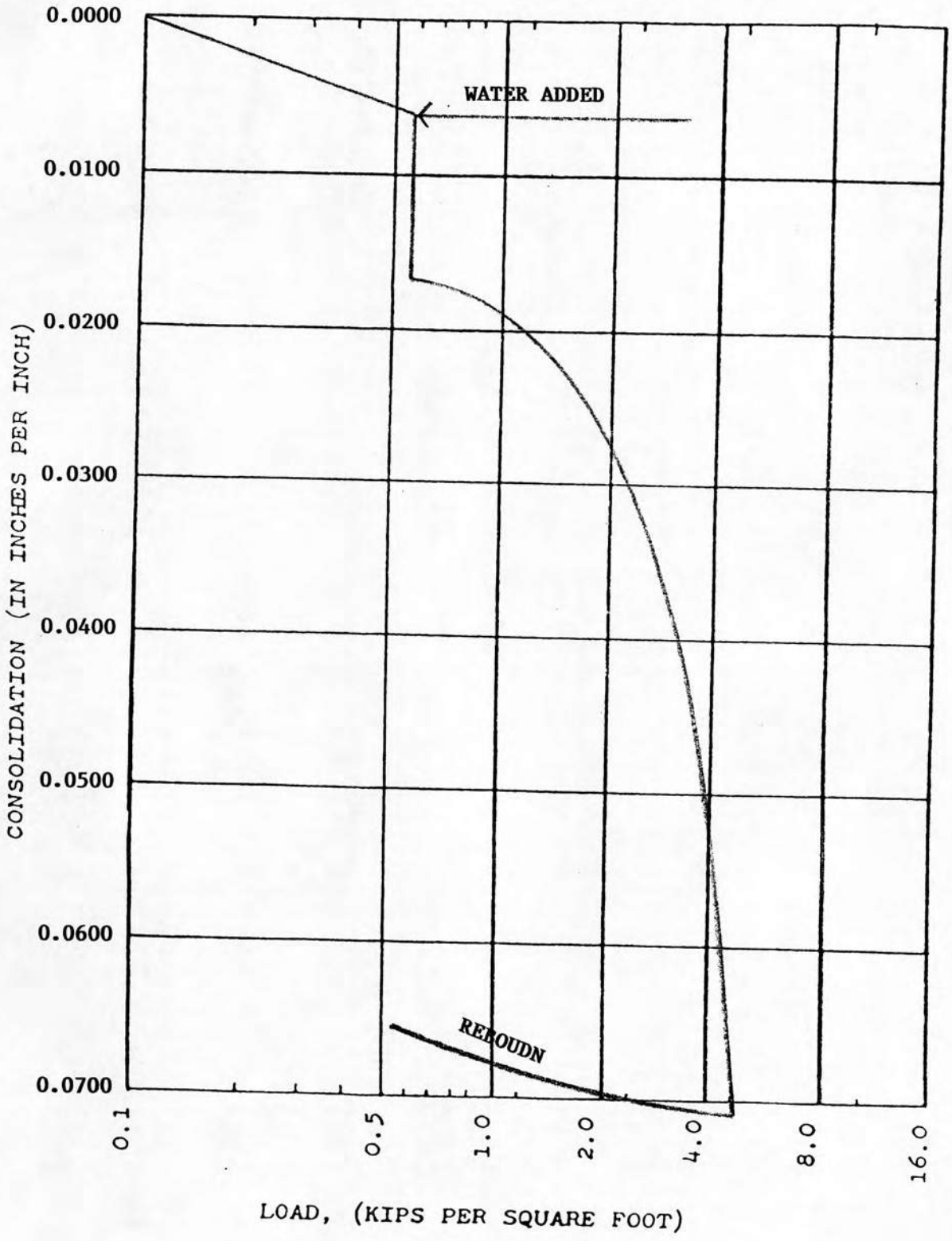
GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "D-3"

Boring 7 @ 2½'

CONSOLIDATION TEST DATA



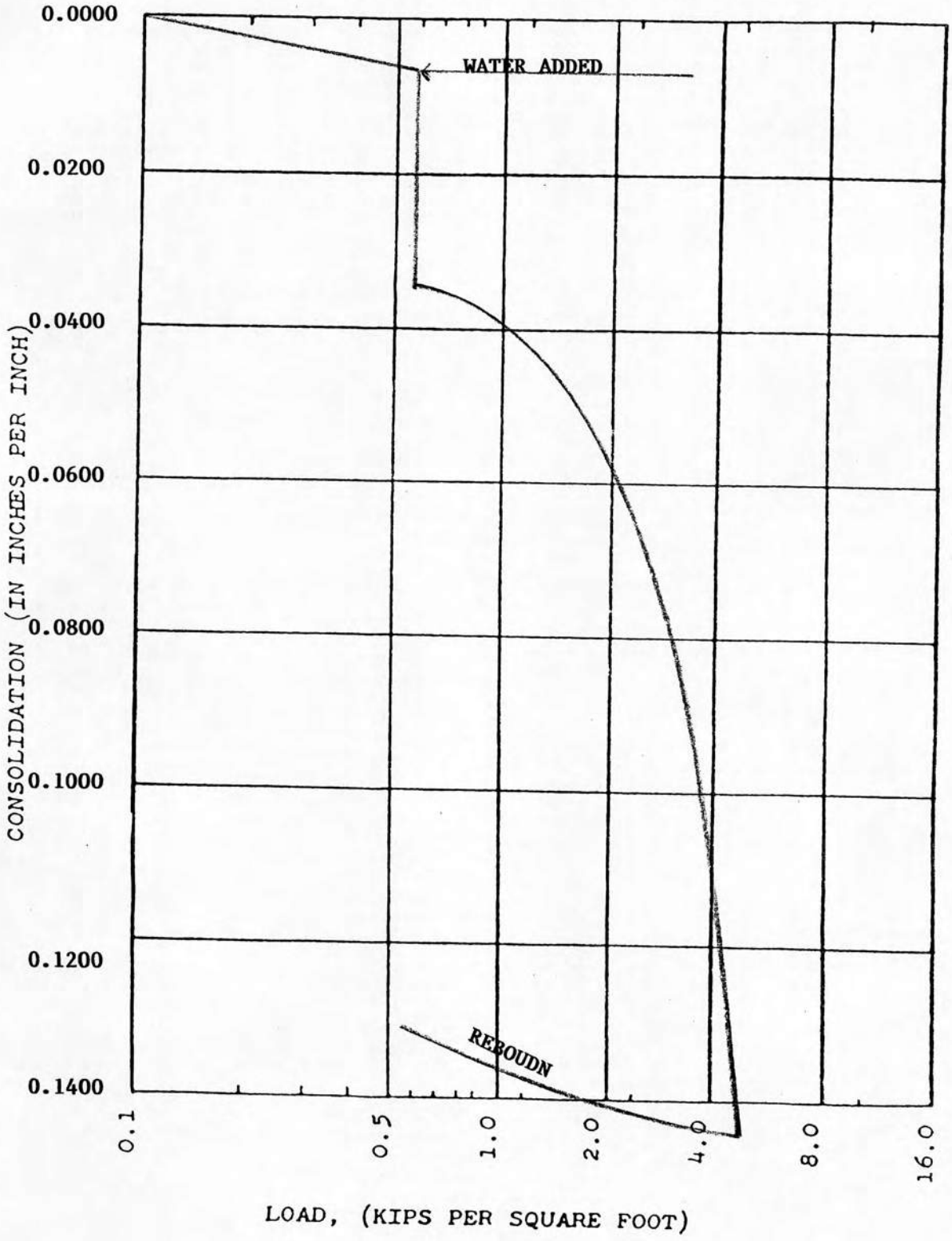
GEO-ETKA, Inc.

Job Number: FR-10088-04

Plate "D-4"

Boring 9 @ 4'

CONSOLIDATION TEST DATA



LEGAL DESCRIPTION

THE LAND SHOWN HEREON IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 37 AS SHOWN BY PARCEL MAP NO. 24110, ON FILE IN BOOK 165 PAGES 11 THROUGH 18 INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE ENTIRE MINERAL ESTATE IN THE PROPERTY DESCRIBED LYING NOT LESS, THAN 500 FEET BENEATH THE NATURAL SURFACE. FOR PURPOSES OF THIS RESERVATION THE MINERAL ESTATE SHALL INCLUDE ALL SUBSTANCES WHICH HAVE BEEN DISCOVERED OR WHICH MAY IN THE FUTURE BE DISCOVERED UPON OR UNDER THE PROPERTY DESCRIBED, WHICH ARE NOW OR MAY IN THE FUTURE BE VALUABLE, AND WHICH ARE NOW OR MAY BE IN THE FUTURE ENJOYED THROUGH EXTRACTION FROM THE PROPERTY DESCRIBED. WITHOUT LIMITING THE GENERALITY OF THE FORGOING, THE MINERAL ESTATE SHALL INCLUDE ALL FORMS OF GEOTHERMAL ENERGY, ALL COAL, ALL GASES, ALL HYDROCARBON SUBSTANCES, ALL FISSIONABLE MATERIALS, ALL METALLIC MINERALS, AND ALL NON-METALLIC MINERALS;

NOTWITHSTANDING OWNERSHIP OF THE MINERAL ESTATE, WITHOUT THE RIGHT TO ENTER UPON THE SURFACE OF THE PROPERTY DESCRIBED FOR THE PURPOSE OF EXTRACTING AND CONSTITUENTS OF THE MINERAL ESTATE, RESERVING THE RIGHT, (1) TO EXTRACT THE CONSTITUENTS OF THE MINERAL ESTATE FROM THE PROPERTY DESCRIBED BY MEANS OF WELLS, SHAFTS, TUNNELS, OR OTHER SUBSURFACE ACCESSES WHICH MAY BE CONSTRUCTED, DRILLED, OR DUG ON OR FROM OTHER LAND AND WHICH MAY PENETRATE INTO THE PROPERTY DESCRIBED BELOW A DEPTH OF 500 FEET; AND (2) TO EXCAVATE, CONSTRUCT, MAINTAIN, AND OPERATE SUBSURFACE FACILITIES BELOW A DEPTH OF 500 FEET OF THE PROPERTY DESCRIBED FOR THE EXTRACTION OF THE CONSTITUENTS OF THE MINERAL ESTATE SO LONG AS THE SUBSURFACE FACILITIES DO NOT UNREASONABLY INTERFERE WITH THE USE AND ENJOYMENT OF THE SURFACE ESTATE IN THE PROPERTY DESCRIBED.

THAT PORTION OF PARCEL 36 OF PARCEL MAP 24110 ON FILE IN BOOK 165 PAGES 11 THROUGH 18, INCLUSIVE, OR PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERDIAN; THENCE NORTHERLY ALONG THE CENTERLINE OF SIAD SECTION 12, 661.82 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 50 MINUTES 00 SECONDS WEST, 875.04 FEET; THENCE NORTH 36 DEGREES 45 MINUTES EAST, 341.86 FEET TO THE SOUTHERLY LINE OF HARVILL AVENUE, SIAD LINE IS ALSO THE NORTHERLY LINE OF SAID PARCEL 36; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SIAD HARVILL AVENUE, 384.22 FEET TO A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVEING A RADIUS OF 850 DEGREES; THENCE SOUTHEAST ALONG SAID CURVE THROUGH A CENTERAL ANGLE OF 08 DEGREES 12 MINUTES AND A DISTANCE OF 71.73 FEET TO THE CENTER LINE OF SIAD SECTION 12; THENCE SOUTH ALONS SIAD CENTER LINE, 82.41 FEET TO THE TRUE POINT OF BEGINNING.

VICINITY MAP

SITE PLAN NOTES:

1. EXISTING CURB & GUTTER.
2. EXISTING DRIVE APPROACH REMOVED.
3. NEW CONC. SIDEWALK PER COUNTY STANDARDS.
4. NEW PLANTER CURB WITH 6" CURB FACE SHALL BE INSTALLED AT PERIMETER OF ALL (P) PLANTER AREAS.
5. HANDICAP PARKING DRIVE APPROACH SIGN PER COUNTY STANDARDS.
6. HANDICAP PARKING SIGN PER COUNTY STANDARDS.
7. HANDICAP LOADING ZONE.
8. 9' X 18' HANDICAP PARKING SPACE.
9. CONC. FLATWORK WITH MEDIUM SALT FINISH.
10. TRAFFIC DIRECTIONAL ARROWS PAINTED PER COUNTY STANDARDS.
11. UNDERGROUND FUEL STORAGE TANKS.
12. FUEL DISPENSING EQUIPMENT - TYPICAL.
13. CANOPY SUPPORT COLUMNS TYPICAL.
14. EDGE OF CANOPY ABOVE.
15. EDGE OF CONC. PAD.
16. 3 " A.C. PAVING OVER 4" CLASS II BASE.
17. LANDSCAPE AREAS. ALL LANDSCAPE AREAS SHALL HAVE 100% COVERAGE PROVIDED BY AUTOMATIC IRRIGATION SYSTEMS.
18. FUEL ISLANDS. CONCRETE, PER MANUFACTURERS RECOMMENDATIONS.
19. DIESEL FUEL EQUIPMENT.
20. 6" REINF. CONC. IN DRIVE AREAS AS SHOWN.
21. SELF ILLUMINATED FOOD MENU BOARD.
22. SELF ILLUMINATED FOOD ORDER BOARD.
23. CMU TRASH ENCLOSURE PER COUNTY STANDARDS.
24. NEW CURB, GUTTER AND SIDEWALK PATCH BACK.
25. NEW CURB AND GUTTER PER COUNTY STANDARDS
26. 8" MASONRY WALL X 56" HIGH, W/STUCCO COLOR COAT.
27. PARKING SPACE PAINTED STRIPING PER COUNTY STANDARD.
28. A.D.A. RAMP UP.
29. 4' LONG CONC. WHEEL BUMPERS (TYPICAL) PER COUNTY STANDARD.
30. 20' HIGH PARKING LOT LIGHT STANDARD.
31. FIRE BOLLARD.
32. CONCRETE DRIVE APPROACH PER COUNTY STANDARDS.
33. EXISTING CONCRETE SIDEWALK.
34. REMOVE EXISTING CURB, GUTTER AND SIDEWALK AS REQUIRED. PATCH BACK STREET PAVING AS REQUIRED.
35. SCREEN WALL.
36. EXISTING TRAFFIC LIGHT.
37. EXISTING 24" + HIGH WALL.
38. EXISTING STREET LIGHT.
39. SIGN INDICATING "RIGHT TURN ONLY".
40. CANOPY DESIGN AND DRAWINGS, BY OTHERS.
41. DRIVE AISLE STRIPIPNG PER RIVERSIDE COUNTY FIRE DEPARTMENT STANDARDS.
42. PROPOSED 8" VXP SEWER LINE TO SERVICE SITE.

UTILITY COMPANIES

SEWER & WATER
EASTERN MUNICIP. WATER
P.O. BOX 8300
PERRIS, 92572-8300
(909)928-3777

ELECTRIC
S.C.E.
26100 MANIFEE ROAD
ROMOLAND, CA 92585
(909)928-8240

GAS
SO. CAL GAS
P.O. BOX 513244
L.A. CA 90051-1244
MAIL LOCATION 4542
(800)427-2000

TELEPHONE
VERIZON GTE
1 GTE PLACE
THOUSAND OAKS, CA 91362
(800)572-6000

CITY
CITY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92501-3651
(909)955-1000

OWNER:

PINNACLE REAL ESTATE HOLDINGS, INC
& UNITED R.T.M. INC
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
256 SOUTH CRAIG DRIVE
ORANGE, CA. 92869
PH. (714) 715-1685
FX. (714) 558-5199
EMAIL: amazarei@inreach.com

APPLICANT:

PINNACLE REAL ESTATE HOLDINGS, INC.
& UNITED R.T.M. INC
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
256 SOUTH CRAIG DRIVE
ORANGE, CA. 92869
PH. (714) 715-1685
FX. (714) 558-5199
EMAIL: amazarei@inreach.com
CONTACT: ALI MAZAREI

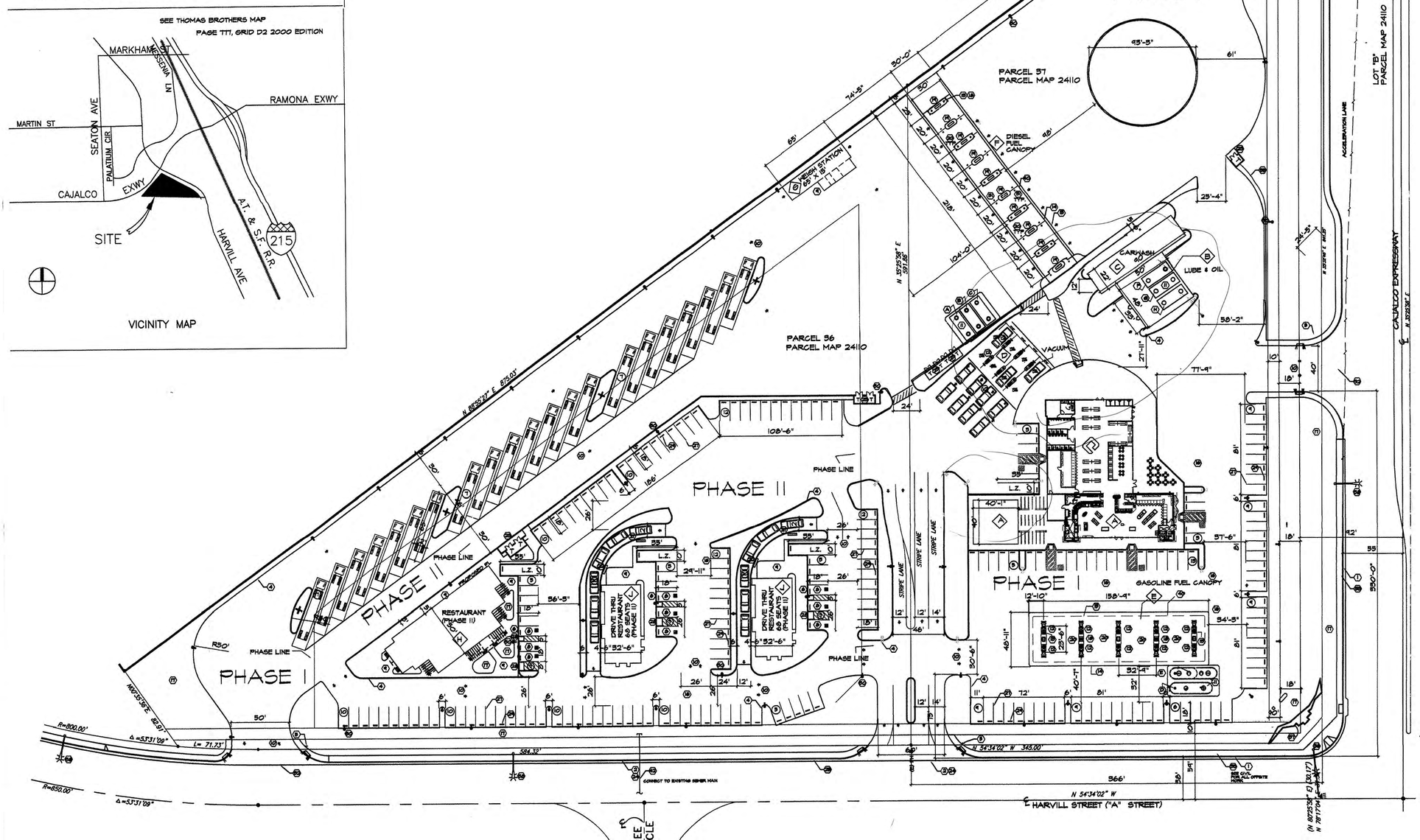
APN:#
317-110-055-7
317-110-054-6
Address:
25261 Cajalco Expressway
Perris, California 92571

AREA TABULATIONS:

NET LAND AREA:	10.84 ACRES	(472,190 S.F.)
GROSS LAND AREA	11.44 ACRES	(486,886 S.F.)
BUILDING COVERAGE	45,151 S.F.	9.1 %
PARKING PAVED AREA	358,864 S.F.	76.0 %
INTERIOR LANDSCAPE AREA ;	37,642 S.F.	7.97 %
PERIMETER LANDSCAPE AREA ,	32,985 S.F.	6.93 %
TOTAL PROVIDED LANDSCAPE: (15% OF PARKING AREA)	70,227 S.F.	14.9 %

ZONNING.....MSC (EXISTING & PROPOSED)
SPECIFIC PLAN AREA.....MEAD VALLEY COMMUNITY
NOT IN ANY SPECIFIC PLAN
PLAN (1-C,SPA-2)
FLOOD ZONE.....RIVERSIDE COUNTY FLOOD
CONTROL DISTRICT
(FLOOD CONTROL 'C')

NOTES:
1. THE SITE IS NOT SUBJECT TO LIQUEFACTION, OTHER GEOLOGICAL HAZARD, OR SPECIAL STUDIES ZONE.
2. THIS SITE TO BE CONNECTED TO SEWER, SEE PROPOSED SEWER CONNECTION ON HARVILL STREET.
3. THIS SITE IS NOT SUBJECT TO OVERFLOW, INUNDATION OR FLOOD HAZARD.
4. NO EXISTING OPEN CHANNELS ON PROPERTY.
5. CAMERAS SHALL BE INSTALLED SO ATTENDANCE CAN VIEW ALL DISPENSING FROM MONITORS.
6. ALL EXISTING EASEMENTS NOTED ON SITE PLAN.
7. NOT WITHIN CSD BUT WITHIN CDS 88-8.
8. SECURITY CAMERAS TO BE PLACED INTERIOR AND EXTERIOR OF ALL BUILDINGS AND PARKING AREA.
9. EXTERIOR LIGHTING TO COVER ALL PARKING AREA, WALKWAYS AND PERIMETER SHALL BE PROVIDED.
10. SINAGE AT VARIOUS LOCATIONS THROUGHOUT THE FACILITY THAT GIVE A POINT OF CONTACT SHALL BE PROVIDED.
11. PERIMETERS SHALL BE DEFINED BY LANDSCAPING THE WILL WILL NOT OBSTRUCT LAW ENFORCEMENT VIEWS FROM STREET.
12. LENGTH OF STAY FOR TRUCK DRIVERS SHALL BE LIMITED TO (4) HOURS ON SITE.



BUILDING SCHEDULE

KEY	DESCRIPTION	STORY	HEIGHT	AREA	OCC. GROUP	CONST. TYPE	FIRE SPRINKLERS	BUILDING COVERAGE #
A	TRAVEL ZONE	1	50'	11,800	MIXED	VN	YES	3
TRAVELERS CENTER BREAKDOWN	C-STORE AM/PM	1		4,100	M	VN	YES	N/A
	TRAVEL CENTER	1		6,010	M	VN	YES	N/A
	G.S.R.	1		1,600	B	VN	YES	N/A
	ELECTRIC ROOM	1		90	-	VN	YES	N/A
B	(3) BAY LUBE/TUNE	1	50'	2,400	B	VN	YES	1/2
C	(1) TUNNEL CARWASH	1	50'	1,980	B	VN	YES	1/3
D	VACUM	1	50'	2,000	B	VN	YES	1/3
E	AUTO FUEL CANOPY (4/(10) ISLANDS (34'-4.5" CANOPY (15' CLEAR HEAD HT.)	1	20'	7,649	S3	TYPE II	YES	1
F	DIESEL FUEL CANOPY (4/(4) ISLANDS (70'-X50' CANOPY (20' CLEAR HEAD HT.)	1	25'	3,100	S3	TYPE II	YES	1
G	WEIGH STATION	1	50'	1,525		VN		1/3
H	RESTAURANT	1	25'	5,047	B	VN	YES	1
J	(2) DRIVE THRU RESTAURANT	1	50'	4,754	B	VN	YES	2
	TOTAL			45,151				9

UNDERGROUND TANK SCHEDULE
KEY SIZE/GALLONS
A .....50,000 GALLON (DIESEL)
B .....50,000 GALLON (DIESEL)
C .....20,000 GALLON (10,000GAS REGULAR, 10,000 GAS SUPER)
D .....30,000 GALLON (GAS REGULAR)
E .....50,000 GALLON (20,000 GAS SUPER, 10,000 GALLON DIESEL)
F .....1,000 GALLON (WASTE OIL)
G .....1,000 GALLON (NEW OIL)
H .....1,000 (WASTE, ANTI-FREEZE)

PARKING TABULATION

CONVENIENCE STORE 3.5 SPACES / 1000 S.F. 3500 S.F. LEASABLE 3500/1000= 3.5 3.5 X 3.5 = 31.9	REQUIRED PARKING = 32
G.S.R. (QUICK SERVE RESTAURANT) 1 SPACE / 45 S.F. SEATING AREA 700 S.F. SEATING AREA 700 / 45 = 15	REQUIRED PARKING = 15
G.S.R. EMPLOYEE PARKING 1 SPACE / 2 EMPLOYEES 8 EMPLOYEES 8 / 2 = 4	REQUIRED PARKING = 4
(1) TUNNEL CARWASH 2 SPACE / TUNNEL 2 / 1 = 2	REQUIRED PARKING = 2
CARWASH EMPLOYEE PARKING 1 SPACE / 5 EMPLOYEES 15 EMPLOYEES 15 / 5 = 2.67	REQUIRED PARKING = 5
(3) BAY LUBE AND TUNE 4 SPACE / SERVICE BAY 4 X 3 = 12	REQUIRED PARKING = 12
C- STORE 1 SPACE / 2 EMPLOYEES 8 EMPLOYEES 8 / 2 = 4	REQUIRED PARKING = 4
(2) DRIVE THRU RESTAURANT 1 SPACE / 45 S.F. SEATING AREA 1650 S.F. SEATING AREA 1650/ 45 = 36	REQUIRED PARKING = 36
(2) DRIVE THRU RESTAURANT 1 SPACE / 2 EMPLOYEES 16 EMPLOYEES 16 / 2 = 8	REQUIRED PARKING = 8
RESTAURANT 1 SPACE / 45 S.F. SEATING AREA 2,000 S.F. SEATING AREA 2,000 / 45 = 44.44	REQUIRED PARKING = 45
WEIGH STATION 1 SPACE / 2 EMPLOYEES 2 EMPLOYEES	REQUIRED PARKING = 1
TOTAL REQUIRED PARKING	= 162
PROVIDED (9'X18') STALLS PROVIDED (9'X18') HANDICAP STALLS PROVIDED COMPACT (8.5' X 15') STALLS	= 187 = 13
TOTAL PROVIDED	= 200

ADMINISTRATIVE APPROVAL DATE 8/25/03

EXHIBIT NO. A
CASE NO. CUP03370S1/RA
DATE 7/31/03 SIGNATURE

SITE PLAN

SCALE: 1"=40'-0"

N

REVISIONS	BY
03/21/01	SGR
06/26/03	ALI
06/30/03	ALI
07/14/03	ALI
07/24/03	ALI

COMMERCIAL COMPLEX FOR
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

CASE # 03370

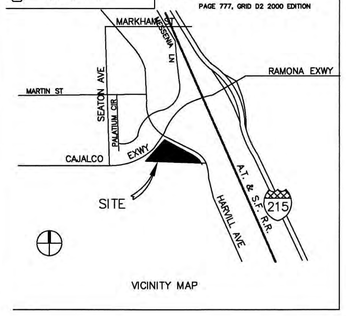
SITE PLAN

DATE: 07/24/03
SCALE: 1"=40'-0"
DRAWN: GUSSBER
JOB: 01-15
SHEET SP
OF SHEETS

SITE NOTES

1. NEW CONCRETE SIDE WALK PER COUNTY STANDARDS
2. NEW HANDICAP RAMP.
3. NEW STRIPE 18'X8' HANDICAP LOADING ZONE
4. AIR & WATER UNIT WITH (2) GUARD POSTS.
5. NEW STRIPE 9'X18' PARKING SPACE.
6. NEW 10'-0" WIDE CONCRETE PAVEMENT
7. NEW 8'-0" HIGH MONUMENT SIGN WITH STREET ADDRESS. UNDER SEPARATE PERMIT. A
8. NEW PLANTER WITH 6" CURB AND 12" STRIP WALK. CURB FACE SHALL BE INSTALLED AT PERIMETER OF ALL PLANTER AREA
9. NEW CMU TRASH ENCLOSURE PER COUNTY STANDARS.
10. NEW 6" CONCRETE SLAB.
11. NEW 8" CONCRETE SLAB.
12. 4" A.C. PAVING OVER 6" CLASS II BASE, AND FOR TRUCK AREAS AND DRIVEWAYS USE 5" OVER 7". A
13. NEW CANOPY COLUMN. (TYP. OF 10)
14. NEW 1-20,000 GALLON UNDERGROUND DOUBLE WALL FIBERGLASS TANK & 1-(8,000+15,000) FIBERGLASS TANK UNDER 8" CONCRETE.
15. INSTALL NEW 20' HIGH AREA LIGHT. (TYP. OF 74) SHIELDS SHOULD BE PROVIDED AT GLOBE OF A LIGHT STANDARDS. TO ENSURE DIRECTION OF LIGHT, BEAM IS DOWNWARD AND NOT OUTWARD TO NOT INTERFERE WITH PASSING MOTORISTS. UNDER CANOPY LIGHTS SHOULD BE RECESSED INTO CANOPY CEILING SO GLOBE NOT VISIBLE TO MOTORISTS.
16. INSTALL NEW 20' HIGH DOUBLE AREA LIGHT. (TYP. OF 14) SHIELDS SHOULD BE PROVIDED AT GLOBE OF A LIGHT STANDARDS. TO ENSURE DIRECTION OF LIGHT, BEAM IS DOWNWARD AND NOT OUTWARD TO NOT INTERFERE WITH PASSING MOTORISTS. UNDER CANOPY LIGHTS SHOULD BE RECESSED INTO CANOPY CEILING SO GLOBE NOT VISIBLE TO MOTORISTS.
17. NEW 3'X12' CONCRETE ISLAND WITH MPD. (TYP. OF 10)
18. PROVIDE 5'-0" WIDE PAINTED HANDICAP PATH PER CODE. (CONTRACTOR SHALL PROVIDE PATH OF TRAVEL SIGNAGE PER CODE SEC. 1127B)
19. HANDICAP PARKING SIGNAGE.
20. INTERNATIONAL SYMBOL OF ACCESSIBILITY PROVIDE DIRECTION ARROWS AND INSTRUCTIONS AS NECESSARY.
21. CONC.FLATWORK WITH MEDIUM SALT FINISH.
22. TRAFFIC DIRECTIONAL ARROWS PAINTED PER COUNTY STANDARS.
23. LANDSCAPE AREA.
24. DIESEL FUEL EQUIPMENT.
25. SELF ILLUMINATED FOOD MENU BOARD.
26. SELF ILLUMINATED FOOD ORDER BOARD.
27. NEW CURB,GUTTER AND SIDE WALK PATCH BACK.
28. NEW CURB AND GUTTER PER COUNTY STANDARS.
29. 8" MASONRY WALL X36" HIGH WITH STUCCO COLOR COAT.
30. 4' LONG CONC.WHEEL BUMPERS (TYPICAL)PER COUNTY STANDARS.
31. PIPE BOLLARD.
32. CONC.DRIVE APPROACH PER COUNTY STANDARS.
33. NOT USED A
34. SIGN INDICATED "RIGHT TURN ONLY".
35. NOT USED A
36. DRIVE AISLE STRIPPING PER RIVERSIDE COUNTY FIRE DEPARTMENT STANDARS. A
37. NOT USED A
38. EXISTING CURB AND GUTTER.
39. EXISTING DRIVE APPROACH TO BE REMOVED.
40. EXISTING SIDE WALK.
41. REMOVE EXISTING CURB,GUTTER AND SIDE WALK AS REQUIRED.PATCH BACK STREET PAVING AS REQUIRED. EXISTING TRAFFIC LIGHT. A
42. NOT USED A
43. EXISTING STREET LIGHT TO BE REMOVED.
44. NEW 25'-0" HIGH MONUMENT SIGN UNDER SEPARATE PERMIT. A
45. NEW 70'-0" HIGH MONUMENT SIGN UNDER SEPARATE PERMIT. A
46. ACCESSIBILITY-HIGHEST OPERABLE CONTROL IS BELOW 54"IN ACCORDANCE WITH ADAAG AND TITLE 24 HANDICAP PARKING SIGNAGE.
47. PATH OF TRAVEL SIGNAGE.
48. INTERNATIONAL ACCESSIBILITY SYMBOLS.
49. PROPANE CAGE.

SEE THOMAS BROTHERS MAP
PAGE 777, GRID D2 2000 EDITION



VICINITY MAP

SITE DATA INFORMATION

OWNER'S INFORMATION:
PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
236 SOUTH CRAIG DR.
ORANGE, CA 92869
CONTACT: ALI MEZAREI
PHONE: (714)715-1685
E-MAIL: amozarei@travelzonellc.com

ASSESSOR'S PARCEL NUMBER:
317-110-035-7
317-110-034-6
23261 CAJALCO EXPRESSWAY
PERRIS, CA 92571

ENGINEER CONTACT:
WESTERN STATES ENGINEERING & CONSTR
733 N. MAIN STREET
ORNAGE, CA 92868
CONTACTJOSEPH KARAKI
PHONE: (714)769-2000

ZONING:
CURRENT: M-SC
SURROUNDING: M-SC

	SQ. FT.	ACRE	RATIO
LOT AREA BEFORE DEDICATION	±486.886	11.44	105.5%
LOT AREA AFTER DEDICATION	472.190	10.84	100%
BUILDING AREA -OCCUPANCY: B/S-3 -CONSTRUCTION: V-N -SPRINKLERS: YES	10.923	0.2508	2.31%
CARWASH/LUBE AREA -OCCUPANCY: S-3 -CONSTRUCTION: V-N	4.880	0.1123	1.03%
CANOPY AREA -OCCUPANCY: S-3 -CONSTRUCTION: II-N	8.983	0.2292	2.11%
VANILLA SHELL AREA -OCCUPANCY: -CONSTRUCTION:	1.600	0.03673	0.33%
WEIGH STATION AREA -OCCUPANCY: -CONSTRUCTION:	1.377	0.03161	0.29%
TRASH ENCLOSURE AREA -OCCUPANCY: -CONSTRUCTION:	388	0.008907	0.08%
CARWASH VACUUM TRELLIS AREA -OCCUPANCY: -CONSTRUCTION:	2592	0.0595	0.54%
LANDSCAPING AREA -REQUIRED: 15% -PROVIDED: 21.9%	11,358	0.26	2.39%
TOTAL PHASE 1 BUILDING AREA	30,393	0.6977	

	TYPE	SIZE	REQUIRED	PROVIDED
PARKING AREA	HANDICAP	17'X18'	–	12
	REGULAR	9'X18'	–	189
	CANOPY	9'X18'	–	–
	TOTAL		162	201

NOTES:
1. THE SITE IS NOT SUBJECT TO LIQUEFACTION, OTHER GEOLOGICAL HAZARD, OR SPECIAL STUDIES ZONE.
2. THIS SITE TO BE CONNECTED TO SEWER. SEE PROPOSED SEWER CONNECTION ON HARVILL STREET.
3. THIS SITE IS NOT SUBJECT TO OVERFLOW, INUNDATION OR FLOOD HAZARD
4. NO EXISTING OPEN CHANNELS ON PROPERTY.
5. CAMERAS SHALL BE INSTALLED SO ATTENDANCE CAN VIEW ALL DISPENSING FROM MONITORS.
6. ALL EXISTING EASEMENTS NOTED ON SITE PLAN.
7. NOT WITHIN CSD BUT WITHIN CFD 88-8.
8. SECURITY CAMERAS TO BE PLACED INTERIOR AND EXTERIOR OF ALL BUILDINGS AND PARKING AREA.
9. EXTERIOR LIGHTING TO COVER ALL PARKING AREA, WALKWAYS AND PERIMETER SHALL BE PROVIDED.
10. SINAGE AT VARIOUS LOCATIONS THROUGHOUT THE FACILITY THAT GIVE A POINT OF CONTACT SHALL BE PROVIDED.
11. PERIMETERS SHALL BE DEFINED BY LANDSCAPING THE WILL WILL NOT OBSTRUCT LAW ENFORCEMENT VIEWS FROM STREET.
12. LENGTH OF STAY FOR TRUCK DRIVERS SHALL BE LIMITED TO (4) HOURS ON SITE.
13. PROVIDE SURVEY STAKES PRIOR TO FOUNDATION INSPECTION TO VERIFY LOT LINES.
14. BUILDING ADDRESS SHALL BE PROVIDED ON THE BUILDING IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET PER SECTION 502..
15. ALL WORDS "NO PARKING" ON THE GROUND SHOULD BE PAINTED WITHIN EACH 5'&8' WIDE LOADING AISLES OF THE DISABLED PARKING SPACES.

PLANNING DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

BUILDING & SAFETY DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

DEPARTMENT OF PUBLIC HEALTH
COUNTY OF RIVERSIDE
4065 COUNTY CIRCLE DR.
RIVERSIDE, CA 92503
(909)358-5000

MECHANICAL DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

SCHOOL DISTRICT:
COUNTY OF RIVERSIDE
975 WEST MORGAN STREET
PERRIS, CA 92571
(909)940-6100 ext.1011

FIRE DEPARTMENT:
RIVERSIDE COUNTY FIRE DEPARTMENT
210 WEST SAN JACINTO AVENUE
PERRIS, CA 92570
(909)940-6900

PLUMBING DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

TRANSPORTATION DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

ELECTRIC DEPARTMENT:
COUNTY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92502
(909)955-1800

BUILDING SCHEDULE

KEY	DESCRIPTION	STORY	HEIGHT	AREA	OCC. GROUP	CONST. TYPE	FIRE SPRINKLERS
A	TRAVELERS CENTER	1	17'-8"	10923	MIXED	VN	YES
TRAVELERS CENTER BREAKDOWN	STORES	1		885	M	VN	YES
	PREPARETION AREA	1		163	B/S3	VN	YES
	ELECTRIC ROOM	1		349	–	VN	YES
	COMMON RESTROOMS AND CORRIDOR	1		771	B/S3	VN	YES
	SALES AREA	1		6130	B/S3	VN	YES
	OFFICES +CASHIER AREA	1		758	B/S3	VN	YES
	COOLER+FREEZER	1		901	B/S3	VN	YES
B	(4) BAY LUBE/TUNE	1	20'	1695	S3		
C	(1) TUNNEL CARWASH	1	20'	1789	S3		
D	VACUUM	1	12'	2823			
E	AUTO FUEL CANOPY W/(8) ISLANDS 90'x38' CANOPY (15' CLEAR HEAD HT.)	1	18'	6013	S3		
F	DIESEL FUEL CANOPY W/(9) ISLANDS 170'x30' CANOPY (20' CLEAR HEAD HT.)	1	19'-6"	2970	S3		
G	WEIGH STATION	1	20'	1377			
H	RESTAURANT	–	–	–	–		
I	DRIVE THRU RESTAURANT	–	–	–	–		
	TOTAL			37167			

AREA TABULATIONS:

NET LAND AREA: 10.84 ACRES (472,190 S.F.)
GROSS LAND AREA 11.44 ACRES (486.886 S.F.)
BUILDING COVERAGE (PHASES 1&2) 40,174S.F. 8.5 %
PARKING PAVED AREA 358,864 S.F. 76.0 %
INTERIOR LANDSCAPE AREA : 40,567 S.F. 8.57 %
PERIMETER LANDSCAPE AREA : 32,585 S.F. 6.93 %
TOTAL PROVIDED LANDSCAPE: (18% OF PARKING AREA) 73,152 S.F. 15.5 %

ZONNING.....MSC (EXISTING & PROPOSED)
SPECIFIC PLAN AREA.....MEAD VALLEY COMMUNITY
NOT IN ANY SPECIFIC PLAN PLAN (1-C,SPA-2)
FLOOD ZONE.....RIVERSIDE COUNTY FLOOD CONTROL DISTRICT (FLOOD CONTROL 'C')

LEGAL DESCRIPTION

THE LAND SHOWN HEREON IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

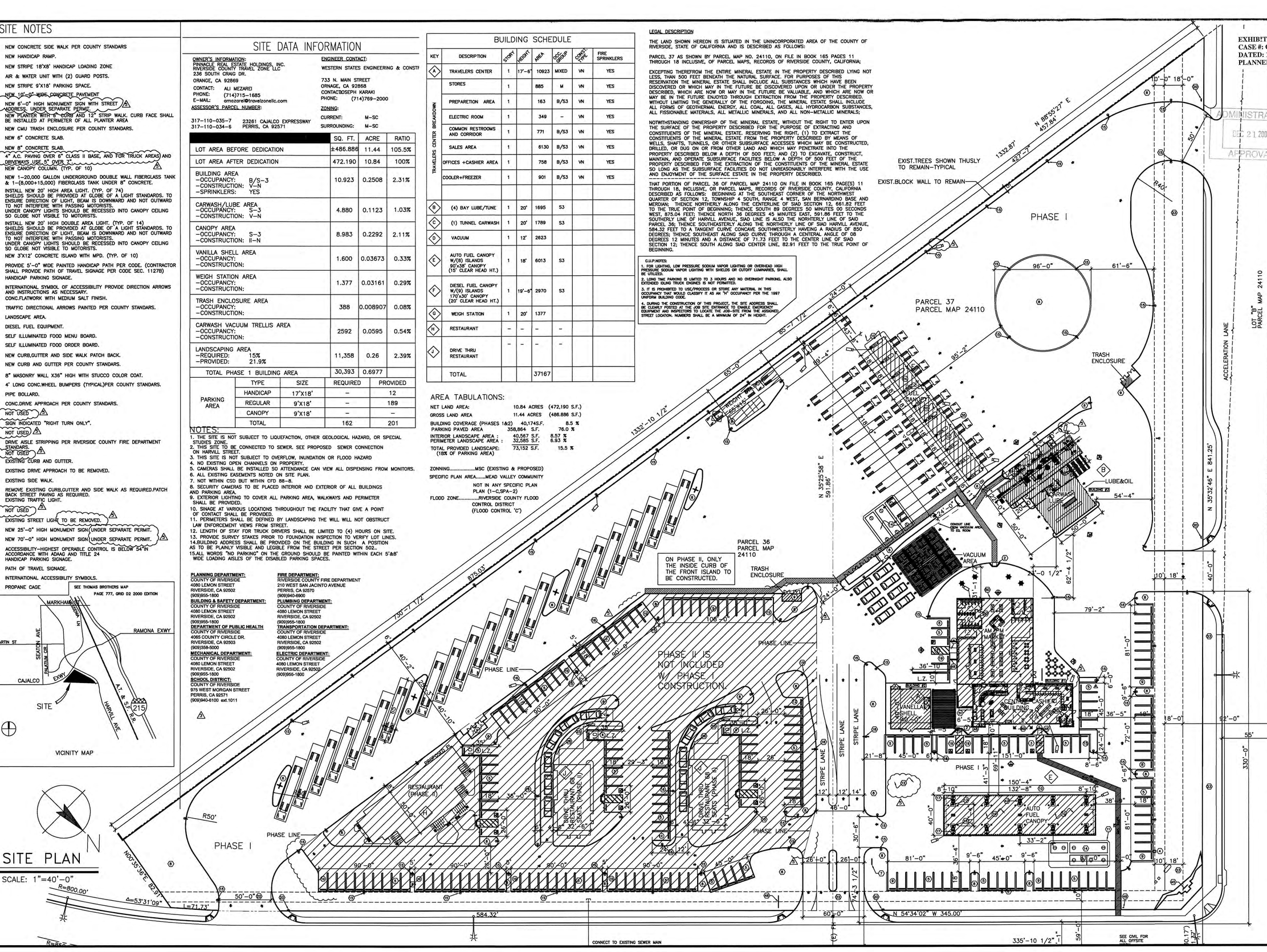
PARCEL 37 AS SHOWN BY PARCEL MAP NO. 24110, ON FILE IN BOOK 165 PAGES 11 THROUGH 18 INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

EXCEPTING THEREFROM THE ENTIRE MINERAL ESTATE IN THE PROPERTY DESCRIBED LYING NOT LESS, THAN 500 FEET BENEATH THE NATURAL SURFACE, FOR PURPOSES OF THIS RESERVATION THE MINERAL ESTATE SHALL INCLUDE ALL SUBSTANCES WHICH HAVE BEEN DISCOVERED OR WHICH MAY IN THE FUTURE BE DISCOVERED UPON OR UNDER THE PROPERTY DESCRIBED, WHICH ARE NOW OR MAY IN THE FUTURE BE VALUABLE, AND WHICH ARE NOW OR MAY BE IN THE FUTURE ENJOYED THROUGH EXTRACTION FROM THE PROPERTY DESCRIBED. WITHOUT LIMITING THE GENERALITY OF THE FORGOING, THE MINERAL ESTATE SHALL INCLUDE ALL FORMS OF GEOTHERMAL ENERGY, ALL COAL, ALL GASES, ALL HYDROCARBON SUBSTANCES, ALL FISSIONABLE MATERIALS, ALL METALLIC MINERALS, AND ALL NON-METALLIC MINERALS;

NOTWITHSTANDING OWNERSHIP OF THE MINERAL ESTATE, WITHOUT THE RIGHT TO ENTER UPON THE SURFACE OF THE PROPERTY DESCRIBED FOR THE PURPOSE OF EXTRACTING AND CONSTITUENTS OF THE MINERAL ESTATE, RESERVING THE RIGHT, (1) TO EXTRACT THE CONSTITUENTS OF THE MINERAL ESTATE FROM THE PROPERTY DESCRIBED BY MEANS OF WELLS, SHAFTS, TUNNELS, OR OTHER SUBSURFACE ACCESSES WHICH MAY BE CONSTRUCTED, DRILLED, OR DUG ON OR FROM OTHER LAND AND WHICH MAY PENETRATE INTO THE PROPERTY DESCRIBED BELOW A DEPTH OF 500 FEET; AND (2) TO EXCAVATE, CONSTRUCT, MAINTAIN, AND OPERATE SUBSURFACE FACILITIES BELOW A DEPTH OF 500 FEET OF THE PROPERTY DESCRIBED FOR THE EXTRACTION OF THE CONSTITUENTS OF THE MINERAL ESTATE SO LONG AS THE SUBSURFACE FACILITIES DO NOT UNREASONABLY INTERFERE WITH THE USE AND ENJOYMENT OF THE SURFACE ESTATE IN THE PROPERTY DESCRIBED.

THAT PORTION OF PARCEL 36 OF PARCEL MAP 24110 ON FILE IN BOOK 165 PAGE(S) 11 THROUGH 18, INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN; THENCE NORTHERLY ALONG THE CENTERLINE OF SIAD SECTION 12, 661.82 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 50 MINUTES 00 SECONDS WEST, 875.04 FEET; THENCE NORTH 36 DEGREES 45 MINUTES EAST, 591.86 FEET TO THE SOUTHERLY LINE OF HARVILL AVENUE, SIAD LINE IS ALSO THE NORHTERLY LINE OF SAID PARCEL 36; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SIAD HARVILL AVENUE, 584.32 FEET TO A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVEING A RADIUS OF 850 DEGREES; THENCE SOUTHEAST ALONG SAID CURVE THROUGH A CENTERAL ANGLE OF 08 DEGREE 12 MINUTES AND A DISTANCE OF 71.73 FEET TO THE CENTER LINE OF SIAD SECTION 12; THENCE SOUTH ALONG SIAD CENTER LINE, 82.91 FEET TO THE TRUE POINT OF BEGINNING.

C.U.P. NOTES:
1. FOR LIGHTING, LOW PRESSURE SODIUM VAPOR LIGHTING OR OVERHEAD HIGH PRESSURE SODIUM VAPOR LIGHTING WITH SHIELDS OR CUTOFF LUMINARIES, SHALL BE UTILIZED.
2. LONG TIME PARKING IS LIMITED TO 3 HOURS AND NO OVERNIGHT PARKING. ALSO EXTENDED IDLING TRUCK ENGINES IS NOT PERMITTED.
3. IT IS PROHIBITED TO USE/PROCESS OR STORE ANY MATERIAL IN THIS OCCUPANCY THAT WOULD CLASSIFY IT AS AN "H" OCCUPANCY PER THE 1997 UNIFORM BUILDING CODE.
4. DURING THE CONSTRUCTION OF THIS PROJECT, THE SITE ADDRESS SHALL BE CLEARLY POSTED AT THE JOB SITE ENTRANCE TO ENABLE EMERGENCY EQUIPMENT AND INSPECTORS TO LOCACTE THE JOB-SITE FROM THE ASSIGNED STREET LOCATION. NUMBERS SHALL BE A MINIMUM OF 24" IN HEIGHT.



SITE PLAN

SCALE: 1"=40'-0"

CLIENT:

EXHIBIT: A
CASE #: CUP03370S3
DATED: 12/20/06
PLANNER: J. GONZALEZ

ADMINISTRATIVE APPROVAL DEC 21 2006

PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
COO & CO-FOUNDER

BRAND:

ARCO
BP WEST COAST PRODUCTS, LLC

CONSULTANT:

WESTERN STATES
Engineering & Construction, Inc.
733 N. MAIN ST.
ORANGE, CA 92868
714) 769-2000
714) 769-2002 Fax
www.wsecinc.com
A Design/ Build Co.

NO.	DATE	REVISION DESCRIPTION
1	11-17-03	BUILDING SUBMITTAL
2	4-19-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
3	6-01-04	REVISED PER PLAN CORRECTIONS BUILDING SUBMITTAL
4	8-10-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
5	9-27-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
6	11-24-04	REVISED PER PLAN CHECK
7	X-XX-05	COORDINATION CHECK

SEAL:

REGISTERED PROFESSIONAL ENGINEER KAMAL G. MOUCHAWAR NO. C051050 Exp. 9/30/05 CIVIL STATE OF CALIFORNIA

CONFIDENTIALITY STATEMENT:
THE RECIPIENT OF THESE MATERIALS UNDERSTANDS THAT COPYRIGHT IN THE MATERIALS IS OWNED BY BP, AND ALSO THAT THE MATERIALS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION. THE RECIPIENT AGREES, ACCORDINGLY, THAT RECIPIENT AGREES TO TREAT THE MATERIALS IN STRICT CONFIDENCE AND AGREES NOT TO DISCLOSE THESE MATERIALS TO ANY OTHER PARTY AND FURTHER AGREES NOT TO MAKE COPIES OF THE MATERIALS. THE RECIPIENT AGREES TO USE THE MATERIALS ONLY FOR THE LIMITED PURPOSE FOR WHICH BP HAS MADE THE MATERIALS AVAILABLE, AND RECIPIENT AGREES TO RETURN ALL MATERIALS TO BP EITHER UPON COMPLETION OF THE INTENDED PURPOSE OR UPON THE REQUEST OF BP, WHICHEVER COMES FIRST.

DEVELOPMENT INFORMATION:

NEW BUILD (STICK)
3600 SERIES AM/PM CENTER CASHIER TO GO DELI

SITE ADDRESS:

23261 CAJALCO EXWY.
@ HARVILL AVENUE
PERRIS, California 92571

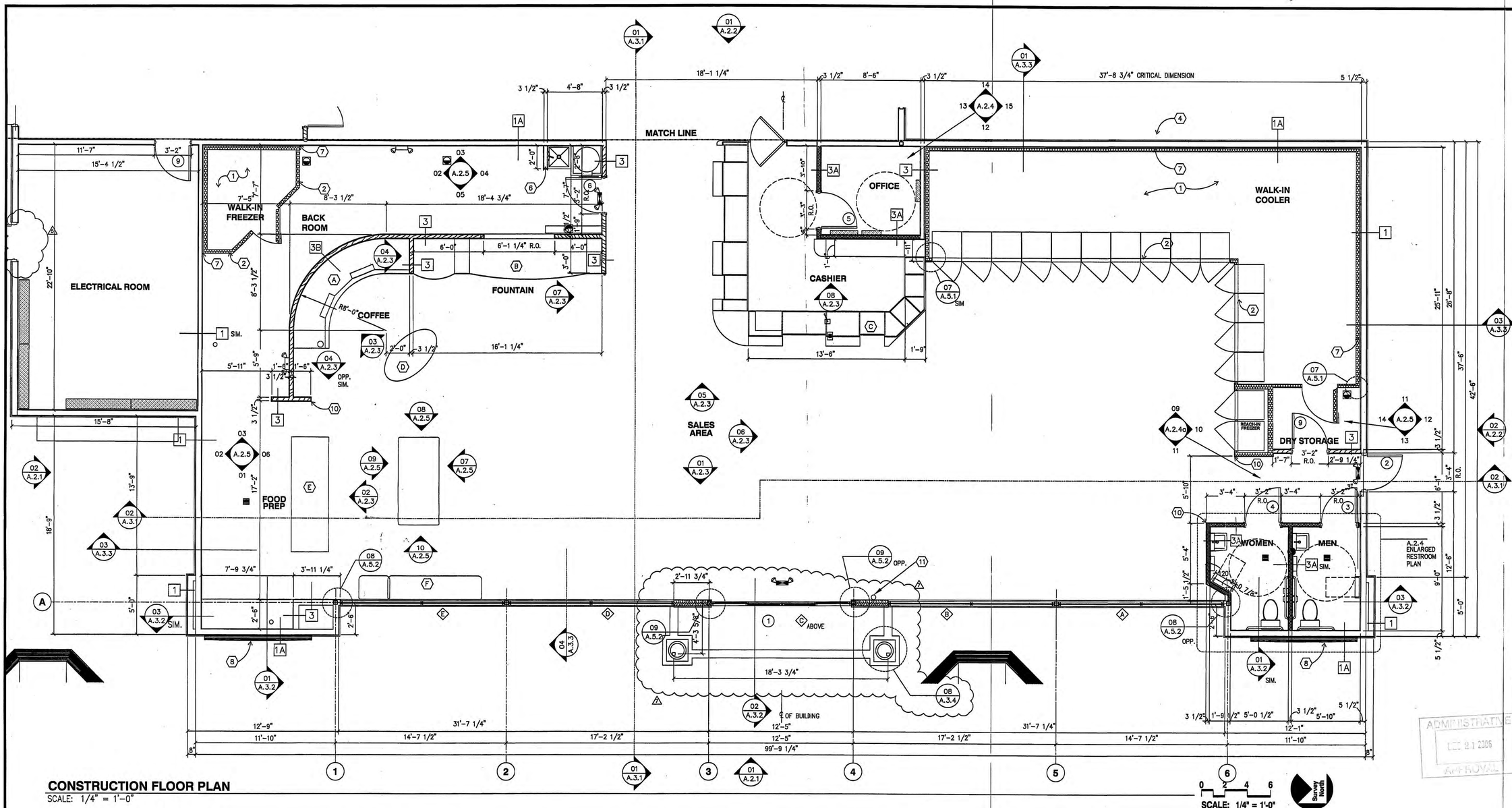
DESIGNED BY:	-	ALLIANCE ZAOM:	-
CHECKED BY:	-	BP REPM:	-
DRAWN BY:	-	ALLIANCE PM:	-
VERSION: V01 11.17.03		PROJECT NO: E75403	

DRAWING TITLE:

ARCHITECTURAL SITE PLAN

SHEET NO:

DOFO AS.1.1

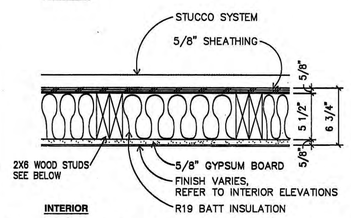


CONSTRUCTION FLOOR PLAN

SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"

EXTERIOR



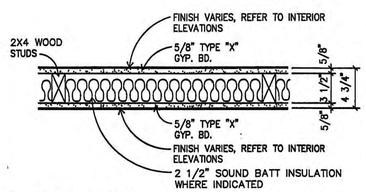
INTERIOR

1 SINGLE 2x6 STUDS AT 16" O.C.
SCALE: 1 1/2" = 1'-0"

1A DOUBLE 2x6 STUDS AT 24" O.C.
SCALE: 1 1/2" = 1'-0"

NOTE: FOR SHEATHING TYPE REFER TO EXTERIOR SHEATHING SCHEDULE S.1.2

ALTERNATE:
METAL STUDS FOR INTERIOR FRAMING



3 TYPICAL STUD WALL AT 24" O.C.
SCALE: 1 1/2" = 1'-0"

3A STUD WALL WITH SOUNDBATT
SCALE: 1 1/2" = 1'-0"

3B STUD WALL AT 12" O.C.
SCALE: 1 1/2" = 1'-0"

NOTE: OPTION TO USE (2) 1/4" LAYERS OF GYPSUM BOARD FOR RADIUS BOTH SIDES

EXTINGUISHERS SHALL BE MOUNTED WITH ITS TOP IS AT 3' MIN. TO 5' MAX. FROM FINISHED FLOOR.

GENERAL NOTES:

A. DIMENSION LINES ARE FROM FACE OF FRAMING OR FOUNDATION UNLESS NOTED OTHERWISE.
B. FACE OF FRAMING ON EXTERIOR WALL IS SAME AS OUTSIDE FACE OF FOUNDATION WALL.
C. METAL STUDS MAY BE USED IN PLACE OF WOOD STUDS. PLAN DIMENSIONS ARE BASED ON WOOD STUDS.
D. MOISTURE RESISTANT GYPSUM TO BE USED IN TOILET ROOMS, BEHIND MOP SINK, AND ADJACENT TO COOLER. FOR SPECIFIC SUBSTRATE REQUIREMENTS, REFER TO INTERIOR ELEVATIONS
E. FOR FLOORING LAYOUT REFER TO SHEET A.1.2
F. FOR CEILING LAYOUT REFER TO SHEET A.1.3
G. FOR DOOR AND WINDOW DETAILS, REFER TO SHEET A.5.2
H. PROVIDE SURVEY STAKES PRIOR TO FOUNDATION INSPECTION TO VERIFY LOT LINES

WALL LEGEND

- WOOD FRAMED WALL
- METAL STUD WALL
- MASONRY WALL
- PREFABRICATED COOLER UNIT
- LOW (HALF) WALL (WOOD FRAMED)
- CMU (BLOCK WALL)

KEYED NOTES:

1. FOR COOLER AND FREEZER INFORMATION AND DIMENSIONS, REFER TO SHEET Q.4.1
2. COOLER WALL / BULKHEAD CONSTRUCTION TO BOTTOM OF STRUCTURE
3. LINE OF PARAPET WALL ABOVE
4. GUTTER ABOVE
5. AWNING ABOVE
6. LOW WALL ROUGH FRAMING HEIGHT = 5'-0". PROVIDE 5/8" MOISTURE RESISTANT GYPSUM BOARD BEHIND MOP SINK.
7. MAINTAIN MIN. 1" MIN. AIR GAP BEHIND COOLER AND FREEZER. CLOSE GAP AT ENDS WITH 2"x2" ALUMINUM ANGLE.
8. BUILDING SIGN. BY SIGN CONTRACTOR
9. 3" CONCRETE SLAB FOR ELECTRICAL EQUIPMENT
10. CLEAR PLASTIC CORNER GUARDS
11. A.B.C. FIRE EXTINGUISHER

MILLWORK

ALL MILLWORK IS TO BE MANUFACTURED PER AWI. SHOP DRAWINGS TO BE SUBMITTED TO ARCHITECT FOR REVIEW

A. COFFEE MILLWORK. REFER TO SHEET F.5.1
B. FOUNTAIN MILLWORK. REFER TO SHEET F.5.2
C. CASHIER COUNTER MILLWORK. REFER TO SHEETS F.5.3 F.5.4
D. COFFEE CONDIMENT ISLAND MILLWORK. REFER TO SHEET F.5.5
E. COUNTER MILLWORK. REFER TO SHEET F.5.6
F. STAND UP COUNTER MILLWORK. REFER TO SHEET F.5.5

EXHIBIT: C1
CASE #: CUP03370S3
DATED: 12/20/06
PLANNER: J. GONZALEZ

ADMINISTRATIVE APPROVAL DEC 21 2006

CLIENT:
PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
COO & CO-FOUNDER

BRAND:
ARCO
BP WEST COAST PRODUCTS, LLC

CONSULTANT:
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www.wsec.com
A "Design/ Build" Co.

NO.	DATE	REVISION DESCRIPTION
1	11-17-05	BUILDING SUBMITTAL
2	4-19-06	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS & BUILDING SUBMITTAL
3	8-01-06	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS & BUILDING SUBMITTAL
4	8-10-06	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
5	9-27-06	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
6	11-24-06	REVISED PER PLAN CHECK
7	4-10-05	COORDINATION CHECK

SEAL:
REGISTERED PROFESSIONAL ENGINEER KAMAL B. MOUGHANNI NO. C051050 Exp. 9/30/05 CIVIL STATE OF CALIFORNIA

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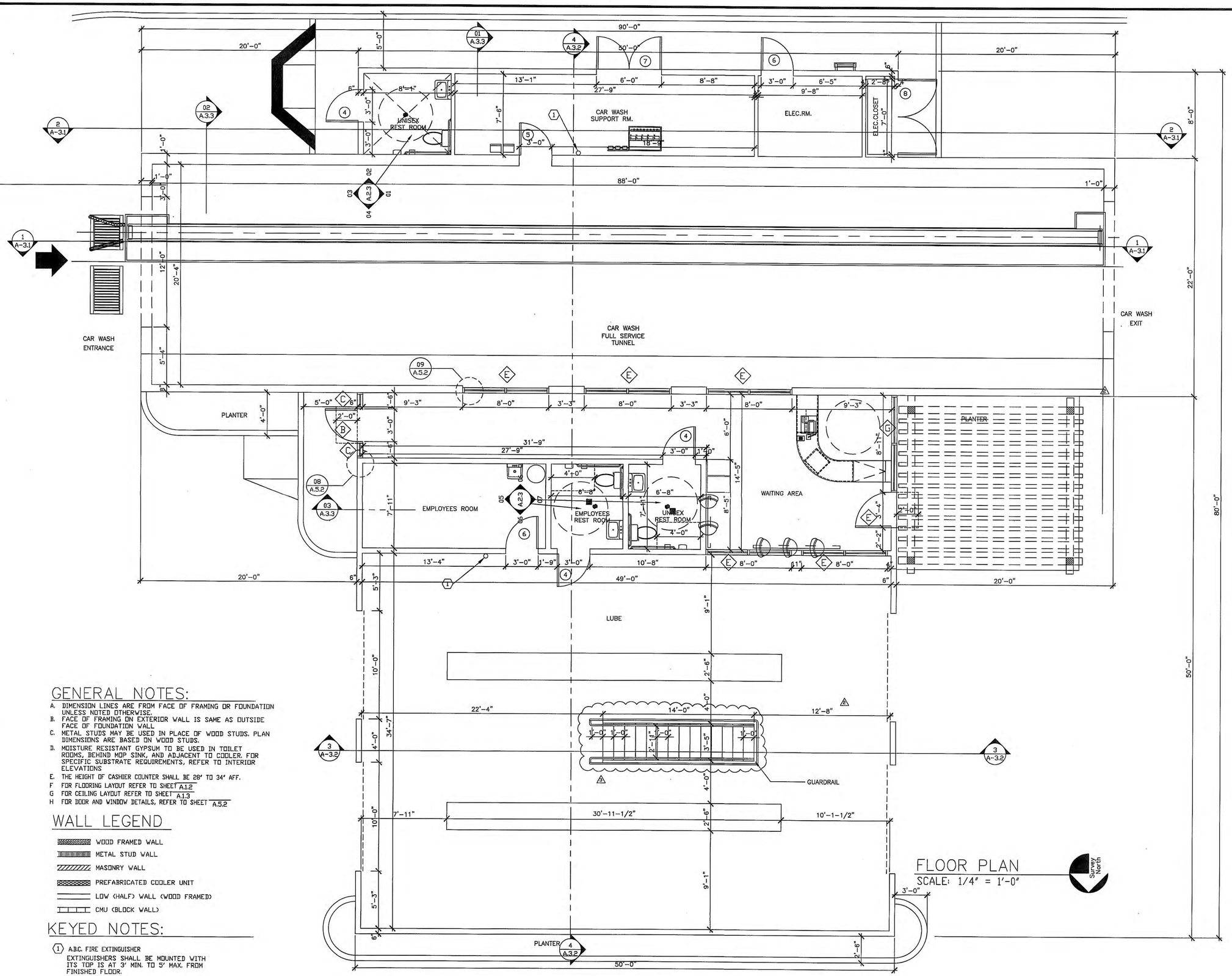
3600 SERIES AM/PM CENTER CASHIER TO GO DELI

SITE ADDRESS:
23261 CAJALCO EXWY.
@ HARVILL AVENUE
PERRIS, California 92571

DESIGNED BY:	ALLIANCE ZACH: -
CHECKED BY:	BP REPH: -
DRAWN BY:	ALLIANCE PM: -
VERSION: V01	PROJECT NO: E75403
11.17.03	

TITLE:
BUILDING # 1 FLOOR PLAN

SHEET NO:
DOFO A.1.1a



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E. THE HEIGHT OF CASHIER COUNTER SHALL BE 28" TO 34" AFF.
F FOR FLOORING LAYOUT REFER TO SHEET A.1.2
G FOR CEILING LAYOUT REFER TO SHEET A.1.3
H FOR DOOR AND WINDOW DETAILS, REFER TO SHEET A.5.2

WALL LEGEND

- WOOD FRAMED WALL
- METAL STUD WALL
- MASONRY WALL
- PREFABRICATED COOLER UNIT
- LOW (HALF) WALL (WOOD FRAMED)
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KEYED NOTES:

(1) A.B.C. FIRE EXTINGUISHER
EXTINGUISHERS SHALL BE MOUNTED WITH ITS TOP IS AT 3' MIN. TO 5' MAX. FROM FINISHED FLOOR.

FLOOR PLAN

SCALE: 1/4" = 1'-0"

Survey North

EXHIBIT: C3
CASE #: CUP03370S3
DATED: 12/20/06
PLANNER: J. GONZALEZ

CLIENT:

PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
COO & CO-FOUNDER

BRAND:

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CONSULTANT:

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5	9-27-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTIONS
6	11-24-04	REVISED PER PLAN CHECK
7	4-10-05	COORDINATION CHECK

SEAL:

REGISTERED PROFESSIONAL ENGINEER
KAMAL B MOUGANNI AF
NO. C051050
Exp. 9/30/05
CIVIL
STATE OF CALIFORNIA

CONFIDENTIALITY STATEMENT:
THE RECIPIENT OF THESE MATERIALS UNDERSTANDS THAT COPYRIGHT IN THE MATERIALS IT OWNED BY BP, AND ALSO, THAT THE MATERIALS CONTAIN PROPRIETARY AND CONFIDENTIAL INFORMATION OF BP. ACCORDINGLY, THE RECIPIENT AGREES TO RETAIN THOSE MATERIALS IN STRICT CONFIDENCE AND AGREES NOT TO DISCLOSE THESE MATERIALS TO ANY OTHER PARTY AND FURTHER AGREES NOT TO REPRODUCE THE MATERIALS. THE RECIPIENT AGREES TO USE THESE MATERIALS ONLY FOR THE LIMITED PURPOSE FOR WHICH BP HAS MADE THE MATERIALS AVAILABLE AND RECIPIENT AGREES TO RETURN ALL MATERIALS TO BP EITHER UPON COMPLETION OF THE INTENDED PURPOSE OR UPON THE REQUEST OF BP, WHICHEVER COMES FIRST.

DEVELOPMENT INFORMATION:

NEW BUILD (STICK)
3600 SERIES AM/PM CENTER CASHIER TO GO DELI

SITE ADDRESS:

23261 CAJALCO EXWY.
@ HARVILL AVENUE
PERRIS, California 92571

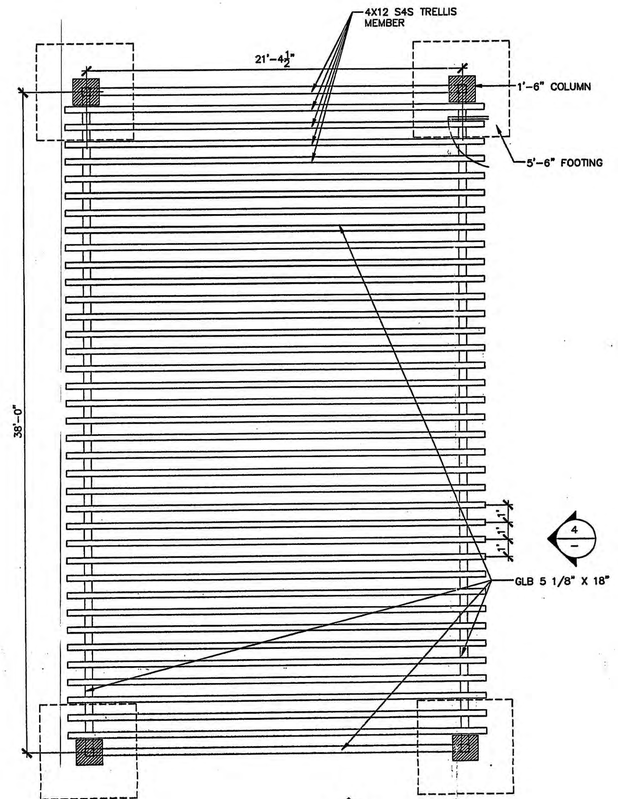
-

BY:	-	ALLIANCE Z&DM:	-
Δ:	-	BP REPM:	-
DRAWN BY:	-	ALLIANCE PM:	-

VERSION: V01 11.17.03
PROJECT NO: E75403

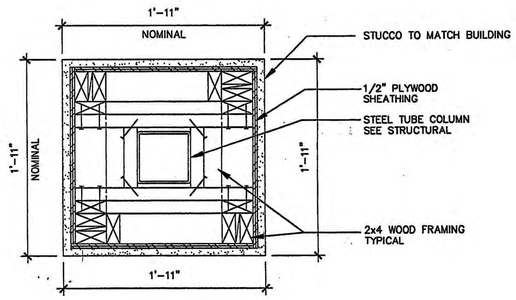
DRAWING TITLE:
BUILDING # 3 CAR WASH FLOOR PLAN

SHEET NO:
DOFO A-1.1



1 TRELLIS PLAN

SCALE: 1/4"=1'-0"



2 SECTION "AA"

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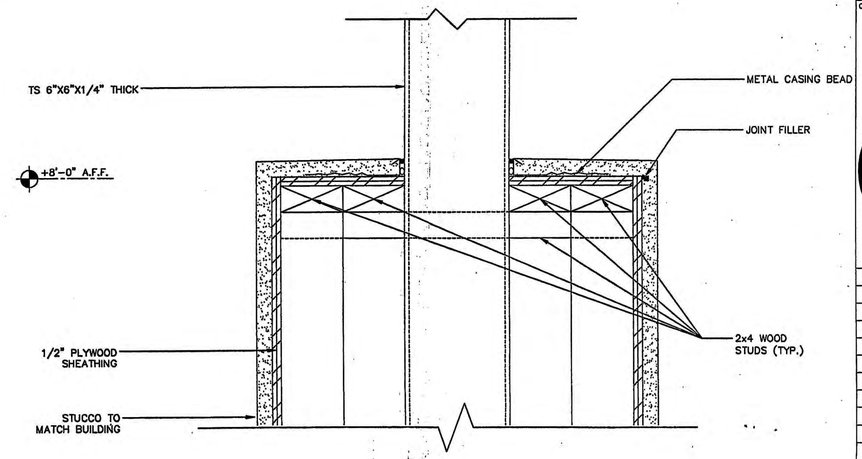

3 TRELLIS POST

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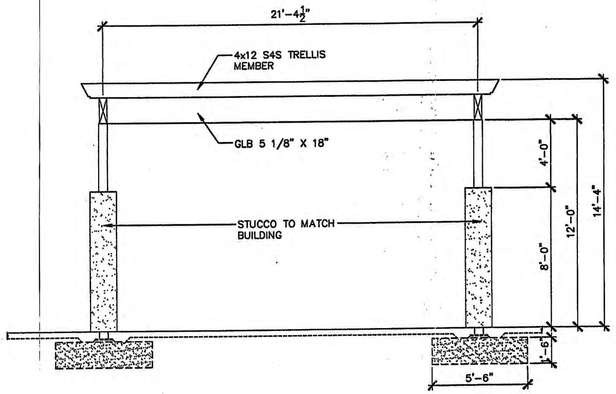
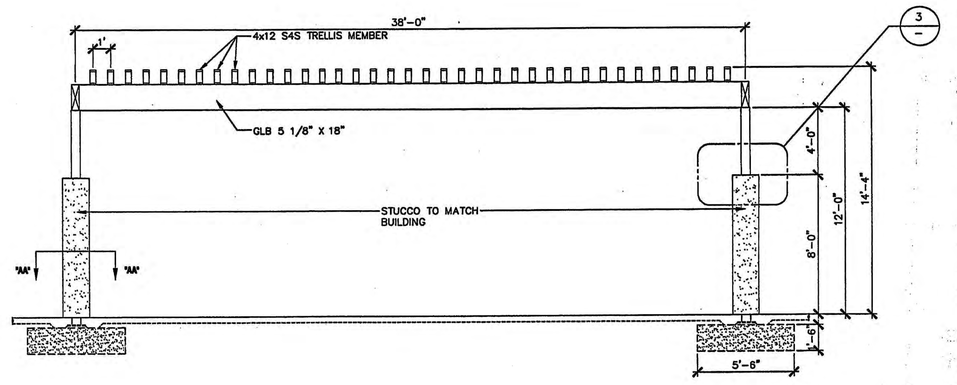


4 ELEVATION 1

SCALE: 1/4"=1'-0"



5 ELEVATION 2

SCALE: 1/4"=1'-0"

ADMINISTRATIVE APPROVAL DEC 21 2005

EXHIBIT: W (Sheets 1 & 2)
CASE #: CUP03370S3
DATED: 12/20/06
PLANNER: J. GONZALEZ

CLIENT:

PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
COO & CO-FOUNDER

BRAND:

ARCO
BP WEST COAST PRODUCTS, LLC

CONSULTANT:

WESTERN STATES
Engineering & Construction, Inc.
739 N. MAIN ST.
ORANGE, CA 92868
714/769-2000
714/769-2002 Fax
www.wsecinc.com
A Design Build Co.

NO.	DATE	REVISION DESCRIPTION
1	11-17-03	BUILDING SUBMITTAL
2	4-19-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTION. BUILDING SUBMITTAL
3	6-01-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTION. BUILDING SUBMITTAL
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5	9-27-04	REVISED PER PLAN CHECK & IN-HOUSE CORRECTION.
6	11-24-04	REVISED PER PLAN CHECK
7	4-10-05	COORDINATION CHECK

SEAL:

REGISTERED PROFESSIONAL ENGINEER
KAMAL B MOUSSATTAT
NO. C051050
Exp. 8/30/05
CIVIL
STATE OF CALIFORNIA

CONFIDENTIALITY STATEMENT:
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DEVELOPMENT INFORMATION:

NEW BUILD (STICK)
3600 SERIES AM/PM CENTER CASHIER TO GO DELI

SITE ADDRESS:

23261 CAJALCO EXWY.
@ HARVILL AVENUE
PERRIS, California 92571

DESIGNED BY:	-	ALLIANCE Z&DM:	-
CHECKED BY:	-	BP REPM:	-
DRAWN BY:	-	ALLIANCE PM:	-
VERSION:	V01 11.17.03	PROJECT NO:	E75403

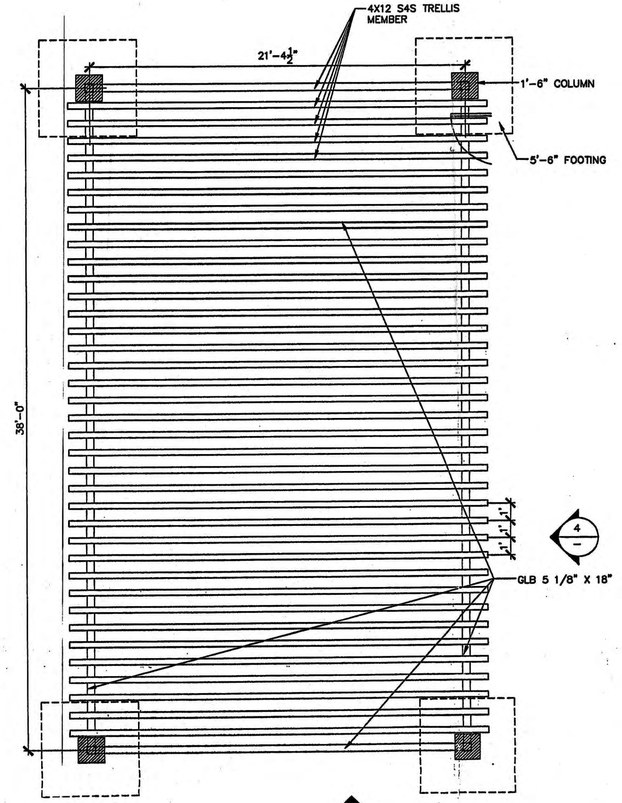
DRAWING TITLE:

TRELLIS DETAILS

SHEET NO:

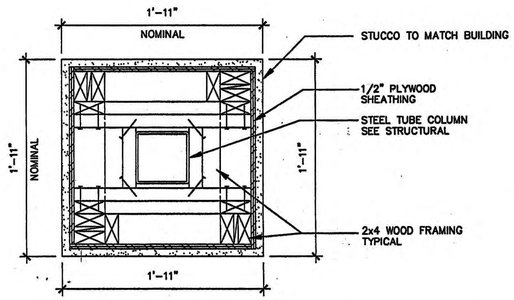
DOFO A.6.1

BNR040065, BNR040066, BNR0067



1 TRELLIS PLAN

SCALE: 1/4"=1'-0"



2 SECTION "AA"

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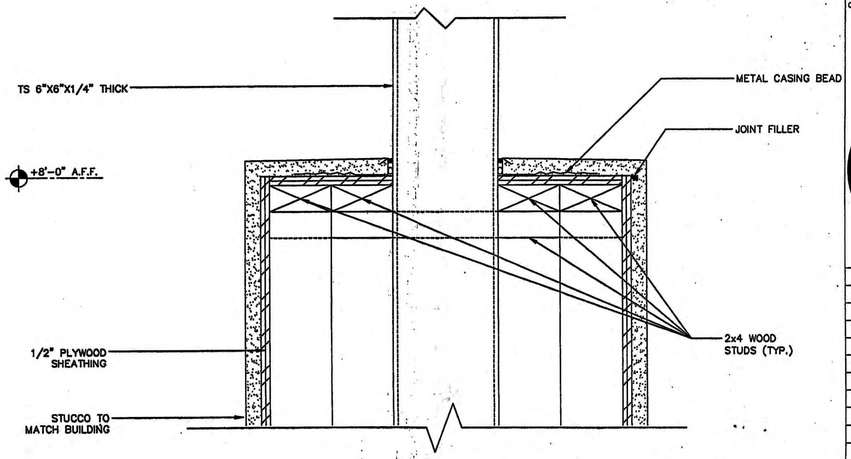

3 TRELLIS POST

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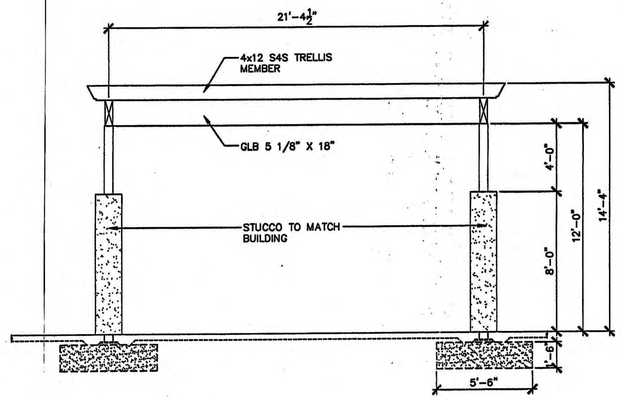
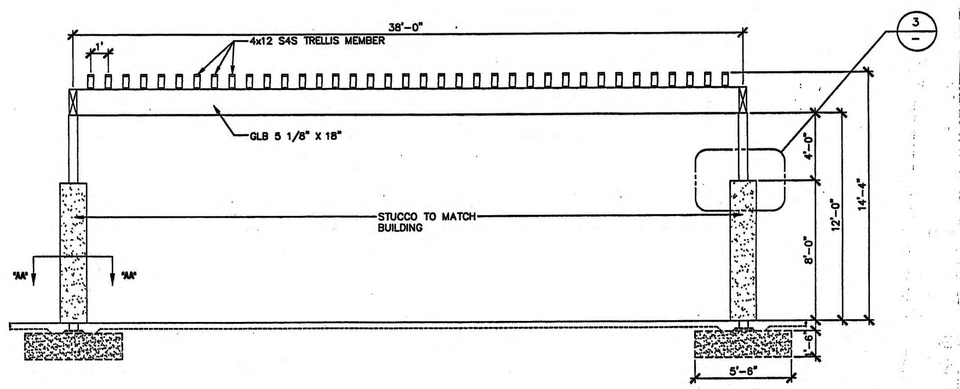


4 ELEVATION 1

SCALE: 1/4"=1'-0"



5 ELEVATION 2

SCALE: 1/4"=1'-0"

ADMINISTRATIVE APPROVAL DEC 21 2006

EXHIBIT: W (Sheets 1 & 2)
CASE #: CUP03370S3
DATED: 12/20/06
PLANNER: J. GONZALEZ

CLIENT:

PINNACLE REAL ESTATE HOLDINGS, INC.
RIVERSIDE COUNTY TRAVEL ZONE LLC
COO & CO-FOUNDER

BRAND:

ARCO
BP WEST COAST PRODUCTS, LLC

CONSULTANT:

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NO.	DATE	REVISION DESCRIPTION
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6	1-24-04	REVISED PER PLAN CHECK
7	4-10-05	COORDINATION CHECK

SEAL:

REGISTERED PROFESSIONAL ENGINEER
KAMAL B MOUCHANTAF
NO. C051059
Exp. 9/30/05
CIVIL
STATE OF CALIFORNIA

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DEVELOPMENT INFORMATION:

NEW BUILD (STICK)
3600 SERIES AM/PM CENTER CASHIER TO GO DELI

SITE ADDRESS:

23261 CAJALCO EXWY.
@ HARVILL AVENUE
PERRIS, California 92571

DESIGNED BY:	-	ALLIANCE Z&DN:	-
CHECKED BY:	-	BP REPM:	-
DRAWN BY:	-	ALLIANCE PM:	-
VERSION:	V01	PROJECT NO:	E75403
	11.17.03		

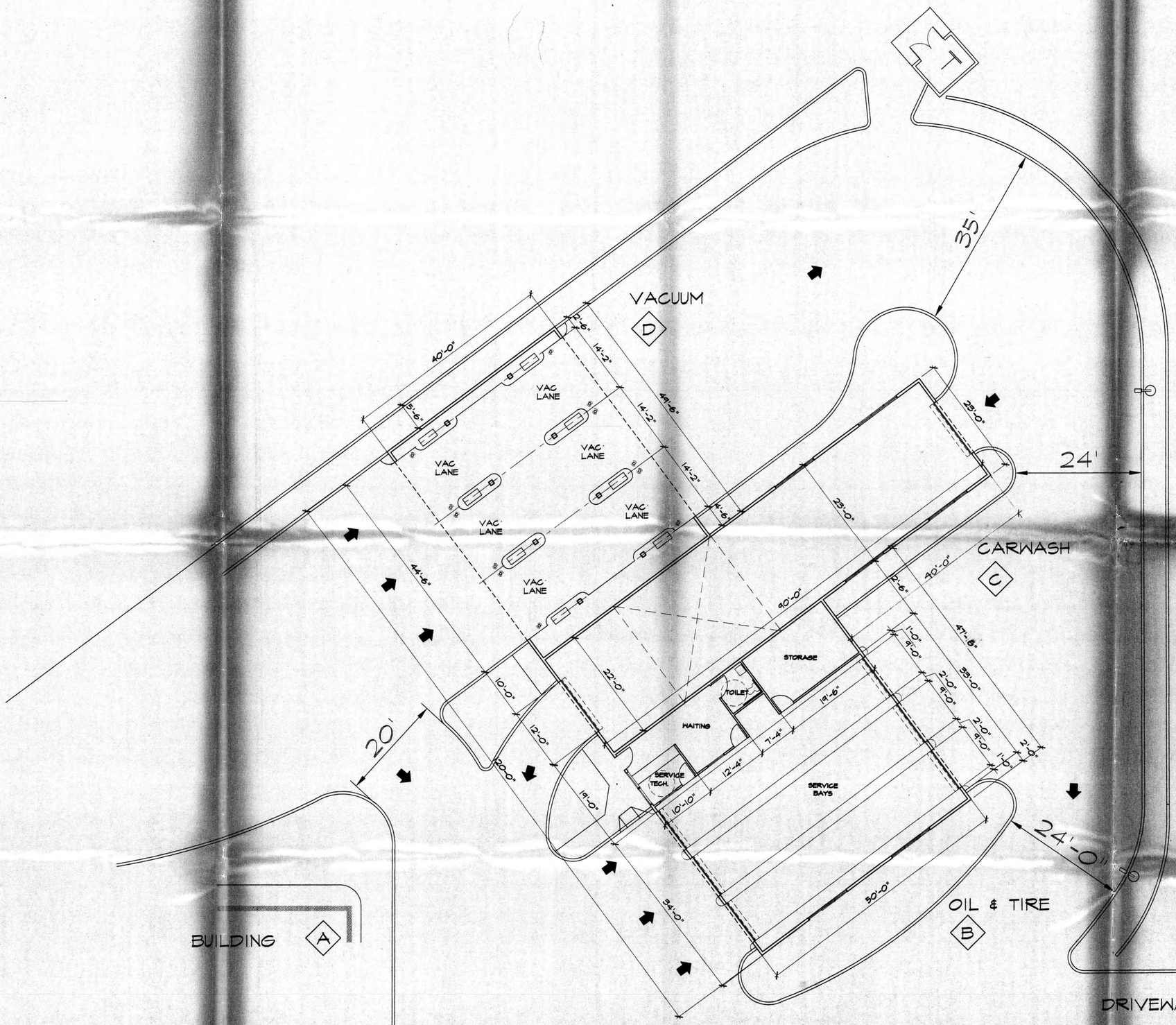
DRAWING TITLE:

TRELLIS DETAILS

SHEET NO:

DOFO
A.6.1

BNR040065, BNR040066, BNR0067



Approved at Board of Supervisors
on 7/1/03
Signature DZ

EXHIBIT NO. C
CASE NO. CUP 03370
DATE 11/7/03 SIGNATURE DE

BUILDINGS B, C & D FLOOR PLAN

SCALE: 1/8"=1'-0"

AMENDED NO. 1
DATE 11/7/03 BY DZ

N

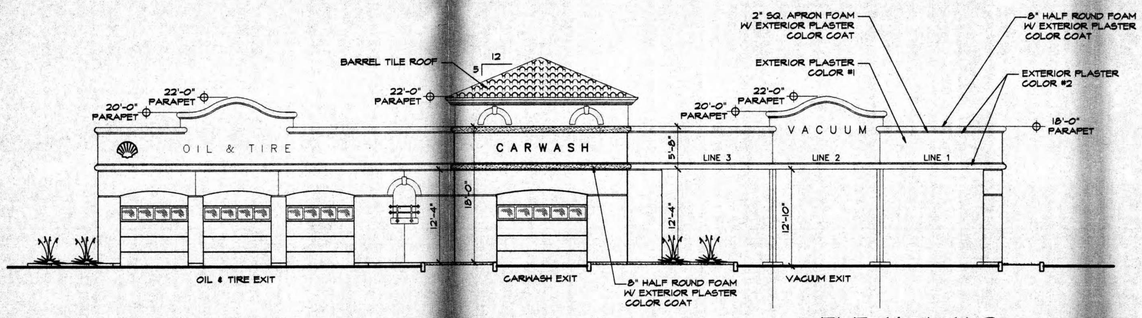
REVISIONS	BY
09/21/01	SGR

COMMERCIAL COMPLEX FOR:
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

ROBERT A. MARTINEZ
ARCHITECT / ASSOCIATES

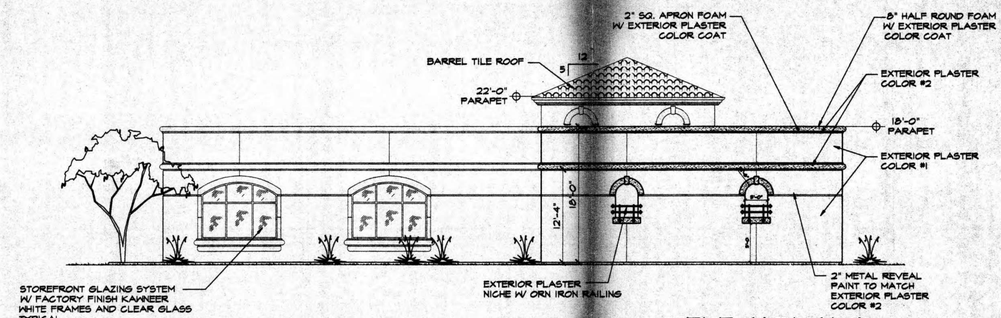
BUILDINGS B, C & D
FLOOR PLAN

DATE: 01/10/03
SCALE: 1/8"=1'-0"
DRAWN: GUSSER
JOB: 01-15
SHEET A3
OF SHEETS



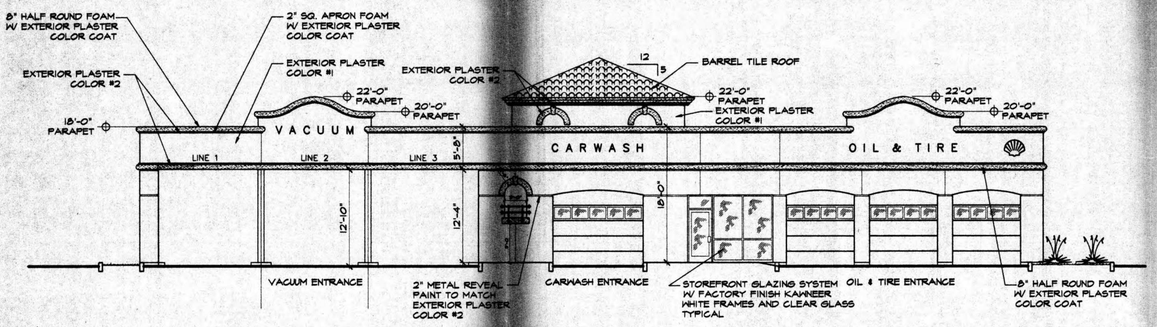
ELEVATION 3

SCALE 1/8"=1'-0"



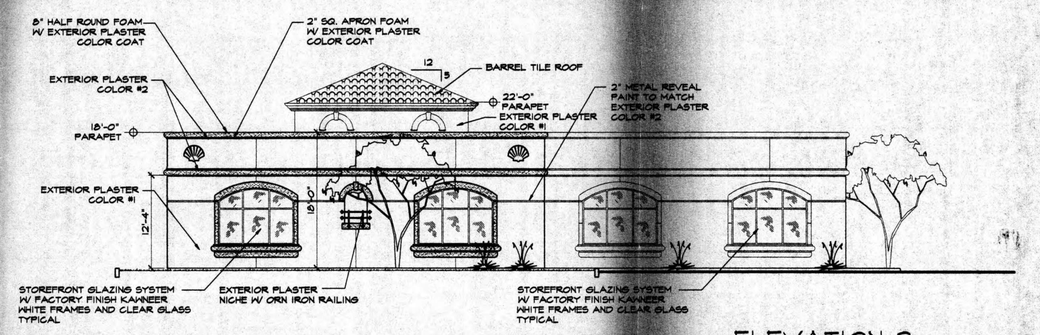
ELEVATION 4

SCALE 1/8"=1'-0"



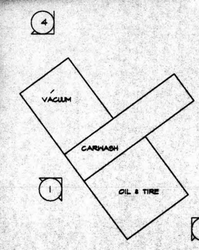
ELEVATION 1

SCALE 1/8"=1'-0"



ELEVATION 2

SCALE 1/8"=1'-0"



Approved at Board of Supervisors
on 7/1/03
Signature DZ

ELEVATIONS

AMENDED NO. 1
DATE 11/7/03 BY: DZ
EXHIBIT NO. B-2
CASE NO. CUP
DATE 11/7/03 SIGNATURE DZ

REVISIONS	BY
05/21/01	DGR

COMMERCIAL COMPLEX FOR :
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

ROBERT A. MARTINEZ
ARCHITECT / ASSOCIATES
15457 BIRCH ROAD
SUITE 203
VICTORVILLE, CA 92394
BUS. (760) 241-7826
FAX. (760) 241-7864
E-MAIL: ramartinez@msn.com

BUILDINGS B, C & D

DATE:	01/10/03
SCALE:	1/8"=1'-0"
DRAWN:	GUSSER
JOB:	01-15
SHEET	A4
OF	SHEETS

LEGAL DESCRIPTION

THE LAND SHOWN HEREON IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 37 AS SHOWN BY PARCEL MAP NO. 24110, ON FILE IN BOOK 165 PAGES 11 THROUGH 18 INCLUSIVE, OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THE ENTIRE MINERAL ESTATE IN THE PROPERTY DESCRIBED, LYING NOT LESS THAN 500 FEET BENEATH THE NATURAL SURFACE, FOR PURPOSES OF THIS RESERVATION THE MINERAL ESTATE SHALL INCLUDE ALL SUBSTANCES WHICH HAVE BEEN DISCOVERED OR WHICH MAY IN THE FUTURE BE DISCOVERED UPON OR UNDER THE PROPERTY DESCRIBED, WHICH ARE NOW OR MAY IN THE FUTURE BE VALUABLE, AND WHICH ARE NOW OR MAY BE IN THE FUTURE ENJOYED THROUGH EXTRACTION FROM THE PROPERTY DESCRIBED, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING THE MINERAL ESTATE SHALL INCLUDE ALL FORMS OF GEOTHERMAL ENERGY, ALL COAL, ALL GASES, ALL HYDROCARBON SUBSTANCES, ALL FISSIONABLE MATERIALS, ALL METALLIC MINERALS, AND ALL NON-METALLIC MINERALS;

NOTWITHSTANDING OWNERSHIP OF THE MINERAL ESTATE, WITHOUT THE RIGHT TO ENTER UPON THE SURFACE OF THE PROPERTY DESCRIBED FOR THE PURPOSE OF EXTRACTING AND CONSTITUENTS OF THE MINERAL ESTATE, RESERVING THE RIGHT, (1) TO EXTRACT THE CONSTITUENTS OF THE MINERAL ESTATE FROM THE PROPERTY DESCRIBED BY MEANS OF WELLS, SHAFTS, TUNNELS, OR OTHER SUBSURFACE ACCESSES WHICH MAY BE CONSTRUCTED, DRILLED, OR DUG ON OR FROM OTHER LAND AND WHICH MAY PENETRATE INTO THE PROPERTY DESCRIBED BELOW A DEPTH OF 500 FEET; AND (2) TO EXCAVATE, CONSTRUCT, MAINTAIN, AND OPERATE SUBSURFACE FACILITIES BELOW A DEPTH OF 500 FEET OF THE PROPERTY DESCRIBED FOR THE EXTRACTION OF THE CONSTITUENTS OF THE MINERAL ESTATE SO LONG AS THE SUBSURFACE FACILITIES DO NOT UNREASONABLY INTERFERE WITH THE USE AND ENJOYMENT OF THE SURFACE ESTATE IN THE PROPERTY DESCRIBED.

THAT PORTION OF PARCEL 36 OF PARCEL MAP 24110 ON FILE IN BOOK 165 PAGE(S) 11 THROUGH 18, INCLUSIVE, OR PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO BASE AND MERIDIAN; THENCE NORTHERLY ALONG THE CENTERLINE OF SIAD SECTION 12, 661.82 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 84 DEGREES 50 MINUTES 00 SECONDS WEST, 815.04 FEET; THENCE NORTH 36 DEGREES 45 MINUTES EAST, 541.86 FEET TO THE SOUTHERLY LINE OF HARVILL AVENUE, SIAD LINE IS ALSO THE NORTHERLY LINE OF SAID PARCEL 36; THENCE SOUTHEASTERLY ALONG THE NORTHERLY LINE OF SIAD HARVILL AVENUE, 584.32 FEET TO A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVEING A RADIUS OF 850 DEGREES; THENCE SOUTHEAST ALONG SAID CURVE THROUGH A CENTERAL ANGLE OF 08 DEGREES 12 MINUTES AND A DISTANCE OF 71.73 FEET TO THE CENTER LINE OF SIAD SECTION 12; THENCE SOUTH ALONG SIAD CENTER LINE, 82.41 FEET TO THE TRUE POINT OF BEGINNING.

SEE THOMAS BROTHERS MAP
PAGE 777, GRID D2 2000 EDITION

VICINITY MAP

SITE PLAN NOTES:

1. EXISTING CURB & GUTTER.
2. EXISTING DRIVE APPROACH REMOVED.
3. NEW 6" CONC. SIDEWALK PER COUNTY STANDARDS.
4. NEW PLANTER CURB WITH 6" CURB FACE SHALL BE INSTALLED AT PERIMETER OF ALL (P) PLANTER AREAS.
5. HANDICAP PARKING DRIVE APPROACH SIGN PER COUNTY STANDARDS.
6. HANDICAP PARKING SIGN PER COUNTY STANDARDS.
7. HANDICAP LOADING ZONE.
8. 9' X 18' HANDICAP PARKING SPACE.
9. CONC. FLATWORK WITH MEDIUM SALT FINISH.
10. TRAFFIC DIRECTIONAL ARROWS PAINTED PER COUNTY STANDARDS.
11. UNDERGROUND FUEL STORAGE TANKS.
12. FUEL DISPENSING EQUIPMENT - TYPICAL.
13. CANOPY SUPPORT COLUMNS TYPICAL.
14. EDGE OF CANOPY ABOVE.
15. EDGE OF CONC. PAD.
16. 3 " A.C. PAVING OVER 4" CLASS II BASE.
17. LANDSCAPE AREAS. ALL LANDSCAPE AREAS SHALL HAVE 100% COVERAGE PROVIDED BY AUTOMATIC IRRIGATION SYSTEMS.
18. FUEL ISLANDS. CONCRETE, PER MANUFACTURERS RECOMMENDATIONS.
19. DIESEL FUEL EQUIPMENT.
20. 6" REINF. CONC. IN DRIVE AREAS AS SHOWN.
21. SELF ILLUMINATED FOOD MENU BOARD.
22. SELF ILLUMINATED FOOD ORDER BOARD.
23. CMU TRASH ENCLOSURE PER COUNTY STANDARDS.
24. NEW CURB, GUTTER AND SIDEWALK PATCH BACK.
25. NEW CURB AND GUTTER PER COUNTY STANDARDS
26. 8" MASONRY WALL X 36" HIGH, W/STUCCO COLOR COAT.
27. PARKING SPACE PAINTED STRIPING PER COUNTY STANDARD.
28. A.D.A. RAMP UP.
29. 4 LONG CONC. WHEEL BUMPERS (TYPICAL) PER COUNTY STANDARD.
30. 20 HIGH PARKING LOT LIGHT STANDARD.
31. PIPE BOLLARD.
32. CONCRETE DRIVE APPROACH PER COUNTY STANDARDS.
33. EXISTING CONCRETE SIDEWALK.
34. REMOVE EXISTING CURB, GUTTER AND SIDEWALK AS REQUIRED. PATCH BACK STREET PAVING AS REQUIRED.
35. SCREEN WALL.
36. EXISTING TRAFFIC LIGHT.
37. EXISTING 24" + HIGH WALL.
38. EXISTING STREET LIGHT.
39. SIGN INDICATING "RIGHT TURN ONLY"
40. CANOPY DESIGN AND DRAWINGS, BY OTHERS.
41. DRIVE AISLE STRIPPING PER RIVERSIDE COUNTY FIRE DEPARTMENT STANDARDS.
42. PROPOSED 8" VXP SEWER LINE TO SERVICE SITE.

UTILITY COMPANIES

SEWER & WATER
EASTERN MUNICIP. WATER
P.O. BOX 8300
PERRIS, 92572-8300
(909)928-3777

ELECTRIC
S.C.E.
26100 MANIFEE ROAD
ROMOLAND, CA 92585
(909)928-8290

GAS
SO. CAL GAS
P.O. BOX 513249
L.A., CA 90051-1249
MAIL LOCATION 9342
(800)427-2000

TELEPHONE
VERIZON GTE
1 GTE PLACE
THOUSAND OAKS, CA 91362
(800)572-6000

CITY
CITY OF RIVERSIDE
4080 LEMON STREET
RIVERSIDE, CA 92501-3651
(909)955-1000

OWNER:

PINNACLE REAL ESTATE HOLDINGS, INC
& UNITED R.T.M., INC
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
236 SOUTH CRAIG DRIVE
ORANGE, CA. 92869
PH. (714) 715-1685
FX. (714) 538-5199
EMAIL: amazarei@inreach.com

APPLICANT:

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& UNITED R.T.M. INC
DBA: RIVERSIDE COUNTY TRAVEL ZONE LLC
236 SOUTH CRAIG DRIVE
ORANGE, CA. 92869
PH. (714) 715-1685
FX. (714) 538-5199
EMAIL: amazarei@inreach.com
CONTACT: ALI MAZAREI

AREA TABULATIONS:

NET LAND AREA:	10.84 ACRES	(472,190 S.F.)
GROSS LAND AREA	11.44 ACRES	(486,886 S.F.)
BUILDING COVERAGE	43,331 S.F.	9.2 %
PARKING PAVED AREA	358,342 S.F.	75.9 %
INTERIOR LANDSCAPE AREA :	37,642 S.F.	7.97 %
PERIMETER LANDSCAPE AREA :	32,585 S.F.	6.93 %
TOTAL PROVIDED LANDSCAPE: (18% OF PARKING AREA)	70,227 S.F.	14.9 %

ZONING.....MSC (EXISTING & PROPOSED)
SPECIFIC PLAN AREA.....MEAD VALLEY COMMUNITY
NOT IN ANY SPECIFIC PLAN
PLAN (I-C,SPA-2)
FLODD ZONE.....RIVERSIDE COUNTY FLOOD CONTROL DISTRICT
(FLOOD CONTROL 'C')

LANDSCAPE REQUIREMENTS:

SITE AREA : 488,296 S.F. +/- (11.44 AC.)
A MINIMUM OF 3% OF PARKING LOT SURFACE AREA, EXCLUSIVE OF FRONTAGE PLANTING, SHALL BE LANDSCAPED. ALL LANDSCAPING SHALL CONFORM TO CITY APPROVED DESIGN STANDARDS.

PERIMETER/OTHER LANDSCAPE:	14,588 S.F.
INTERIOR LANDSCAPE REQUIRED:	371 S.F.
INTERIOR LANDSCAPE PROVIDED:	7,388 S.F.

IRRIGATION GENERAL NOTES:

1. IRRIGATION PLAN IS DIAGRAMMATIC. FINAL LOCATION OR IRRIGATION PIPING AND HEADS SHALL BE DETERMINED BY CONTRACTOR AT TIME OF INSTALLATION.
2. CONTRACTOR TO PROVIDE ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY.
3. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. INSTALL ANTI-SYPHON DEVICES IN ACCORDANCE WITH LOCAL BUILDING ORDINANCES. PROVIDE BACK FLOW PREVENTION AT ALL CROSS CONNECTIONS BETWEEN POTABLE WATER AND IRRIGATION SYSTEM.
5. TRENCH BACKFILL MATERIAL SHALL BE FREE OF ROCKS, BOULDERS, GLASS AND OTHER EXTRANEOUS MATERIAL.
6. CONTRACTOR SHALL ADJUST AS REQUIRED SPRINKLER LOCATIONS SO NO AIRBORN WATER CONTACTS STRUCTURES OR PEDESTRIAN WALKWAYS.
7. CONTRACTOR SHALL PRESSURE TEST (24 HOUR MINIMUM) SYSTEM AND FLUSH ALL LINES PRIOR TO SPRINKLER HEAD INSTALLATION.
8. ALL VALVE CONTROL WIRE SHALL BE AWG 14, TYPE UF, 600 VOLT TEST DIRECT BURIAL. ALL CONTROLLER POWER WIRE SHALL BE AWG 14 TYPE UF OR EQUAL. PLACE IN U.L. LISTED CONDUIT.
9. INSTALL ALL DIRECT BURIAL WIRE USING PEN-TILE WIRE CONNECTORS OR EQUAL.
10. ALL SLEEVING UNDER ASPHALT, CONCRETE OR OTHER HARDSCAPE SHALL BE INSTALLED BY LANDSCAPE CONTRACTOR.
11. ALL SPRINKLER HEADS WITHIN 12" OF PUBLIC RIGHT-OF-WAY OR PEDESTRIAN WALKWAYS SHALL BE POP-UP TYPE.
12. CONTROL VALVE BOX(S) SHALL BE LABELED WITH APPLICABLE VALVE DESIGNATION.
13. CONTRACTOR SHALL VERIFY IRRIGATION PIPE SIZES SHOWN AND ADJUST AS REQUIRED FOR PROPER OPERATION AND PERFORMANCE.

IRRIGATION OPERATION NOTES:

1. IRRIGATION SYSTEM TIMECLOCKS SHALL BE SET FOR OPERATION DURING NON-BUSINESS HOURS.
2. OPERATE ALL LAWN SPRAY HEADS FOR 10 MINUTES PER DAY, 3 DAYS PER WEEK.
3. OPERATE DRIP SYSTEM FOR 20 MINUTES PER DAY, 3 DAYS PER WEEK.

TREE PLANTING LEGEND:

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE/SPACING
	PINUS HALEPENSIS	ALERRO PINE	15 GALLON & 24" BOX MIX
	OLEA EUROPAEA	OLIVE	24" BOX
	PRUNUS PISARDII	PURPLE LEAF PLUM	15 GALLON
	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	15 GALLON
	MORUS ALBA	FRUITLESS MULBERRY	15 GALLON
	WASHINTONIA FILIFERA	CALIFORNIA FAN PALM	24" BOX

LANDSCAPE NOTES:

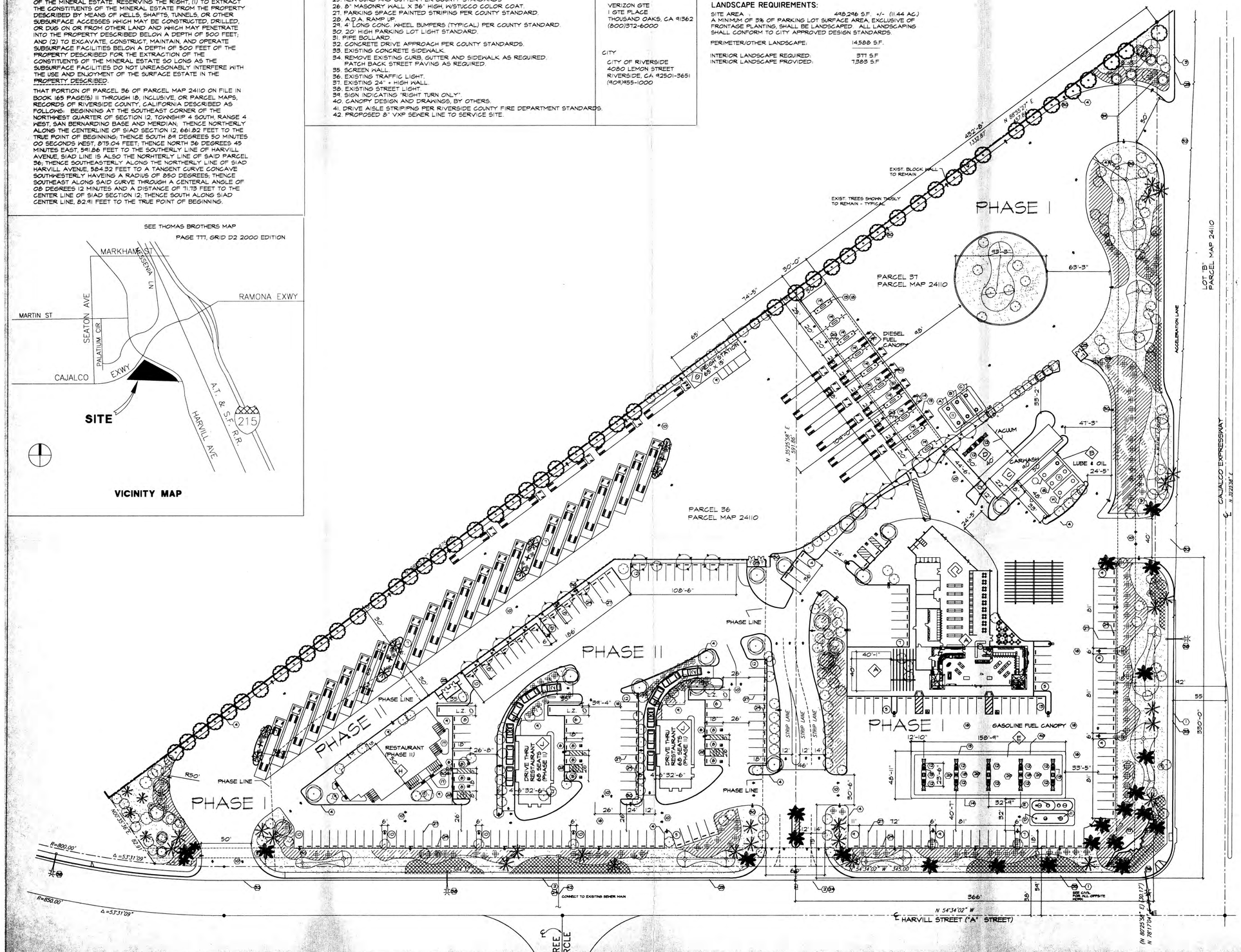
1. GROUND COVER SHALL BE SPACED 18" O.C.,
   1 GALLON PLANTS SHALL BE PLACED 5' O.C. &
   5 GALLON PLANTS SHALL BE PLACED 5' O.C.
   THE ABOVE ARE MAXIMUM DISTANCE
2. ALL LANDSCAPE AREAS SHALL BE SURROUNDED W/ CONCRETE CURBING.
3. ANY DISCREPANCY BETWEEN THE MAXIMUM SPACING CRITERIA AND THE NUMBER OF PLANTS ON THE PLAN SHALL RESULT IN THE SPACING CRITERIA SUPERCEDING THE GRAPHICS SHOWN IN THE PLAN
4. 5 GAL. SHRUBS PER 4'x20' LANDSCAPE FINGER.

SHRUB PLANTING LEGEND:

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE/SPACING
	ROSMARINUS OFFICINALIS PROSTRATUS	ROSEMARY	1 GALLON
	NANDINA DOMESTICA	HEAVENLY BAMBO	1 & 5 GAL. MIX
	EUONYMUS FORTUNEI	EMERALD GAIETY OR SILVER QUEEN	1 & 5 GAL. MIX
	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	1 & 5 GAL. MIX
	NERIUM OLEANDER	OLEANDER / PINK, WHITE	5 GALLON

GROUNDCOVER

- 4-6 ø RIVER ROCK W/ PEA GRAVEL INFILL
- SOD AREA TYPICAL
- 20"-36" HIGH BERM (SOD)
- BACCHARIS 'TWIN PEAKS' OR COYOTE BRUSH



Approved at Board of Supervisors
on 7/11/03
Signature DZ

EXHIBIT NO. L
CASE NO. CUP 3370
DATE 6/26/03 SIGNATURE DZ

LANDSCAPE PLAN

SCALE: 1"=40'-0"

REVISIONS	BY
05/21/01	SDR

COMMERCIAL COMPLEX FOR :
RIVERSIDE COUNTY
TRAVEL ZONE
PERRIS, CA.

CASE # 03370

PRELIMINARY
LANDSCAPE PLAN

DATE: 06/10/03
SCALE: 1"=40'-0"
DRAWN: GUSSER
JOB: 01-15
SHEET L1
OF SHEETS

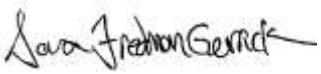
APPENDIX 2

AIR QUALITY and GHG IMPACT ANALYSES

CUP 03370 CLEAN ENERGY ALTERNATIVE USE

RIVERSIDE COUNTY, CALIFORNIA

Prepared by:



Sara Friedman Gerrick
Senior Engineer
Giroux & Associates

Prepared for:
Tom Dodson & Associates
Attn: Tom Dodson
PO Box 2307
San Bernardino, CA 92406-2307

Date:

April 19, 2022

Project No.: P22-016A

BACKGROUND

The project site has previously been approved for two free standing drive-through restaurants, and one free-standing restaurant. Associated trips generated from these uses are estimated to be 2,873 trips per day. Under the proposed modification, the County is being requested to grant entitlements that would allow the site to be constructed as a paved parking lot consisting of 90 Compressed Natural Gas (CNG) Time Fill spaces. This scenario would generate 470 daily trips, the fleet consisting of small delivery trucks and vans. The following analysis compares the operational emissions associated with each use.

AIR QUALITY IMPACT

DAILY OPERATIONAL IMPACTS

Operational emissions for the restaurant use were calculated using CalEEMod2020.4.0 for an assumed project build-out year of 2023 as a target for full occupancy. The project would generate 2,873 daily trips using trip rates specified in the Trip Generation Comparison prepared by Linscott Law & Greenspan for this project.

In addition to mobile sources from vehicles, general development causes smaller amounts of "area source" air pollution to be generated from on-site energy consumption (primarily space heating, hot water and landscaping). These sources represent a minimal percentage of the total project NOx and CO burdens, and a few percent of other pollutants. The inclusion of such emissions adds negligibly to the total significant project-related emissions burden as shown below.

Daily Operational Impacts Approved Restaurant Uses

	Operational Emissions (lbs/day)					
Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Area	0.26	<0.01	<0.01	<0.01	<0.01	<0.01
Energy	0.09	0.85	0.71	<0.01	0.06	0.06
Mobile	6.76	5.79	39.67	0.07	6.87	1.87
Total	**7.11**	**6.64**	**40.39**	**0.07**	**6.94**	**1.93**
SCAQMD Threshold	55	55	550	150	150	55

Source: CalEEMod2020.4.0

The Clean Energy alternative is unable to be modeled in CalEEMod. There is no such land use within CaleeMod and CaleeMod is not populated with emissions data for CNG powered vehicles. The data is available in a data base prepared by the California Air Resources Board (CARB), called the EMission FACtors model, or EMFAC. EMFAC2021 is the latest emission inventory model that CARB developed to assess emissions from on-road motor vehicles including cars, trucks, and buses in California.

EMFAC emission rates are based on a grams per mile metric. In order to calculate the anticipated mileage generated by the proposed use annual throughput data was used. Although the project anticipates use by delivery vans, EMFAC does not have data for such vehicles. Therefore, as a worst-case assumption, data for a T6 small-medium heavy duty in state truck with GVWR<=26000 lbs was used. This will overestimate any project related emissions but provides a basis of

comparison to restaurant use. The MPG for a CNG powered T6 small truck is 9 miles per gallon. With an anticipated annual throughput of 1.6 million gallons this would be the equivalent of 177,778 truck miles per year or 487 daily miles.

Operations also include passenger car vehicles. Truck drivers arrive in the early morning and the driver will park his/her vehicle then leave in a CNG vehicle to conduct deliveries. The driver will return the truck at the end of the workday and leave the project site in his/her vehicle. Thus, on a typical day, the project site will generate about 180 automobile/small pickup vehicle trips. These trips are assumed to be fueled by gasoline. As a worst case, each driver is assumed to commute a 40-mile RT distance. This would equate to 3,600 on-road miles per day attributed to driver commuting. This was also modeled in EMFAC.

All operational emissions attributed to the Clean Energy Use will be on-road truck miles. Using the assumptions discussed the following daily operational emissions are estimated.

Daily Operational Impacts Proposed Clean Energy Use

	Operational Emissions (lbs/day)					
Source:	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
T6 Trucks	0.05	1.20	7.24	0.00	0.00	0.00
LDT2 Passenger Cars	0.25	0.75	9.12	0.00	0.01	0.01
Total	0.30	1.96	16.36	0.00	0.02	0.01
SCAQMD Threshold	55	55	550	150	150	55

The following table compares both uses:

2023 Daily Operational Impacts Comparison

	Operational Emissions (lbs/day)					
Source:	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Approved Restaurant Use	7.11	6.64	40.39	0.07	6.94	1.93
Clean Energy Use	0.30	1.96	16.36	0.00	0.02	0.01
SCAQMD Threshold	55	55	550	150	150	55

Therefore, even with overestimating the size of vehicles and associated emissions fueling at the CNG pumps, emissions are still much less than the approved restaurant uses.

GHG EMISSIONS

The input assumptions for the approved uses operational GHG emissions calculations and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod2020.4.0 output files found in the appendix of this report. The Clean Energy alternative data was obtained from EMFAC2021. EMFAC2021 was used to calculate emissions associated with the Clean Energy use.

The total operational and annualized construction emissions for the approved and proposed project are identified as follows:

Operational Emissions

Consumption Source	Approved Restaurant	Proposed Clean Energy
Area Sources	0.0	na
Energy Utilization	265.2	na
Mobile Source	1,177.8	628.1
Waste	68.3	na
Water	13.4	na
Total	**1524.7**	**628.1**
Guideline Threshold	3,000	

Even using data for a much larger and higher polluting vehicle than what is anticipated for use in the Clean Energy alternative, GHG emissions are much less than those for the approved restaurant uses.

CALEEMOD2020.4.0 COMPUTER MODEL OUTPUT

- DAILY EMISISONS
- ANNUAL EMISSIONS

EMFAC DATA SHEETS

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

CNG Fueling Station-Approved Uses

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
High Turnover (Sit Down Restaurant)	5.60	1000sqft	0.13	5,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - trip rates per TIA

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	616.12	372.00
tblVehicleTrips	ST_TR	122.40	114.50
tblVehicleTrips	SU_TR	472.58	372.00

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	142.64	114.50
tblVehicleTrips	WD_TR	470.95	372.00
tblVehicleTrips	WD_TR	112.18	114.50

2.0 Emissions Summary

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1147	12.0250	7.3811	0.0149	5.4014	0.5177	5.9191	2.5923	0.4763	3.0686	0.0000	1,446.9713	1,446.9713	0.4435	6.9900e-003	1,458.6638
2023	21.7017	6.4953	7.6795	0.0130	0.2012	0.3211	0.4664	0.0534	0.2954	0.3139	0.0000	1,214.9610	1,214.9610	0.3588	6.6500e-003	1,223.8681
Maximum	**21.7017**	**12.0250**	**7.6795**	**0.0149**	**5.4014**	**0.5177**	**5.9191**	**2.5923**	**0.4763**	**3.0686**	**0.0000**	**1,446.9713**	**1,446.9713**	**0.4435**	**6.9900e-003**	**1,458.6638**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1147	12.0250	7.3811	0.0149	2.1611	0.5177	2.6788	1.0255	0.4763	1.5018	0.0000	1,446.9713	1,446.9713	0.4435	6.9900e-003	1,458.6638
2023	21.7017	6.4953	7.6795	0.0130	0.2012	0.3211	0.4664	0.0534	0.2954	0.3139	0.0000	1,214.9610	1,214.9610	0.3588	6.6500e-003	1,223.8681
Maximum	**21.7017**	**12.0250**	**7.6795**	**0.0149**	**2.1611**	**0.5177**	**2.6788**	**1.0255**	**0.4763**	**1.5018**	**0.0000**	**1,446.9713**	**1,446.9713**	**0.4435**	**6.9900e-003**	**1,458.6638**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	57.84	0.00	50.74	59.22	0.00	46.32	0.00	0.00	0.00	0.00	0.00	0.00

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2593	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003
Energy	0.0935	0.8495	0.7136	5.1000e-003		0.0646	0.0646		0.0646	0.0646		1,019.4540	1,019.4540	0.0195	0.0187	1,025.5121
Mobile	6.7586	5.7883	39.6704	0.0724	6.8101	0.0606	6.8708	1.8170	0.0567	1.8737		7,377.3528	7,377.3528	0.5515	0.4486	7,524.8213
Total	**7.1113**	**6.6378**	**40.3852**	**0.0775**	**6.8101**	**0.1252**	**6.9353**	**1.8170**	**0.1213**	**1.9383**		**8,396.8093**	**8,396.8093**	**0.5711**	**0.4673**	**8,550.3361**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2593	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003
Energy	0.0935	0.8495	0.7136	5.1000e-003		0.0646	0.0646		0.0646	0.0646		1,019.4540	1,019.4540	0.0195	0.0187	1,025.5121
Mobile	6.7586	5.7883	39.6704	0.0724	6.8101	0.0606	6.8708	1.8170	0.0567	1.8737		7,377.3528	7,377.3528	0.5515	0.4486	7,524.8213
Total	**7.1113**	**6.6378**	**40.3852**	**0.0775**	**6.8101**	**0.1252**	**6.9353**	**1.8170**	**0.1213**	**1.9383**		**8,396.8093**	**8,396.8093**	**0.5711**	**0.4673**	**8,550.3361**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/16/2022	8/17/2022	5	2	
2	Building Construction	Building Construction	8/18/2022	1/4/2023	5	100	
3	Paving	Paving	1/5/2023	1/11/2023	5	5	
4	Architectural Coating	Architectural Coating	1/12/2023	1/18/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,400; Non-Residential Outdoor: 5,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0315	0.0204	0.3185	8.1000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		82.1515	82.1515	2.0500e-003	2.0300e-003	82.8087
Total	**0.0315**	**0.0204**	**0.3185**	**8.1000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**82.1515**	**82.1515**	**2.0500e-003**	**2.0300e-003**	**82.8087**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0717	0.0000	2.0717	1.0017	0.0000	1.0017			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**2.0717**	**0.5173**	**2.5889**	**1.0017**	**0.4759**	**1.4776**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0315	0.0204	0.3185	8.1000e-004	0.0894	4.4000e-004	0.0899	0.0237	4.1000e-004	0.0241		82.1515	82.1515	2.0500e-003	2.0300e-003	82.8087
Total	**0.0315**	**0.0204**	**0.3185**	**8.1000e-004**	**0.0894**	**4.4000e-004**	**0.0899**	**0.0237**	**4.1000e-004**	**0.0241**		**82.1515**	**82.1515**	**2.0500e-003**	**2.0300e-003**	**82.8087**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0197	0.0128	0.1991	5.1000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		51.3447	51.3447	1.2800e-003	1.2700e-003	51.7555
Total	**0.0230**	**0.0973**	**0.2285**	**8.7000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**89.9338**	**89.9338**	**1.6900e-003**	**6.9900e-003**	**92.0601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2500e-003	0.0846	0.0294	3.6000e-004	0.0128	1.2200e-003	0.0140	3.6900e-003	1.1700e-003	4.8600e-003		38.5891	38.5891	4.1000e-004	5.7200e-003	40.3046
Worker	0.0197	0.0128	0.1991	5.1000e-004	0.0559	2.8000e-004	0.0562	0.0148	2.6000e-004	0.0151		51.3447	51.3447	1.2800e-003	1.2700e-003	51.7555
Total	**0.0230**	**0.0973**	**0.2285**	**8.7000e-004**	**0.0687**	**1.5000e-003**	**0.0702**	**0.0185**	**1.4300e-003**	**0.0199**		**89.9338**	**89.9338**	**1.6900e-003**	**6.9900e-003**	**92.0601**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946		1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**		**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0183	0.0113	0.1829	4.9000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		49.6870	49.6870	1.1500e-003	1.1700e-003	50.0653
Total	**0.0205**	**0.0766**	**0.2098**	**8.4000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.8000e-004**	**0.0193**		**86.7412**	**86.7412**	**1.5300e-003**	**6.6500e-003**	**88.7606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6322	6.4186	7.0970	0.0114		0.3203	0.3203		0.2946	0.2946	0.0000	1,104.6089	1,104.6089	0.3573		1,113.5402
Total	**0.6322**	**6.4186**	**7.0970**	**0.0114**		**0.3203**	**0.3203**		**0.2946**	**0.2946**	**0.0000**	**1,104.6089**	**1,104.6089**	**0.3573**		**1,113.5402**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0183	0.0113	0.1829	4.9000e-004	0.0559	2.6000e-004	0.0562	0.0148	2.4000e-004	0.0151		49.6870	49.6870	1.1500e-003	1.1700e-003	50.0653
Total	**0.0205**	**0.0766**	**0.2098**	**8.4000e-004**	**0.0687**	**8.3000e-004**	**0.0695**	**0.0185**	**7.8000e-004**	**0.0193**		**86.7412**	**86.7412**	**1.5300e-003**	**6.6500e-003**	**88.7606**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466		1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**		**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0657	0.0406	0.6586	1.7700e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		178.8733	178.8733	4.1400e-003	4.2200e-003	180.2350
Total	**0.0657**	**0.0406**	**0.6586**	**1.7700e-003**	**0.2012**	**9.4000e-004**	**0.2021**	**0.0534**	**8.7000e-004**	**0.0542**		**178.8733**	**178.8733**	**4.1400e-003**	**4.2200e-003**	**180.2350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6112	5.5046	7.0209	0.0113		0.2643	0.2643		0.2466	0.2466	0.0000	1,036.0878	1,036.0878	0.3018		1,043.6331
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6112**	**5.5046**	**7.0209**	**0.0113**		**0.2643**	**0.2643**		**0.2466**	**0.2466**	**0.0000**	**1,036.0878**	**1,036.0878**	**0.3018**		**1,043.6331**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0657	0.0406	0.6586	1.7700e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		178.8733	178.8733	4.1400e-003	4.2200e-003	180.2350
Total	**0.0657**	**0.0406**	**0.6586**	**1.7700e-003**	**0.2012**	**9.4000e-004**	**0.2021**	**0.0534**	**8.7000e-004**	**0.0542**		**178.8733**	**178.8733**	**4.1400e-003**	**4.2200e-003**	**180.2350**

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5064					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**21.6981**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2600e-003	0.0366	1.0000e-004	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.9374	9.9374	2.3000e-004	2.3000e-004	10.0131
Total	**3.6500e-003**	**2.2600e-003**	**0.0366**	**1.0000e-004**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.9374**	**9.9374**	**2.3000e-004**	**2.3000e-004**	**10.0131**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.5064					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**21.6981**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2600e-003	0.0366	1.0000e-004	0.0112	5.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0100e-003		9.9374	9.9374	2.3000e-004	2.3000e-004	10.0131
Total	**3.6500e-003**	**2.2600e-003**	**0.0366**	**1.0000e-004**	**0.0112**	**5.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0100e-003**		**9.9374**	**9.9374**	**2.3000e-004**	**2.3000e-004**	**10.0131**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7586	5.7883	39.6704	0.0724	6.8101	0.0606	6.8708	1.8170	0.0567	1.8737		7,377.3528	7,377.3528	0.5515	0.4486	7,524.8213
Unmitigated	6.7586	5.7883	39.6704	0.0724	6.8101	0.0606	6.8708	1.8170	0.0567	1.8737		7,377.3528	7,377.3528	0.5515	0.4486	7,524.8213

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,116.00	1,116.00	1116.00	1,174,464	1,174,464
Fast Food Restaurant with Drive Thru	1,116.00	1,116.00	1116.00	1,174,464	1,174,464
High Turnover (Sit Down Restaurant)	641.20	641.20	641.20	873,847	873,847
Total	2,873.20	2,873.20	2,873.20	3,222,776	3,222,776

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

High Turnover (Sit Down Restaurant)	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0935	0.8495	0.7136	5.1000e-003		0.0646	0.0646		0.0646	0.0646		1,019.4540	1,019.4540	0.0195	0.0187	1,025.5121
NaturalGas Unmitigated	0.0935	0.8495	0.7136	5.1000e-003		0.0646	0.0646		0.0646	0.0646		1,019.4540	1,019.4540	0.0195	0.0187	1,025.5121

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2241.04	0.0483	0.4394	0.3691	2.6400e-003		0.0334	0.0334		0.0334	0.0334		527.3038	527.3038	0.0101	9.6700e-003	530.4373
High Turnover (Sit Down Restaurant)	4183.28	0.0451	0.4101	0.3445	2.4600e-003		0.0312	0.0312		0.0312	0.0312		492.1502	492.1502	9.4300e-003	9.0200e-003	495.0748
Total		**0.0935**	**0.8496**	**0.7136**	**5.1000e-003**		**0.0646**	**0.0646**		**0.0646**	**0.0646**		**1,019.4540**	**1,019.4540**	**0.0195**	**0.0187**	**1,025.5121**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	2.24104	0.0483	0.4394	0.3691	2.6400e-003		0.0334	0.0334		0.0334	0.0334		527.3038	527.3038	0.0101	9.6700e-003	530.4373
High Turnover (Sit Down Restaurant)	4.18328	0.0451	0.4101	0.3445	2.4600e-003		0.0312	0.0312		0.0312	0.0312		492.1502	492.1502	9.4300e-003	9.0200e-003	495.0748
Total		**0.0935**	**0.8496**	**0.7136**	**5.1000e-003**		**0.0646**	**0.0646**		**0.0646**	**0.0646**		**1,019.4540**	**1,019.4540**	**0.0195**	**0.0187**	**1,025.5121**

6.0 Area Detail

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2593	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003
Unmitigated	0.2593	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2297					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003
Total	**0.2593**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5400e-003**	**2.5400e-003**	**1.0000e-005**		**2.7100e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2297					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.5400e-003	2.5400e-003	1.0000e-005		2.7100e-003
Total	**0.2593**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.5400e-003**	**2.5400e-003**	**1.0000e-005**		**2.7100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

CNG Fueling Station-Approved Uses

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
Fast Food Restaurant with Drive Thru	3.00	1000sqft	0.07	3,000.00	0
High Turnover (Sit Down Restaurant)	5.60	1000sqft	0.13	5,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Vehicle Trips - trip rates per TIA

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	616.12	372.00
tblVehicleTrips	ST_TR	122.40	114.50
tblVehicleTrips	SU_TR	472.58	372.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	SU_TR	142.64	114.50
tblVehicleTrips	WD_TR	470.95	372.00
tblVehicleTrips	WD_TR	112.18	114.50

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0354	0.3577	0.3628	6.1000e-004	8.6800e-003	0.0186	0.0273	3.4800e-003	0.0171	0.0206	0.0000	53.6716	53.6716	0.0162	3.1000e-004	54.1693
2023	0.0569	0.0269	0.0345	6.0000e-005	6.2000e-004	1.3200e-003	1.9500e-003	1.7000e-004	1.2400e-003	1.4000e-003	0.0000	5.0014	5.0014	1.2200e-003	2.0000e-005	5.0378
Maximum	**0.0569**	**0.3577**	**0.3628**	**6.1000e-004**	**8.6800e-003**	**0.0186**	**0.0273**	**3.4800e-003**	**0.0171**	**0.0206**	**0.0000**	**53.6716**	**53.6716**	**0.0162**	**3.1000e-004**	**54.1693**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0354	0.3577	0.3628	6.1000e-004	5.4400e-003	0.0186	0.0241	1.9100e-003	0.0171	0.0191	0.0000	53.6715	53.6715	0.0162	3.1000e-004	54.1692
2023	0.0569	0.0269	0.0345	6.0000e-005	6.2000e-004	1.3200e-003	1.9500e-003	1.7000e-004	1.2400e-003	1.4000e-003	0.0000	5.0014	5.0014	1.2200e-003	2.0000e-005	5.0378
Maximum	**0.0569**	**0.3577**	**0.3628**	**6.1000e-004**	**5.4400e-003**	**0.0186**	**0.0241**	**1.9100e-003**	**0.0171**	**0.0191**	**0.0000**	**53.6715**	**53.6715**	**0.0162**	**3.1000e-004**	**54.1692**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**34.84**	**0.00**	**11.07**	**43.01**	**0.00**	**7.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2022**	**10-31-2022**	0.2192	0.2192
2	**11-1-2022**	**1-31-2023**	0.2540	0.2540
		Highest	0.2540	0.2540

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0473	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Energy	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	263.7428	263.7428	0.0113	4.0700e-003	265.2357
Mobile	1.0020	1.1137	6.9342	0.0125	1.2190	0.0110	1.2300	0.3257	0.0103	0.3360	0.0000	1,152.7931	1,152.7931	0.0967	0.0759	1,177.8277
Waste						0.0000	0.0000		0.0000	0.0000	27.5560	0.0000	27.5560	1.6285	0.0000	68.2689
Water						0.0000	0.0000		0.0000	0.0000	1.1171	8.5736	9.6906	0.1155	2.8000e-003	13.4104
Total	**1.0663**	**1.2687**	**7.0646**	**0.0134**	**1.2190**	**0.0228**	**1.2418**	**0.3257**	**0.0221**	**0.3478**	**28.6731**	**1,425.1097**	**1,453.7828**	**1.8519**	**0.0828**	**1,524.7430**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0473	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Energy	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	263.7428	263.7428	0.0113	4.0700e-003	265.2357
Mobile	1.0020	1.1137	6.9342	0.0125	1.2190	0.0110	1.2300	0.3257	0.0103	0.3360	0.0000	1,152.7931	1,152.7931	0.0967	0.0759	1,177.8277
Waste						0.0000	0.0000		0.0000	0.0000	27.5560	0.0000	27.5560	1.6285	0.0000	68.2689
Water						0.0000	0.0000		0.0000	0.0000	1.1171	8.5736	9.6906	0.1155	2.8000e-003	13.4104
Total	**1.0663**	**1.2687**	**7.0646**	**0.0134**	**1.2190**	**0.0228**	**1.2418**	**0.3257**	**0.0221**	**0.3478**	**28.6731**	**1,425.1097**	**1,453.7828**	**1.8519**	**0.0828**	**1,524.7430**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/16/2022	8/17/2022	5	2	
2	Building Construction	Building Construction	8/18/2022	1/4/2023	5	100	
3	Paving	Paving	1/5/2023	1/11/2023	5	5	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Architectural Coating	Architectural Coating	1/12/2023	1/18/2023	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 17,400; Non-Residential Outdoor: 5,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0691	0.0691	0.0000	0.0000	0.0697
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0691**	**0.0691**	**0.0000**	**0.0000**	**0.0697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	1.0000e-003	0.0000	1.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**2.0700e-003**	**5.2000e-004**	**2.5900e-003**	**1.0000e-003**	**4.8000e-004**	**1.4800e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0691	0.0691	0.0000	0.0000	0.0697
Total	**3.0000e-005**	**2.0000e-005**	**2.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0691**	**0.0691**	**0.0000**	**0.0000**	**0.0697**

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0333	0.3408	0.3469	5.5000e-004		0.0180	0.0180		0.0166	0.0166	0.0000	48.5716	48.5716	0.0157	0.0000	48.9644
Total	**0.0333**	**0.3408**	**0.3469**	**5.5000e-004**		**0.0180**	**0.0180**		**0.0166**	**0.0166**	**0.0000**	**48.5716**	**48.5716**	**0.0157**	**0.0000**	**48.9644**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.3100e-003	1.4500e-003	2.0000e-005	6.1000e-004	6.0000e-005	6.7000e-004	1.8000e-004	6.0000e-005	2.3000e-004	0.0000	1.6986	1.6986	2.0000e-005	2.5000e-004	1.7742
Worker	8.5000e-004	6.6000e-004	8.2500e-003	2.0000e-005	2.6700e-003	1.0000e-005	2.6800e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.0941	2.0941	6.0000e-005	6.0000e-005	2.1129
Total	**1.0000e-003**	**4.9700e-003**	**9.7000e-003**	**4.0000e-005**	**3.2800e-003**	**7.0000e-005**	**3.3500e-003**	**8.9000e-004**	**7.0000e-005**	**9.5000e-004**	**0.0000**	**3.7927**	**3.7927**	**8.0000e-005**	**3.1000e-004**	**3.8871**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0333	0.3408	0.3469	5.5000e-004		0.0180	0.0180		0.0166	0.0166	0.0000	48.5716	48.5716	0.0157	0.0000	48.9643
Total	**0.0333**	**0.3408**	**0.3469**	**5.5000e-004**		**0.0180**	**0.0180**		**0.0166**	**0.0166**	**0.0000**	**48.5716**	**48.5716**	**0.0157**	**0.0000**	**48.9643**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.3100e-003	1.4500e-003	2.0000e-005	6.1000e-004	6.0000e-005	6.7000e-004	1.8000e-004	6.0000e-005	2.3000e-004	0.0000	1.6986	1.6986	2.0000e-005	2.5000e-004	1.7742
Worker	8.5000e-004	6.6000e-004	8.2500e-003	2.0000e-005	2.6700e-003	1.0000e-005	2.6800e-003	7.1000e-004	1.0000e-005	7.2000e-004	0.0000	2.0941	2.0941	6.0000e-005	6.0000e-005	2.1129
Total	**1.0000e-003**	**4.9700e-003**	**9.7000e-003**	**4.0000e-005**	**3.2800e-003**	**7.0000e-005**	**3.3500e-003**	**8.9000e-004**	**7.0000e-005**	**9.5000e-004**	**0.0000**	**3.7927**	**3.7927**	**8.0000e-005**	**3.1000e-004**	**3.8871**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-004	9.6300e-003	0.0107	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5031	1.5031	4.9000e-004	0.0000	1.5153
Total	**9.5000e-004**	**9.6300e-003**	**0.0107**	**2.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**1.5031**	**1.5031**	**4.9000e-004**	**0.0000**	**1.5153**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.0000e-004	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0505	0.0505	0.0000	1.0000e-005	0.0527
Worker	2.0000e-005	2.0000e-005	2.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0627	0.0627	0.0000	0.0000	0.0632
Total	**2.0000e-005**	**1.2000e-004**	**2.7000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1132**	**0.1132**	**0.0000**	**1.0000e-005**	**0.1159**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5000e-004	9.6300e-003	0.0107	2.0000e-005		4.8000e-004	4.8000e-004		4.4000e-004	4.4000e-004	0.0000	1.5031	1.5031	4.9000e-004	0.0000	1.5153
Total	**9.5000e-004**	**9.6300e-003**	**0.0107**	**2.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**1.5031**	**1.5031**	**4.9000e-004**	**0.0000**	**1.5153**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.0000e-004	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0505	0.0505	0.0000	1.0000e-005	0.0527
Worker	2.0000e-005	2.0000e-005	2.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0627	0.0627	0.0000	0.0000	0.0632
Total	**2.0000e-005**	**1.2000e-004**	**2.7000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1132**	**0.1132**	**0.0000**	**1.0000e-005**	**0.1159**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.4100e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3761	0.3761	1.0000e-005	1.0000e-005	0.3793
Total	**1.5000e-004**	**1.1000e-004**	**1.4100e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3761**	**0.3761**	**1.0000e-005**	**1.0000e-005**	**0.3793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5300e-003	0.0138	0.0176	3.0000e-005		6.6000e-004	6.6000e-004		6.2000e-004	6.2000e-004	0.0000	2.3498	2.3498	6.8000e-004	0.0000	2.3669
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5300e-003**	**0.0138**	**0.0176**	**3.0000e-005**		**6.6000e-004**	**6.6000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**2.3498**	**2.3498**	**6.8000e-004**	**0.0000**	**2.3669**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.4100e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3761	0.3761	1.0000e-005	1.0000e-005	0.3793
Total	**1.5000e-004**	**1.1000e-004**	**1.4100e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3761**	**0.3761**	**1.0000e-005**	**1.0000e-005**	**0.3793**

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0538					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0543**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0209	0.0209	0.0000	0.0000	0.0211
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0209**	**0.0209**	**0.0000**	**0.0000**	**0.0211**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0538					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0543**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0209	0.0209	0.0000	0.0000	0.0211
Total	**1.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0209**	**0.0209**	**0.0000**	**0.0000**	**0.0211**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0020	1.1137	6.9342	0.0125	1.2190	0.0110	1.2300	0.3257	0.0103	0.3360	0.0000	1,152.7931	1,152.7931	0.0967	0.0759	1,177.8277
Unmitigated	1.0020	1.1137	6.9342	0.0125	1.2190	0.0110	1.2300	0.3257	0.0103	0.3360	0.0000	1,152.7931	1,152.7931	0.0967	0.0759	1,177.8277

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,116.00	1,116.00	1116.00	1,174,464	1,174,464
Fast Food Restaurant with Drive Thru	1,116.00	1,116.00	1116.00	1,174,464	1,174,464
High Turnover (Sit Down Restaurant)	641.20	641.20	641.20	873,847	873,847
Total	2,873.20	2,873.20	2,873.20	3,222,776	3,222,776

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant with Drive Thru	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

High Turnover (Sit Down Restaurant)	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.9607	94.9607	8.0100e-003	9.7000e-004	95.4506
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.9607	94.9607	8.0100e-003	9.7000e-004	95.4506
NaturalGas Mitigated	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7820	168.7820	3.2300e-003	3.0900e-003	169.7850
NaturalGas Unmitigated	0.0171	0.1550	0.1302	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.7820	168.7820	3.2300e-003	3.0900e-003	169.7850

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	817980	8.8200e-003	0.0802	0.0674	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	87.3011	87.3011	1.6700e-003	1.6000e-003	87.8198
High Turnover (Sit Down Restaurant)	1.5269e+006	8.2300e-003	0.0749	0.0629	4.5000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	81.4810	81.4810	1.5600e-003	1.4900e-003	81.9652
Total		**0.0171**	**0.1550**	**0.1302**	**9.3000e-004**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**168.7821**	**168.7821**	**3.2300e-003**	**3.0900e-003**	**169.7850**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	817980	8.8200e-003	0.0802	0.0674	4.8000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	87.3011	87.3011	1.6700e-003	1.6000e-003	87.8198
High Turnover (Sit Down Restaurant)	1.5269e+006	8.2300e-003	0.0749	0.0629	4.5000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	81.4810	81.4810	1.5600e-003	1.4900e-003	81.9652
Total		**0.0171**	**0.1550**	**0.1302**	**9.3000e-004**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**168.7821**	**168.7821**	**3.2300e-003**	**3.0900e-003**	**169.7850**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	138480	49.1176	4.1500e-003	5.0000e-004	49.3710
High Turnover (Sit Down Restaurant)	258496	45.8431	3.8700e-003	4.7000e-004	46.0796
Total		**94.9607**	**8.0200e-003**	**9.7000e-004**	**95.4506**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	138480	49.1176	4.1500e-003	5.0000e-004	49.3710
High Turnover (Sit Down Restaurant)	258496	45.8431	3.8700e-003	4.7000e-004	46.0796
Total		**94.9607**	**8.0200e-003**	**9.7000e-004**	**95.4506**

6.0 Area Detail

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0473	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Unmitigated	0.0473	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0419					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Total	**0.0473**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0419					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.9000e-004	2.9000e-004	0.0000	0.0000	3.1000e-004
Total	**0.0473**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.0000**	**3.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.6906	0.1155	2.8000e-003	13.4104
Unmitigated	9.6906	0.1155	2.8000e-003	13.4104

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	5.0124	0.0597	1.4500e-003	6.9364
High Turnover (Sit Down Restaurant)	1.69979 / 0.108497	4.6782	0.0557	1.3500e-003	6.4740
Total		**9.6906**	**0.1155**	**2.8000e-003**	**13.4104**

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	1.8212 / 0.116247	5.0124	0.0597	1.4500e-003	6.9364
High Turnover (Sit Down Restaurant)	1.69979 / 0.108497	4.6782	0.0557	1.3500e-003	6.4740
Total		**9.6906**	**0.1155**	**2.8000e-003**	**13.4104**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.5560	1.6285	0.0000	68.2689
Unmitigated	27.5560	1.6285	0.0000	68.2689

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	66.64	13.5273	0.7994	0.0000	33.5134
Total		**27.5560**	**1.6285**	**0.0000**	**68.2689**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	69.11	14.0287	0.8291	0.0000	34.7555
High Turnover (Sit Down Restaurant)	66.64	13.5273	0.7994	0.0000	33.5134
Total		**27.5560**	**1.6285**	**0.0000**	**68.2689**

9.0 Operational Offroad

CNG Fueling Station-Approved Uses - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Riverside
Calendar Year: 2023, 2024
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX,

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population
Riverside	2023	**T6 instate small**	Aggregate	Aggregate	Natural Gas	33.0201

daily mileage	number vehicles	number trips
487	90	280

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population
Riverside	2023	**LDT2**	Aggregate	Aggregate	Gasoline	269494.9

daily mileage 90 cars x 40 miles RT	number vehicles	number trips
3600	90	180

PM10_RUN	PM10_IDLE	PM10_STREX	PM10_PMTW	PM10_PMBW	CO2_RUNEX	CO2_IDLEX
0.000636	0.014906	0	0.012000003	0.042181197	784.6981271	4444.373
0.000681	0.002951				840.7255734	879.9859
0.003633					1720.711479	
1.33					628059.7	
					628.1	

PM10_RUN	PM10_IDLE	PM10_STREX	PM10_PMTW	PM10_PMBW	CO2_RUNEX	CO2_IDLEX
0.001364	0	0.002155881	0.008000002	0.007634486	291.9999478	0
0.010801		0.000853729			2312.639587	
0.011655					2340.666432	
					854343.2	

854.3

CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
1.993262	25.77465	0	0	0	0
2.135581	5.103381				
7.238962					
2642.22					

CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX
0.974341	0	3.550157029	0.003577489	0	0.000880357
7.716777		1.405862184		0	
9.122639					

g/V/Day

HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN. PHEV calculated based on total VMT.

Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUI	PM2.5_IDL
1390.648	1390.648	0	403.647	0.10822442	5.487197	0	0.000585	0.013705
				0.12	1.09		0.000627	0.002714
		Daily		1.20			0.00334	
		Annual		438.88			1.22	

Total VMT	CVMT	EVMT	Trips	NOx_RUNEX	NOx_IDLEX	NOx_STREX	PM2.5_RUI	PM2.5_IDL
11500757	11500757	0	1265457	0.07833416	0	0.338439427	0.001254	0
				0.62040656		0.134022013	0.009932	
				0.75442858			0.010717	

CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNE	ROG_IDLEX
0	0.42168	15.19878	0	0.15996585	0.906015	0	0.006025	0.217161
							0.006455	0.042998
							0.049453	
							18.05	

CO2_STREX	CH4_RUNE	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX	ROG_RUNE	ROG_IDLEX
70.77486	0.003355	0	0.082558	0.0065362	0	0.037877	0.013118	0
28.02684							0.103893	
							0.252966	

PM2.5_STR	PM2.5_PMTW	PM2.5_PMBW
0	0.003000001	0.01476

PM2.5_STR	PM2.5_PMTW	PM2.5_PMBW
0.001982	0.002000001	0.00267
0.000785		

1482.4

ROG_STRE	ROG_HOTSOAK	ROG_RUN	ROG_DIURN
0	0	0	0

ROG_STRE	ROG_HOTSOAK	ROG_RUN	ROG_DIURN
0.376446	0.086467878	0.22662	1.635619
0.149073			

APPENDIX 3

Drainage Report

For

Clean Energy Perris CNG Time-Fill Parking

CUP03370R02

19295 HARVILL AVE, PERRIS, CA
APN: 317-110-035, 317-110-034

Prepared By:

SITE DESIGN COLLABORATIVE
21 CROCKETT
IRVINE, CA 92620
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Farman Shir, P.E.
10/11/21

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SECTION 1 - SUMMARY

A. INTRODUCTION

The purpose of this report is to document the hydrologic and hydraulic analyses performed in support of the Clean Energy Compressed Natural Gas Time-Fill parking areas located in the existing CNG facility in City of Perris, County of Riverside, California. The project site is located at 19295 Harvill Ave. South of Cajalco Expy. The project site is part of an 11.5 acre parcel, proposing to pave 2.08 acre area for time-fill at 133 parking spaces. The site has been entirely paved and developed except the location where the 2.08 Acre time-fill is located. Therefore, except for nuisance nature local runoff that may traverse portions of the property, the project is considered free from ordinary storm flood hazard. This report will summarize the hydrologic and hydraulic analyses that were conducted in order to determine the necessary drainage improvements required to provide flood protection for the proposed building and safely convey the runoff through the site.

B. SCOPE OF PROJECT

The scope of this report will include the following:

- Determine the peak 6-Hour and 24-Hour duration events for the 2-year, 5-year and 10-year flow rates for the developed condition using the Riverside County Hydrology Manual.
- Determine the required storm drain facilities, alignment, and sizes required to flood protect the project site.
- Preparation of a preliminary report summarizing the hydrology and hydraulic results.

C. DESCRIPTION OF WATERSHED

The project is located within Perris Valley Master Drainage Plan (MDP). Per the MDP plan, the site is tabled to drain to District maintained MDP Lateral E-8 which is a 48" Storm Drain. The site currently slopes down at approximately 1.7% grade to the Northeast, with the existing elevations across the site vary from 1524 at the north corner to 1514 at the Northeast (NAVD88 datum). The existing drainage pattern for the site and the general area is characterized by sheet flows that follow the slope to the North, which is collected by an existing curb inlet at the Driveway. The existing drainage area consists of approximately 2.08 Acres of unpaved (Pervious) cover.

A map of the existing drainage patterns and Master Drainage Plan is included in Appendix A of this report. A summary of hydrologic calculation results for the existing condition is included in Table 1 below.

Table 1 – Existing Condition: Hydrology Analysis Summary

Rain Event	DA (ac)	Q_{Predev} (cfs)
2-Year 1-Hour	2.08	0
2-Year 3-Hour	2.08	0.008
2-Year 6-Hour	2.08	0.030
2-Year 24-Hour	2.08	0.125
5-Year 1-Hour	2.08	0
5-Year 3-Hour	2.08	0.053
5-Year 6-Hour	2.08	0.083
5-Year 24-Hour	2.08	0.403
10-Year 1-Hour	2.08	0.007
10-Year 3-Hour	2.08	0.108
10-Year 6-Hour	2.08	0.178
10-Year 24-Hour	2.08	0.689

D. PROPOSED CONDITIONS

The proposed project will continue the storm water flow patterns and directions of the existing site. Two BMP facilities will be constructed near the proposed North side of the project. This includes an underground infiltration chamber as well as a Bioretention BMP. In addition to meeting LID/BMP requirements, these two BMPs and their outflow structures have been designed to fully contain the post-construction and detain the increase in runoff due to increase in impervious cover. During high intensity runoff events, the overflow will initially drain to the existing inlet located at the Northeast area of the site at the driveway, and during very intense runoff events, the overflow runoff will drain onto Harvill Ave to the 48" & 54" MDP Lateral E-8.

While the project site drains to an existing Master Plan storm drain system, and the project is within an HCOC exempt area, peak flow mitigation is required, since there are downstream areas without adequate storm drain facilities. Riverside County Planning comments state *"There is a general lack of drainage infrastructure downstream of the project site. The impervious area proposed with this development could generate an increase in peak flow rates and adversely impact water quality and affect the downstream property owners, therefore the mitigation will be required to offset such impacts."* And *"Storms to be studies will include the 1-hour, 3-hour, 6-hour and 24-hour duration events for the 2-year, 5-year and 10-year return frequencies.*

A map of the proposed drainage patterns is included in Appendix A of this report. A summary of hydrologic calculation results for the existing condition is included in Table 2 below.

Table 2 – Proposed Condition: Hydrology Analysis Summary

Rain Event	DA (ac)	Q_{Predev} (cfs)
2-Year 1-Hour	2.08	0.421
2-Year 3-Hour	2.08	0.481
2-Year 6-Hour	2.08	1.060
2-Year 24-Hour	2.08	0.678
5-Year 1-Hour	2.08	0.855
5-Year 3-Hour	2.08	0.745
5-Year 6-Hour	2.08	1.593
5-Year 24-Hour	2.08	0.996
10-Year 1-Hour	2.08	1.298
10-Year 3-Hour	2.08	0.975
10-Year 6-Hour	2.08	2.040
10-Year 24-Hour	2.08	1.256

E. METHODOLOGY

A. HYDROLOGY

Hydrologic calculations were performed in accordance with the Riverside County Hydrology Manual. The SCS method was utilized in determining peak flow rates.

The hydrological parameters, including rainfall values and soil types were derived from NOAA Atlas 14 data.

The program "Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2017" was used to calculate the project runoffs. Detailed results of the analysis are included in the appendix.

FIG. 1 VICINITY & AERIAL MAP

SECTION 2 - HYDROLOGY ANALYSIS

HYDROLOGY PARAMETERS

The Riverside County Hydrology Manual was used to determine several of the hydrological parameters. The rainfall depths were utilized in the hydrology analyses, were obtained from NOAA Atlas 14 data, which is included in Appendix A.

Based on preliminary Web Soil Survey & the County manual, the project site is classified as soil type “B” and “BC” and “C”. For conservative results, soil type “C” has been used in this report. The soils map is included in Appendix A.

The Curve Number (CN) is also determined based on the proposed land use and cover. The Commercial (imperious) cover type was used to represent the developed condition, which is a CN value of 94, and Open Land category with CN of 74 was used for the pre-developed condition.

DETENTION ANALYSIS

Despite the project being exempt from Hydromodification, and already being entitled to be developed with impervious cover through CUP, and draining to an existing Master Plan Drainage facility, we are providing additional stormwater detention measures in addition to the Water Quality Capture volume, which is addressed with the project specific WQMP. The SCS method was used to determine peak flow rates for both pre-developed and post developed conditions. Based on the peak runoff calculations presented in this report, the 24-hour duration event generates the largest peak runoff and therefore the stormwater Detention is designed to mitigate this storm event, as shown in the routing summary table below.

The Stormwater Detention system provided consists of the Bioretention BMP, which provides a storage capacity of 4,100 CF, with the remaining storage provided through an underground detention basin by Contech Chambers (36” CMP with holes) wrapped in gravel with 40% porosity, which provides a storage capacity of 4,032 CF for a total capacity of 8,132 CF, which exceeds the required Storage Volume of 7,489 CF.

Table 3 – Routing Summary Table

Rain Event	Q_{Predev} (cfs)	Basin Discharge (cfs)	Difference (cfs)
2-Year 24-Hour	0.125	0.102	-0.023
5-Year 24-Hour	0.403	0.147	-0.256
10-Year 24-Hour	0.689	0.185	-0.504

SECTION 3 - HYDRAULIC ANALYSIS

ON-SITE STORM DRAIN FACILITIES

The project will sheet flow from Southwest to Northeast portion of the site where the proposed stormwater mitigation systems are located. A brief summary of each system has been provided and the results of the hydraulic analyses are included at the end of the section.

Underground Chambers (Onsite)

The underground chambers will be 3-foot diameter perforated CMP pipe. The pipe and gravel volume will retain and runoff in addition to the Bioretention Facility, which is to address the water quality volume. The underground system will have a 1-inch orifice in order to meter the outflow and once the underground chambers are full, the overflow runoff with be directed to the existing Curb Inlet, through the overflow Wier that is installed in the Diversion Manhole.

Outlet Structure A

The 18” HDPE outlet pipe will convey the runoff (both metered & overflow) to the existing Curb Inlet that is located at the northeast portion of the site. This 18-inch pipe is capable of safely conveying the peak 100-year flow.

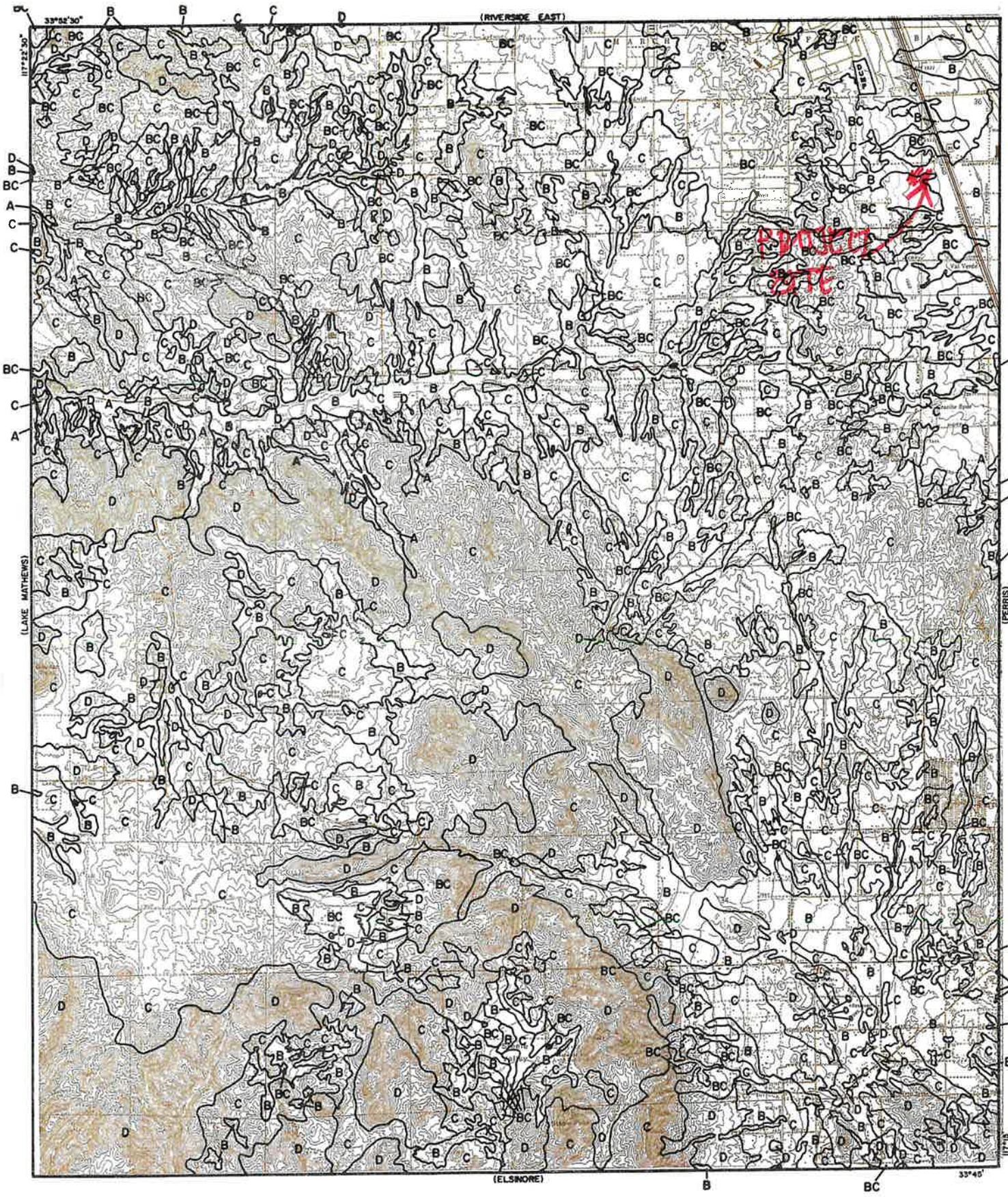
SECTION 4 - CONCLUSION

Based on the analyses and results of this report, the following conclusions were derived from the hydrology and hydraulic results:

- The proposed drainage improvements will adequately convey flows to the basin and provide flood protection for the required storm events.
- The proposed basins will provide adequate water quality treatment.
- The proposed project will not impact flooding condition to upstream or downstream properties.

APPENDIX A – HYDROLOGY

WEB SOIL SURVEY



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR STEELE PEAK

PLATE C-I.29

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Western Riverside Area, California

October 9, 2021

Custom Soil Resource Report
Soil Map

Map Scale: 1:958 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 14, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 25, 2019—Jun 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AoC	Arlington fine sandy loam, deep, 2 to 8 percent slopes	1.3	57.8%
EpC2	Exeter sandy loam, deep, 2 to 8 percent slopes, eroded	1.0	42.2%
Totals for Area of Interest		**2.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Western Riverside Area, California

AoC—Arlington fine sandy loam, deep, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: hcr0
Elevation: 400 to 2,000 feet
Mean annual precipitation: 12 inches
Mean annual air temperature: 63 degrees F
Frost-free period: 240 to 320 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Arlington and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arlington

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 11 inches: fine sandy loam
H2 - 11 to 50 inches: sandy loam
H3 - 50 to 60 inches: cemented
H4 - 60 to 70 inches: coarse sandy loam

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: 40 to 60 inches to duripan
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R019XD029CA - LOAMY
Hydric soil rating: No

Minor Components

Hanford
Percent of map unit: 10 percent
Hydric soil rating: No

Greenfield
Percent of map unit: 5 percent
Hydric soil rating: No

EpC2—Exeter sandy loam, deep, 2 to 8 percent slopes, eroded

Map Unit Setting
National map unit symbol: hctl
Elevation: 300 to 700 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 64 degrees F
Frost-free period: 250 to 300 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Exeter and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Exeter

Setting
Landform: Alluvial fans
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile
H1 - 0 to 16 inches: sandy loam
H2 - 16 to 37 inches: sandy clay loam
H3 - 37 to 50 inches: indurated
H4 - 50 to 60 inches: stratified sandy loam to silt loam

Properties and qualities
Slope: 2 to 8 percent
Depth to restrictive feature: 35 to 60 inches to duripan
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R019XD029CA - LOAMY
Hydric soil rating: No

Minor Components

Ramona

Percent of map unit: 5 percent
Hydric soil rating: No

Monserate

Percent of map unit: 5 percent
Hydric soil rating: No

Greenfield

Percent of map unit: 5 percent
Hydric soil rating: No

NOAA ATLAS 14 DATA

NOAA Atlas 14, Volume 6, Version 2
Location name: Perris, California, USA*
Latitude: 33.8398°, Longitude: -117.2542°
Elevation: 1519.4 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.087** (0.073-0.105)	**0.121** (0.101-0.147)	**0.168** (0.140-0.204)	**0.208** (0.172-0.255)	**0.265** (0.211-0.336)	**0.311** (0.242-0.402)	**0.359** (0.273-0.477)	**0.411** (0.304-0.563)	**0.486** (0.343-0.694)	**0.547** (0.373-0.810)
10-min	**0.125** (0.105-0.151)	**0.174** (0.145-0.211)	**0.241** (0.201-0.293)	**0.298** (0.246-0.365)	**0.380** (0.303-0.481)	**0.445** (0.347-0.577)	**0.515** (0.391-0.684)	**0.590** (0.435-0.807)	**0.696** (0.492-0.995)	**0.784** (0.534-1.16)
15-min	**0.151** (0.126-0.183)	**0.211** (0.176-0.255)	**0.292** (0.243-0.354)	**0.361** (0.298-0.442)	**0.459** (0.366-0.582)	**0.538** (0.420-0.698)	**0.622** (0.473-0.827)	**0.713** (0.526-0.976)	**0.842** (0.595-1.20)	**0.948** (0.646-1.40)
30-min	**0.243** (0.203-0.294)	**0.339** (0.283-0.410)	**0.469** (0.391-0.570)	**0.580** (0.479-0.710)	**0.738** (0.588-0.936)	**0.866** (0.675-1.12)	**1.00** (0.761-1.33)	**1.15** (0.846-1.57)	**1.35** (0.957-1.94)	**1.52** (1.04-2.26)
60-min	**0.328** (0.274-0.397)	**0.457** (0.382-0.553)	**0.634** (0.527-0.769)	**0.783** (0.647-0.959)	**0.997** (0.794-1.26)	**1.17** (0.911-1.51)	**1.35** (1.03-1.80)	**1.55** (1.14-2.12)	**1.83** (1.29-2.61)	**2.06** (1.40-3.05)
2-hr	**0.493** (0.412-0.595)	**0.656** (0.548-0.794)	**0.876** (0.729-1.06)	**1.06** (0.875-1.30)	**1.32** (1.05-1.67)	**1.52** (1.18-1.97)	**1.73** (1.31-2.30)	**1.95** (1.44-2.67)	**2.26** (1.60-3.22)	**2.50** (1.71-3.71)
3-hr	**0.609** (0.509-0.735)	**0.799** (0.667-0.967)	**1.05** (0.876-1.28)	**1.26** (1.04-1.55)	**1.55** (1.24-1.97)	**1.78** (1.39-2.31)	**2.01** (1.53-2.68)	**2.26** (1.67-3.09)	**2.60** (1.84-3.71)	**2.86** (1.95-4.24)
6-hr	**0.857** (0.716-1.03)	**1.11** (0.929-1.35)	**1.45** (1.21-1.76)	**1.73** (1.43-2.11)	**2.11** (1.68-2.67)	**2.40** (1.87-3.11)	**2.70** (2.05-3.58)	**3.01** (2.22-4.11)	**3.43** (2.42-4.90)	**3.76** (2.56-5.57)
12-hr	**1.12** (0.937-1.36)	**1.47** (1.23-1.78)	**1.93** (1.61-2.34)	**2.30** (1.90-2.82)	**2.81** (2.24-3.56)	**3.20** (2.49-4.14)	**3.59** (2.73-4.78)	**4.00** (2.95-5.47)	**4.55** (3.22-6.51)	**4.98** (3.40-7.38)
24-hr	**1.45** (1.28-1.67)	**1.94** (1.71-2.24)	**2.58** (2.27-2.99)	**3.10** (2.71-3.62)	**3.81** (3.23-4.60)	**4.36** (3.62-5.36)	**4.91** (3.98-6.19)	**5.48** (4.32-7.09)	**6.25** (4.74-8.43)	**6.85** (5.02-9.55)
2-day	**1.67** (1.48-1.93)	**2.28** (2.01-2.63)	**3.08** (2.72-3.57)	**3.74** (3.27-4.36)	**4.64** (3.92-5.59)	**5.33** (4.42-6.56)	**6.04** (4.89-7.61)	**6.78** (5.34-8.77)	**7.78** (5.89-10.5)	**8.57** (6.27-11.9)
3-day	**1.78** (1.57-2.05)	**2.45** (2.16-2.83)	**3.34** (2.95-3.87)	**4.08** (3.57-4.76)	**5.09** (4.31-6.14)	**5.89** (4.88-7.24)	**6.70** (5.43-8.44)	**7.55** (5.95-9.77)	**8.72** (6.60-11.7)	**9.64** (7.06-13.4)
4-day	**1.91** (1.69-2.20)	**2.65** (2.34-3.06)	**3.65** (3.21-4.22)	**4.47** (3.91-5.22)	**5.61** (4.75-6.76)	**6.50** (5.39-7.99)	**7.42** (6.01-9.34)	**8.38** (6.61-10.8)	**9.71** (7.35-13.1)	**10.8** (7.88-15.0)
7-day	**2.07** (1.83-2.38)	**2.92** (2.58-3.37)	**4.06** (3.58-4.70)	**5.01** (4.38-5.84)	**6.33** (5.36-7.63)	**7.37** (6.11-9.06)	**8.44** (6.84-10.6)	**9.57** (7.55-12.4)	**11.1** (8.44-15.0)	**12.4** (9.07-17.3)
10-day	**2.12** (1.88-2.45)	**3.02** (2.67-3.49)	**4.24** (3.74-4.91)	**5.26** (4.60-6.14)	**6.69** (5.66-8.06)	**7.81** (6.48-9.61)	**8.98** (7.28-11.3)	**10.2** (8.06-13.2)	**11.9** (9.04-16.1)	**13.3** (9.74-18.5)
20-day	**2.43** (2.15-2.80)	**3.51** (3.10-4.05)	**5.00** (4.41-5.79)	**6.27** (5.48-7.32)	**8.08** (6.84-9.74)	**9.54** (7.91-11.7)	**11.1** (8.97-13.9)	**12.7** (10.0-16.5)	**15.0** (11.4-20.2)	**16.9** (12.4-23.5)
30-day	**2.75** (2.43-3.17)	**3.97** (3.51-4.59)	**5.69** (5.02-6.59)	**7.18** (6.28-8.38)	**9.33** (7.90-11.3)	**11.1** (9.20-13.6)	**13.0** (10.5-16.3)	**15.0** (11.8-19.4)	**17.9** (13.5-24.1)	**20.2** (14.8-28.2)
45-day	**3.18** (2.82-3.67)	**4.56** (4.03-5.27)	**6.53** (5.76-7.57)	**8.27** (7.23-9.65)	**10.8** (9.17-13.1)	**13.0** (10.8-15.9)	**15.3** (12.4-19.2)	**17.8** (14.0-23.0)	**21.5** (16.3-28.9)	**24.5** (18.0-34.2)
60-day	**3.59** (3.18-4.14)	**5.08** (4.48-5.86)	**7.24** (6.38-8.38)	**9.16** (8.01-10.7)	**12.0** (10.2-14.5)	**14.5** (12.0-17.8)	**17.2** (13.9-21.6)	**20.1** (15.9-26.1)	**24.5** (18.6-33.0)	**28.2** (20.7-39.3)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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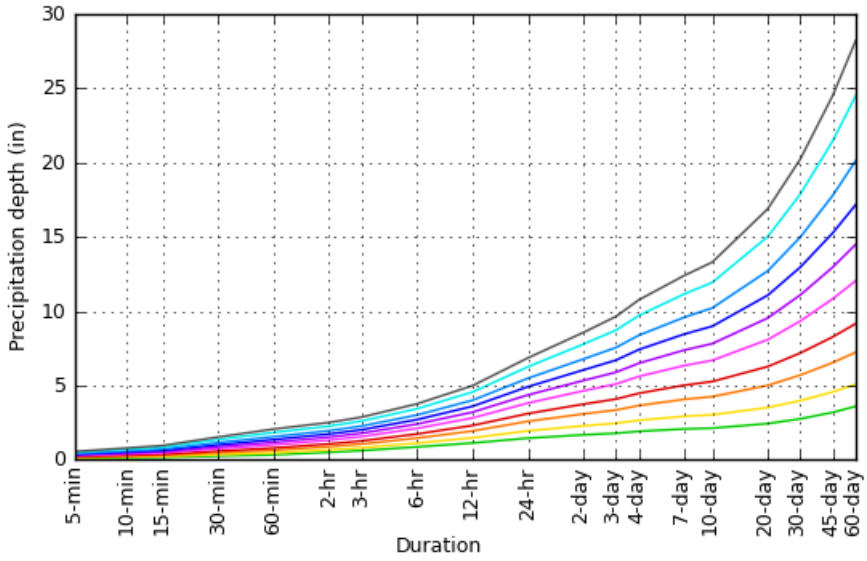
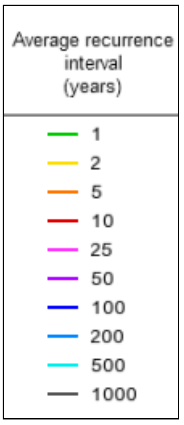
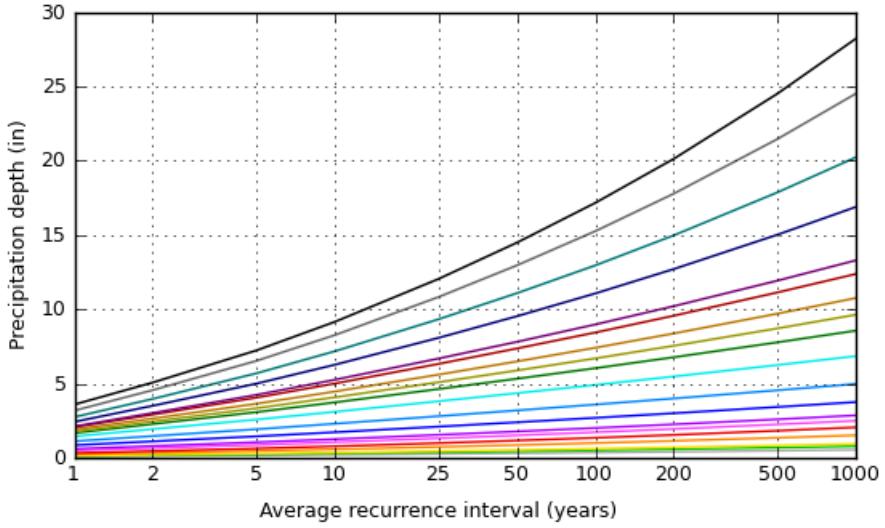
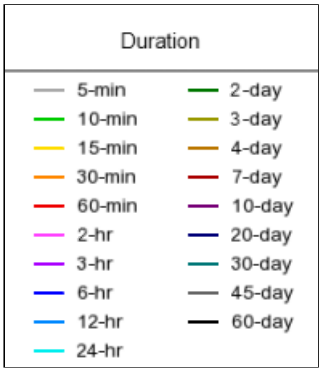
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 33.8398°, Longitude: -117.2542°









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Created (GMT): Sat Oct 9 22:14:05 2021

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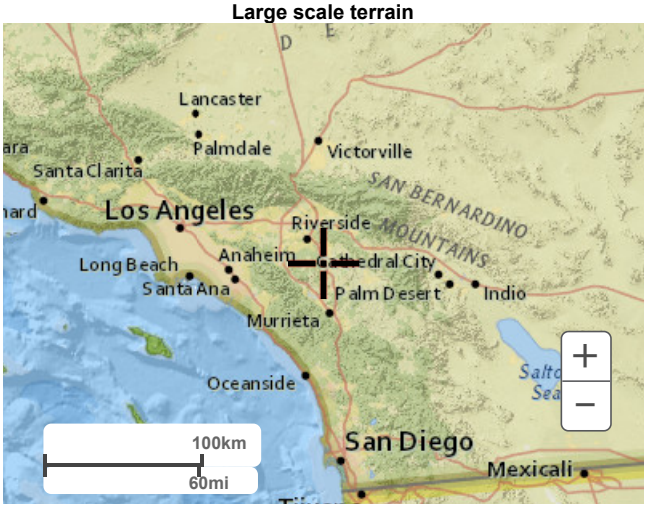
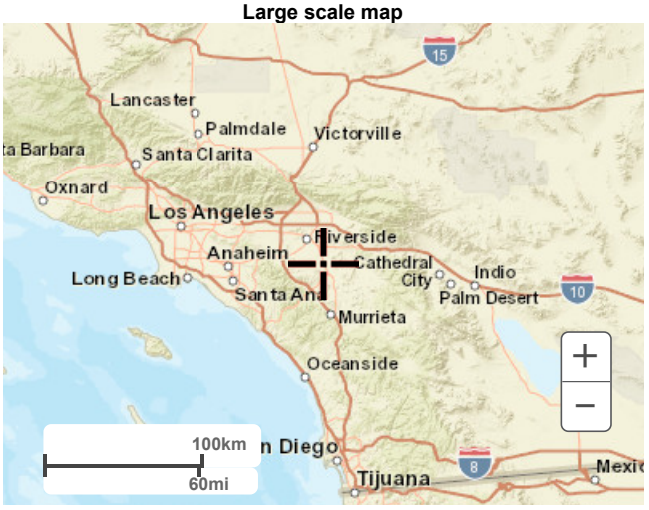
Maps & aerials

Small scale terrain

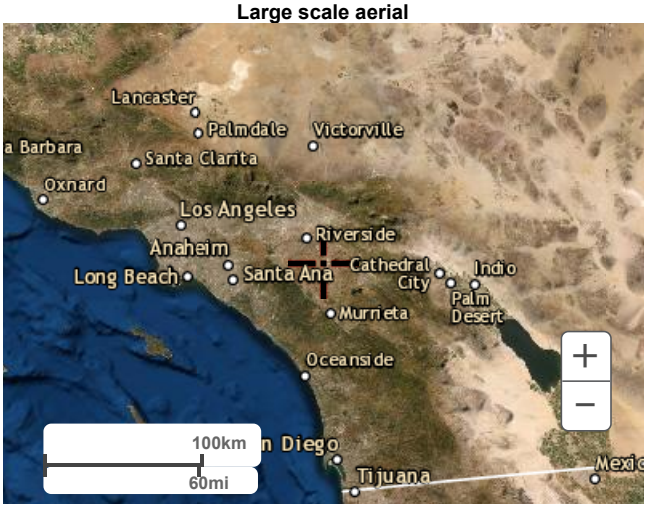
Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

2-YEAR 5-YEAR & 10 YEAR HYDROLOGY WITH DETENTION HYDROGRAPH
(HYDRAFLOW HYDROGRAPHS EXTENSION FOR AUTOCAD)

Return Period: 2-Year

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v11

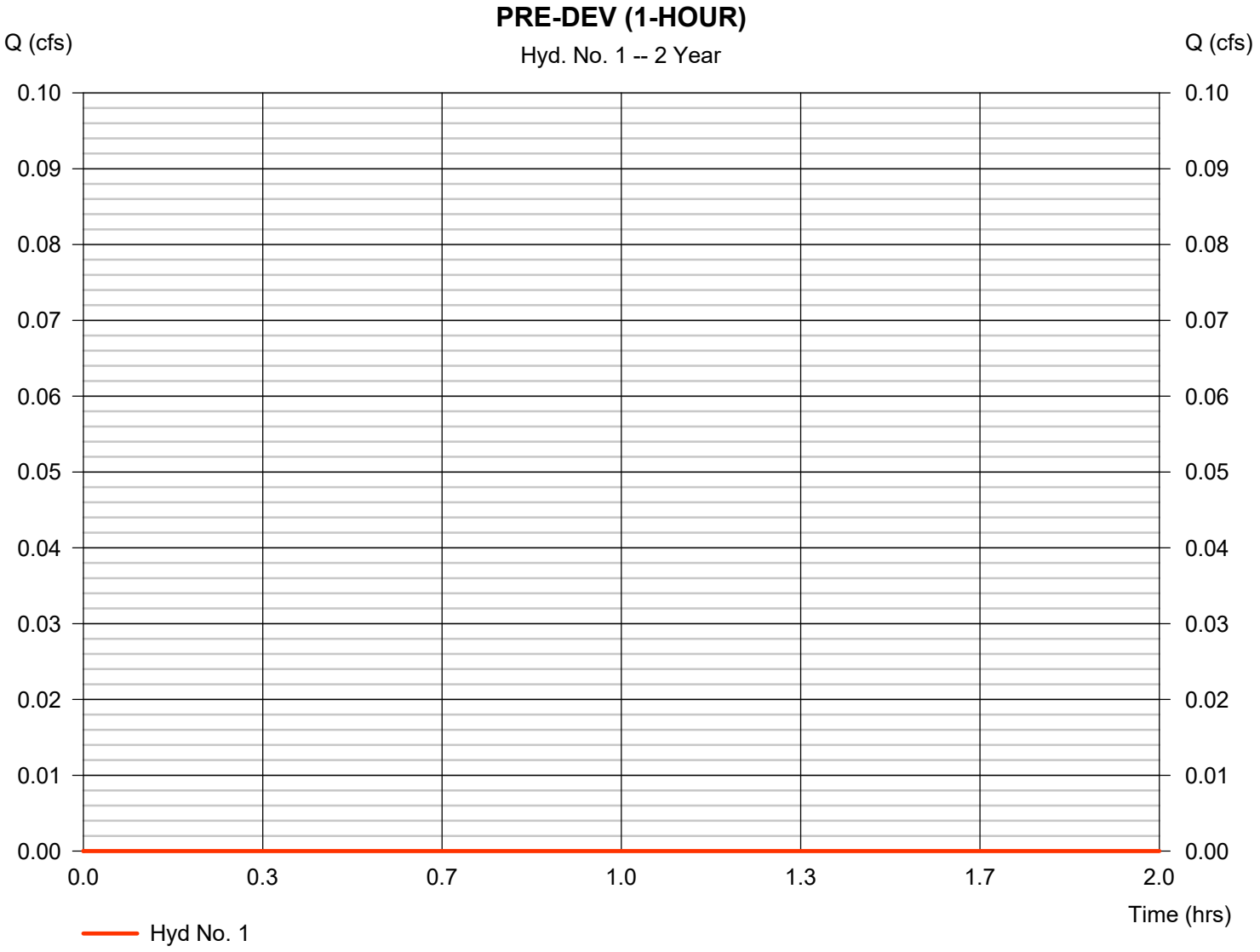
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.000	2	n/a	0	------	------	------	PRE-DEV (1-HOUR)
2	SCS Runoff	0.008	2	190	20	------	------	------	PRE-DEV (3-HOUR)
3	SCS Runoff	0.030	2	360	316	------	------	------	PRE-DEV (6-HOUR)
4	SCS Runoff	0.125	2	626	2,405	------	------	------	PRE-DEV (24-HOUR)
5	SCS Runoff	0.678	2	474	9,487	------	------	------	POST-DEV (24-HOUR)
6	SCS Runoff	1.060	2	144	4,215	------	------	------	POST-DEV (6-HOUR)
7	SCS Runoff	0.481	2	82	2,441	------	------	------	POST-DEV (3-HOUR)
8	SCS Runoff	0.421	2	18	799	------	------	------	POST-DEV (1-HOUR)
9	Reservoir	0.102	2	1030	9,447	5	1511.03	4,112	HYDROGRAPH

Hydrograph Report

Hyd. No. 1

PRE-DEV (2-YEAR 1-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= n/a
Time interval	= 2 min	Hyd. volume	= 0 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 29.30 min
Total precip.	= 0.46 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hyd. No. 1

PRE-DEV (1-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.130		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 2.00		0.00		0.00		
Travel Time (min)	**= 27.03**	**+**	**0.00**	**+**	**0.00**	**=**	**27.03**
Shallow Concentrated Flow							
Flow length (ft)	= 306.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.28		0.00		0.00		
Travel Time (min)	**= 2.24**	**+**	**0.00**	**+**	**0.00**	**=**	**2.24**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

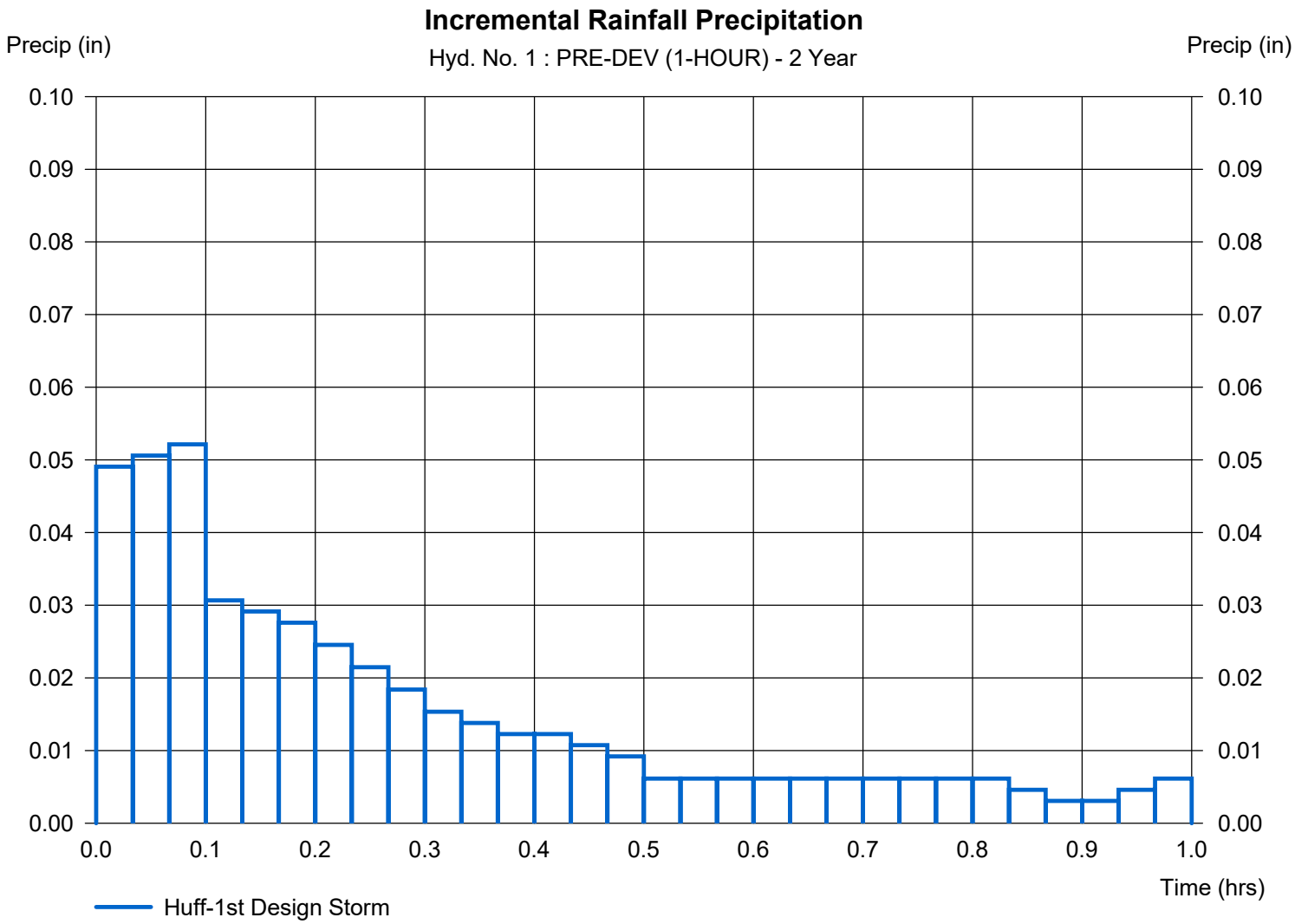
Total Travel Time, Tc ..... 29.30 min

Precipitation Report

Hyd. No. 1

PRE-DEV (1-HOUR)

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 0.4600 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		

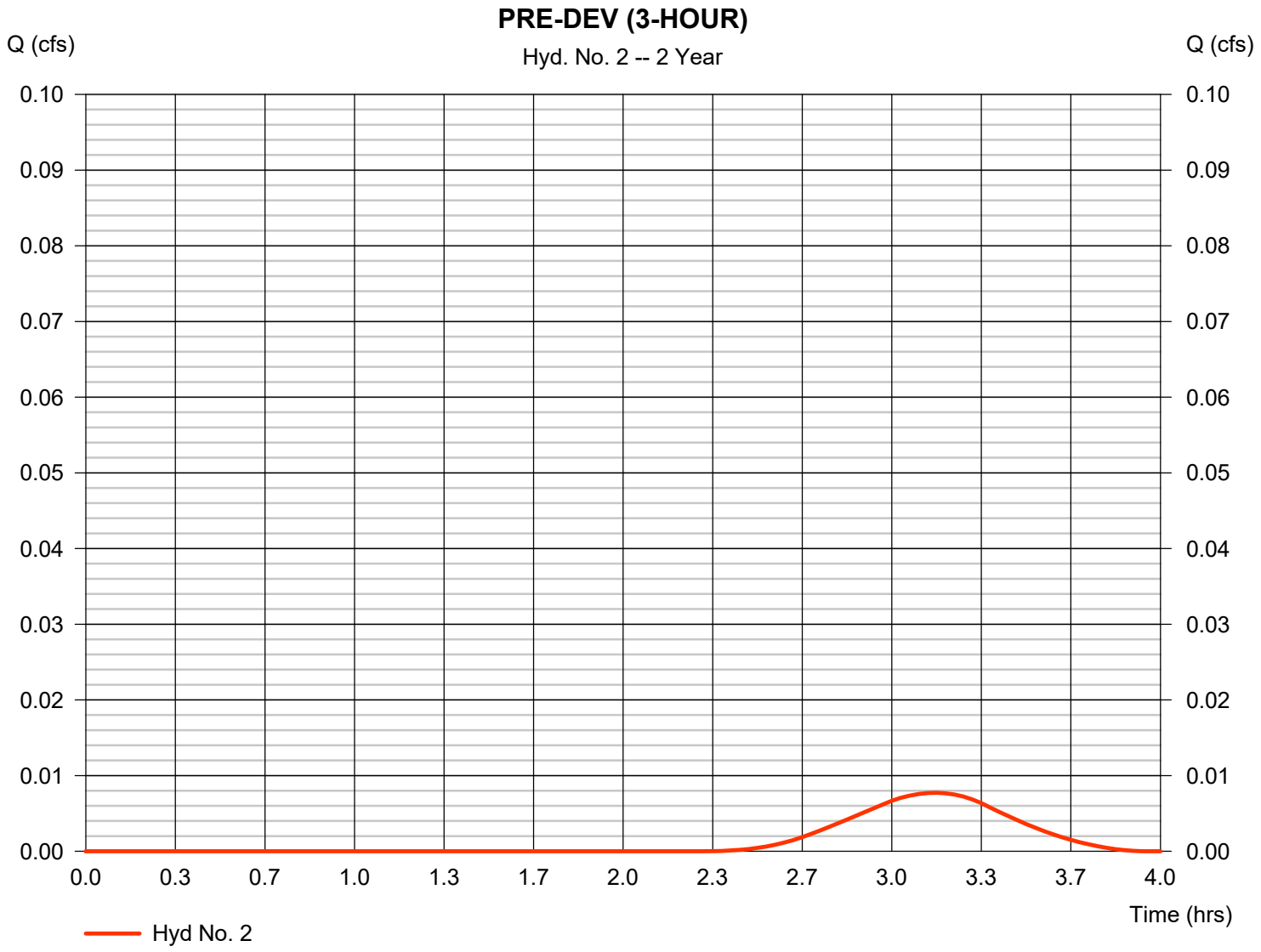


Hydrograph Report

Hyd. No. 2

PRE-DEV (2-YEAR 3-HOUR)

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.008 cfs
Storm frequency	=	2 yrs	Time to peak	=	3.17 hrs
Time interval	=	2 min	Hyd. volume	=	20 cuft
Drainage area	=	2.080 ac	Curve number	=	74
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	34.80 min
Total precip.	=	0.80 in	Distribution	=	Huff-Indy
Storm duration	=	3.00 hrs	Shape factor	=	484



TR55 Tc Worksheet

Hyd. No. 2

PRE-DEV (3-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 32.34**	**+**	**0.00**	**+**	**0.00**	**=**	**32.34**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.10		0.00		0.00		
Travel Time (min)	**= 2.43**	**+**	**0.00**	**+**	**0.00**	**=**	**2.43**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

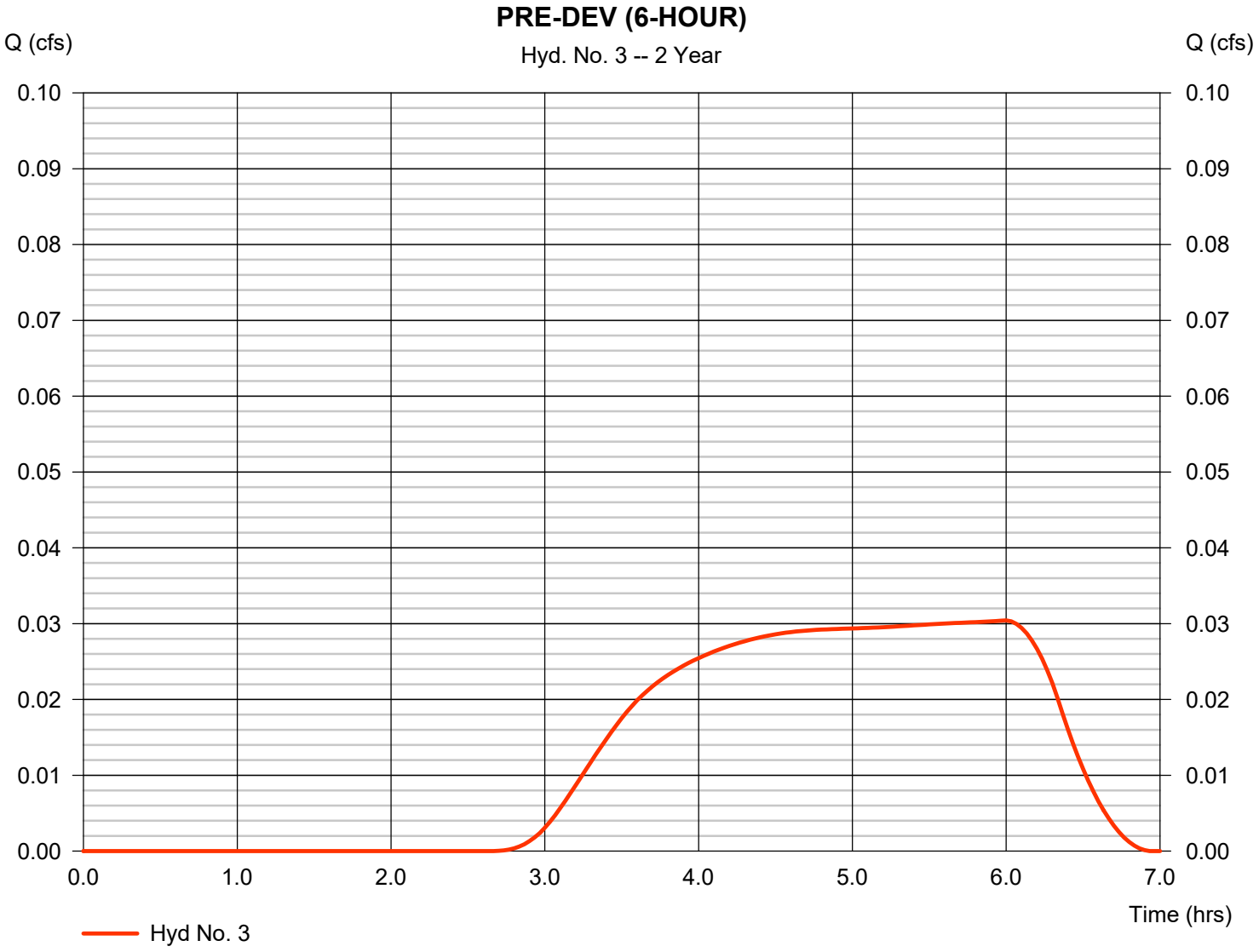
Total Travel Time, Tc ..... 34.80 min

Hydrograph Report

Hyd. No. 3

PRE-DEV (2-YEAR 6-HOUR)

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.030 cfs
Storm frequency	=	2 yrs	Time to peak	=	6.00 hrs
Time interval	=	2 min	Hyd. volume	=	316 cuft
Drainage area	=	2.080 ac	Curve number	=	74
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	34.80 min
Total precip.	=	1.11 in	Distribution	=	SCS 6-Hr
Storm duration	=	6.00 hrs	Shape factor	=	484



TR55 Tc Worksheet

Hyd. No. 3

PRE-DEV (6-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 32.34**	**+**	**0.00**	**+**	**0.00**	**=**	**32.34**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.10		0.00		0.00		
Travel Time (min)	**= 2.43**	**+**	**0.00**	**+**	**0.00**	**=**	**2.43**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

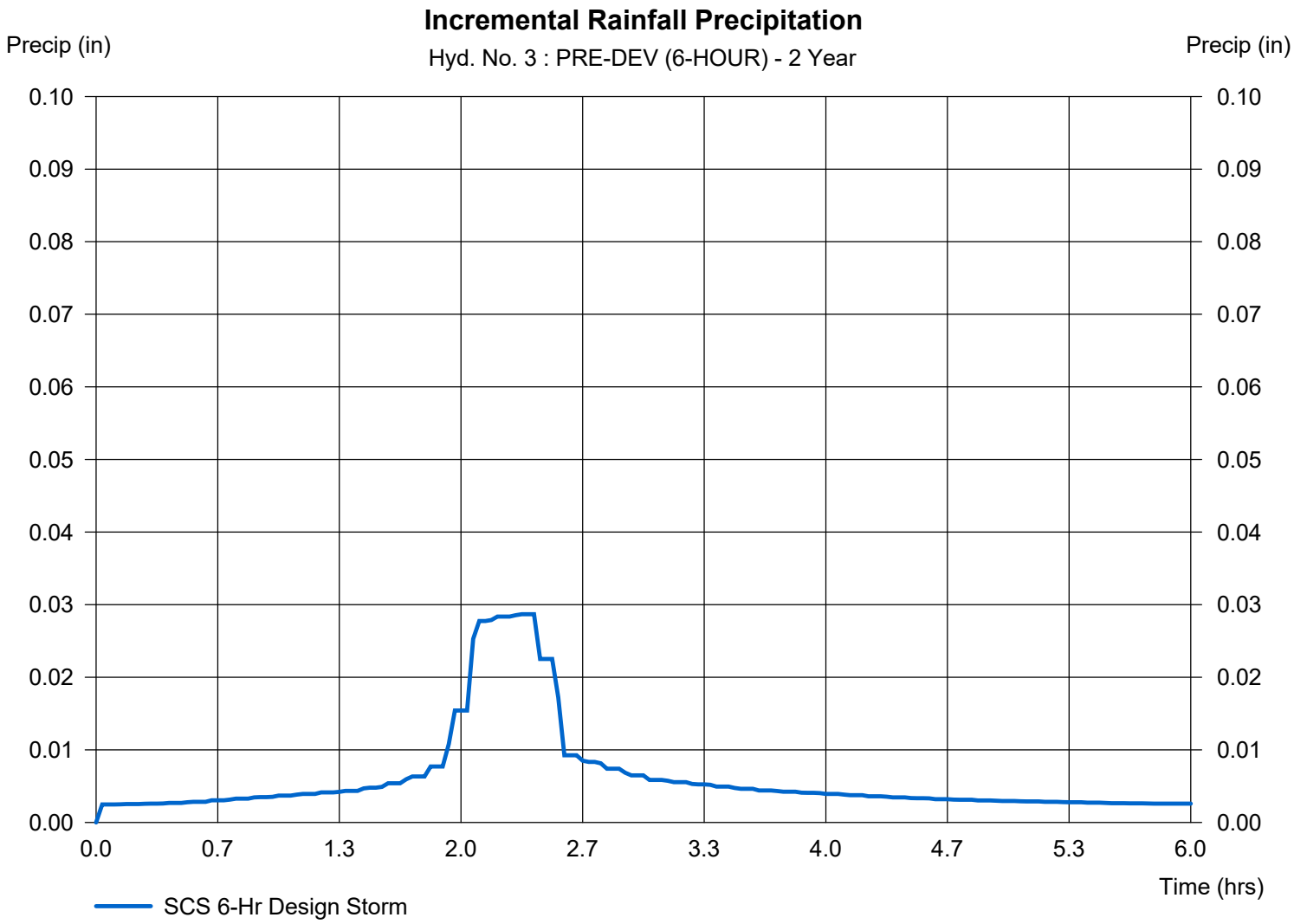
Total Travel Time, Tc ..... 34.80 min

Precipitation Report

Hyd. No. 3

PRE-DEV (6-HOUR)

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 1.1100 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

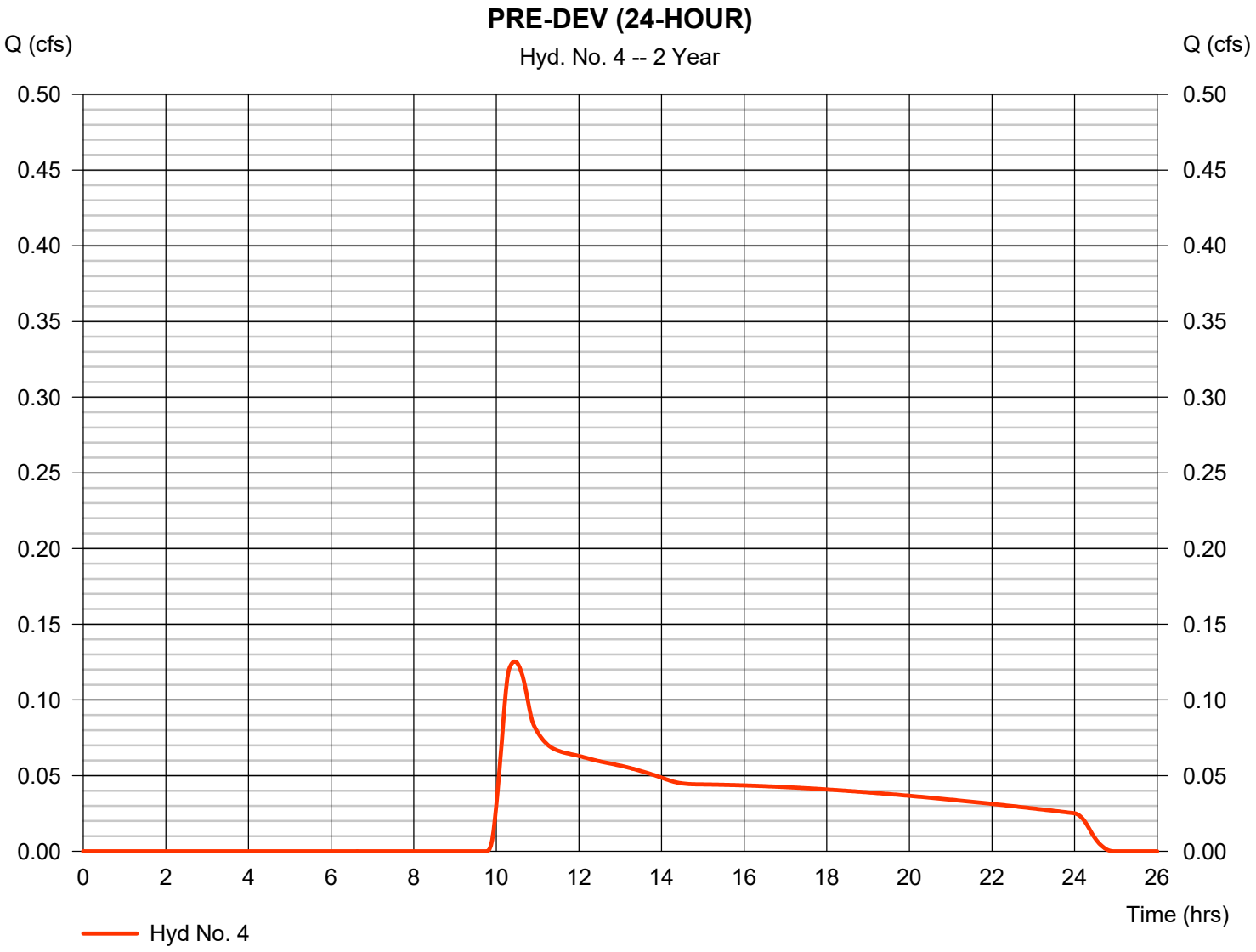


Hydrograph Report

Hyd. No. 4

PRE-DEV (2-YEAR 24-HOUR)

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.125 cfs
Storm frequency	=	2 yrs	Time to peak	=	10.43 hrs
Time interval	=	2 min	Hyd. volume	=	2,405 cuft
Drainage area	=	2.080 ac	Curve number	=	74
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	34.80 min
Total precip.	=	1.94 in	Distribution	=	Type I
Storm duration	=	24 hrs	Shape factor	=	484



TR55 Tc Worksheet

Hyd. No. 4

PRE-DEV (24-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 32.34**	**+**	**0.00**	**+**	**0.00**	**=**	**32.34**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Unpaved		Paved		Paved		
Average velocity (ft/s)	=2.10		0.00		0.00		
Travel Time (min)	**= 2.43**	**+**	**0.00**	**+**	**0.00**	**=**	**2.43**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

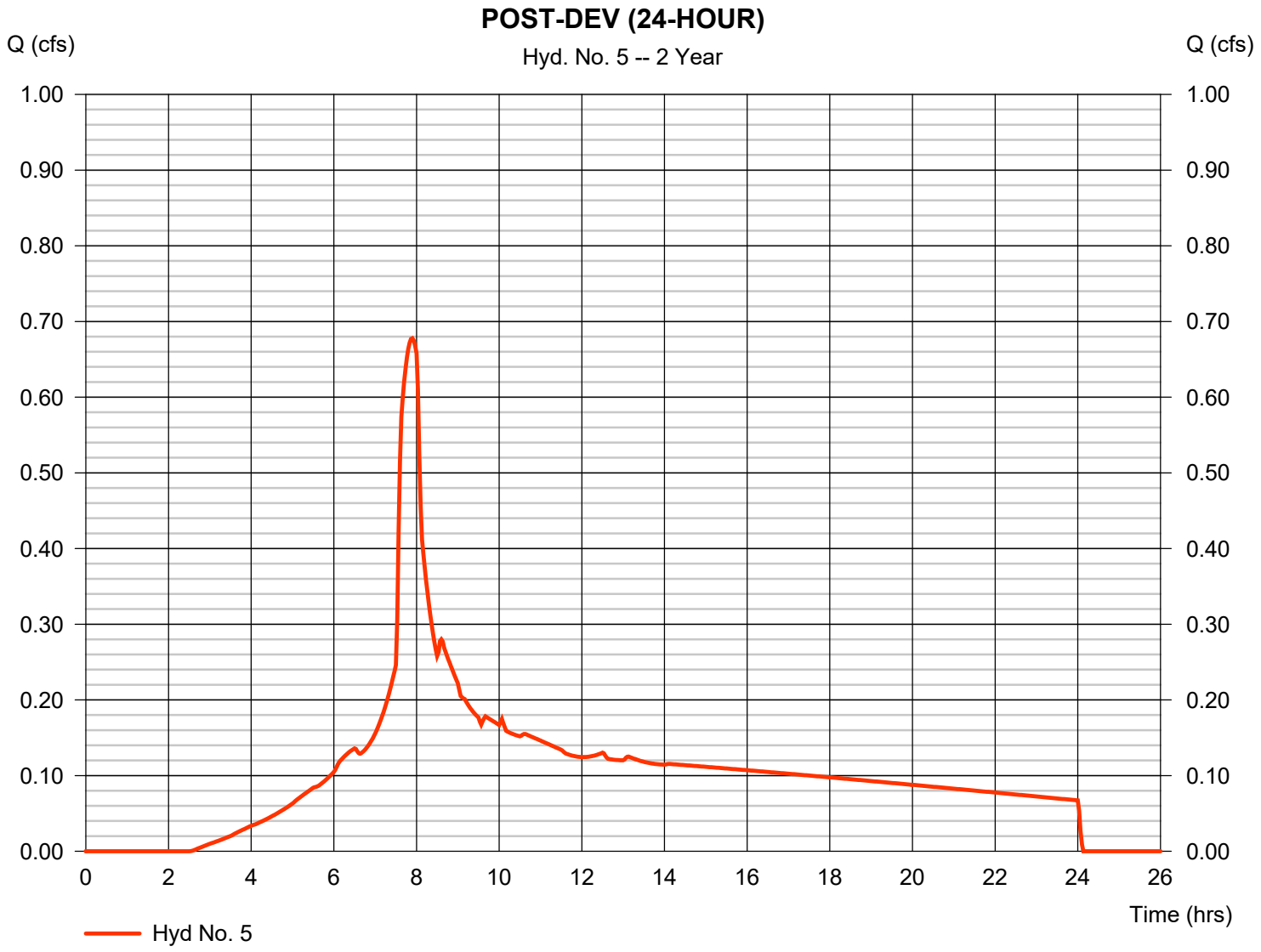
Total Travel Time, Tc ..... 34.80 min

Hydrograph Report

Hyd. No. 5

POST-DEV (2-YEAR 24-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.678 cfs
Storm frequency	= 2 yrs	Time to peak	= 7.90 hrs
Time interval	= 2 min	Hyd. volume	= 9,487 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.94 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hyd. No. 5

POST-DEV (24-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.013		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 4.57**	**+**	**0.00**	**+**	**0.00**	**=**	**4.57**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.65		0.00		0.00		
Travel Time (min)	**= 1.93**	**+**	**0.00**	**+**	**0.00**	**=**	**1.93**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

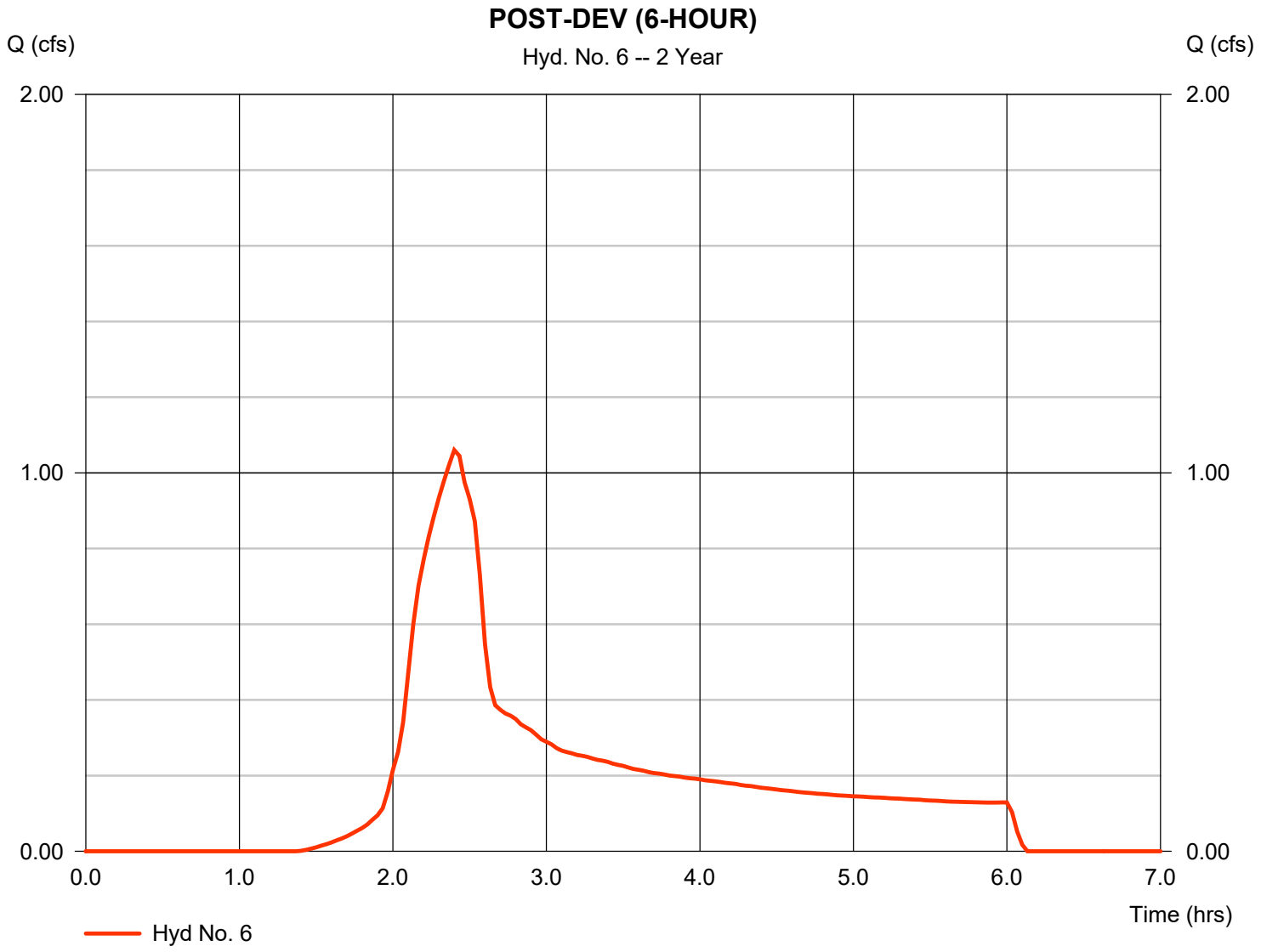
Total Travel Time, Tc ..... 6.50 min

Hydrograph Report

Hyd. No. 6

POST-DEV (2-YEAR 6-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.060 cfs
Storm frequency	= 2 yrs	Time to peak	= 2.40 hrs
Time interval	= 2 min	Hyd. volume	= 4,215 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.11 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hyd. No. 6

POST-DEV (6-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.013		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 4.57**	**+**	**0.00**	**+**	**0.00**	**=**	**4.57**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.65		0.00		0.00		
Travel Time (min)	**= 1.93**	**+**	**0.00**	**+**	**0.00**	**=**	**1.93**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

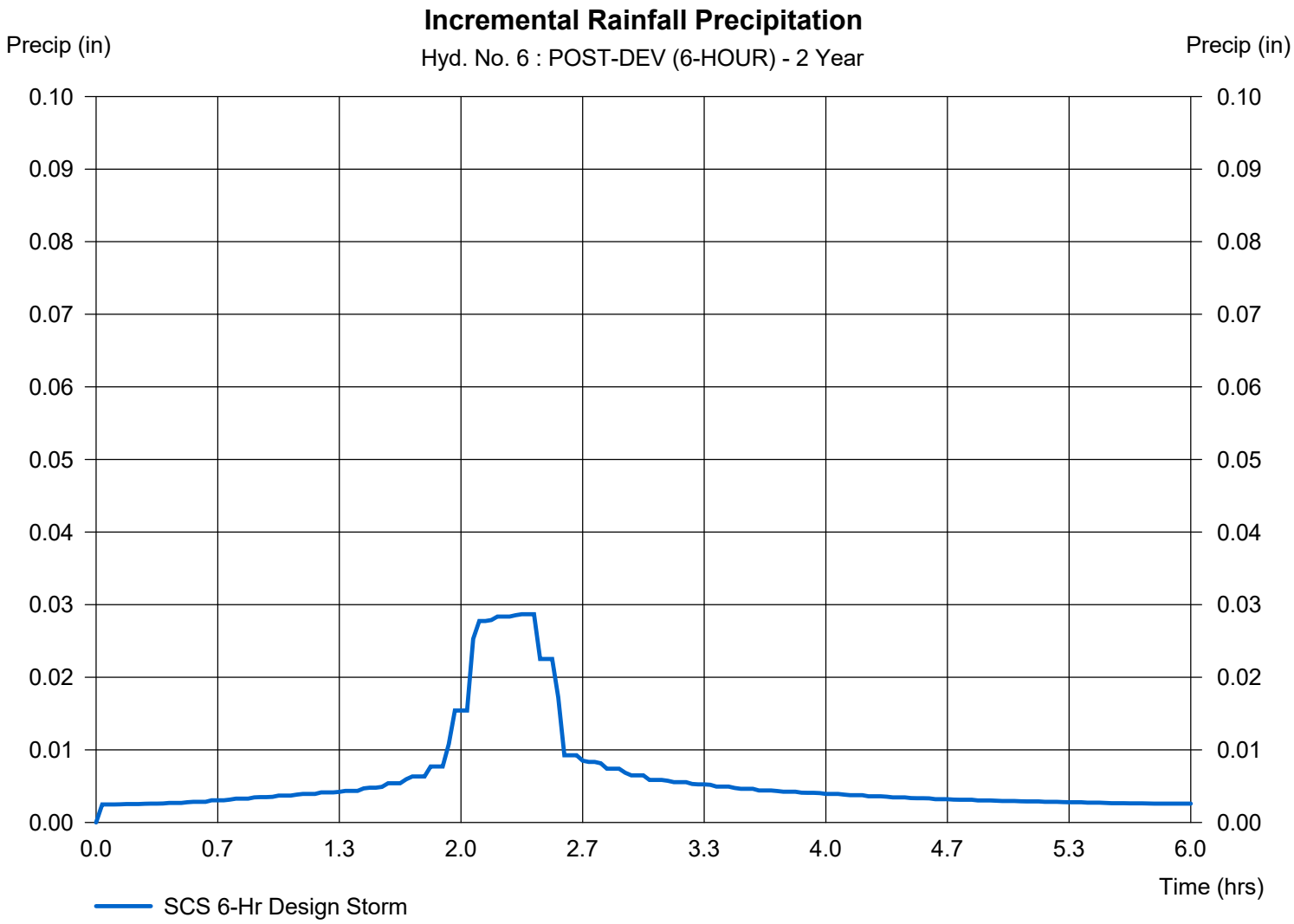
Total Travel Time, Tc ..... 6.50 min

Precipitation Report

Hyd. No. 6

POST-DEV (6-HOUR)

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 1.1100 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

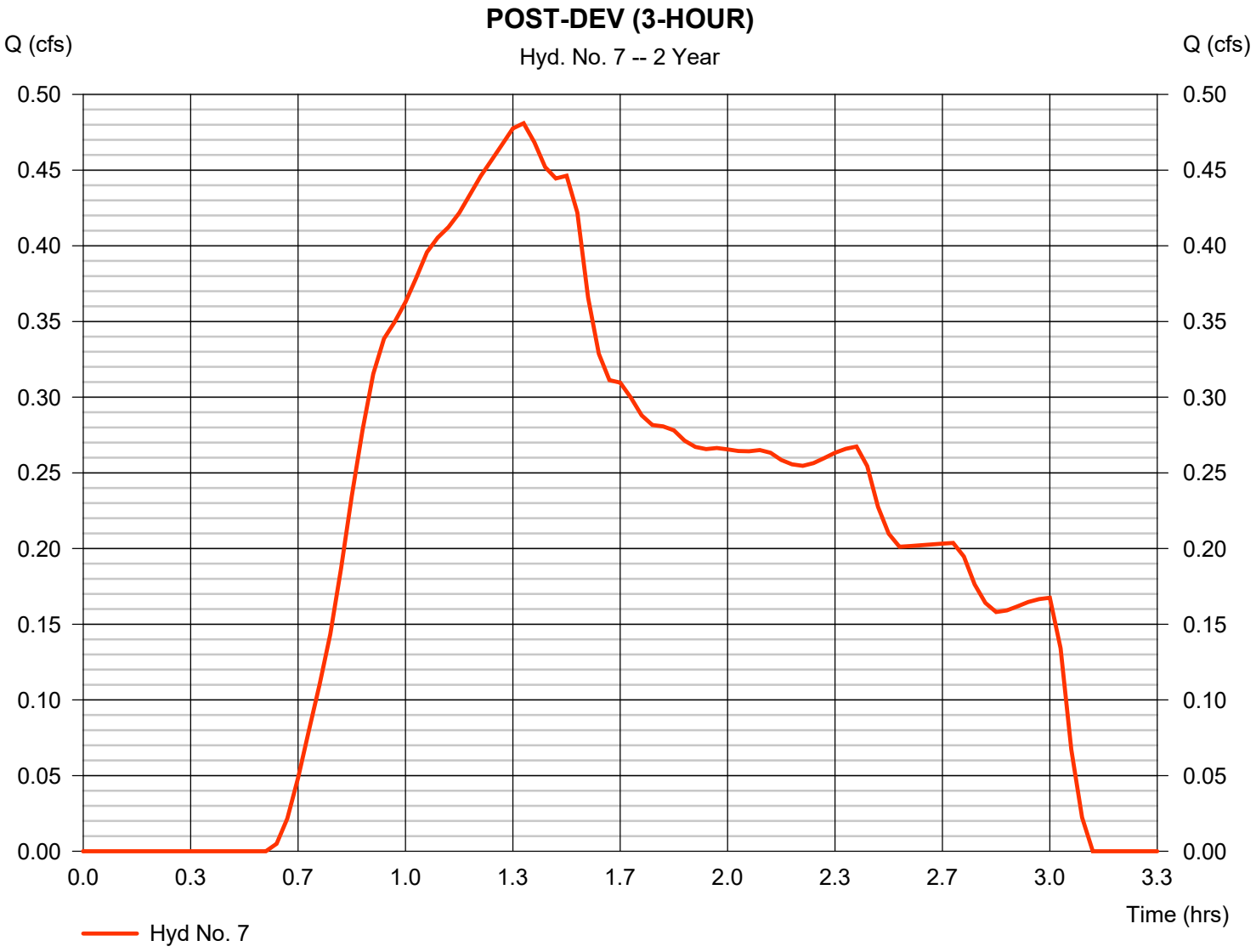


Hydrograph Report

Hyd. No. 7

POST-DEV (2-YEAR 3-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.481 cfs
Storm frequency	= 2 yrs	Time to peak	= 1.37 hrs
Time interval	= 2 min	Hyd. volume	= 2,441 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 0.80 in	Distribution	= Huff-Indy
Storm duration	= 3.00 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hyd. No. 7

POST-DEV (3-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.013		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 4.57**	**+**	**0.00**	**+**	**0.00**	**=**	**4.57**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.65		0.00		0.00		
Travel Time (min)	**= 1.93**	**+**	**0.00**	**+**	**0.00**	**=**	**1.93**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

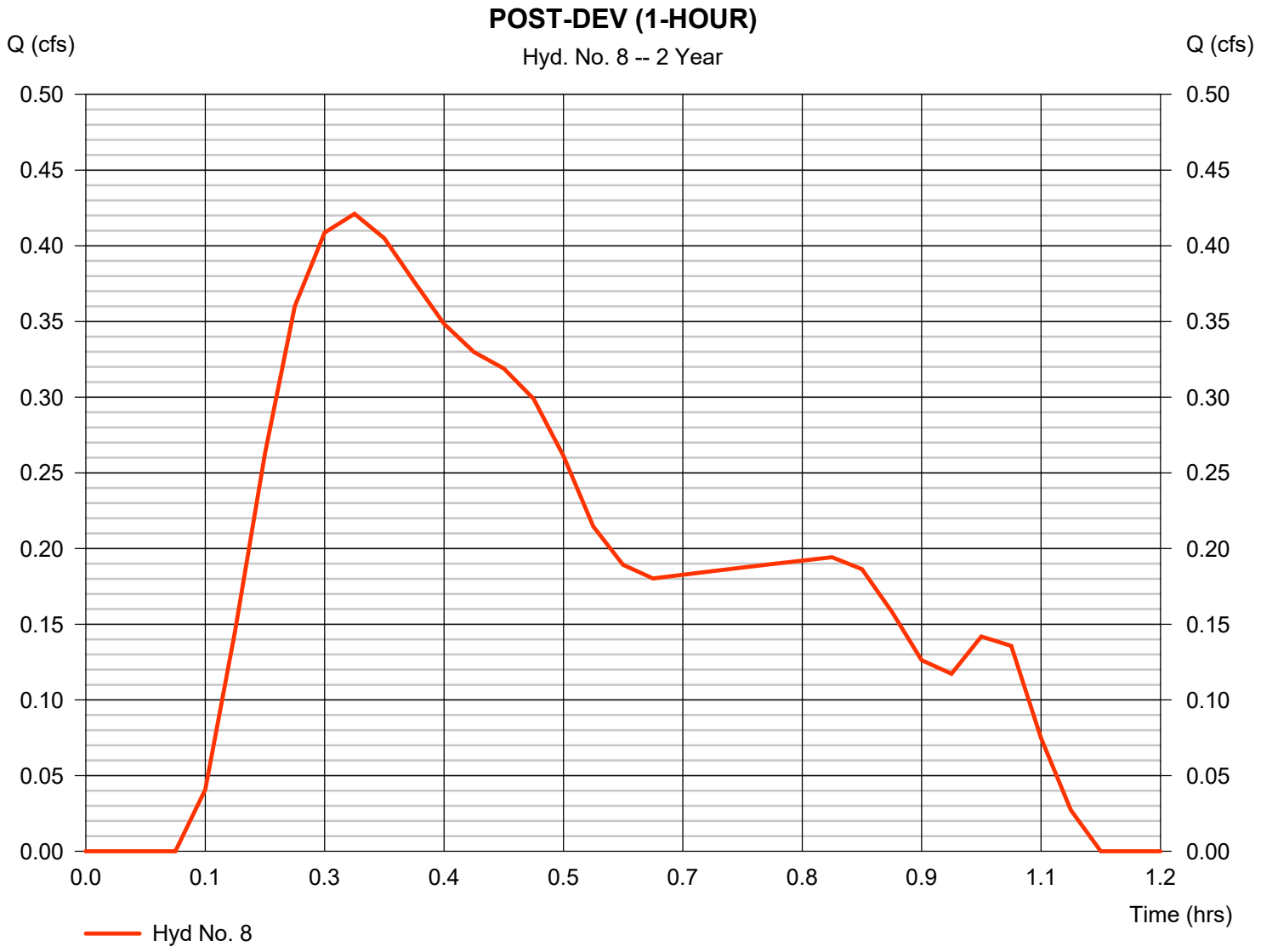
Total Travel Time, Tc ..... 6.50 min

Hydrograph Report

Hyd. No. 8

POST-DEV (2-YEAR 1-HOUR)

Hydrograph type	=	SCS Runoff	Peak discharge	=	0.421 cfs
Storm frequency	=	2 yrs	Time to peak	=	0.30 hrs
Time interval	=	2 min	Hyd. volume	=	799 cuft
Drainage area	=	2.080 ac	Curve number	=	94
Basin Slope	=	0.0 %	Hydraulic length	=	0 ft
Tc method	=	TR55	Time of conc. (Tc)	=	6.50 min
Total precip.	=	0.46 in	Distribution	=	Huff-1st
Storm duration	=	1.00 hrs	Shape factor	=	484



TR55 Tc Worksheet

Hyd. No. 8

POST-DEV (1-HOUR)

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.013		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 1.94		0.00		0.00		
Land slope (%)	= 1.70		0.00		0.00		
Travel Time (min)	**= 4.57**	**+**	**0.00**	**+**	**0.00**	**=**	**4.57**
Shallow Concentrated Flow							
Flow length (ft)	= 307.00		0.00		0.00		
Watercourse slope (%)	= 1.70		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.65		0.00		0.00		
Travel Time (min)	**= 1.93**	**+**	**0.00**	**+**	**0.00**	**=**	**1.93**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

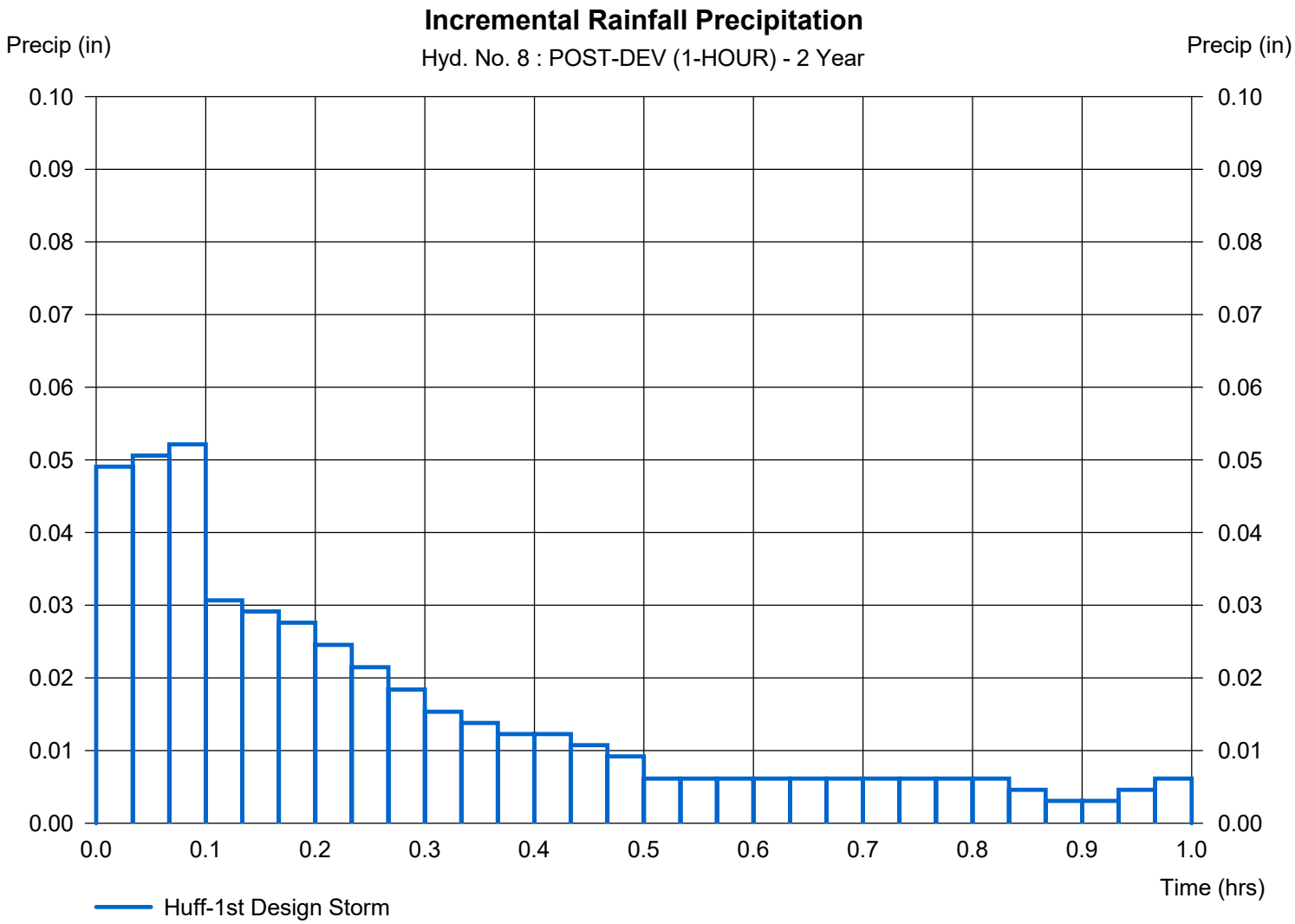
Total Travel Time, Tc ..... 6.50 min

Precipitation Report

Hyd. No. 8

POST-DEV (1-HOUR)

Storm Frequency	= 2 yrs	Time interval	= 2 min
Total precip.	= 0.4600 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		



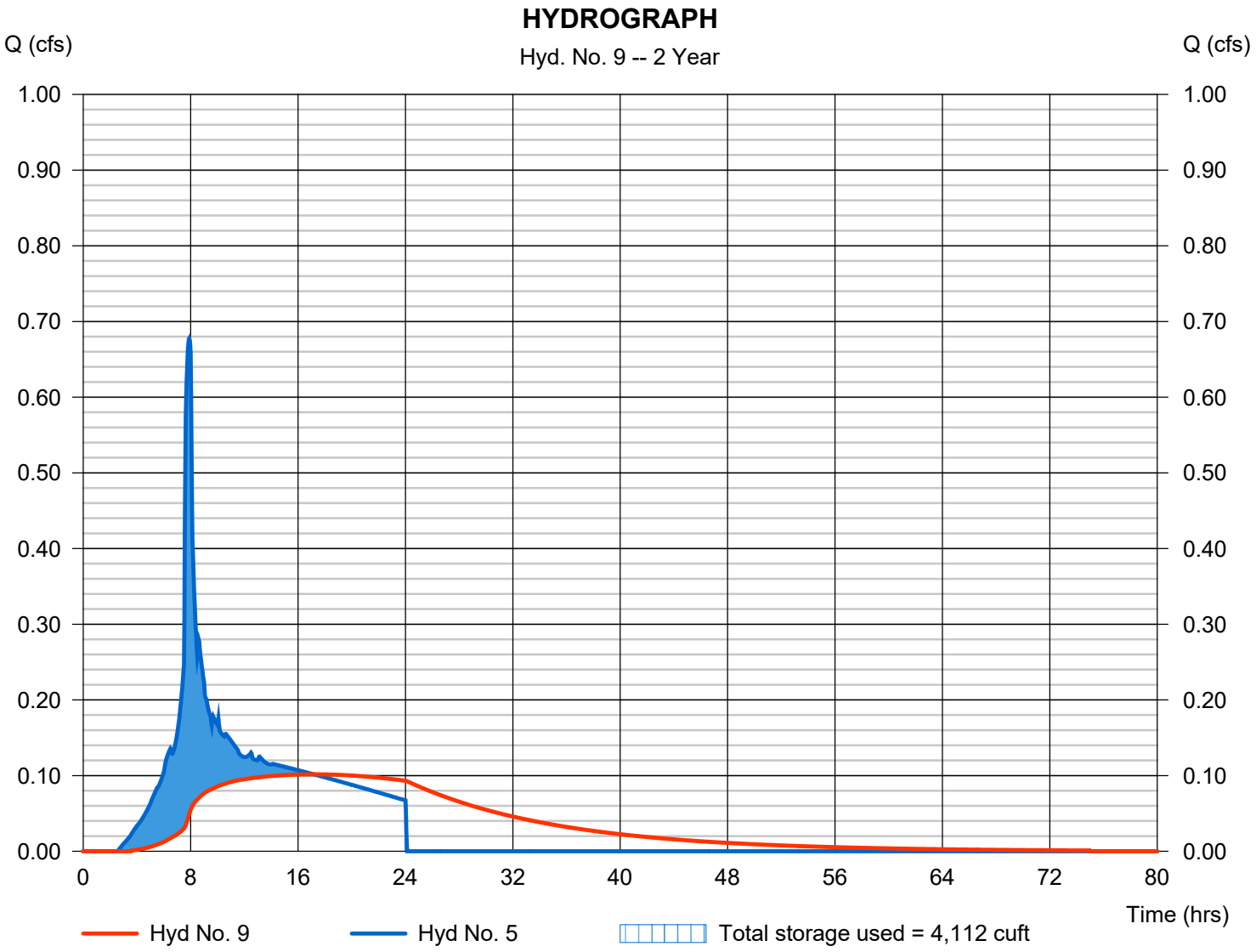
Hydrograph Report

Hyd. No. 9

HYDROGRAPH

Hydrograph type	=	Reservoir	Peak discharge	=	0.102 cfs
Storm frequency	=	2 yrs	Time to peak	=	17.17 hrs
Time interval	=	2 min	Hyd. volume	=	9,447 cuft
Inflow hyd. No.	=	5 - POST-DEV (24-HOUR)	Max. Elevation	=	1511.03 ft
Reservoir name	=	UG CHAMBER + BIORETENTION	Max. Storage	=	4,112 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - UG CHAMBER + BIORETENTION

Pond Data

Pond storage is based on user-defined values.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	1509.00	n/a	0	0
5.00	1514.00	n/a	8,100	8,100

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 1.00	0.00	0.00	0.00
Span (in)	= 1.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 1509.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 1514.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	1509.00	0.00	---	---	---	0.00	---	---	---	---	---	0.000
0.50	810	1509.50	0.00	---	---	---	0.00	---	---	---	---	0.015	0.040
1.00	1,620	1510.00	0.00	---	---	---	0.00	---	---	---	---	0.030	0.080
1.50	2,430	1510.50	0.00	---	---	---	0.00	---	---	---	---	0.045	0.120
2.00	3,240	1511.00	0.00	---	---	---	0.00	---	---	---	---	0.060	0.160
2.50	4,050	1511.50	0.00	---	---	---	0.00	---	---	---	---	0.075	0.200
3.00	4,860	1512.00	0.00	---	---	---	0.00	---	---	---	---	0.090	0.240
3.50	5,670	1512.50	0.00	---	---	---	0.00	---	---	---	---	0.105	0.280
4.00	6,480	1513.00	0.00	---	---	---	0.00	---	---	---	---	0.120	0.320
4.50	7,290	1513.50	0.00	---	---	---	0.00	---	---	---	---	0.135	0.360
5.00	8,100	1514.00	0.00	---	---	---	0.00	---	---	---	---	0.150	0.400

Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v11

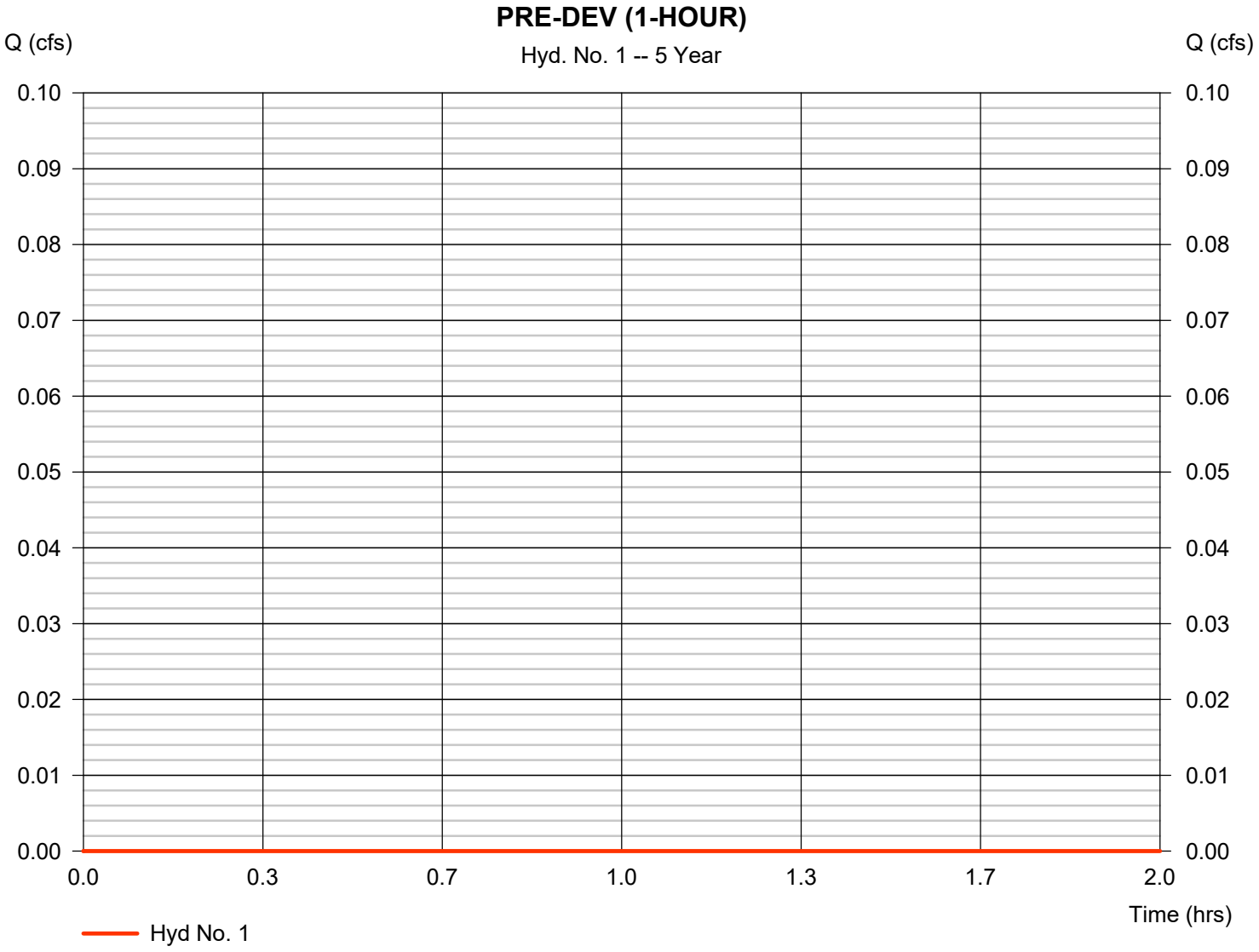
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.000	2	n/a	0	------	------	------	PRE-DEV (1-HOUR)
2	SCS Runoff	0.053	2	172	233	------	------	------	PRE-DEV (3-HOUR)
3	SCS Runoff	0.083	2	196	978	------	------	------	PRE-DEV (6-HOUR)
4	SCS Runoff	0.403	2	618	4,880	------	------	------	PRE-DEV (24-HOUR)
5	SCS Runoff	0.996	2	472	13,774	------	------	------	POST-DEV (24-HOUR)
6	SCS Runoff	1.593	2	144	6,313	------	------	------	POST-DEV (6-HOUR)
7	SCS Runoff	0.745	2	82	3,858	------	------	------	POST-DEV (3-HOUR)
8	SCS Runoff	0.855	2	16	1,565	------	------	------	POST-DEV (1-HOUR)
9	Reservoir	0.147	2	964	13,733	5	1511.95	5,961	HYDROGRAPH

Hydrograph Report

Hyd. No. 1

PRE-DEV (5-YEAR 1-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.000 cfs
Storm frequency	= 5 yrs	Time to peak	= n/a
Time interval	= 2 min	Hyd. volume	= 0 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 29.30 min
Total precip.	= 0.63 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs	Shape factor	= 484

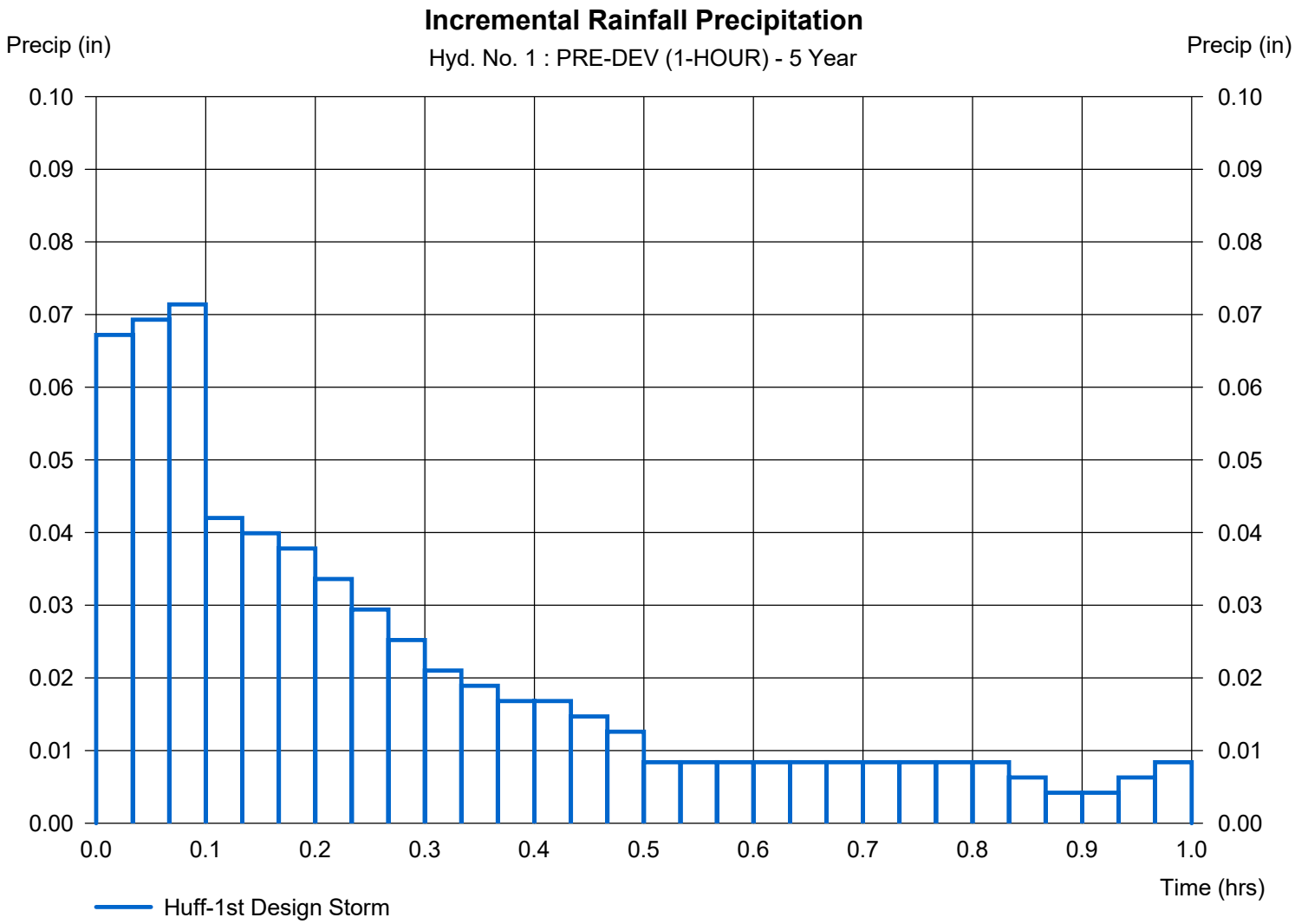


Precipitation Report

Hyd. No. 1

PRE-DEV (1-HOUR)

Storm Frequency	= 5 yrs	Time interval	= 2 min
Total precip.	= 0.6300 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		

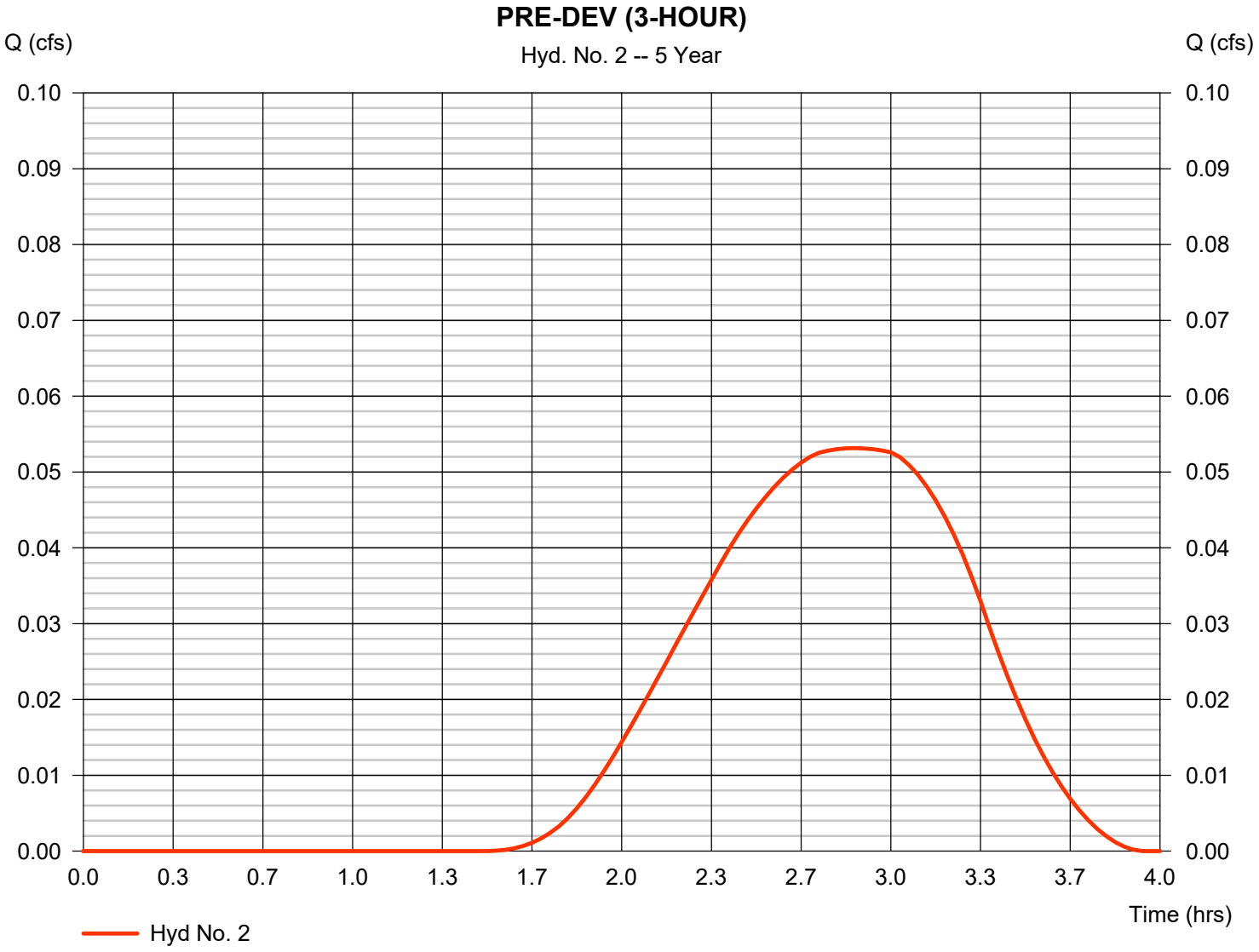


Hydrograph Report

Hyd. No. 2

PRE-DEV (5-YEAR 3-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.053 cfs
Storm frequency	= 5 yrs	Time to peak	= 2.87 hrs
Time interval	= 2 min	Hyd. volume	= 233 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 1.05 in	Distribution	= Huff-Indy
Storm duration	= 3.00 hrs	Shape factor	= 484

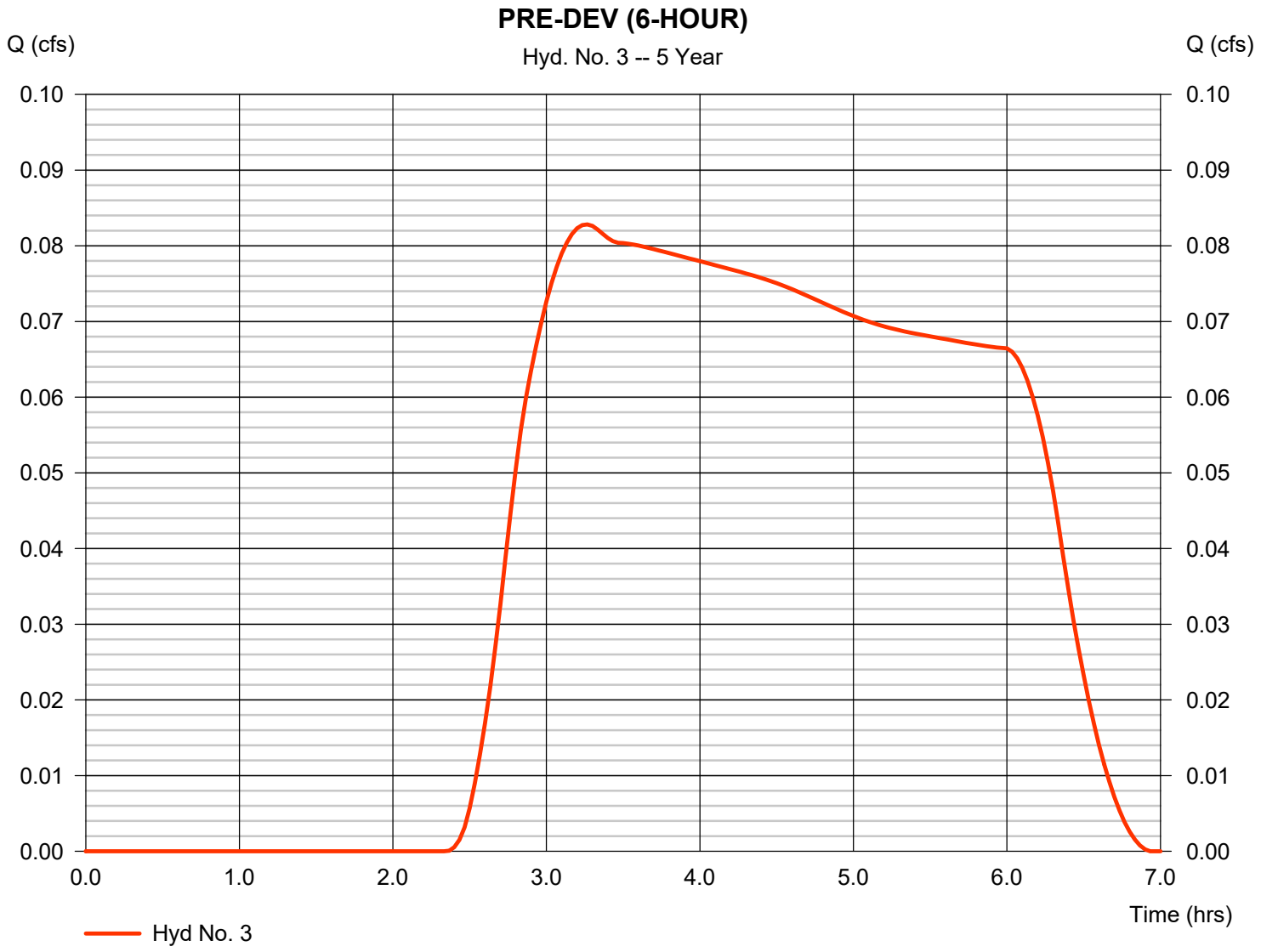


Hydrograph Report

Hyd. No. 3

PRE-DEV (5-YEAR 6-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.083 cfs
Storm frequency	= 5 yrs	Time to peak	= 3.27 hrs
Time interval	= 2 min	Hyd. volume	= 978 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 1.45 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

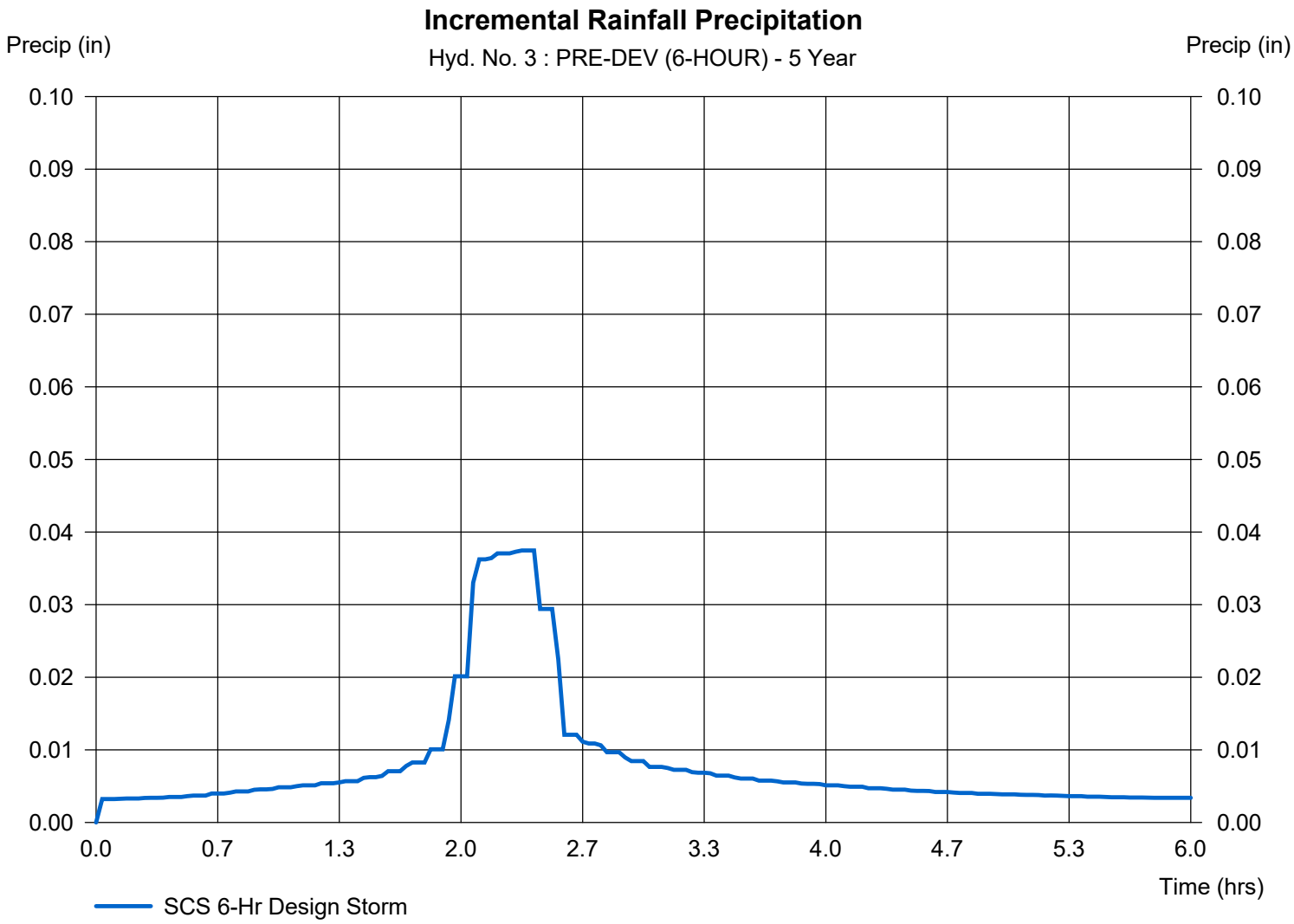


Precipitation Report

Hyd. No. 3

PRE-DEV (6-HOUR)

Storm Frequency	= 5 yrs	Time interval	= 2 min
Total precip.	= 1.4500 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

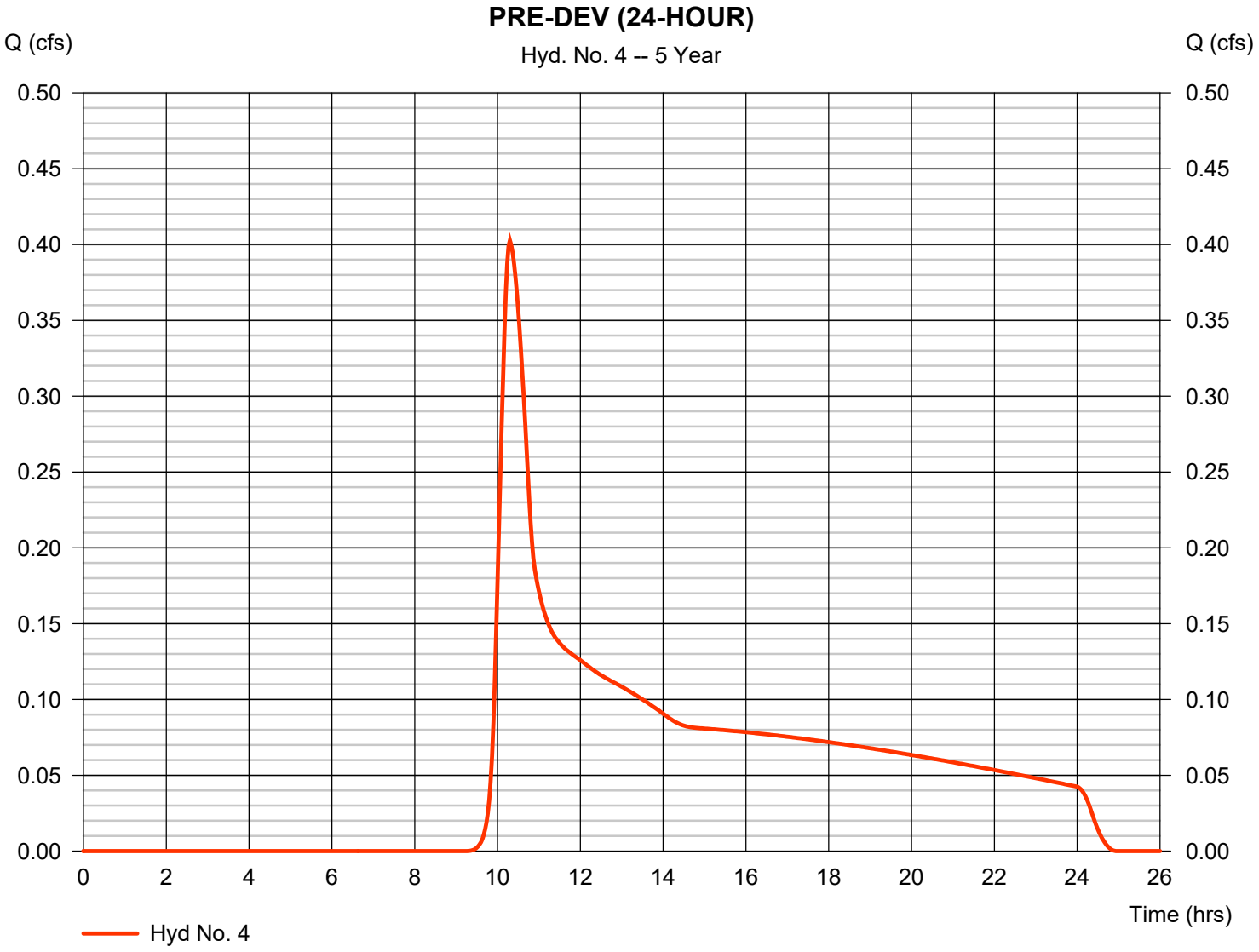


Hydrograph Report

Hyd. No. 4

PRE-DEV (5-YEAR 24-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.403 cfs
Storm frequency	= 5 yrs	Time to peak	= 10.30 hrs
Time interval	= 2 min	Hyd. volume	= 4,880 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 2.58 in	Distribution	= Type I
Storm duration	= 24 hrs	Shape factor	= 484

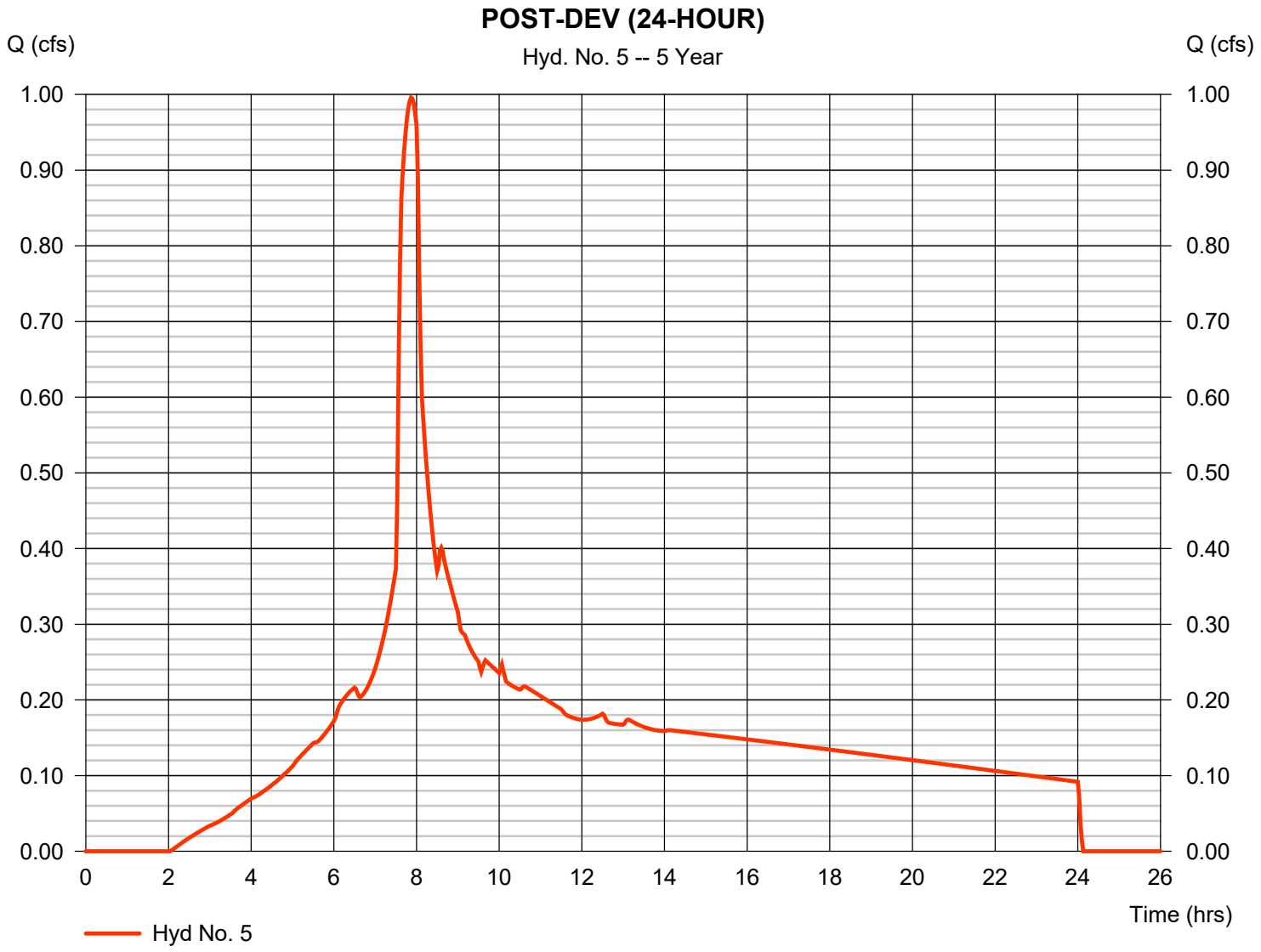


Hydrograph Report

Hyd. No. 5

POST-DEV (5-YEAR 24-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.996 cfs
Storm frequency	= 5 yrs	Time to peak	= 7.87 hrs
Time interval	= 2 min	Hyd. volume	= 13,774 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 2.58 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= 484

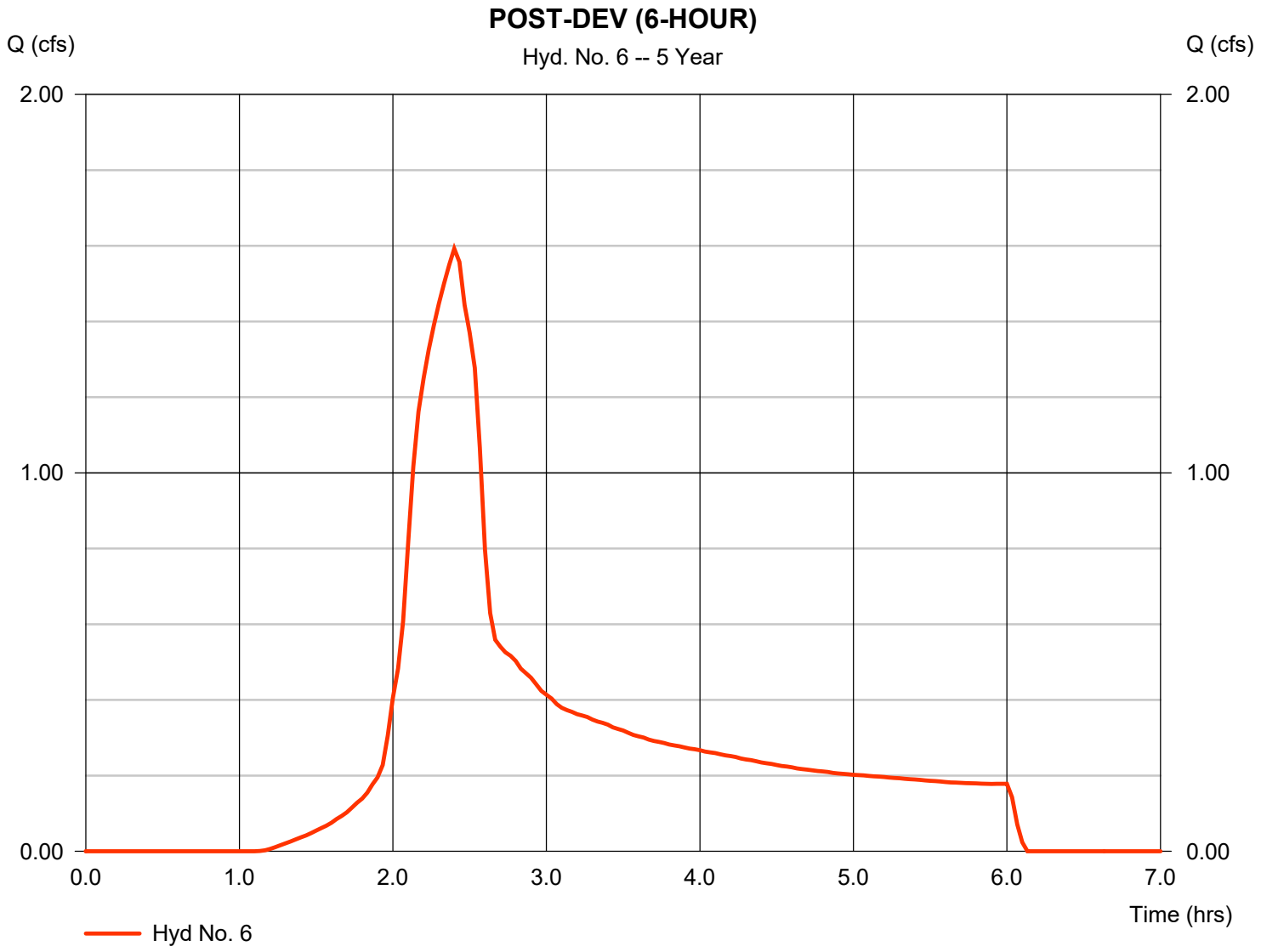


Hydrograph Report

Hyd. No. 6

POST-DEV (5-YEAR 6-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.593 cfs
Storm frequency	= 5 yrs	Time to peak	= 2.40 hrs
Time interval	= 2 min	Hyd. volume	= 6,313 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.45 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

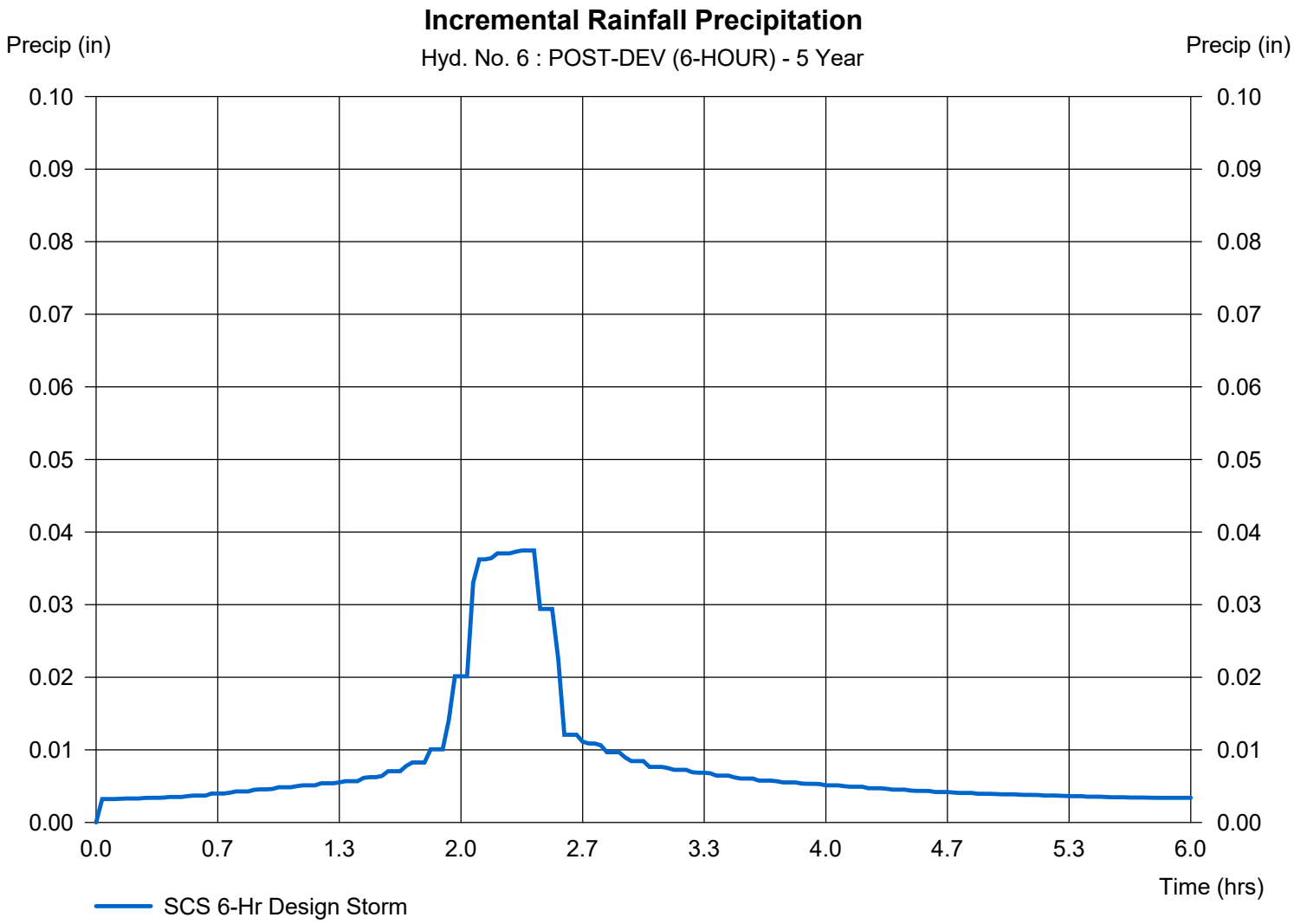


Precipitation Report

Hyd. No. 6

POST-DEV (6-HOUR)

Storm Frequency	= 5 yrs	Time interval	= 2 min
Total precip.	= 1.4500 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

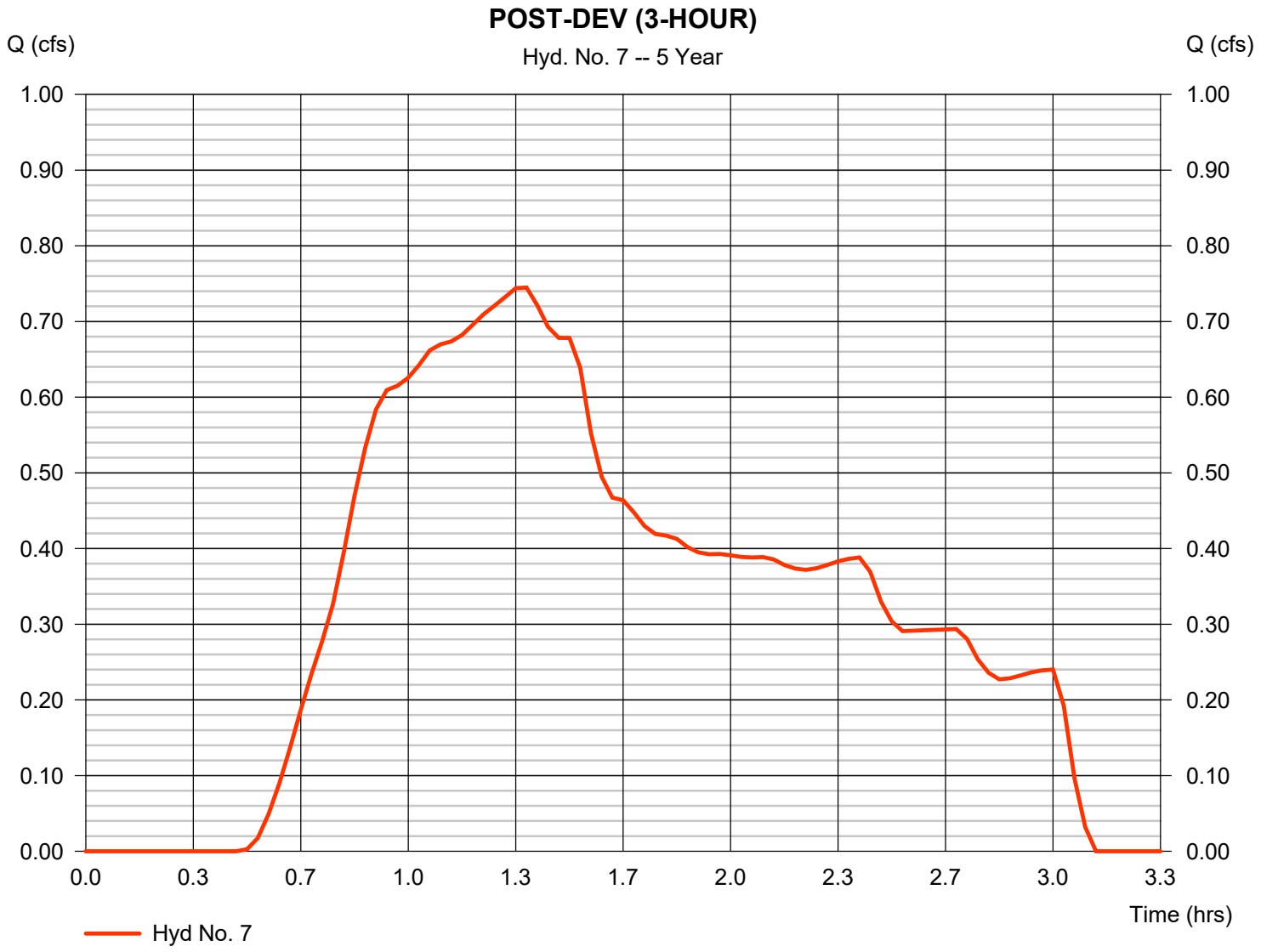


Hydrograph Report

Hyd. No. 7

POST-DEV (5-YEAR 3-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.745 cfs
Storm frequency	= 5 yrs	Time to peak	= 1.37 hrs
Time interval	= 2 min	Hyd. volume	= 3,858 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.05 in	Distribution	= Huff-Indy
Storm duration	= 3.00 hrs	Shape factor	= 484

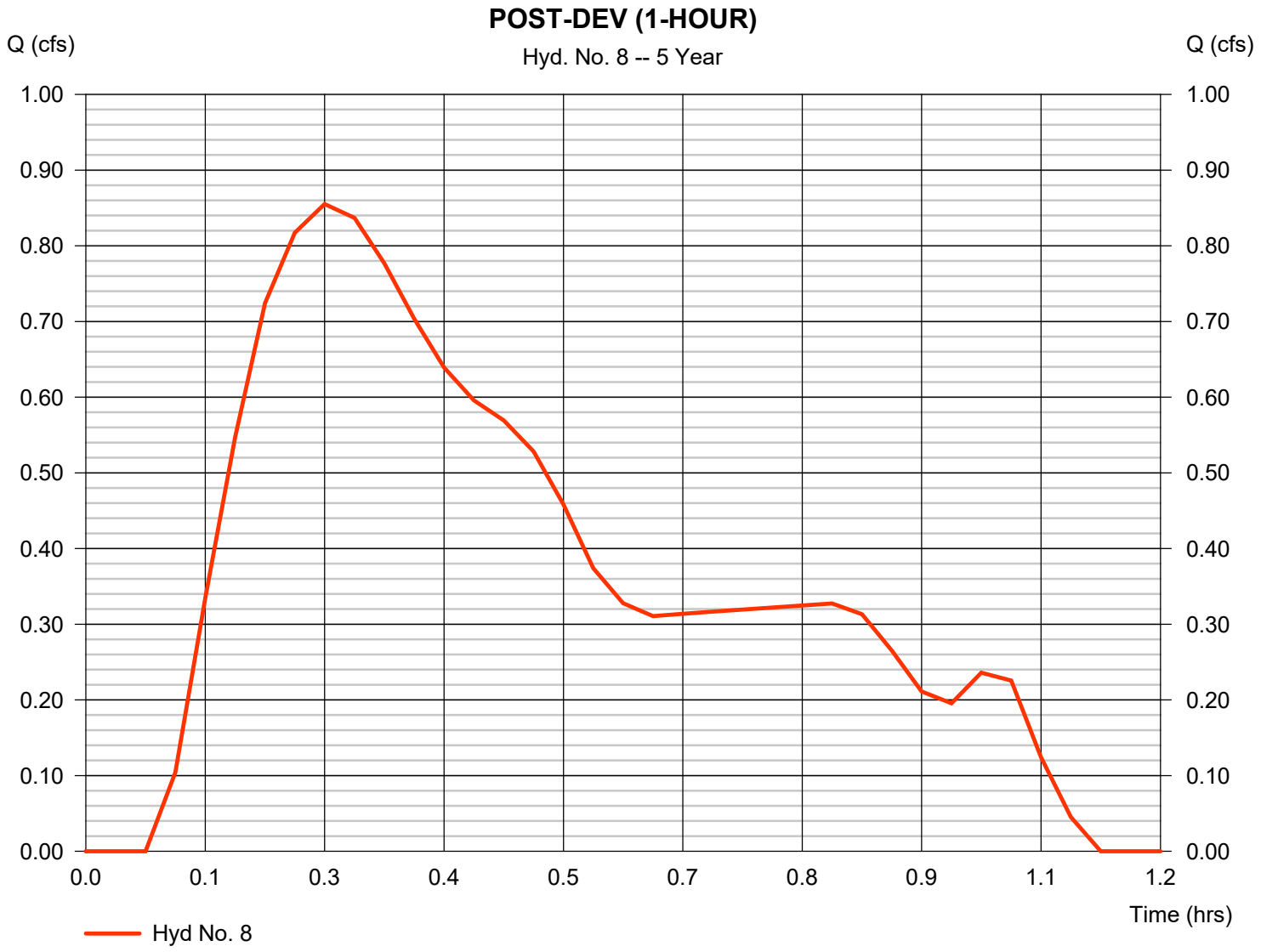


Hydrograph Report

Hyd. No. 8

POST-DEV (5-YEAR 1-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.855 cfs
Storm frequency	= 5 yrs	Time to peak	= 0.27 hrs
Time interval	= 2 min	Hyd. volume	= 1,565 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 0.63 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs	Shape factor	= 484

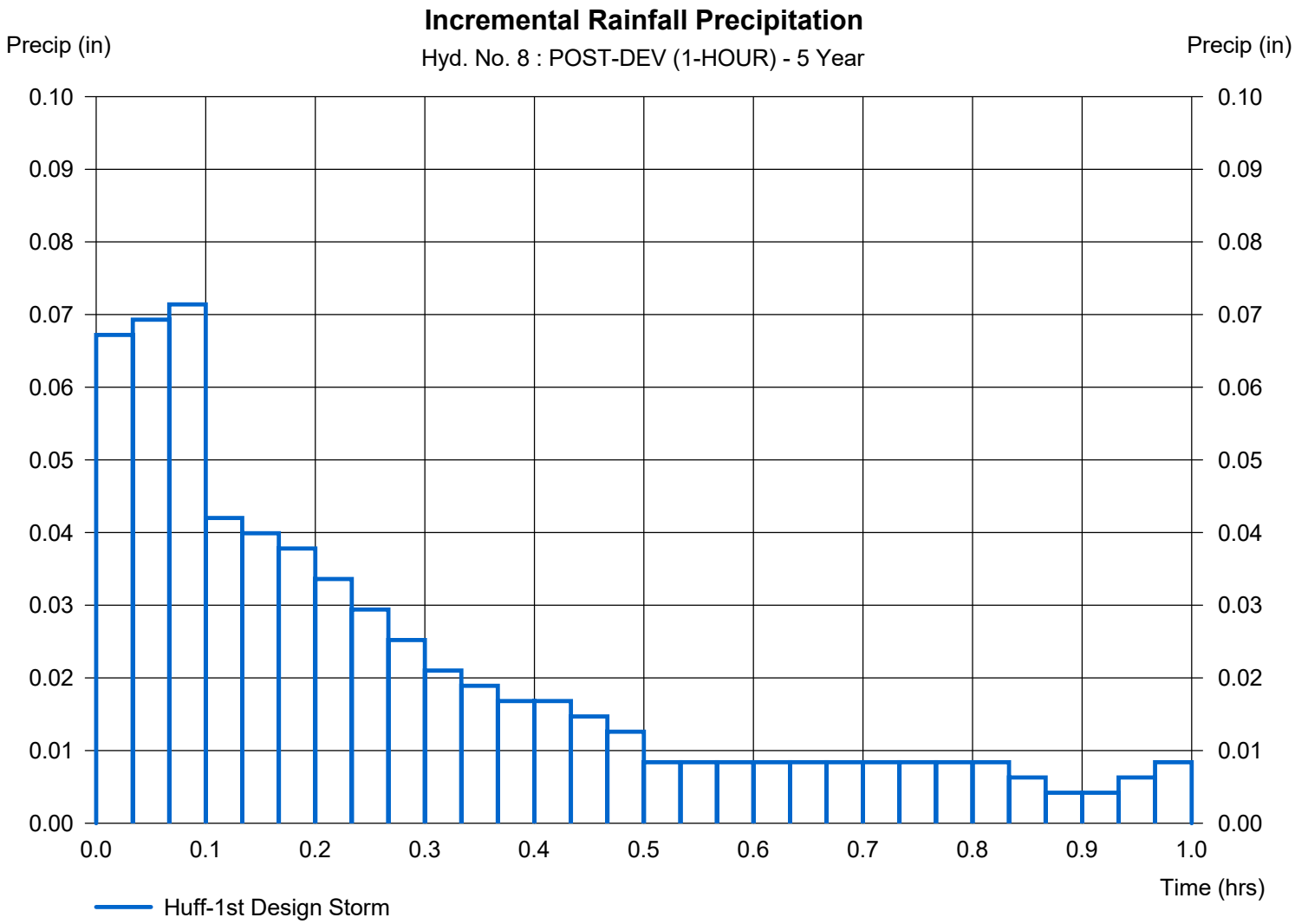


Precipitation Report

Hyd. No. 8

POST-DEV (1-HOUR)

Storm Frequency	= 5 yrs	Time interval	= 2 min
Total precip.	= 0.6300 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		



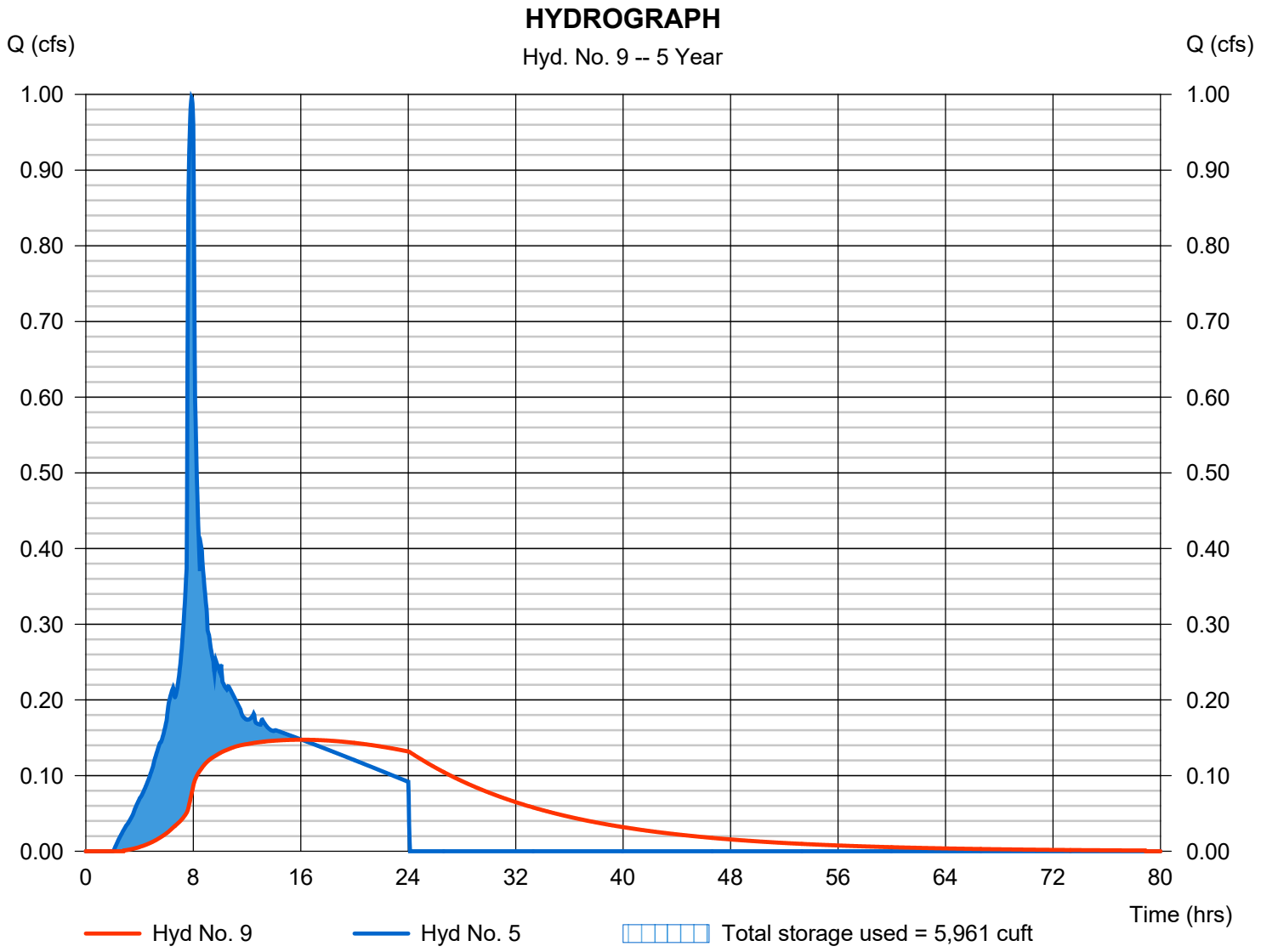
Hydrograph Report

Hyd. No. 9

HYDROGRAPH

Hydrograph type	=	Reservoir	Peak discharge	=	0.147 cfs
Storm frequency	=	5 yrs	Time to peak	=	16.07 hrs
Time interval	=	2 min	Hyd. volume	=	13,733 cuft
Inflow hyd. No.	=	5 - POST-DEV (24-HOUR)	Max. Elevation	=	1511.95 ft
Reservoir name	=	UG CHAMBER + BIORETENTION	Max. Storage	=	5,961 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v11

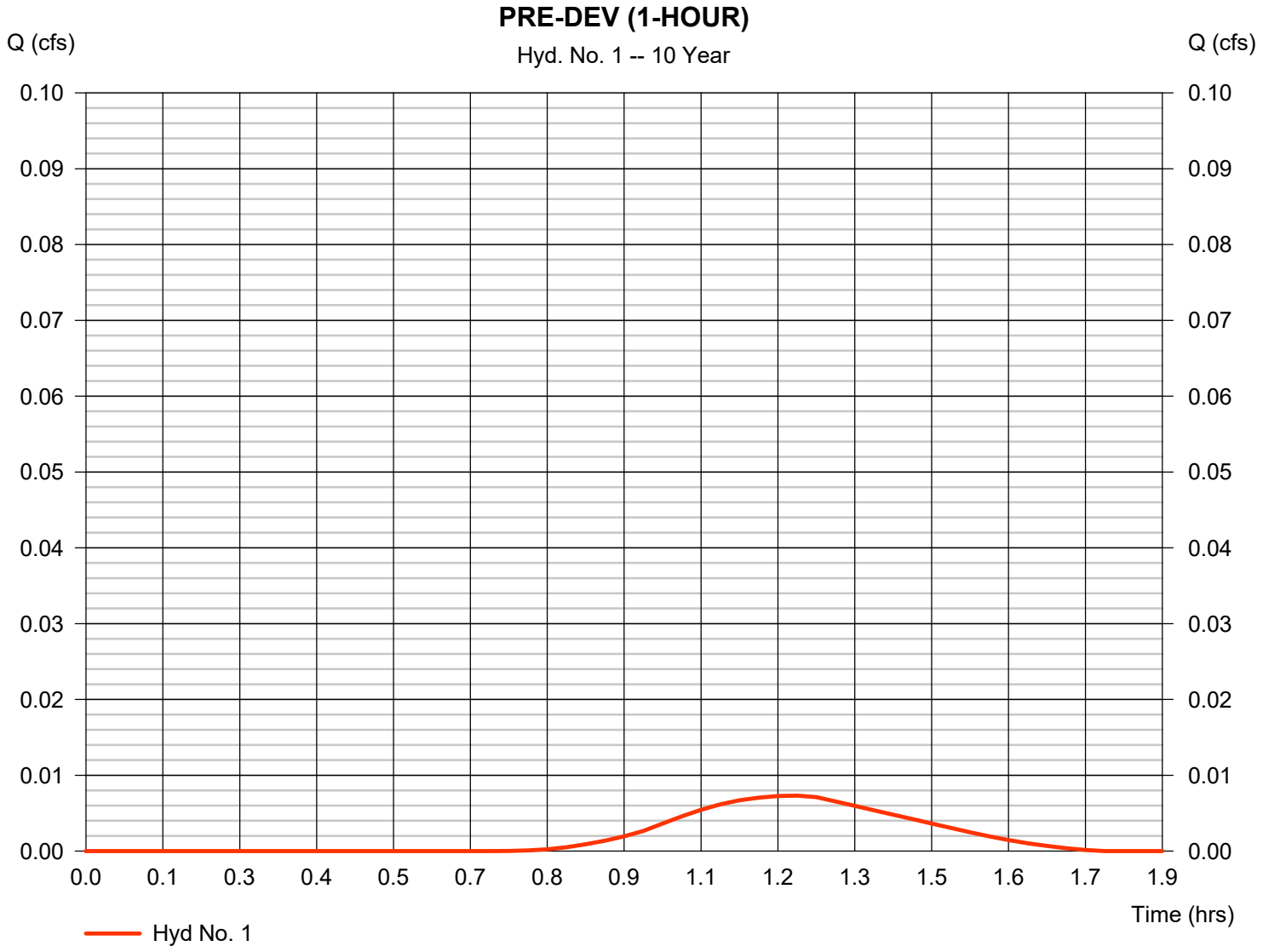
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.007	2	74	13	------	------	------	PRE-DEV (1-HOUR)
2	SCS Runoff	0.108	2	162	569	------	------	------	PRE-DEV (3-HOUR)
3	SCS Runoff	0.178	2	182	1,735	------	------	------	PRE-DEV (6-HOUR)
4	SCS Runoff	0.689	2	616	7,258	------	------	------	PRE-DEV (24-HOUR)
5	SCS Runoff	1.256	2	472	17,320	------	------	------	POST-DEV (24-HOUR)
6	SCS Runoff	2.040	2	144	8,111	------	------	------	POST-DEV (6-HOUR)
7	SCS Runoff	0.975	2	80	5,126	------	------	------	POST-DEV (3-HOUR)
8	SCS Runoff	1.298	2	16	2,316	------	------	------	POST-DEV (1-HOUR)
9	Reservoir	0.185	2	926	17,280	5	1512.71	7,498	HYDROGRAPH

Hydrograph Report

Hyd. No. 1

PRE-DEV (10-YEAR 1-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.007 cfs
Storm frequency	= 10 yrs	Time to peak	= 1.23 hrs
Time interval	= 2 min	Hyd. volume	= 13 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 29.30 min
Total precip.	= 0.78 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs	Shape factor	= 484

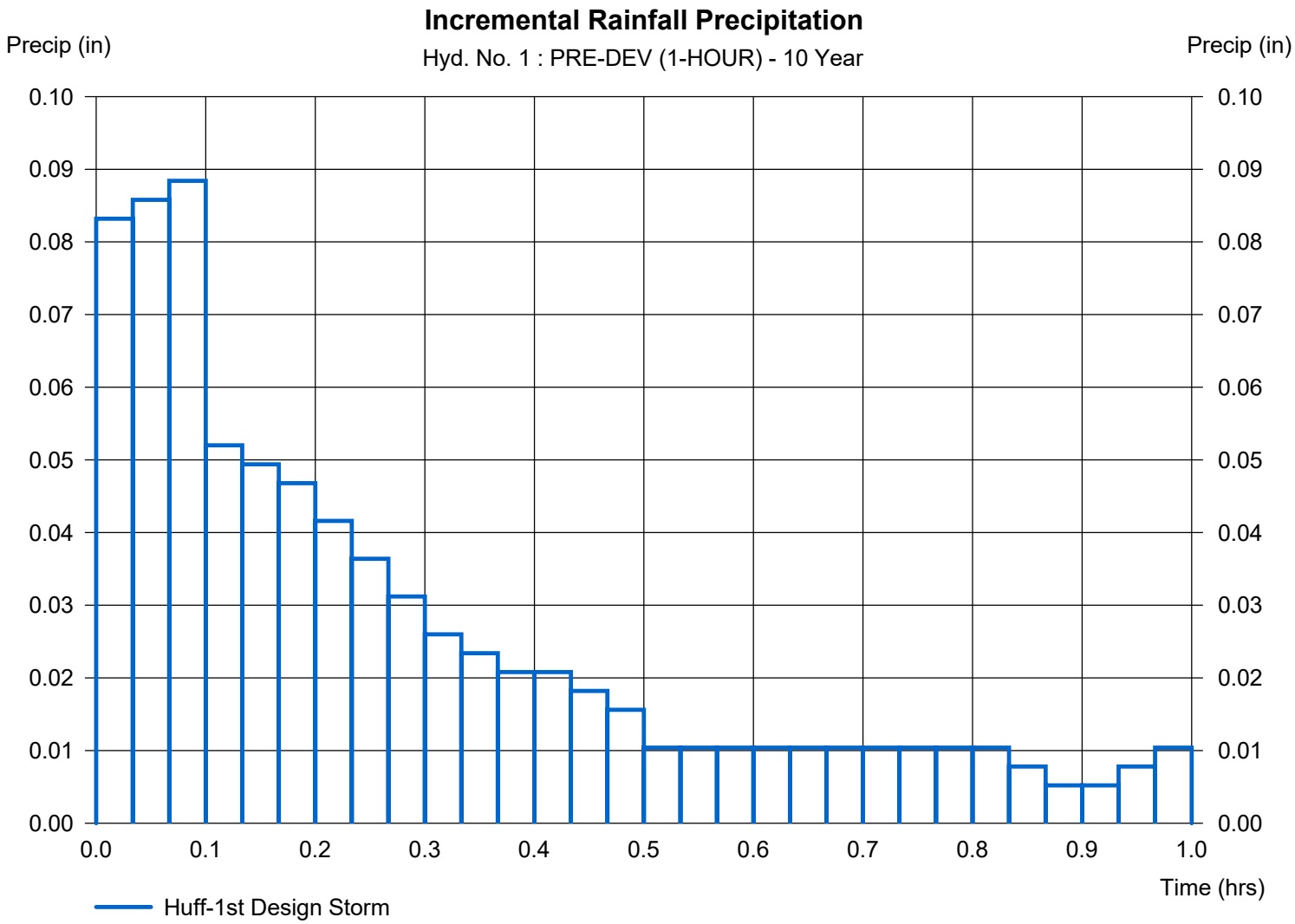


Precipitation Report

Hyd. No. 1

PRE-DEV (1-HOUR)

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 0.7800 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		

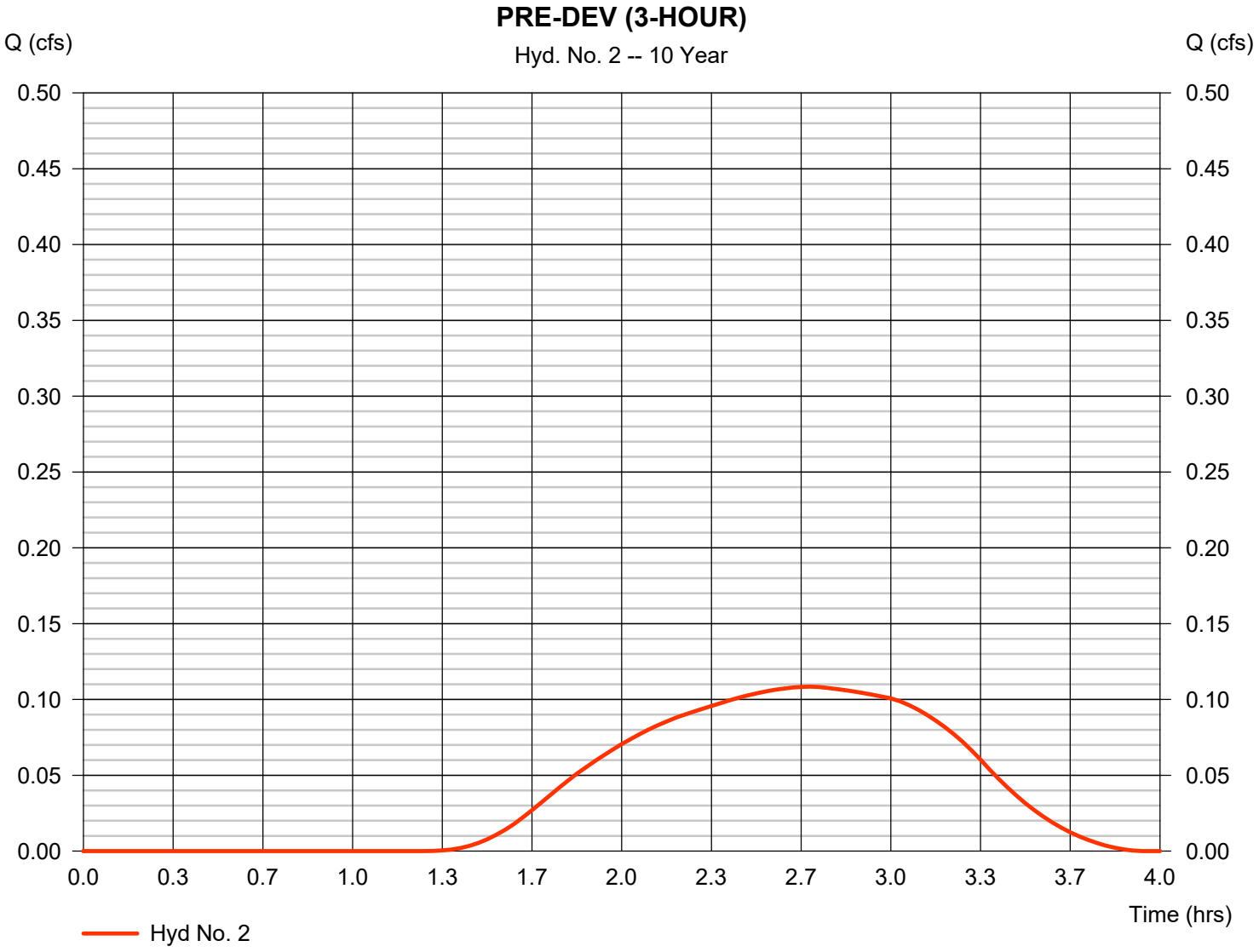


Hydrograph Report

Hyd. No. 2

PRE-DEV (10-YEAR 3-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.108 cfs
Storm frequency	= 10 yrs	Time to peak	= 2.70 hrs
Time interval	= 2 min	Hyd. volume	= 569 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 1.26 in	Distribution	= Huff-Indy
Storm duration	= 3.00 hrs	Shape factor	= 484

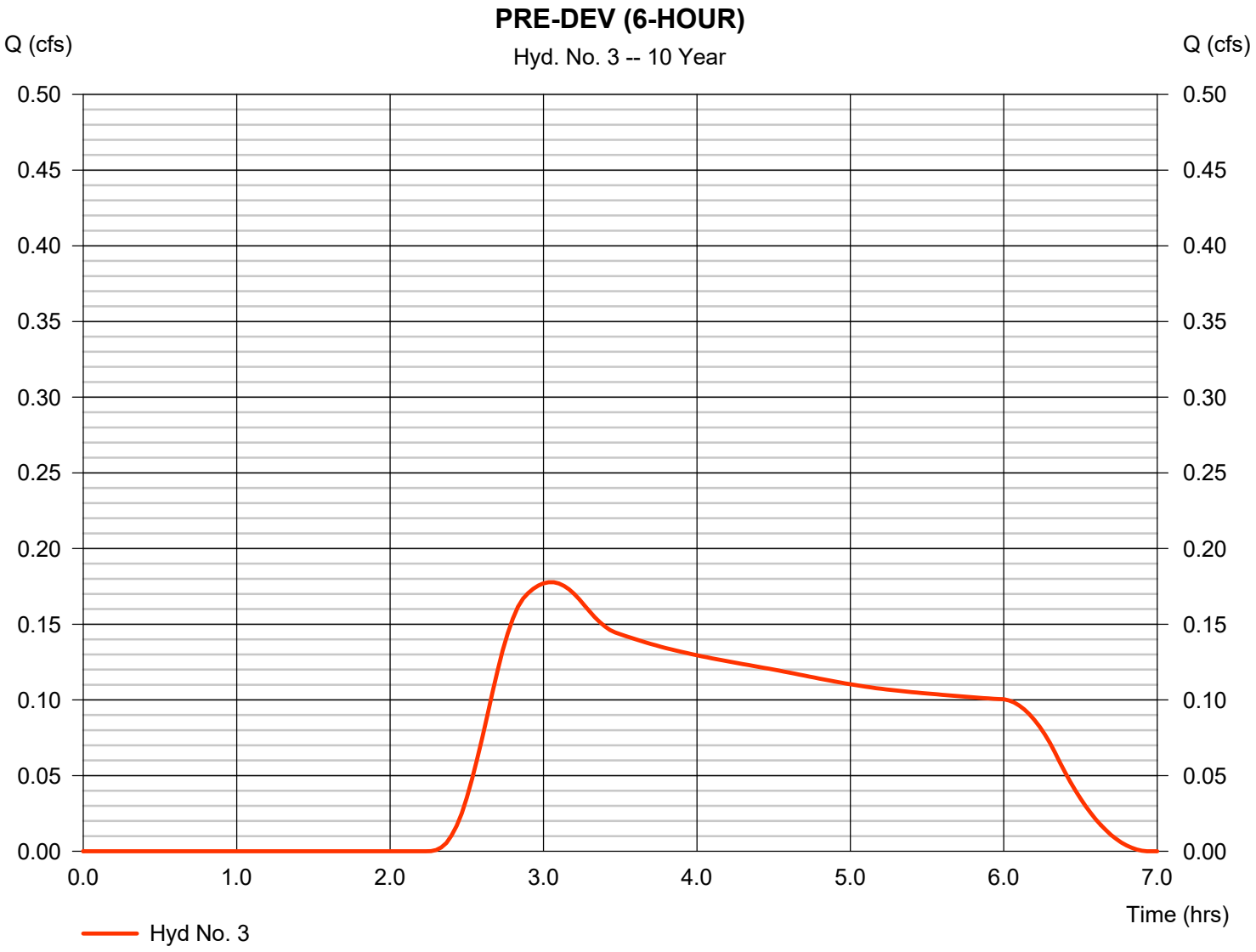


Hydrograph Report

Hyd. No. 3

PRE-DEV (10-YEAR 6-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.178 cfs
Storm frequency	= 10 yrs	Time to peak	= 3.03 hrs
Time interval	= 2 min	Hyd. volume	= 1,735 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 1.73 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

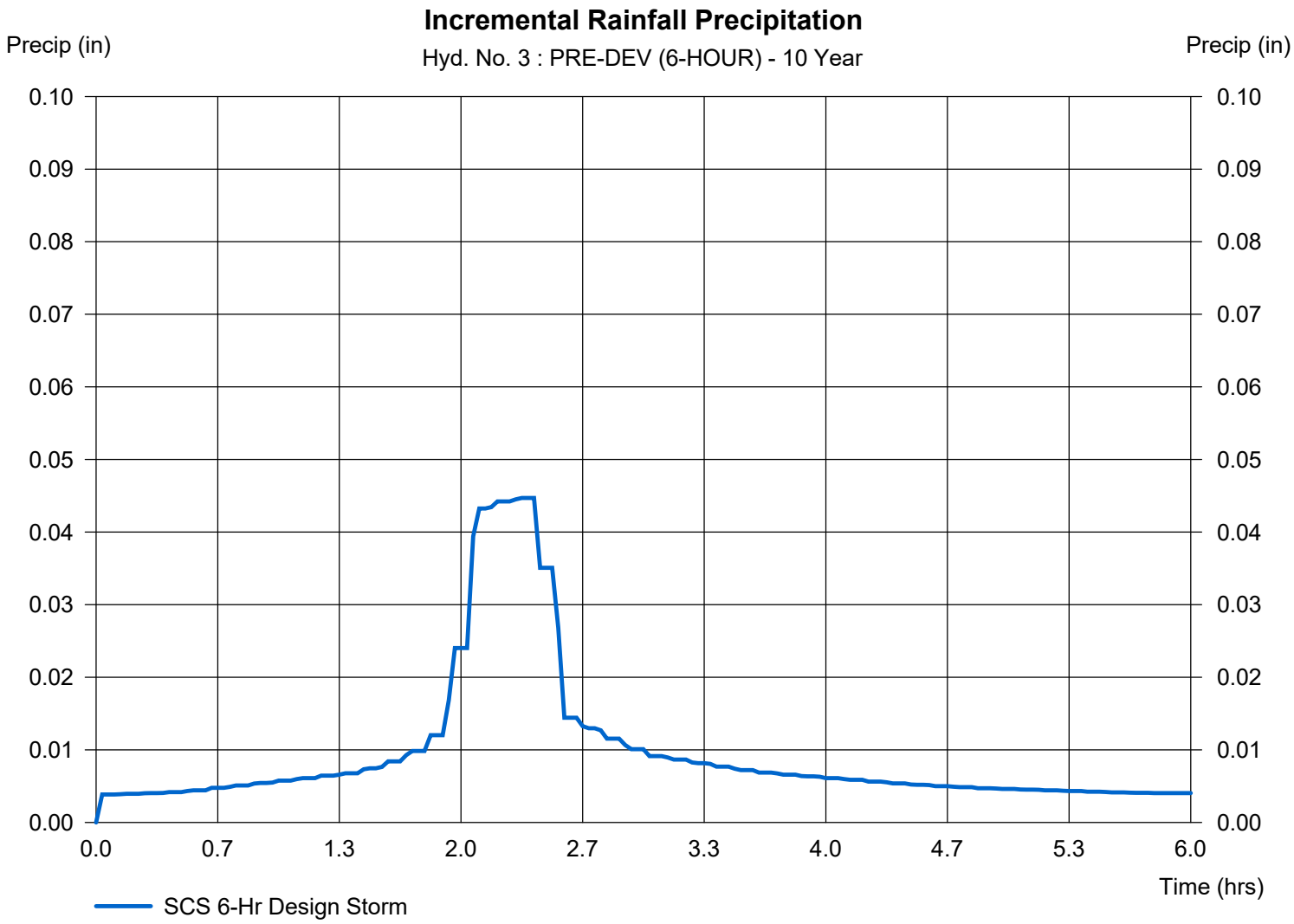


Precipitation Report

Hyd. No. 3

PRE-DEV (6-HOUR)

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 1.7300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

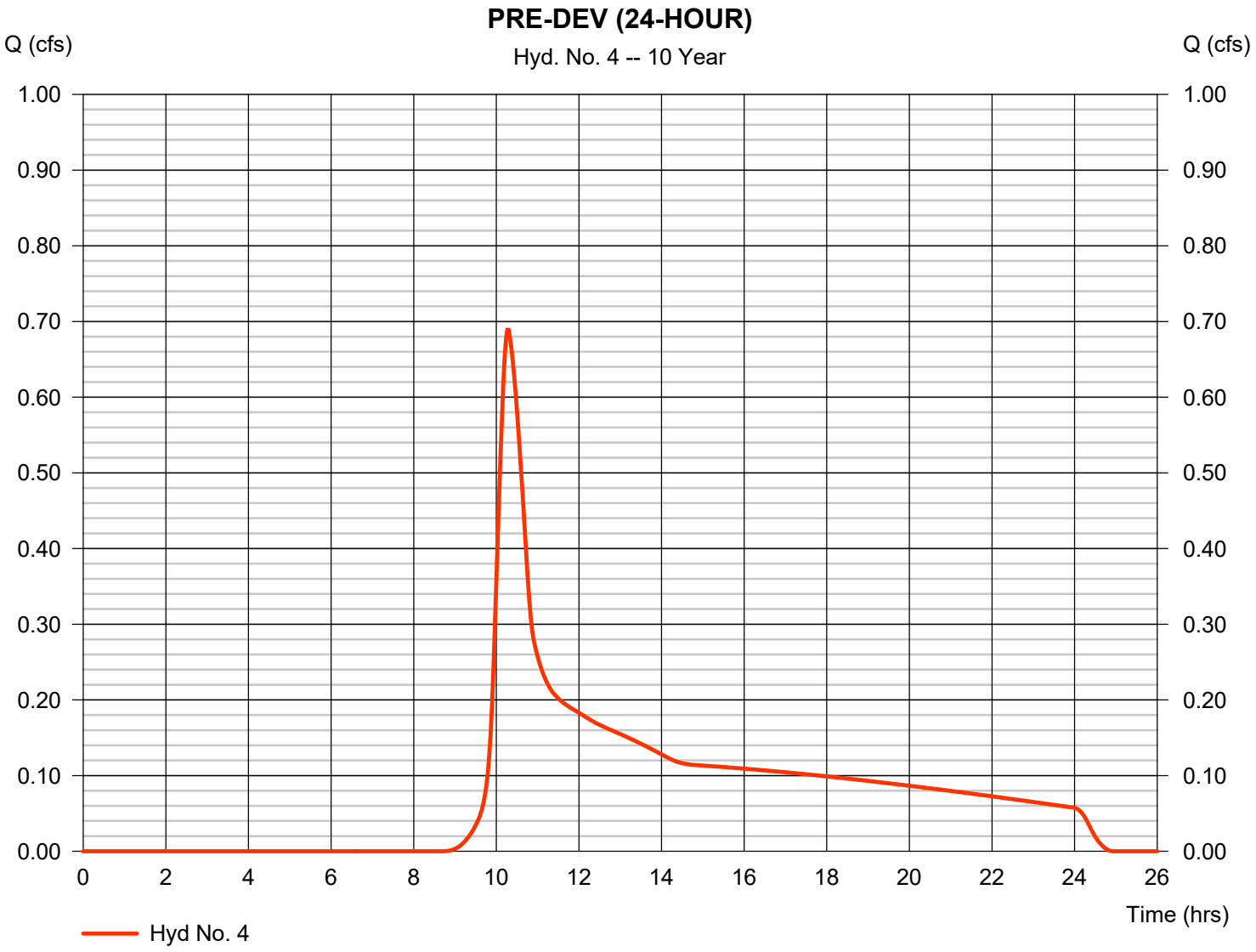


Hydrograph Report

Hyd. No. 4

PRE-DEV (10-YEAR 24-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.689 cfs
Storm frequency	= 10 yrs	Time to peak	= 10.27 hrs
Time interval	= 2 min	Hyd. volume	= 7,258 cuft
Drainage area	= 2.080 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 3.10 in	Distribution	= Type I
Storm duration	= 24 hrs	Shape factor	= 484

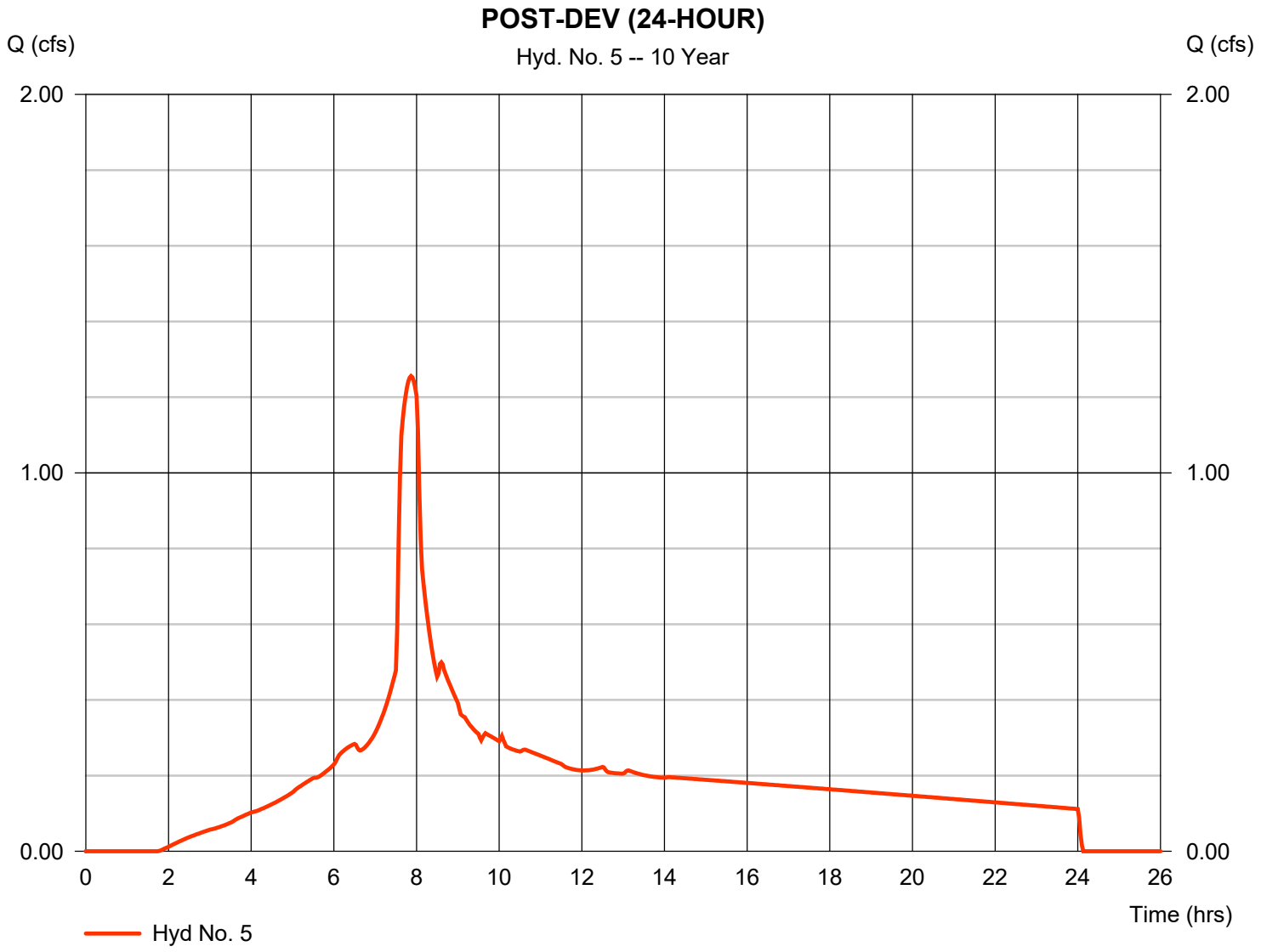


Hydrograph Report

Hyd. No. 5

POST-DEV (10-YEAR 24-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.256 cfs
Storm frequency	= 10 yrs	Time to peak	= 7.87 hrs
Time interval	= 2 min	Hyd. volume	= 17,320 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 3.10 in	Distribution	= Type IA
Storm duration	= 24 hrs	Shape factor	= 484

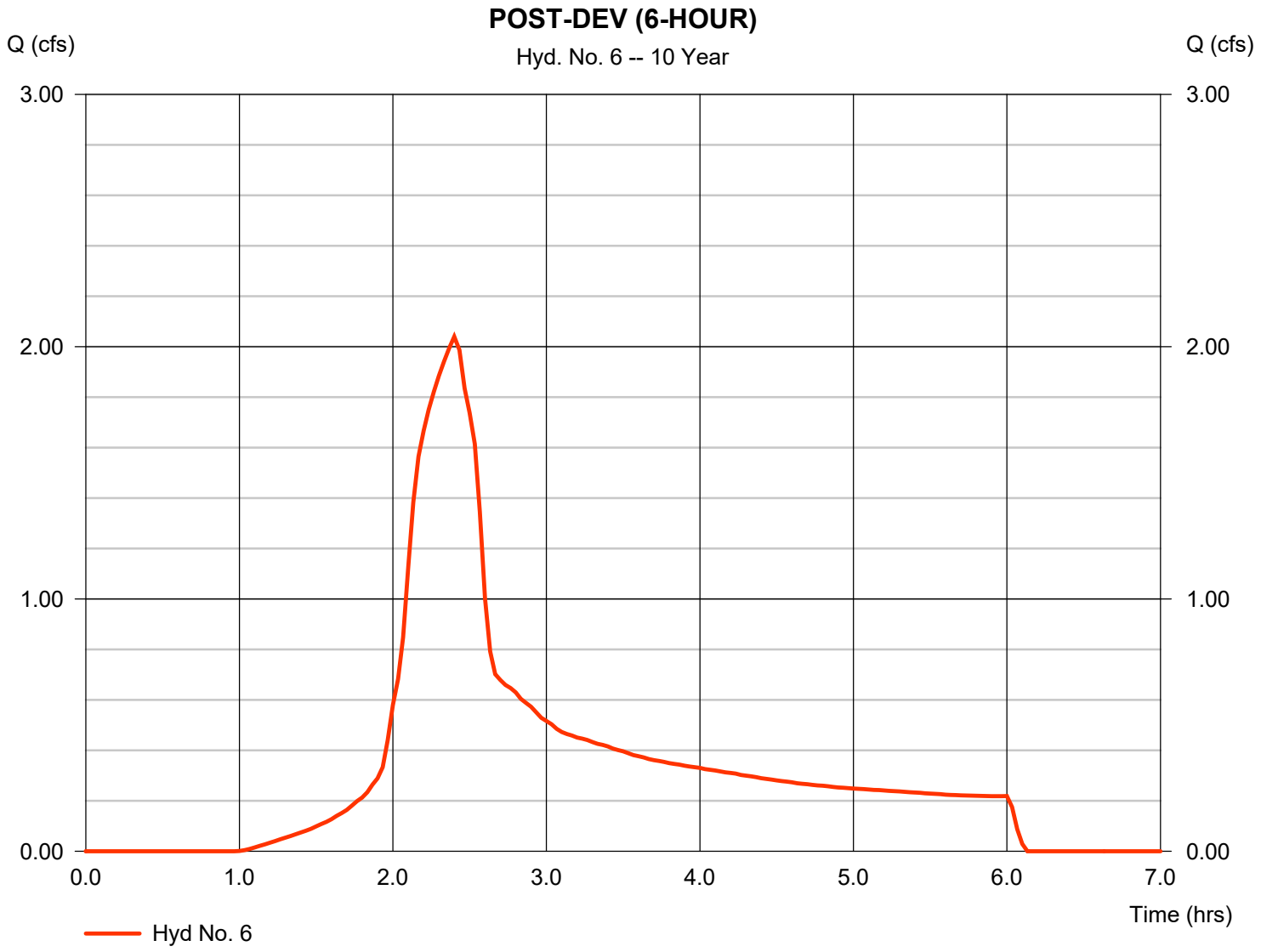


Hydrograph Report

Hyd. No. 6

POST-DEV (10-YEAR 6-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 2.040 cfs
Storm frequency	= 10 yrs	Time to peak	= 2.40 hrs
Time interval	= 2 min	Hyd. volume	= 8,111 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.73 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

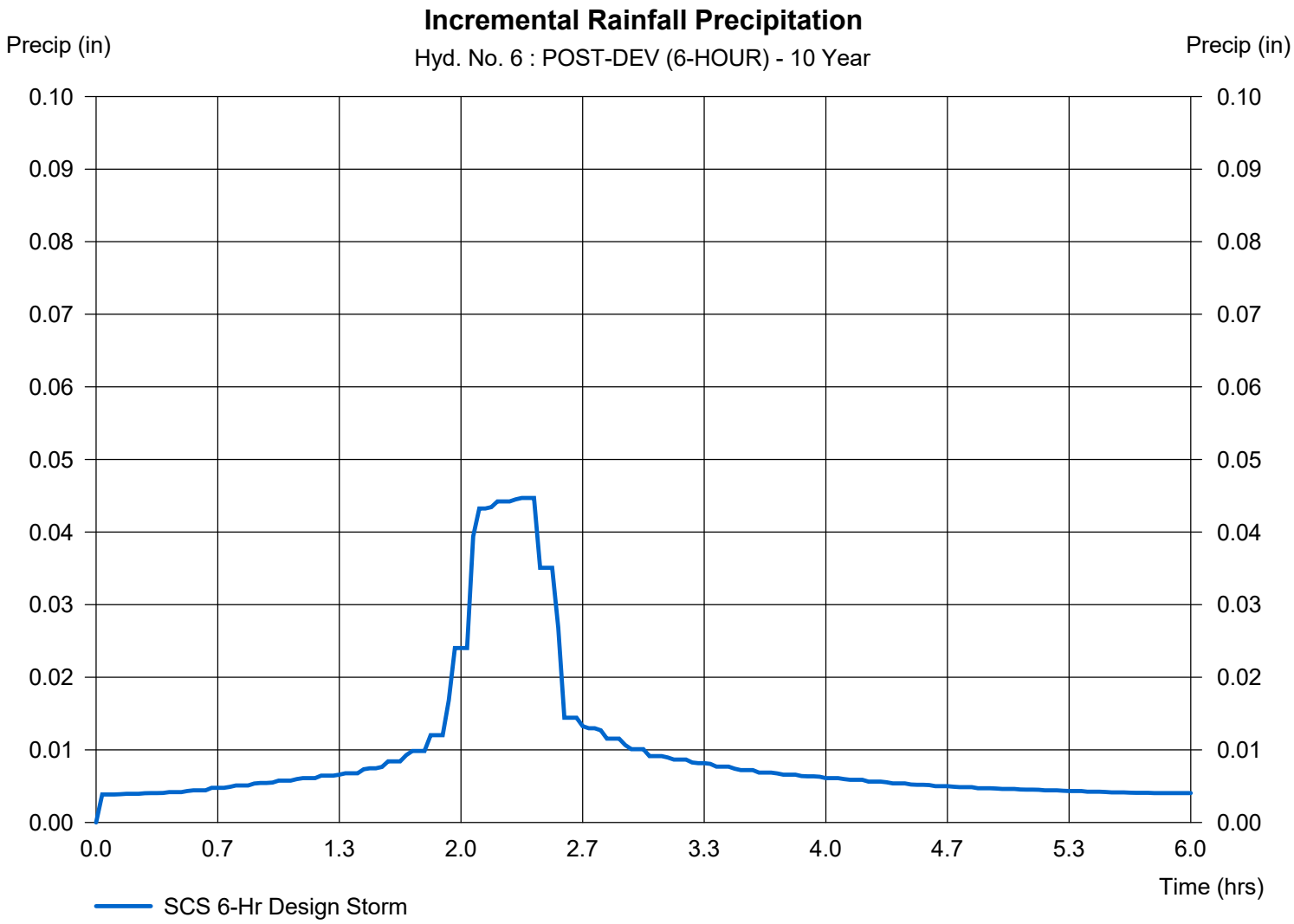


Precipitation Report

Hyd. No. 6

POST-DEV (6-HOUR)

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 1.7300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

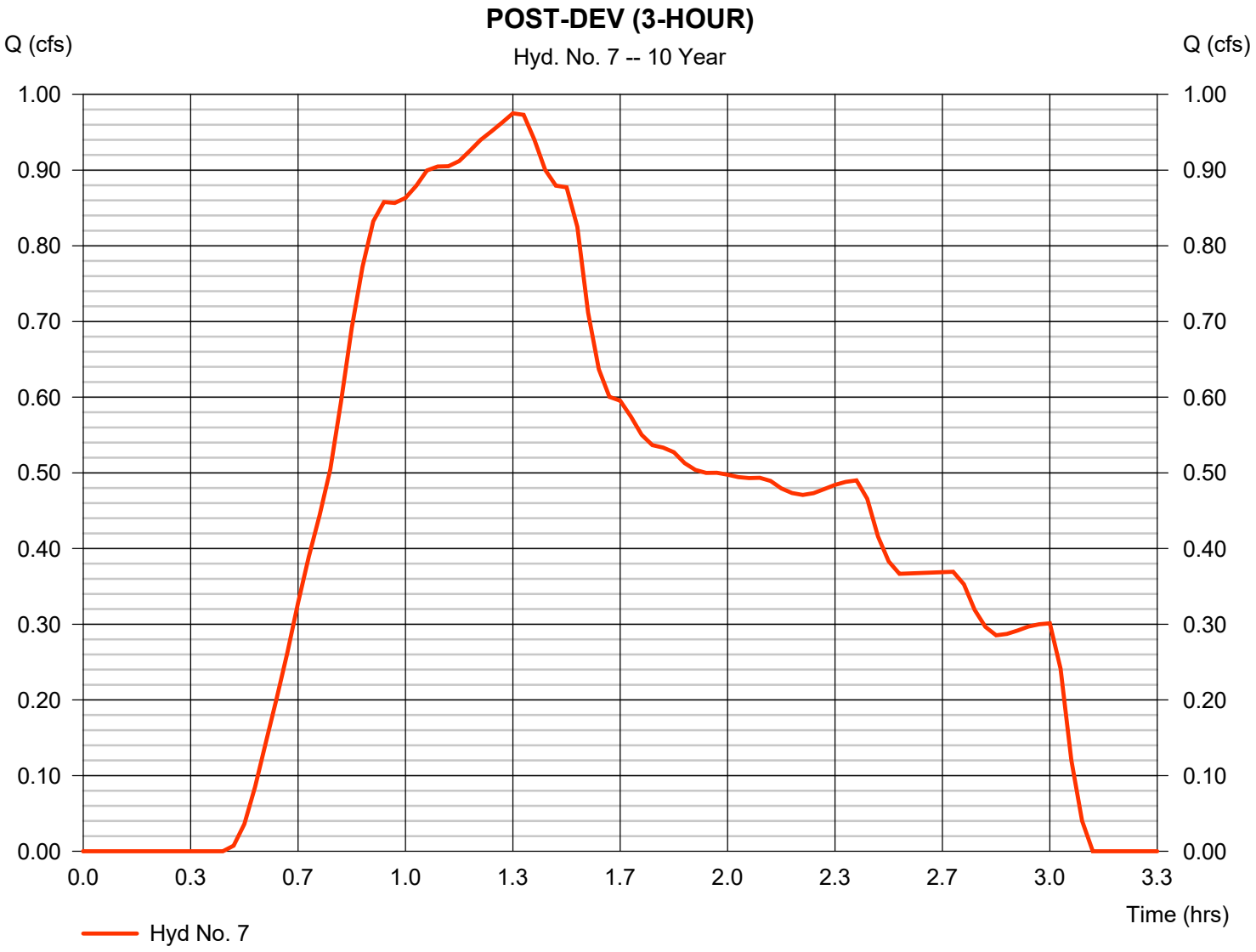


Hydrograph Report

Hyd. No. 7

POST-DEV (10-YEAR 3-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 0.975 cfs
Storm frequency	= 10 yrs	Time to peak	= 1.33 hrs
Time interval	= 2 min	Hyd. volume	= 5,126 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 1.26 in	Distribution	= Huff-Indy
Storm duration	= 3.00 hrs	Shape factor	= 484

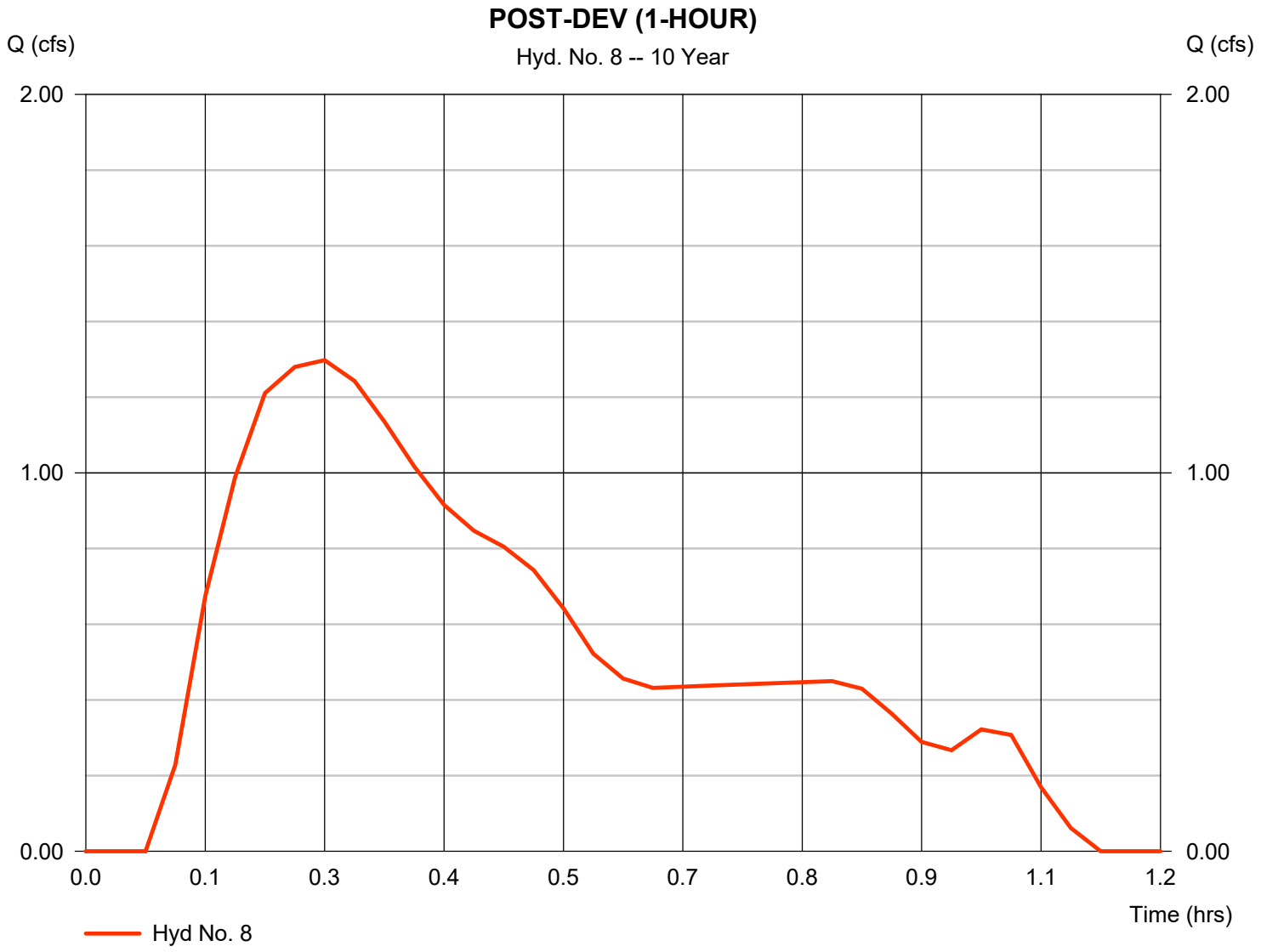


Hydrograph Report

Hyd. No. 8

POST-DEV (10-YEAR 1-HOUR)

Hydrograph type	= SCS Runoff	Peak discharge	= 1.298 cfs
Storm frequency	= 10 yrs	Time to peak	= 0.27 hrs
Time interval	= 2 min	Hyd. volume	= 2,316 cuft
Drainage area	= 2.080 ac	Curve number	= 94
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.50 min
Total precip.	= 0.78 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs	Shape factor	= 484

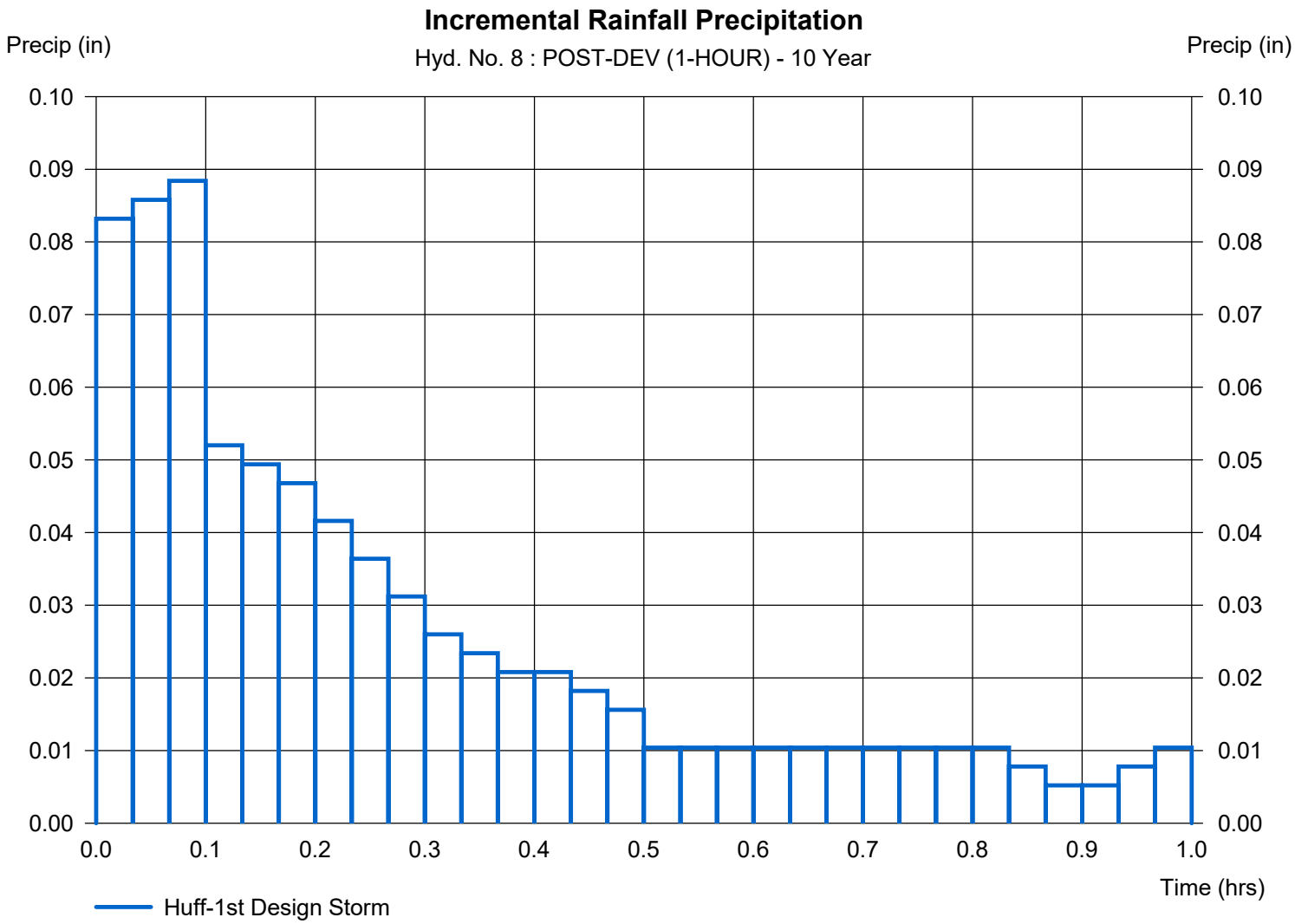


Precipitation Report

Hyd. No. 8

POST-DEV (1-HOUR)

Storm Frequency	= 10 yrs	Time interval	= 2 min
Total precip.	= 0.7800 in	Distribution	= Huff-1st
Storm duration	= 1.00 hrs		



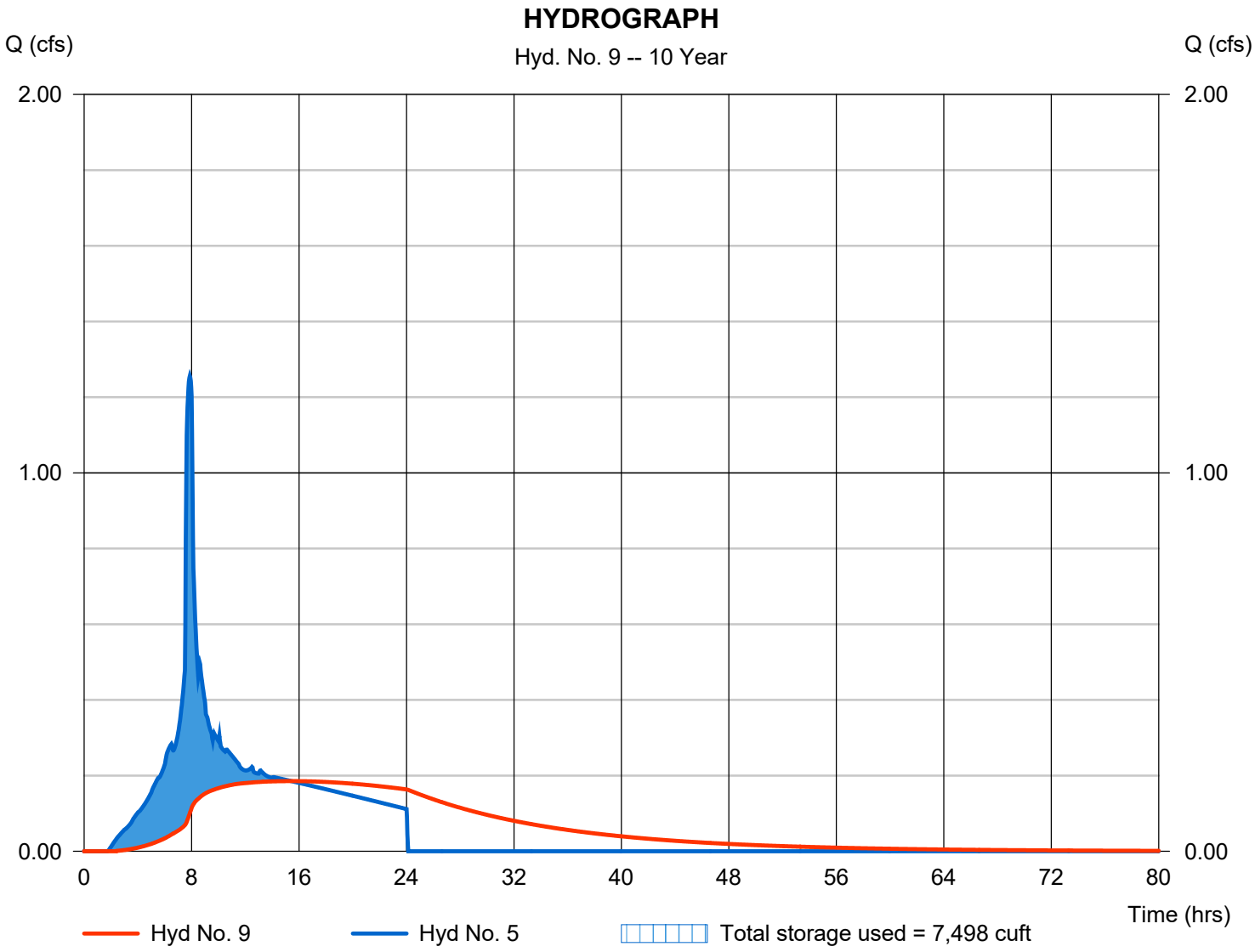
Hydrograph Report

Hyd. No. 9

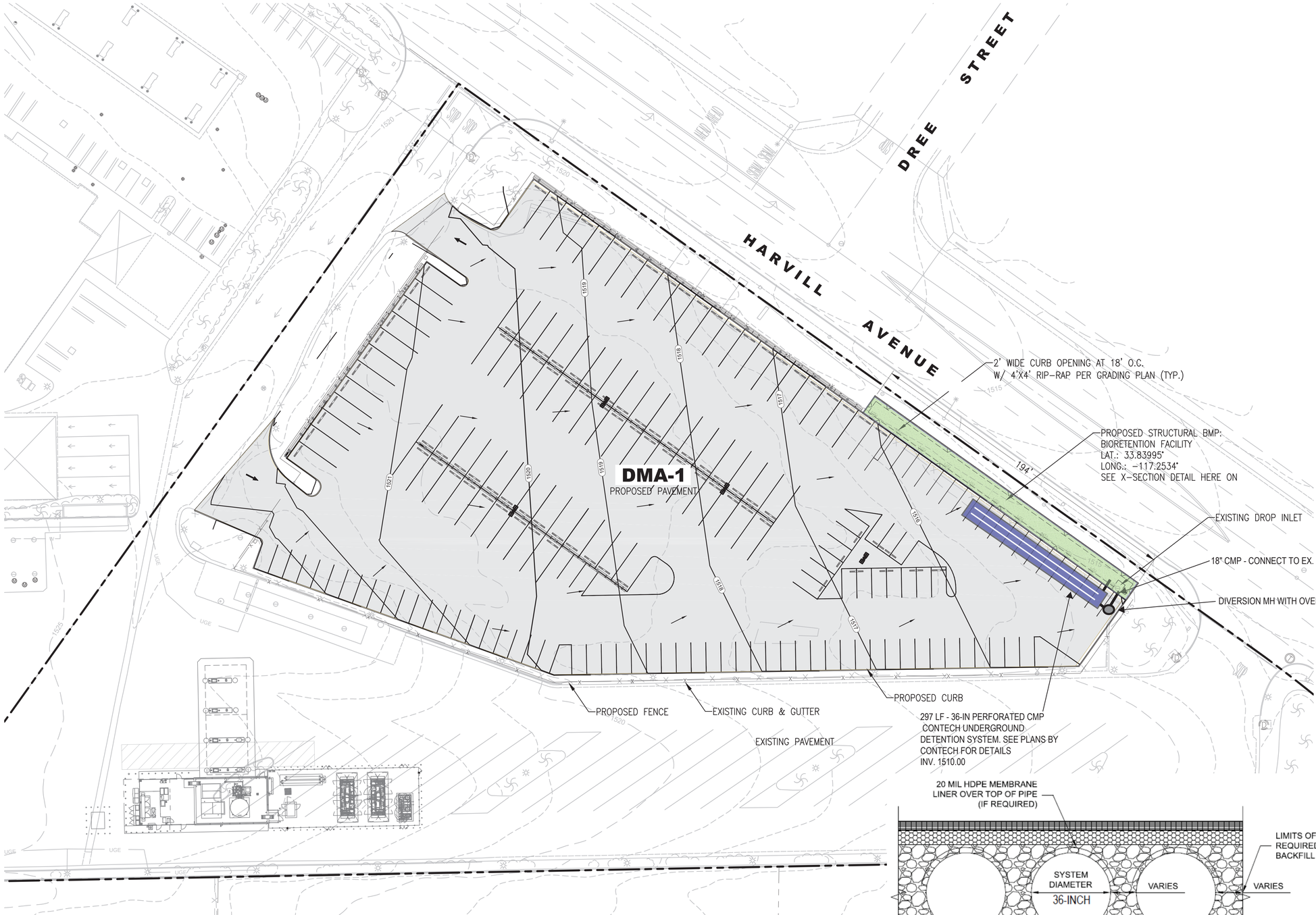
HYDROGRAPH

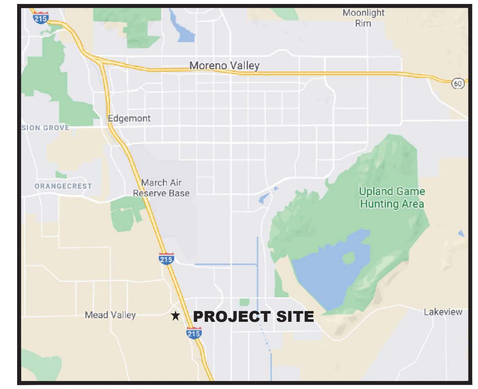
Hydrograph type	= Reservoir	Peak discharge	= 0.185 cfs
Storm frequency	= 10 yrs	Time to peak	= 15.43 hrs
Time interval	= 2 min	Hyd. volume	= 17,280 cuft
Inflow hyd. No.	= 5 - POST-DEV (24-HOUR)	Max. Elevation	= 1512.71 ft
Reservoir name	= UG CHAMBER + BIORETENTION	Max. Storage	= 7,498 cuft

Storage Indication method used.



HYDROLOGY MAPS

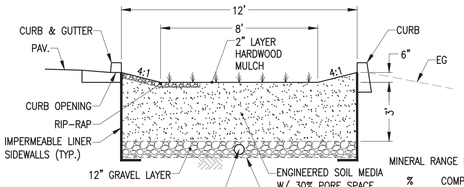




LOCATION MAP
NTS

LEGEND

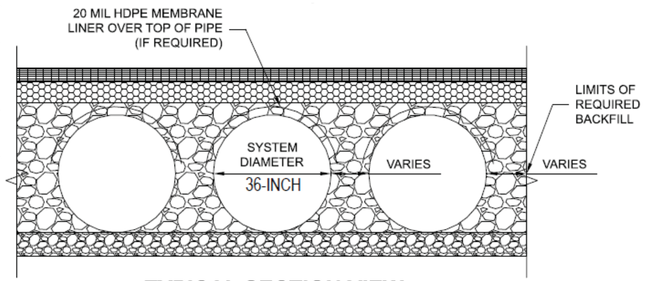
- PROPOSED CURB OR CURB & GUTTER
- STORM DRAIN INLET LOCATION
- DMA-1 PARKING LOT (ASPHALT)
- PROJECT BOUNDARY
- DMA — DRAINAGE MANAGEMENT AREA
- TREE TO REMAIN
- DRAINAGE PATH



MINERAL RANGE REQ:

%	COMPONENT
70–80	SAND
15–20	SILT
5–10	CLAY

BIORETENTION BMP DETAIL
PER RIVERSIDE COUNTY LID BMP HANDBOOK FACT SHEET 3.5



TYPICAL SECTION VIEW
LINER OVER ROWS
SCALE: N.T.S.

GRAPHIC SCALE
100 0 50 100
(IN FEET)
1 inch = 100 ft.

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL:TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREOM. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE

DESIGNER | CITY

SEAL-ENGINEER

PREPARED BY:

BENCHMARK

CITY OF PERRIS

CNG FUELING STATION ARCO TRAVEL ZONE CENTER

DRAINAGE PLAN

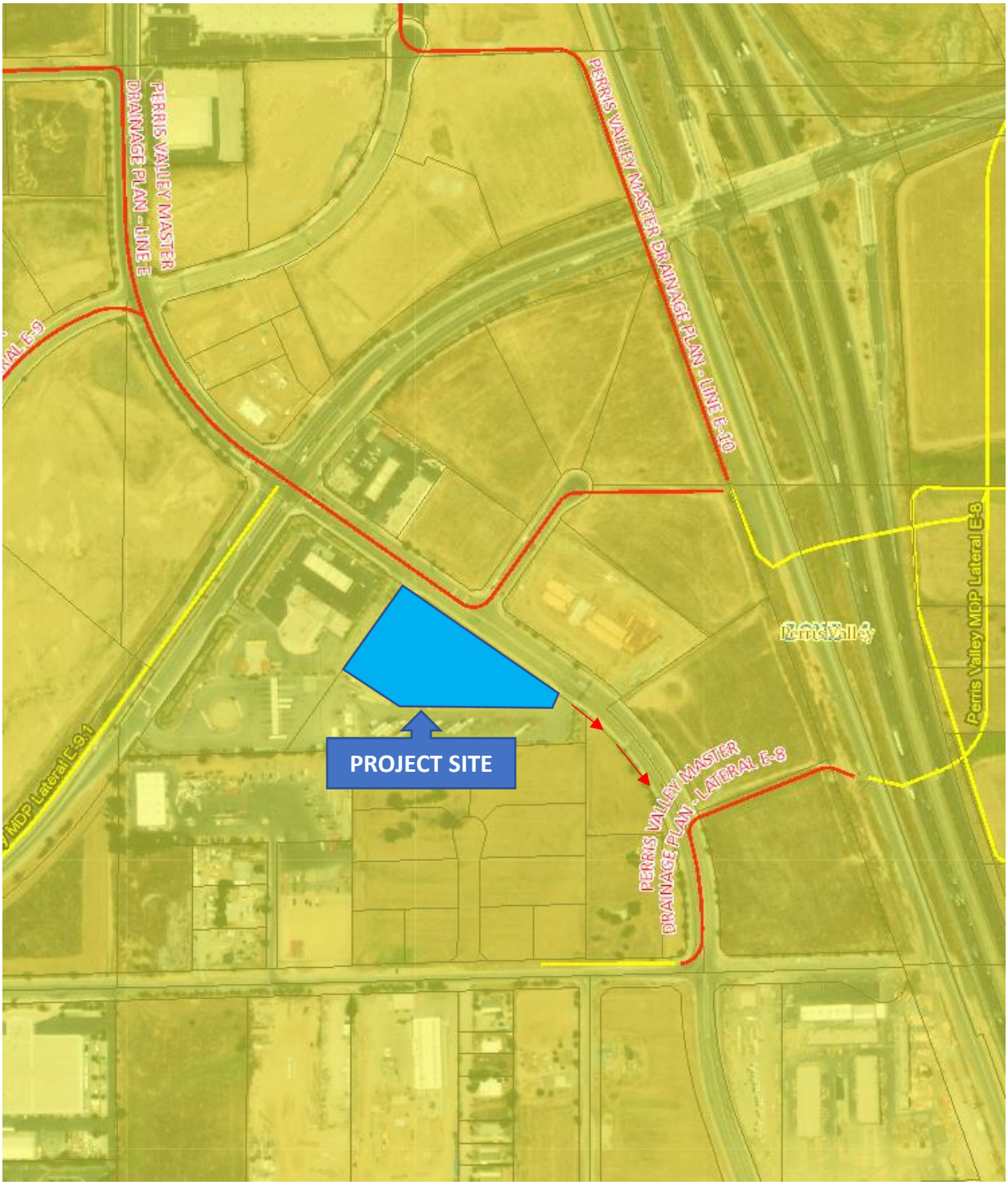
INITIAL DESIGN DATE: 06/05/20

SHEET NO. WQMP-1

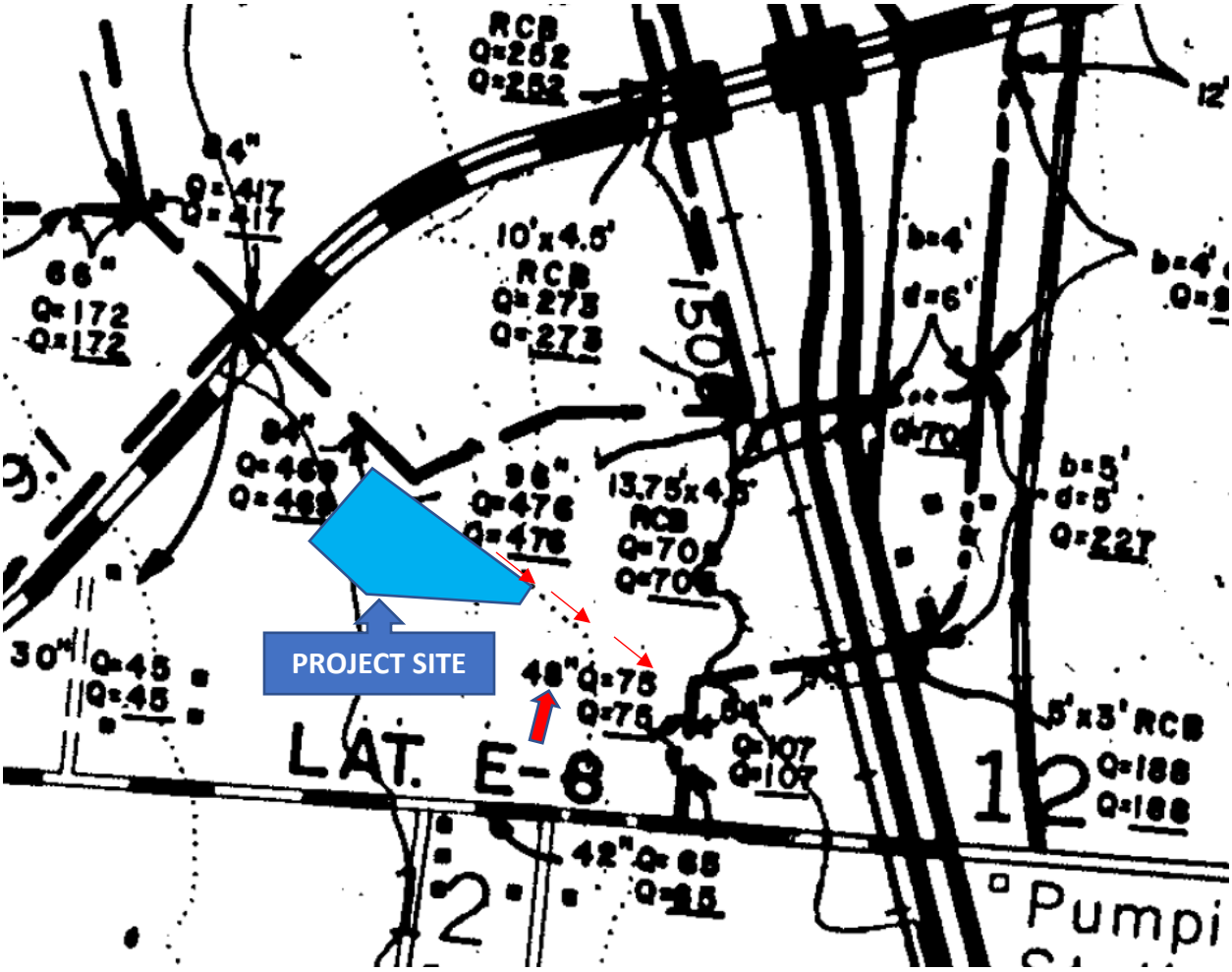
OF 1 SHEET

FOR: | W.O. | CITY FILE NO.

RIVERSIDE COUNTY
PERRIS VALLEY MASTER DRAINAGE PLAN



RIVERSIDE COUNTY
PERRIS VALLEY MASTER DRAINAGE PLAN



LEGEND

—I—I—	MASTER PLAN BOUNDARY
———	EXISTING FACILITY
—··—··—	OPEN CHANNEL -(CONC. TRAPEZOIDAL CHANNEL, SS = 1.5 : 1 ; UNLESS OTHERWISE NOTED)
– – – –	STORM DRAIN (RCP UNLESS OTHERWISE NOTED)
250 or 250	FLOW RATE - IN CUBIC FEET PER SECOND, 250 = DESIGN Q, 250 = 100 YR. Q

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

MASTER DRAINAGE PLAN
FOR THE
PERRIS VALLEY AREA
JULY 1987 (REVISED JUNE 1991)

J. F. DAVIDSON ASSOCIATES
CIVIL ENGINEERS • PLANNERS • SURVEYORS
3426 TENTH STREET • RIVERSIDE, CALIFORNIA 92501 • (714) 686-0844
11200 S. MT. VERNON AVE., SUITE "D" • COLTON, CALIF. 92324 • (714) 825-1082
JFD ASSOCIATES

APPENDIX A – HYDRAULICS

OUTFLOW PIPE CALCULATIONS
(HYDRAFLOW HYDROGRAPHS EXTENSION FOR AUTOCAD)

Channel Report

18-Inch Outflow Pipe

Circular

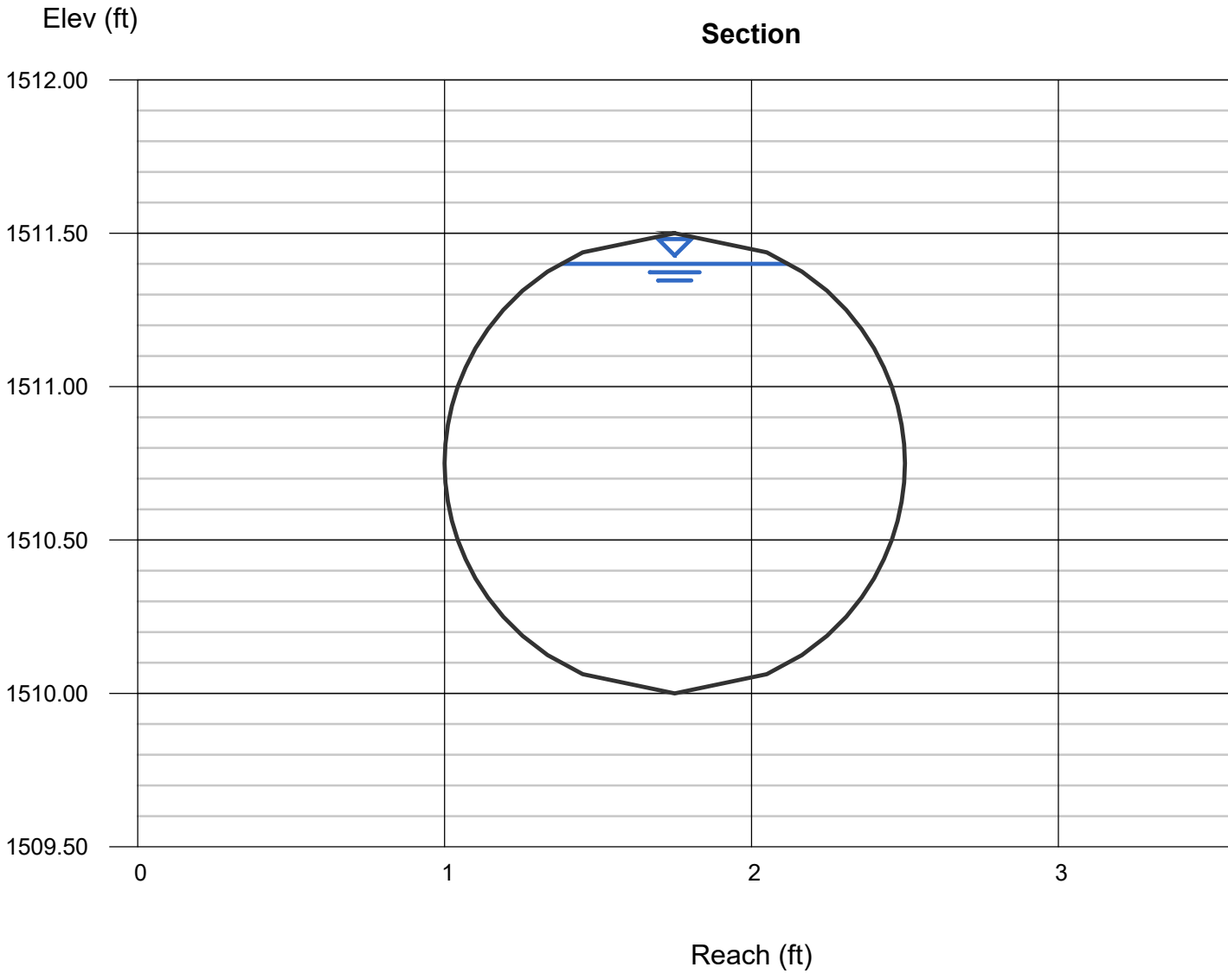
Diameter (ft)	= 1.50
Invert Elev (ft)	= 1510.00
Slope (%)	= 1.00
N-Value	= 0.012

Calculations

Compute by:	Known Depth
Known Depth (ft)	= 1.40

Highlighted

Depth (ft)	= 1.40
Q (cfs)	= 12.24
Area (sqft)	= 1.72
Velocity (ft/s)	= 7.13
Wetted Perim (ft)	= 3.93
Crit Depth, Yc (ft)	= 1.33
Top Width (ft)	= 0.75
EGL (ft)	= 2.19



UNDERGROUND CHAMBERS

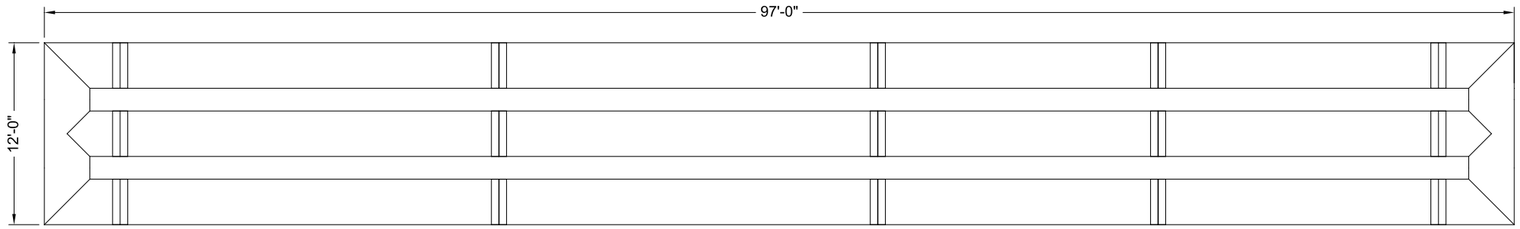
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20 & HS25
- APPROX. LINEAR FOOTAGE = 297 lf.

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 4,000 cf.
- PIPE STORAGE VOLUME = 2,099 cf.
- BACKFILL STORAGE VOLUME = 1,932 cf.
- TOTAL STORAGE PROVIDED = 4,032 cf.

PIPE DETAILS
- DIAMETER = 36 IN.
- CORRUGATION = 2 2/3x1/2
- GAGE = 16
- COATING = ALT2
- WALL TYPE = Perforated
- BARRELL SPACING = 18 IN.

BACKFILL DETAILS
- WIDTH AT ENDS = 12 IN.
- ABOVE PIPE = 12 IN.
- WIDTH AT SIDES = 12 IN.
- BELOW PIPE = 12 IN.



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 10'

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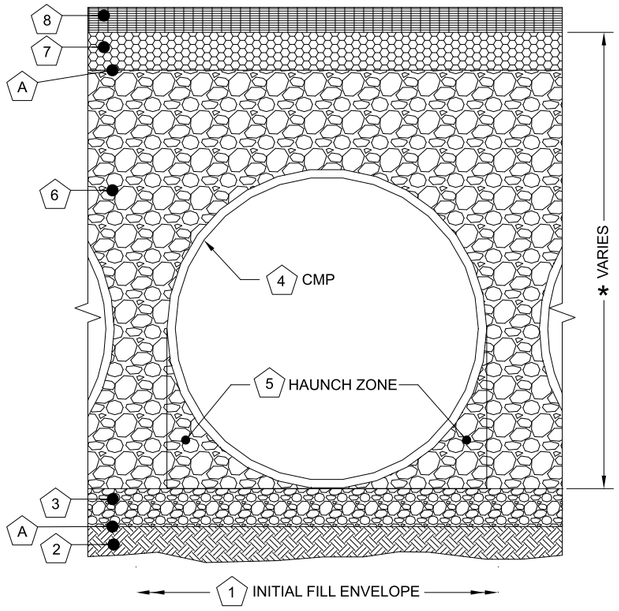
DATE	REVISION DESCRIPTION	BY

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10895 Clean Energy Time Fill - Perris CA
Clean Energy Time Fill - Detention System
Perris, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6784	10895	10/10/2021
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: D1		



Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
Material Location	Description	Material Designation	Designation
8 Rigid or Flexible Pavement (if applicable)			
7 Road Base (if applicable			
A Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6 Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3 Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.
* Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

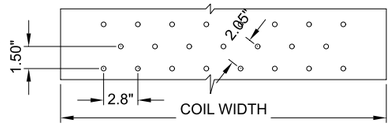
BACKFILL

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

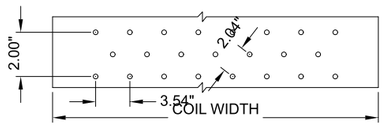
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP EDGE SPACING EQUAL ON BOTH SIDES



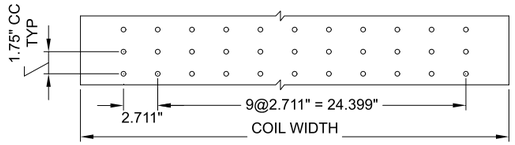
OPEN AREA = 3.76 SQ IN/SQ FT

3" x 1" CORRUGATION - STEEL AND ALUMINUM CMP (COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)



OPEN AREA = 4.16 SQ IN/SQ FT

5" x 1" CORRUGATION - STEEL ONLY
EDGE SPACING EQUAL ON BOTH SIDES



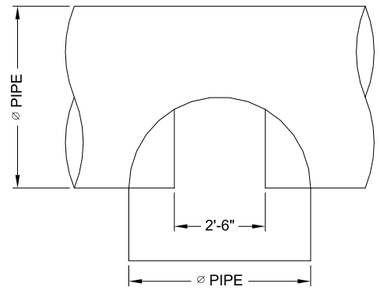
OPEN AREA = 3.33 SQ IN/SQ FT

NOTES:

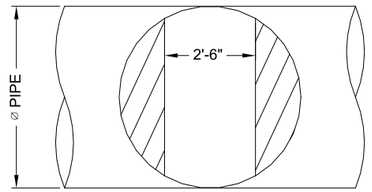
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



PLAN

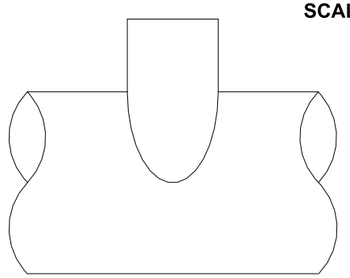


FRONT

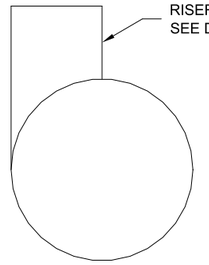
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



ELEVATION

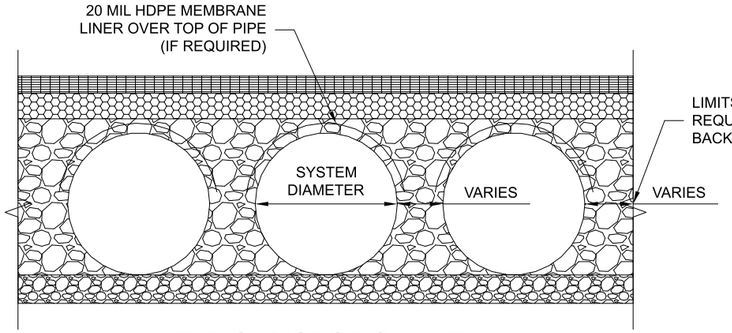


END

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.

TYPICAL RISER DETAIL

SCALE: N.T.S.



TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

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CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10895 Clean Energy Time Fill - Perris CA
Clean Energy Time Fill - Detention System
Perris, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6784	10895	10/10/2021
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: D2		

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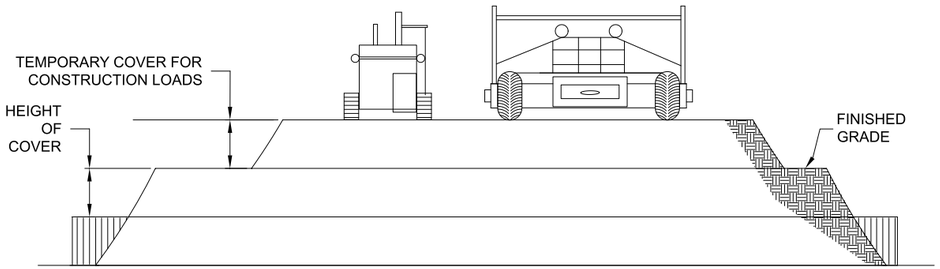


CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

POLYMER COATED: AASHTO M-245 OR ASTM A-762

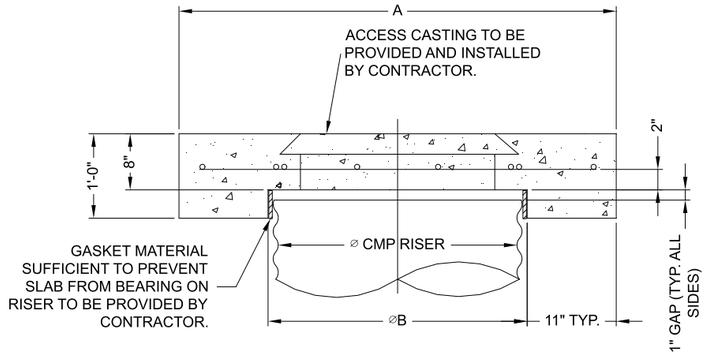
ALUMINUM: AASHTO M-196 OR ASTM B-745

HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.

INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

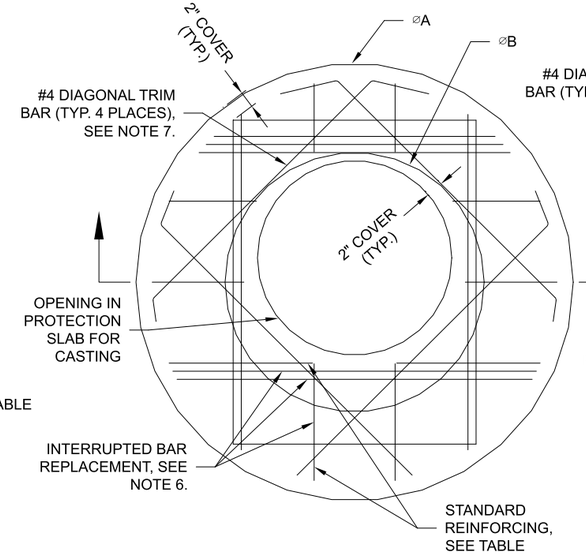
NOTE:
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



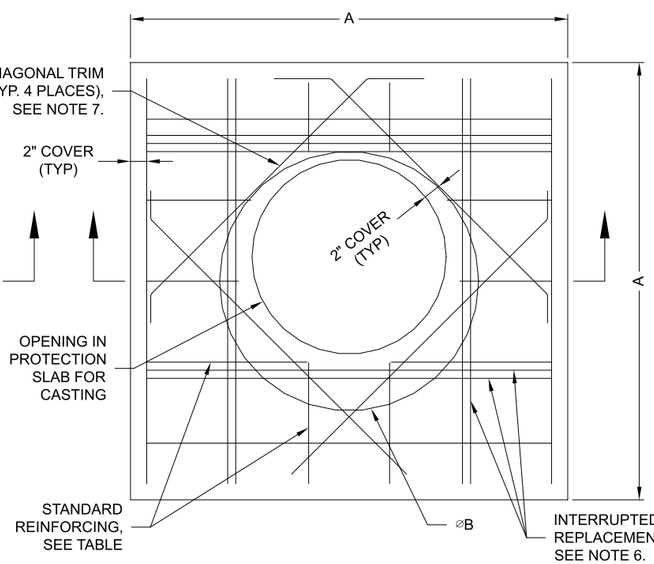
SECTION VIEW

REINFORCING TABLE				
⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

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CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10895 Clean Energy Time Fill - Perris CA
Clean Energy Time Fill - Detention System
Perris, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6784	10895	10/10/2021
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: D3		

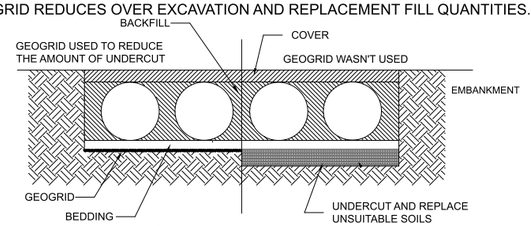
CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

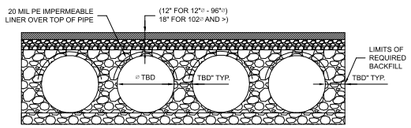


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

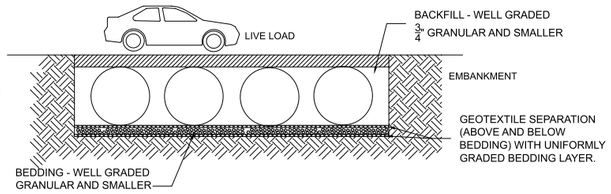
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

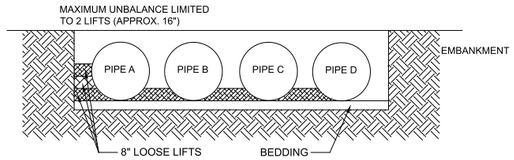
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



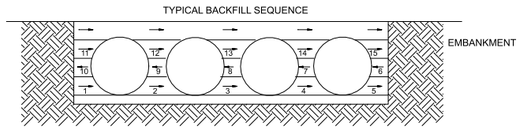
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

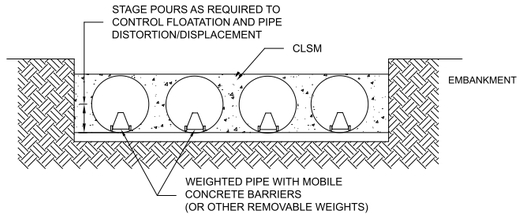


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

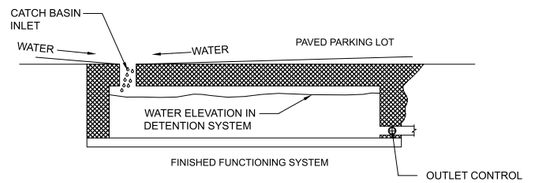


CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

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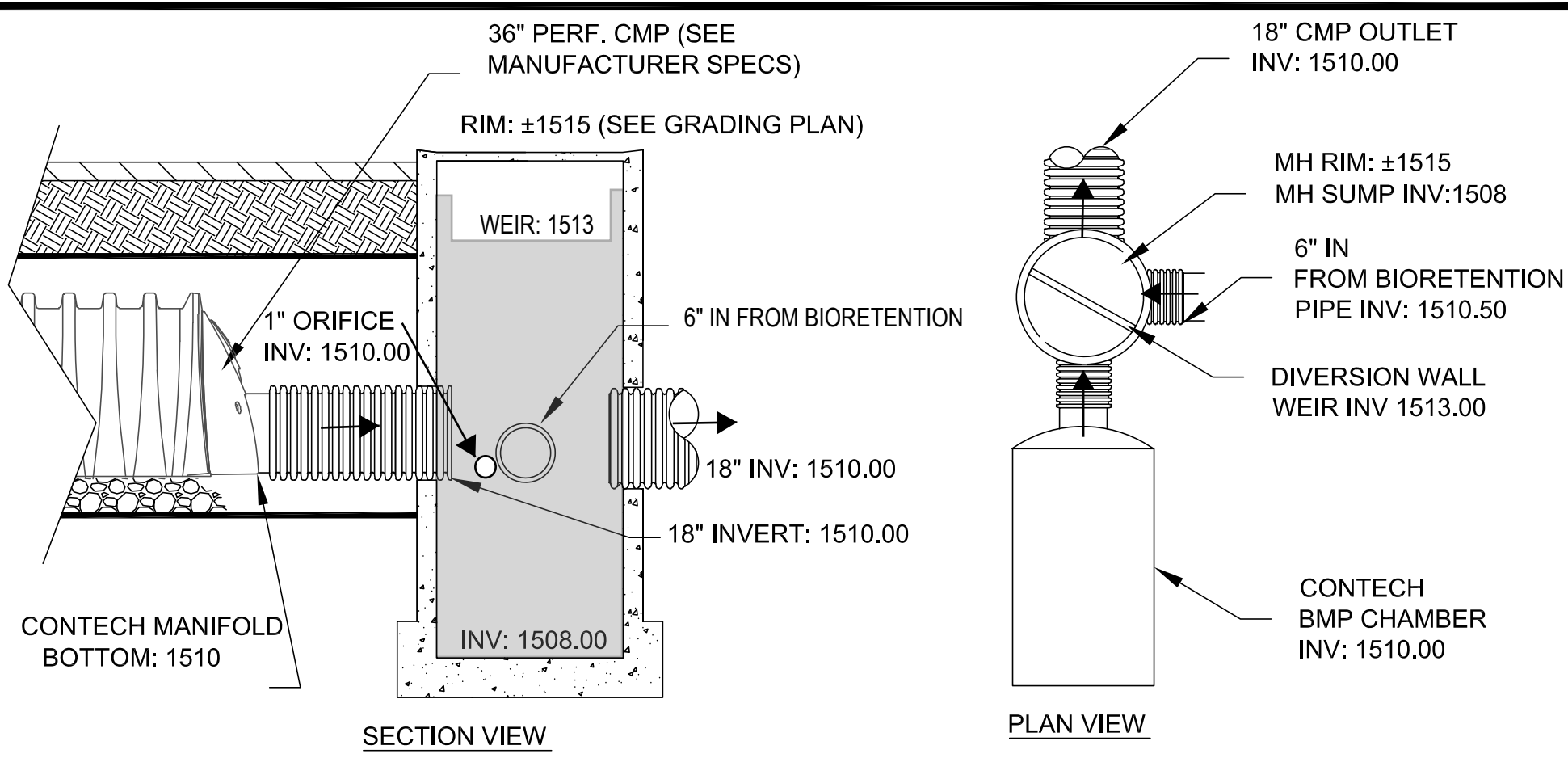
CONTECH® CMP DETENTION SYSTEMS
CONTECH **DYODS** DRAWING

DYO10895 Clean Energy Time Fill - Perris CA
Clean Energy Time Fill - Detention System
Perris, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6784	10895	10/10/2021
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: D4		

OUTLET STRUCTURE



DIVERSION MANHOLE STRUCTURE

N.T.S.

APPENDIX 4a

LINSCOTT
LAW &
GREENSPAN
engineers

Engineers & Planners
Traffic
Transportation
Parking

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Irvine, CA 92614
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949.825.6173 F
www.llgengineers.com

Pasadena
Irvine
San Diego
Woodland Hills

November 12, 2021

Mr. Matt Loser
Clean Energy Fuels
4675 MacArthur Court, Suite 800
Newport Beach, CA 92660

LLG Reference: 2.21.4456.1

Subject: **Traffic Impact Assessment for the CNG Fueling Station Addition Project**
County of Riverside, California

Dear Mr. Loser:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Traffic Impact Assessment for the proposed CNG Fueling Station Addition Project (herein referred to as "Project"), located at 19295 Harvill Avenue in the County of Riverside, California. ***Figure 1*** presents a Vicinity Map, which illustrates the general location of the project site and depicts the surrounding street system. ***Figure 2*** presents an existing site aerial, which shows that the site is currently vacant.

This letter report will outline the traffic generation forecast potential for the proposed Project and assess whether the proposed Project will create any potential traffic impacts on the surrounding transportation system based on the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled*, dated December 2020. This letter report also evaluates stacking/storage lengths for intersections in the immediate vicinity of the proposed Project.

Our method of analysis, findings, and recommendations are detailed in the following sections of this letter report.

PROJECT DESCRIPTION

Figure 3 presents the proposed site plan for the proposed Project, prepared by Clean Energy Fuels. As shown in *Figure 3,* the proposed Project will consist of CNG time fill posts for 93 trucks and parking for 90 passenger vehicles. The proposed Project is expected to be completed by the Year 2023. General access to the proposed Project will be provided via two (2) existing right-turn in/right-turn out only driveways located along Cajalco Expressway (i.e. Driveway No. 1 and Driveway No. 2) and two (2) existing full-access driveways located along Harvill

Philip M. Linscott, PE (1924-2000)
Jack M. Greenspan, PE (Ret.)
William A. Law, PE (Ret.)
Paul W. Wilkinson, PE
John P. Keating, PE
David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE

An LG2WB Company Founded 1966

Avenue (i.e. Driveway No. 3 and Driveway No. 4). Direct access to the proposed Project will be provided via one inbound only access point (i.e. the southerly access point) and via one outbound only access point (i.e. the northerly access point) located along the Driveway No. 3 drive aisle.

PROJECT TRAFFIC GENERATION FORECAST

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are typically found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2017]. Since trip generation rates for the category of the proposed Project are not specifically contained within the ITE *Trip Generation* manual, the trip generation potential was estimated based on proposed operations, as provided by the applicant, which are described in further detail below.

Proposed Project Operations

- 93 trucks will enter the site between 5:00 PM – 9:00 PM. This results in an average of 23 trucks per hour entering the site over the 4-hour period.
- After the truck is parked in the time fill post parking space, the truck driver will leave the site in a passenger vehicle. This results in an average of 23 passenger vehicles per hour leaving the site over the 4-hour period.
- During the truck rollout in the morning (i.e. between 5:00 AM – 10:00 AM), on average, 19 passenger vehicles will enter the site and 19 trucks will exit the site over the 5-hour period.

Proposed Project Trip Generation Forecast

Table 1, located at the rear of this letter report following the figures, summarizes the traffic generation forecast for the proposed Project for a typical weekday based on the aforementioned project operations. Column one (1) presents the trips for passenger vehicles associated with trucks and column two (2) presents the truck trips. Column three (3) converts the truck trips to passenger car equivalents (PCE) utilizing a factor of 1.5 for trucks. Column four (4) presents the total vehicle trips (i.e. the sum of column one and column three).

As shown at the bottom of *Table 1,* the proposed Project is forecast to generate 470 PCE daily trips, with 50 PCE trips (20 inbound, 30 outbound) produced in the AM peak hour and 60 PCE trips (36 inbound, 24 outbound) produced in the PM peak hour

on a "typical" weekday. It should be noted that the proposed Project, as footnoted in *Table 1*, is forecast to generate 372 vehicle (Non PCE) daily trips, with 40 vehicle (Non PCE) trips produced in the AM peak hour and 48 vehicle (Non PCE) trips produced in the PM peak hour on a "typical" weekday.

TRAFFIC IMPACT ASSESSMENT

Trip Generation Analysis

According to *Appendix B – Traffic Analysis Exemptions* from the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled,* dated December 2020, the following types of development are generally exempt from Traffic Analysis requirements.

1. All residential parcel maps.
2. Single family residential tracts of less than 100 lots.
3. Apartments and other multiple family projects of less than 150 units.
4. Plot plan and uses cases for projects of one acre or less.
5. Preschools, elementary schools and middle schools.
6. Churches, lodges, community centers, neighborhood parks and community parks.
7. Mini-storage yards.
8. Congregate care facilities that contain significant special services, such as medical facilities, dining facilities, recreation facilities and support retail services.
9. Level 1 projects (100-200 peak hour trips) in areas where a comprehensive traffic analysis has been performed and road improvement infrastructure funding mechanisms are in place. The Transportation Department may, however, require a traffic analysis for projects that are anticipated to exhibit potential adverse deficiencies on the circulation system.
10. Any use which can demonstrate, based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 vehicle trips during the peak hours.

Based on application of the proposed Project operations (resulting in 470 PCE daily trips, 50 PCE AM peak hour trips and 60 PCE PM peak hour trips), the proposed Project will generate less than 100 vehicle trips during the weekday AM peak hour and PM peak hour (see bullet #10 above). Therefore, we conclude that the proposed

Project meets the County exemption requirements and will not require the preparation of a traffic impact analysis report and that the trips associated with the proposed Project will not significantly impact the existing surrounding transportation network.

FOCUSED TRAFFIC IMPACT ANALYSIS

Even though the proposed Project meets the County exemption requirements and will not require the preparation of a traffic impacts analysis report, this section of the letter report evaluates the impacts of the proposed Project at key intersections in the immediate vicinity of the project site to address County of Riverside staff concerns regarding level of service and stacking/storage requirements for turn pockets. The following five (5) key study intersections, all of which are located in the County of Riverside have been evaluated under existing traffic conditions, existing plus project traffic conditions, existing plus ambient growth (Year 2023) traffic conditions and existing plus ambient growth (Year 2023) plus project traffic conditions.

1. Cajalco Expressway at Harvill Avenue
2. Cajalco Expressway at Driveway No. 1
3. Cajalco Expressway at Driveway No. 2
4. Driveway No. 3 at Harvill Avenue
5. Driveway No. 4 at Harvill Avenue

Existing Traffic Conditions

Figure 4 presents an inventory of the existing roadway conditions for the five (5) intersections evaluated in this letter report. This figure identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections.

Existing AM peak hour and PM peak hour traffic counts were conducted in August 2021 by Counts Unlimited. These existing traffic volumes are comprised of passenger vehicles, large 2-axle trucks, 3-axle trucks and 4+-axle trucks. The truck traffic turning movements were converted to passenger car equivalents (P.C.E.'s) using the factors presented in the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled,* dated December 2020 (i.e. 1.5, 2.0 and 3.0 for large 2-axle trucks, 3-axle trucks and 4+-axle trucks, respectively). ***Figure 5*** presents the existing AM peak hour and PM peak hour traffic volumes for the five (5) key study intersections.

Appendix A contains the detailed peak hour traffic count sheets and the peak hour PCE count summary tables (i.e. converting truck traffic turning movements to P.C.E.'s) for the five (5) key study intersections.

Intersection Peak Hour Level of Service Methodology

AM and PM peak hour operating conditions for the key study intersections were evaluated using the methodology outlined in *Chapter 19 of the Highway Capacity Manual 6 (HCM 6)* for signalized intersections, the methodology outlined in *Chapter 20 of the HCM 6* for two-way stop-controlled intersections, and the methodology outlined in *Chapter 21 of the HCM 6* for all-way stop-controlled intersections.

Highway Capacity Manual 6 Method of Analysis (Signalized Intersections)
Based on the HCM operations method of analysis, level of service for signalized intersections and approaches is defined in terms of control delay, which is a measure of the increase in travel time due to traffic signal control, driver discomfort, and fuel consumption. Control delay includes the delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed. LOS criteria for traffic signals are stated in terms of the control delay in seconds per vehicle. The LOS thresholds established for the automobile mode at a signalized intersection are shown in ***Table 2***.

Highway Capacity Manual 6 Method of Analysis (Unsignalized Intersections)
The HCM 6 unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a LOS estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3***.

Impact Criteria and Thresholds
According to the Riverside County General Plan, *Section C 2.1*, the following countywide target Levels of Service shall be maintained:

- LOS "C" shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non-Community Development areas of the Elsinore, Lake Mathews/ Woodcrest, Mead Valley and Temescal Canyon Area Plans.
- LOS "D" shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.
- LOS "E" may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed.

Based on the above-mentioned level of service and impact criteria, LOS "D" is the minimum acceptable LOS at the key study intersections.

Project Trip Distribution and Assignment

Figure 6 illustrates the general, directional traffic distribution pattern for the proposed Project. The anticipated AM and PM peak hour traffic volumes associated with the proposed Project are presented in ***Figure 7***. The traffic volume assignments presented in *Figure 7* reflect the traffic distribution characteristics shown in *Figure 6* and the traffic generation forecast presented in *Table 1*.

Future Traffic Conditions

Existing Plus Project Traffic Volumes

The estimates of Project generated traffic volumes were added to Existing traffic conditions to develop traffic projections for Existing plus Project traffic conditions. ***Figure 8*** presents the anticipated AM peak hour and PM peak hour Existing plus Project traffic volumes, respectively, at the five (5) key study intersections.

Year 2023 Traffic Volumes

For future traffic conditions, background traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well

as account for regular growth in traffic volumes due to the development of projects outside the study area. Consistent with the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled,* dated December 2020, the future growth in traffic volumes has been calculated utilizing a two percent (2.0%) per year growth factor. Applied to existing Year 2021 traffic volumes results in a four percent (4.0%) increase growth in existing volumes to horizon Year 2023.

Figure 9 presents the AM peak hour and PM peak hour Existing plus Ambient Growth to the Year 2023 traffic volumes at the five (5) key study intersections.

Figure 10 presents the anticipated AM peak hour and PM peak hour Existing plus Ambient Growth (Year 2023) plus Project traffic volumes at the five (5) key study intersections.

Intersection Capacity Analysis

Existing Plus Project Traffic Conditions

Table 4 summarizes the peak hour level of service results at the five (5) key study intersections for Existing plus Project traffic conditions. The first column (1) presents a summary of Existing AM and PM peak hour traffic conditions. The second column (2) presents Existing plus Project traffic conditions. The third column (3) indicates whether the traffic associated with the project will have an impact based on the LOS standards and the impact criteria defined in this letter report.

Review of columns 2 and 3 of *Table 4* indicates that traffic associated with the proposed Project ***will not*** impact any of the five (5) key study intersections when compared to the LOS standards and impact criteria specified in this report. The five (5) key study intersections currently operate and are forecast to continue to operate at an acceptable service level during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

Appendix B contains the Existing and Existing plus Project traffic conditions Delay/LOS calculation worksheets for the five (5) key study intersections.

Existing Plus Ambient Growth (Year 2023) Plus Project Traffic Conditions

Table 5 summarizes the peak hour level of service results at the five (5) key study intersections for Existing plus Ambient Growth (Year 2023) plus Project traffic conditions. The first column (1) presents a summary of Existing AM and PM peak hour traffic conditions. The second column (2) presents Existing plus Ambient Growth (Year 2023) traffic conditions. The third column (3) presents Existing plus Ambient Growth (Year 2023) plus Project traffic conditions. The fourth column (4)

indicates whether the traffic associated with the project will have an impact based on the LOS standards and the impact criteria defined in this report.

Review of columns 3 and 4 of *Table 5* indicates that traffic associated with the proposed Project ***will not*** impact any of the five (5) key study intersections when compared to the LOS standards and impact criteria specified in this report. The five (5) key study intersections currently operate and are forecast to continue to operate in the Year 2023 at an acceptable LOS during the AM and PM peak hours with the addition of Project generated traffic to existing traffic and ambient growth traffic.

Appendix B also contains the Existing plus Ambient Growth (Year 2023) and Existing plus Ambient Growth (Year 2023) plus Project traffic conditions Delay/LOS calculation worksheets for the five (5) key study intersections.

Intersection Queuing Evaluation

This section of the letter report addresses County of Riverside staff concerns regarding peak hour left-turn and right-turn stacking/storage lengths for the five (5) key study intersections. Specifically, the following turn pockets at the five (5) key study intersections were evaluated.

- Intersection No. 1 – Cajalco Expressway at Harvill Avenue
  - Southbound dual left-turn lanes
- Intersection No. 2 – Cajalco Expressway at Driveway No. 1
  - Westbound right-turn lane
- Intersection No. 3 – Cajalco Expressway at Driveway No. 2
  - Westbound right-turn lane
- Intersection No. 4 – Driveway No. 3 at Harvill Avenue
  - Northbound left-turn lane
  - Northbound right-turn lane
  - Eastbound shared through/right-turn lane
  - Westbound left-turn lane
- Intersection No. 5 – Driveway No. 4 at Harvill Avenue
  - Northbound shared left/right-turn lane

A queuing evaluation was prepared for the aforementioned eight (8) locations. The queuing evaluation was conducted based on Existing, Existing plus Project, Existing plus Ambient Growth (Year 2023) and Existing plus Ambient Growth (Year 2023) plus Project peak hour traffic volumes and the Highway Capacity Manual 6th Edition

(HCM 6) signalized methodology and unsignalized methodology. It should be noted that County staff specifically identified the southbound dual left-turn lanes at the intersection of Cajalco Expressway/Harvill Avenue and the northbound approach at the intersection of Driveway No. 3/Harvill Avenue for evaluation.

Table 6 presents the 95th percentile queuing analysis results for the aforementioned locations. Column (1) presents the estimated storage provided. Column (2) presents Existing traffic conditions, column (3) presents Existing plus Project traffic conditions, column (4) presents Existing plus Ambient Growth (Year 2023) traffic conditions and column (5) presents Existing plus Ambient Growth (Year 2023) plus Project traffic conditions.

Review of *Table 6* indicates that adequate storage is provided at all eight (8) locations under Existing, Existing plus Project, Existing plus Ambient Growth (Year 2023) and Existing plus Ambient Growth (Year 2023) plus Project traffic conditions. Specific to the County concerns, adequate storage will be provided for the dual southbound left-turn lanes at the intersection of Cajalco Expressway/Harvill Avenue (i.e. key study intersection #1). In addition, adequate storage will be provided for the northbound left-turn lane and northbound right-turn lane at the intersection of Driveway No. 3 at Harvill Avenue (i.e. key study intersection #4). Vehicles are not anticipated to queue past the driveway serving the Arco Travel Zone Center, thus maintaining adequate access for the Arco Travel Zone Center site from Driveway No. 3.

Appendix B also contains the queuing calculation worksheets for the five (5) key study intersections.

CONCLUSIONS

- According to *Appendix B – Traffic Analysis Exemptions* from the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled,* dated December 2020, a project is exempt from Traffic Impact Analysis requirements if any use which can demonstrate, based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data, trip generation of less than 100 vehicle trips during the peak hours (bullet #10).

  Based on application of the proposed Project operations (resulting in 470 PCE daily trips, 50 PCE AM peak hour trips and 60 PCE PM peak hour trips), the proposed Project will generate less than 100 vehicle trips during the weekday AM peak hour and PM peak hour (see bullet #10 above). Therefore, we conclude that

the proposed Project meets the County exemption requirements and will not require the preparation of a traffic impact analysis report and that the trips associated with the proposed Project will not significantly impact the existing surrounding transportation network.

- Based on the intersection capacity analyses, the proposed Project ***will not*** impact any of the five (5) key study intersections when compared to the LOS standards and impact criteria specified in this report under Existing plus Project and Existing plus Ambient Growth (Year 2023) plus Project traffic conditions.

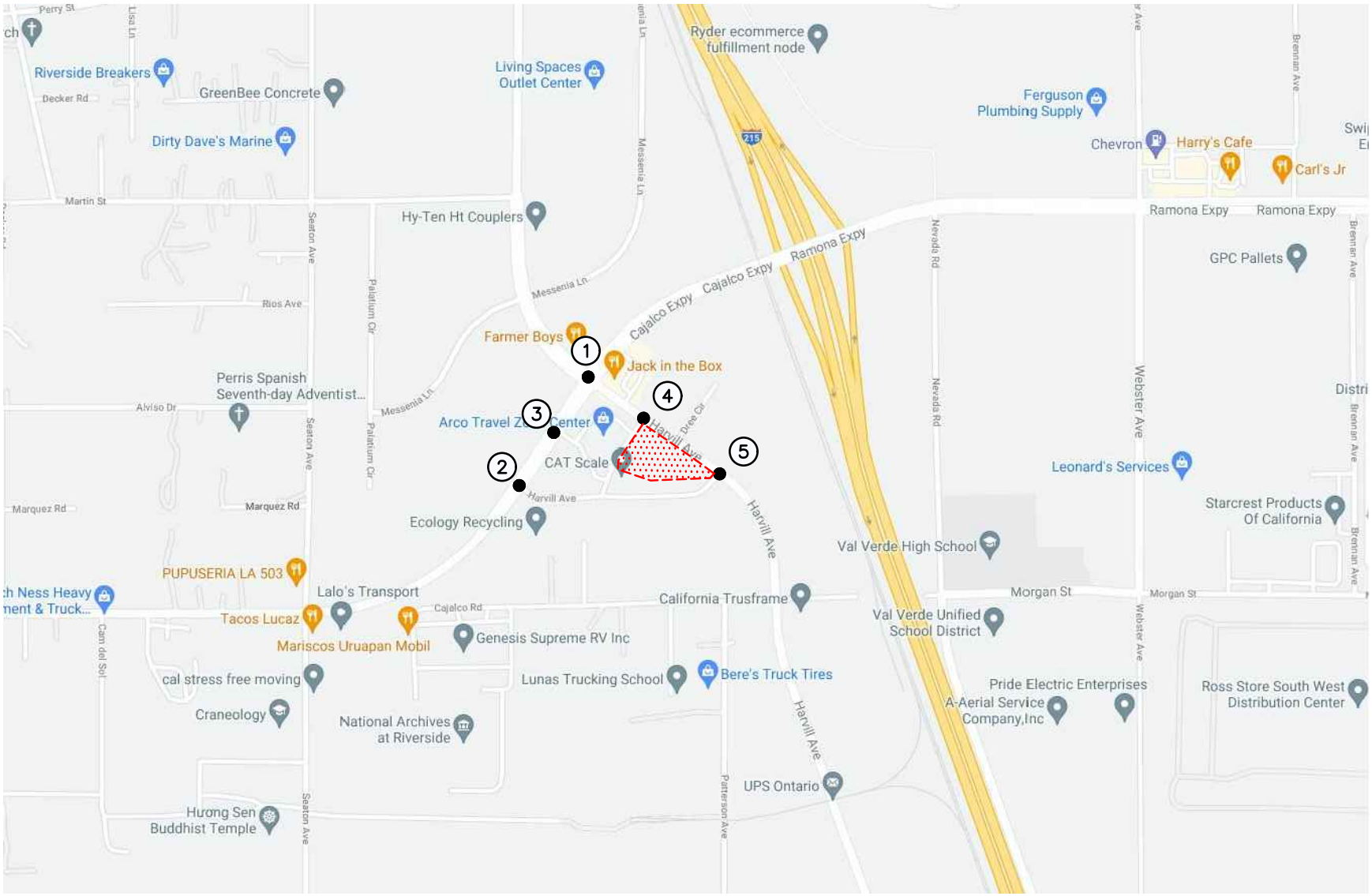
- Adequate storage is provided at all eight (8) locations under Existing, Existing plus Project, Existing plus Ambient Growth (Year 2023) and Existing plus Ambient Growth (Year 2023) plus Project traffic conditions. Specific to the County concerns, adequate storage will be provided for the dual southbound left-turn lanes at the intersection of Cajalco Expressway/Harvill Avenue. In addition, adequate storage will be provided for the northbound left-turn lane and northbound right-turn lane at the intersection of Driveway No. 3 at Harvill Avenue. Vehicles are not anticipated to queue past the driveway serving the Arco Travel Zone Center, thus maintaining adequate access for the Arco Travel Zone Center site from Driveway No. 3.

We appreciate the opportunity to provide this Traffic Impact Assessment letter. Should you have any questions, please call me at (949) 825-6175.

Sincerely,
Linscott, Law & Greenspan, Engineers

Keil D. Maberry
Principal
California Registration: TR 1802

Daniel A. Kloos, P.E.
Associate Principal
California Registration: TR 2200



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

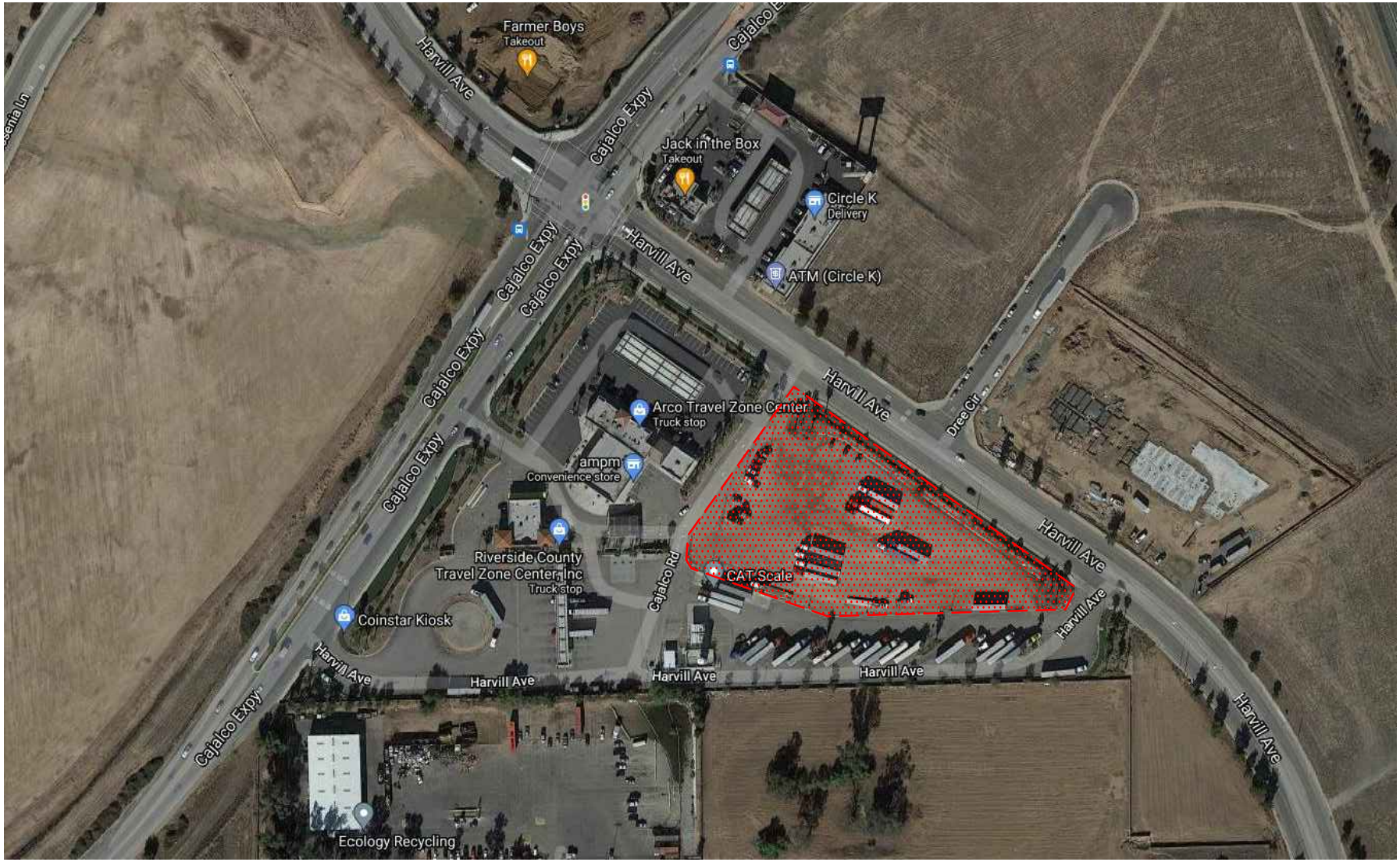
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1

VICINITY MAP

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE



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LINSCOTT LAW & GREENSPAN engineers

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SOURCE: GOOGLE

KEY

= PROJECT SITE

FIGURE 2

EXISTING SITE AERIAL

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

SOURCE: CLEAN ENERGY

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N NO SCALE

FIGURE 3

PROJECT SITE PLAN

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

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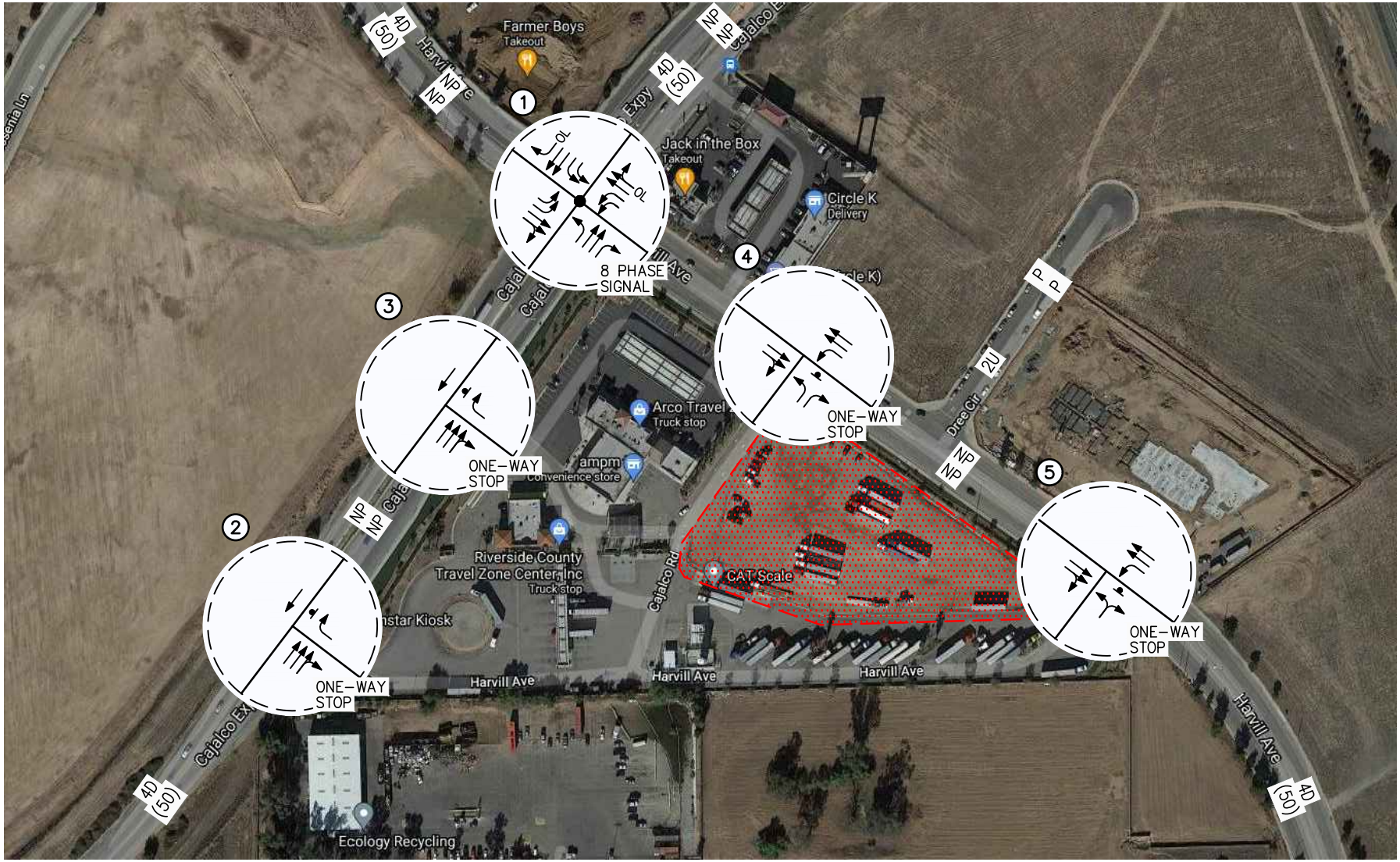

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

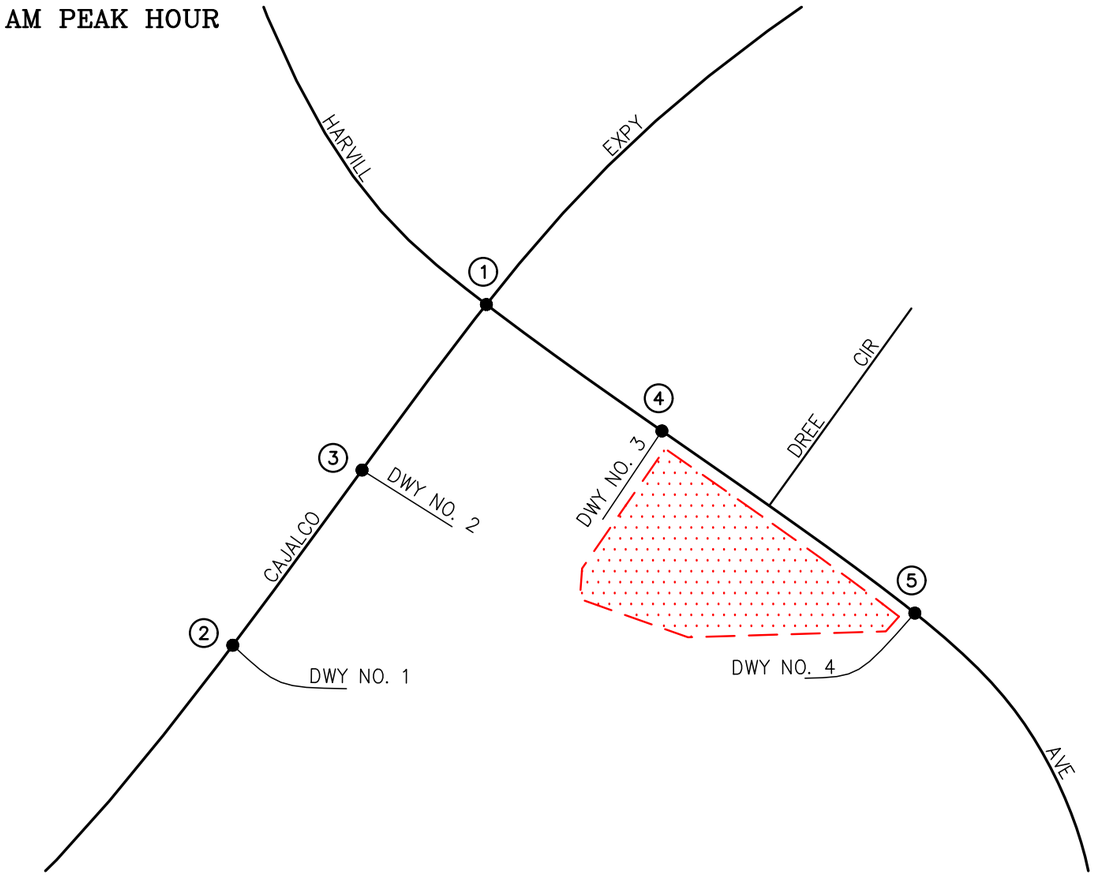
← = APPROACH LANE ASSIGNMENT
● = TRAFFIC SIGNAL, ▼ = STOP SIGN
P = PARKING, NP = NO PARKING
U = UNDIVIDED, D = DIVIDED
OL = OVERLAP
2 = NUMBER OF TRAVEL LANES
(XX)= POSTED SPEED LIMIT (MPH)
▭ = PROJECT SITE

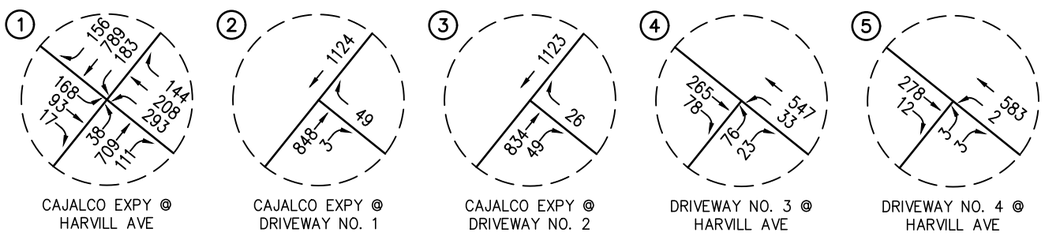
FIGURE 4

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

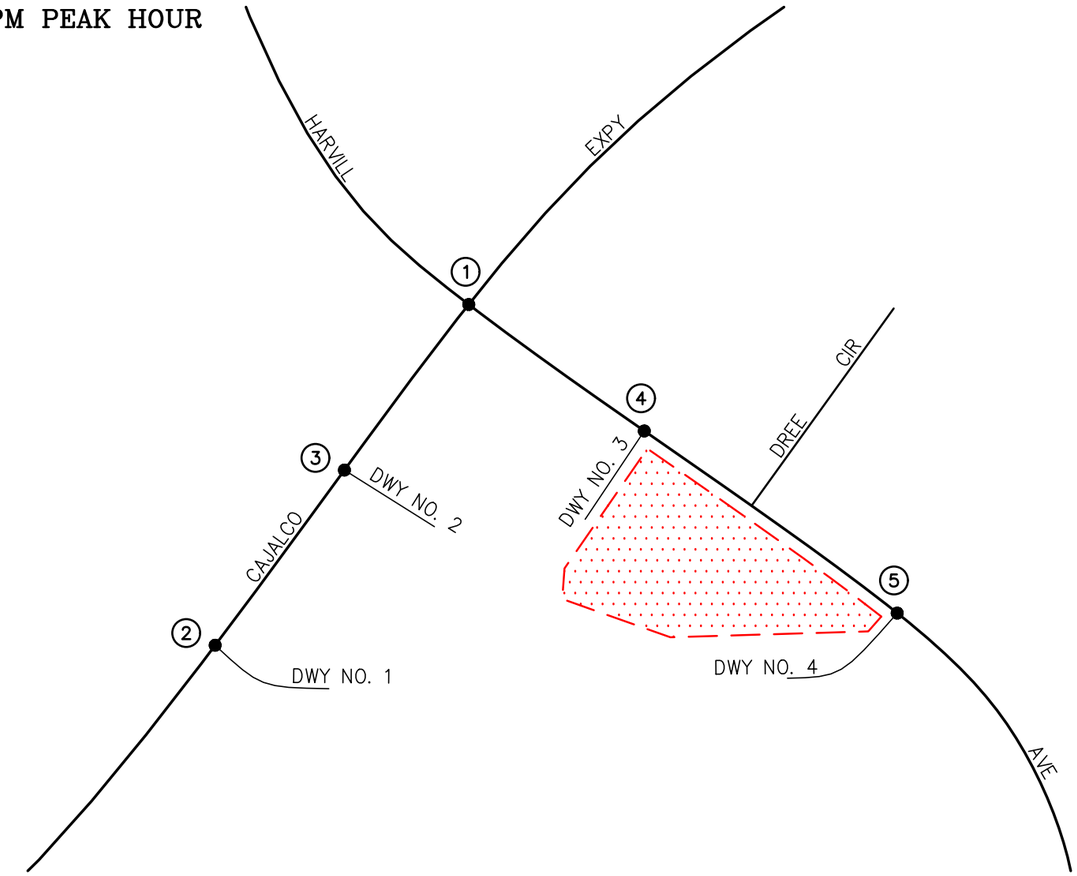
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

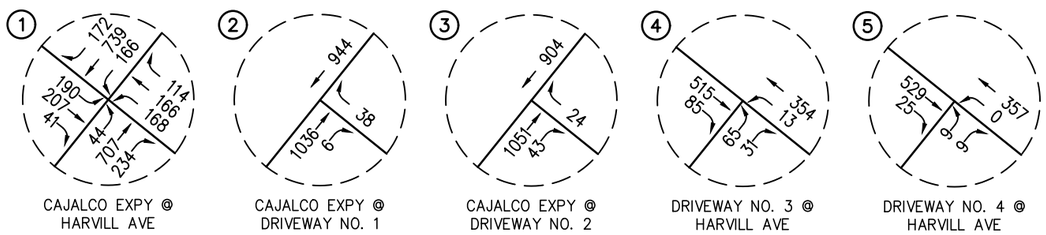
AM PEAK HOUR





PM PEAK HOUR





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N NO SCALE

KEY

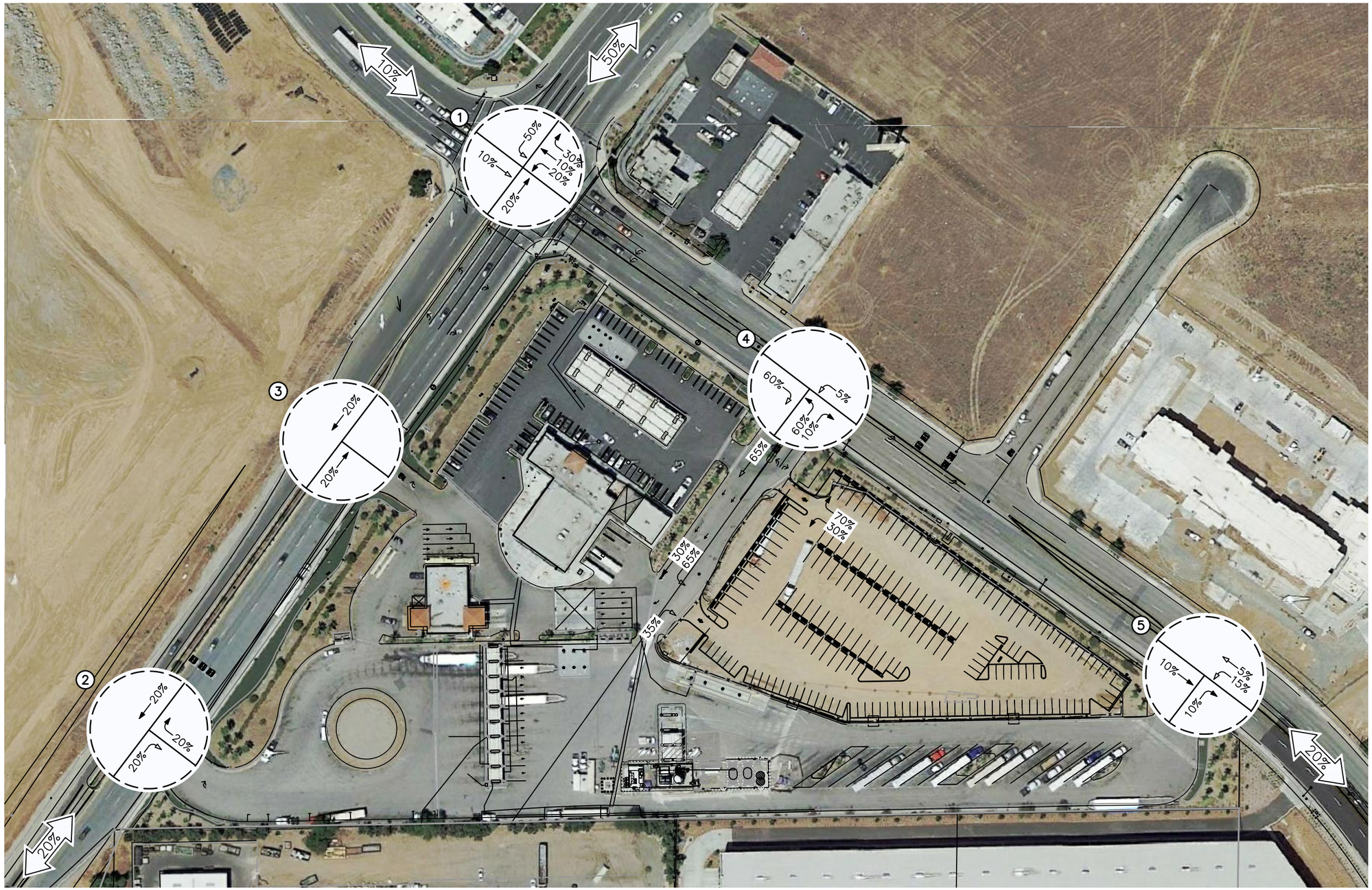
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5

EXISTING PEAK HOUR TRAFFIC VOLUMES

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE



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N NO SCALE

SOURCE: CLEAN ENERGY

KEY

⇦ = INBOUND PERCENTAGE

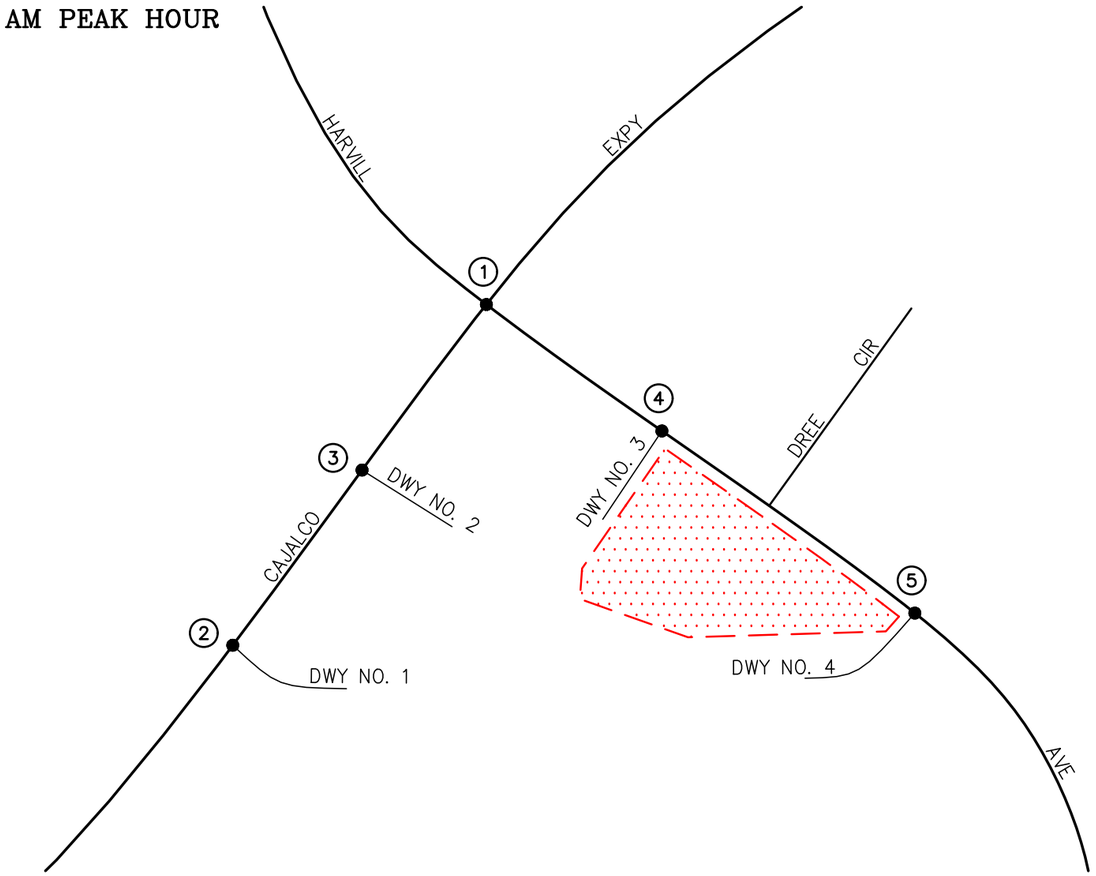
⇦ = OUTBOUND PERCENTAGE

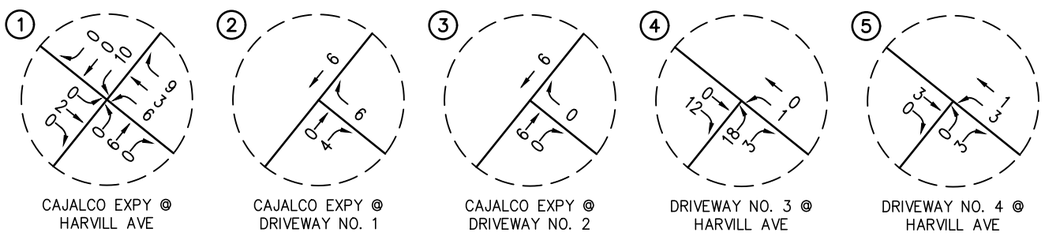
FIGURE 6

PROJECT TRAFFIC DISTRIBUTION PATTERN

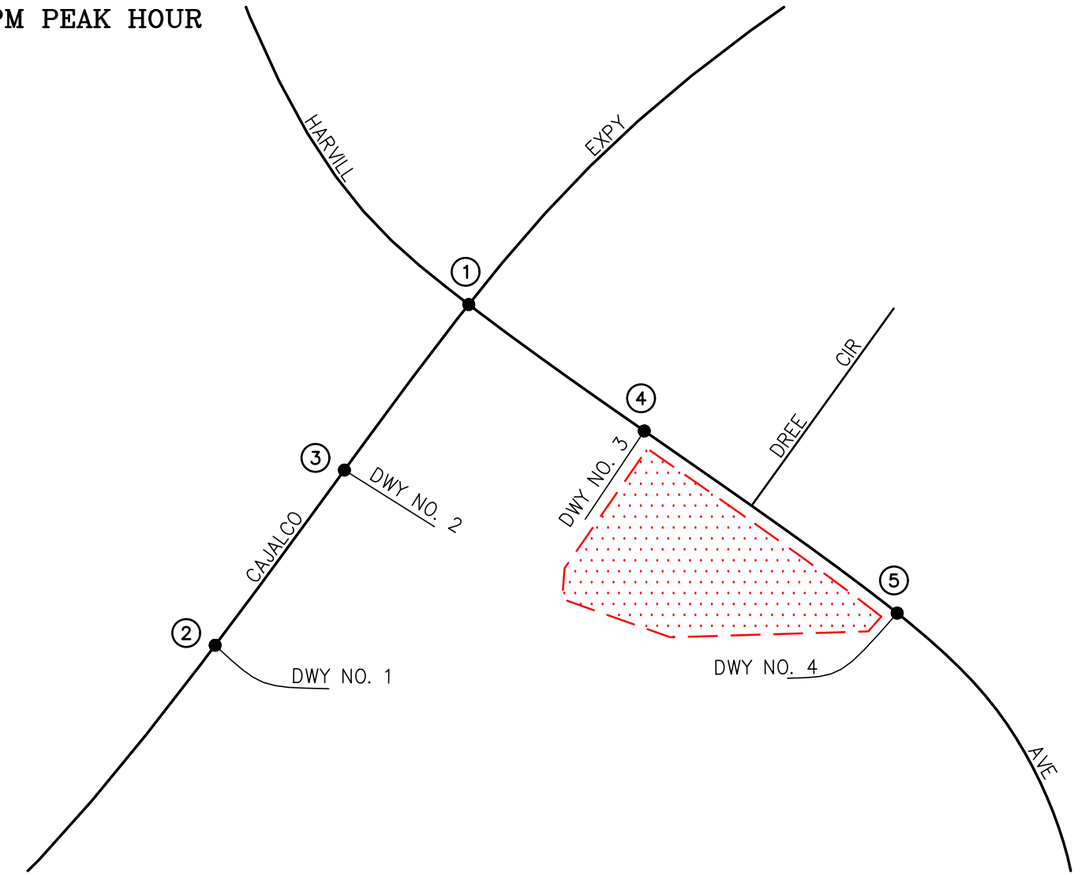
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

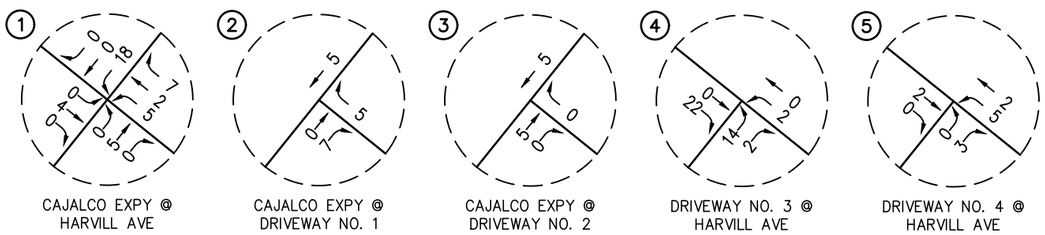
AM PEAK HOUR





PM PEAK HOUR





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KEY

(#) = STUDY INTERSECTION

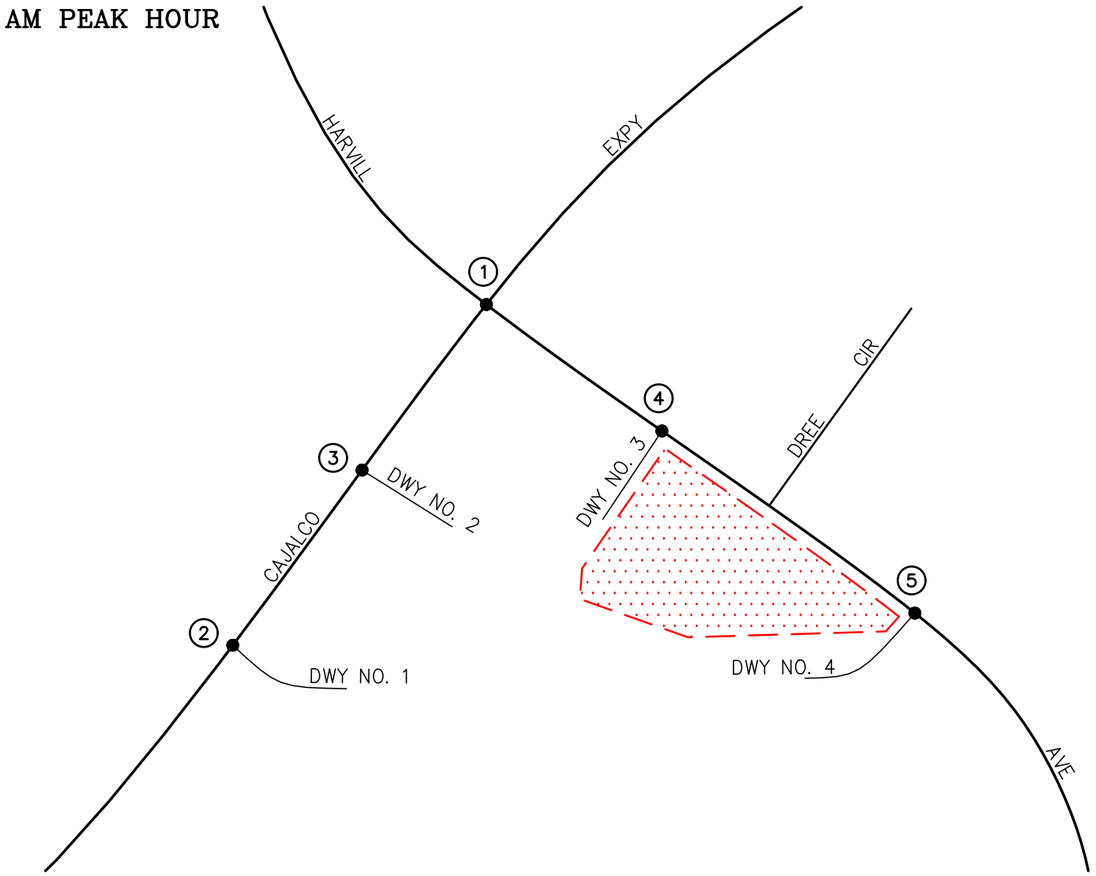
= PROJECT SITE

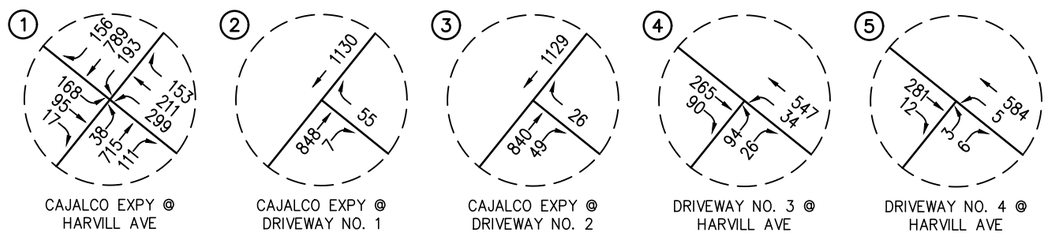
FIGURE 7

PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

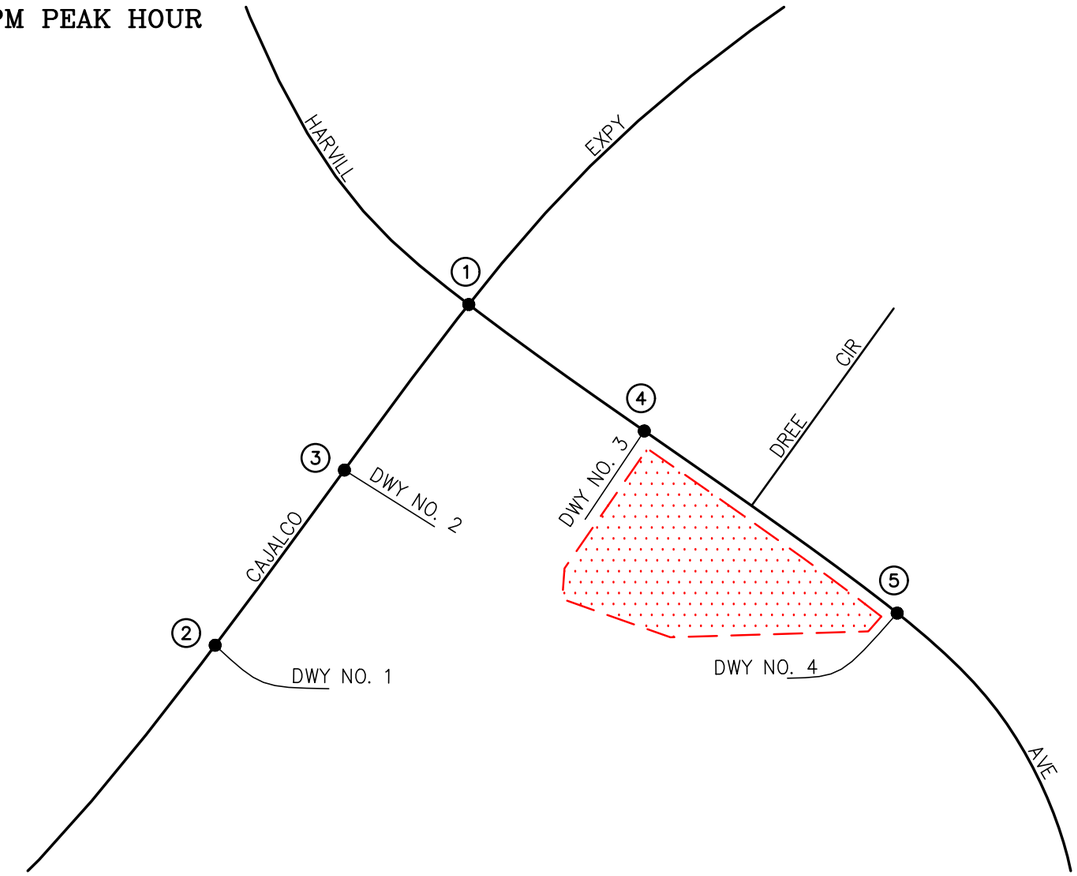
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

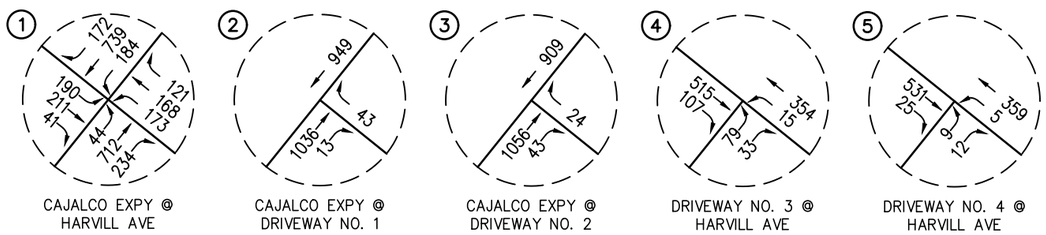
AM PEAK HOUR





PM PEAK HOUR





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KEY

(#) = STUDY INTERSECTION

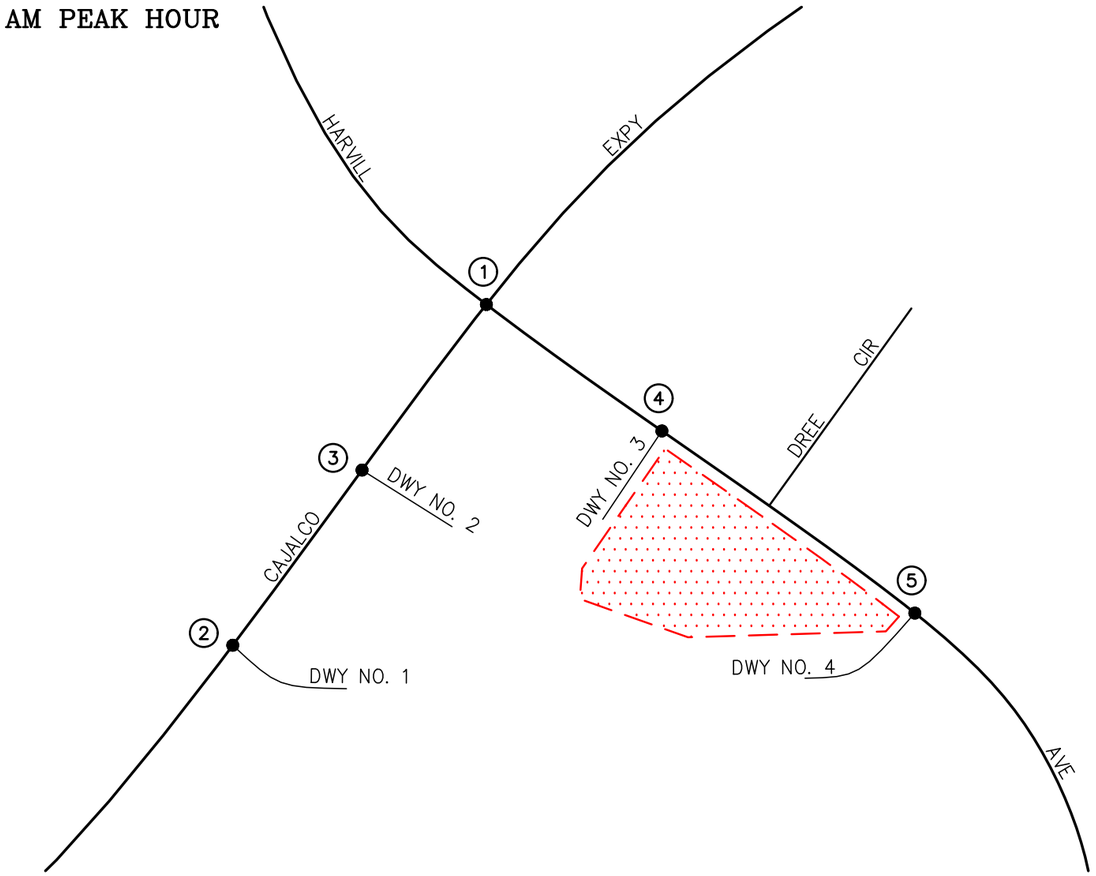
= PROJECT SITE

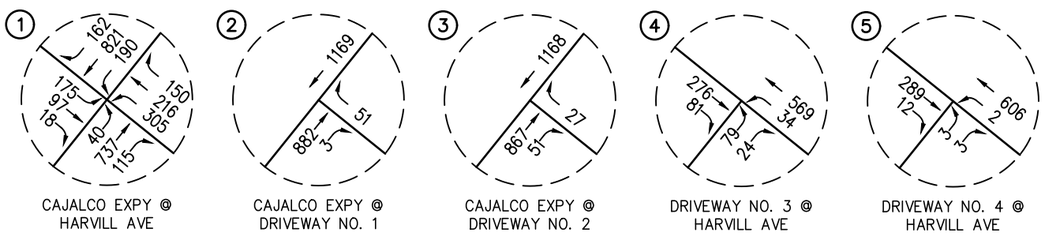
FIGURE 8

EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

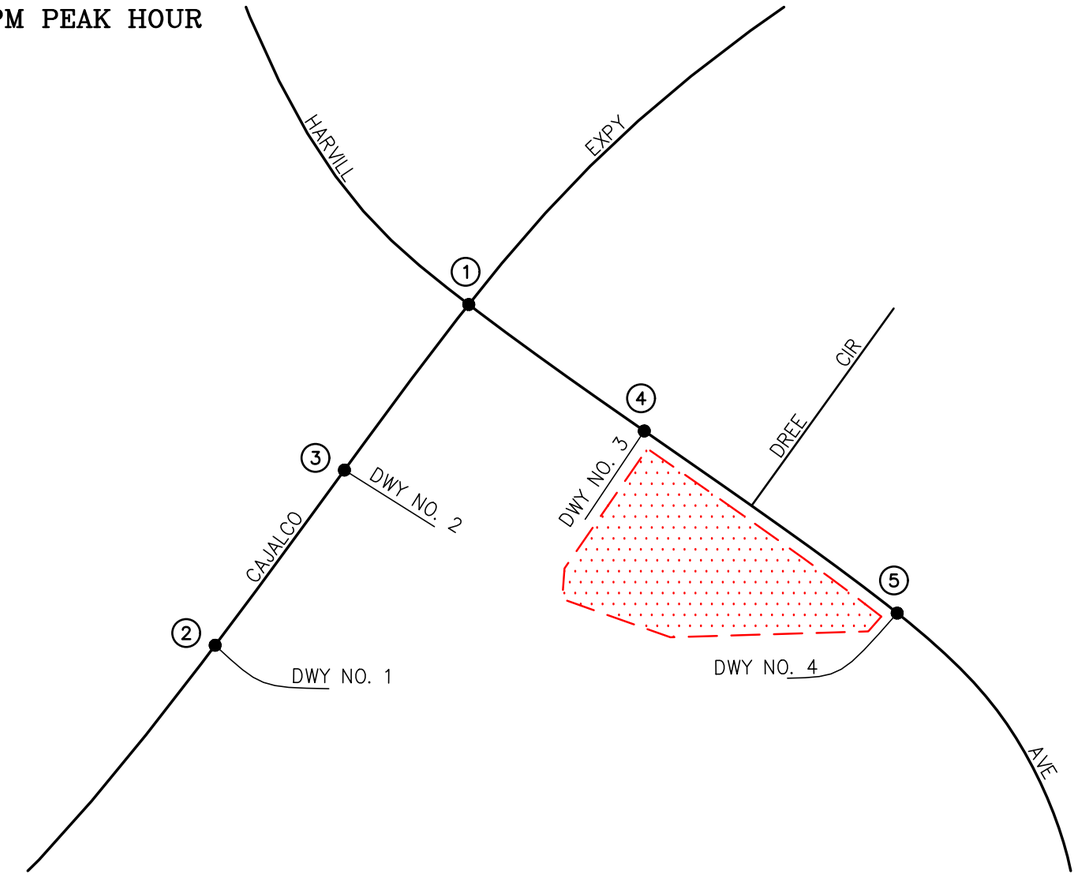
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

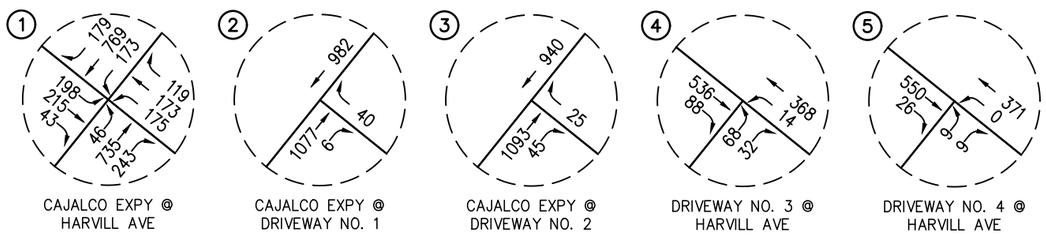
AM PEAK HOUR





PM PEAK HOUR





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KEY

(#) = STUDY INTERSECTION

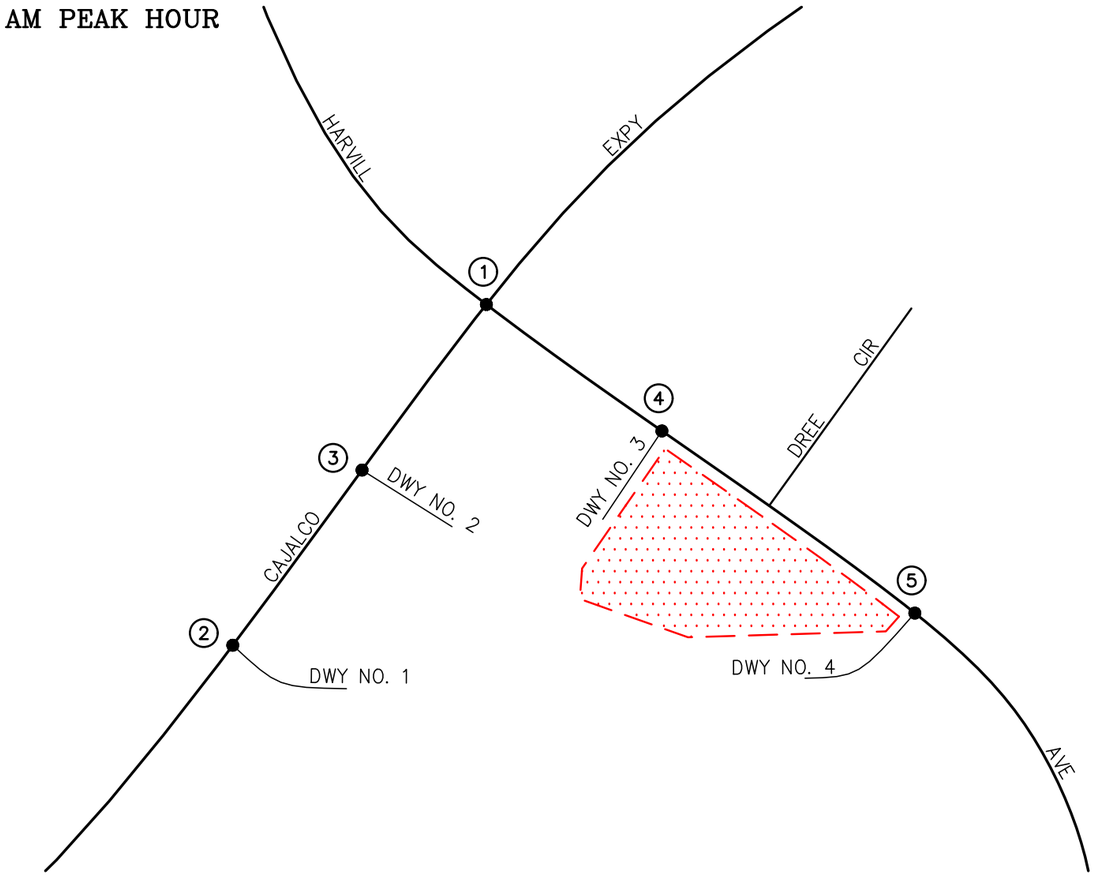
= PROJECT SITE

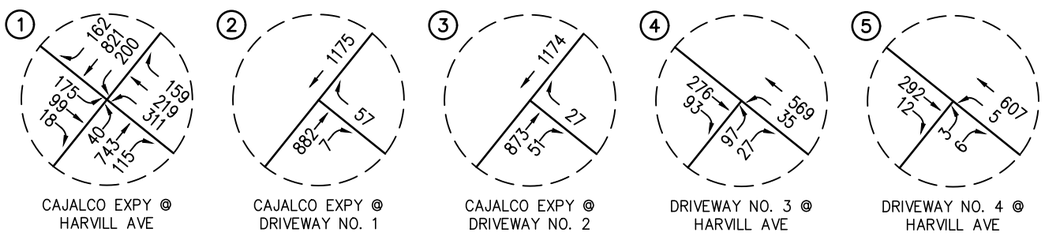
FIGURE 9

EXISTING PLUS AMBIENT GROWTH (YEAR 2023) PEAK HOUR TRAFFIC VOLUMES

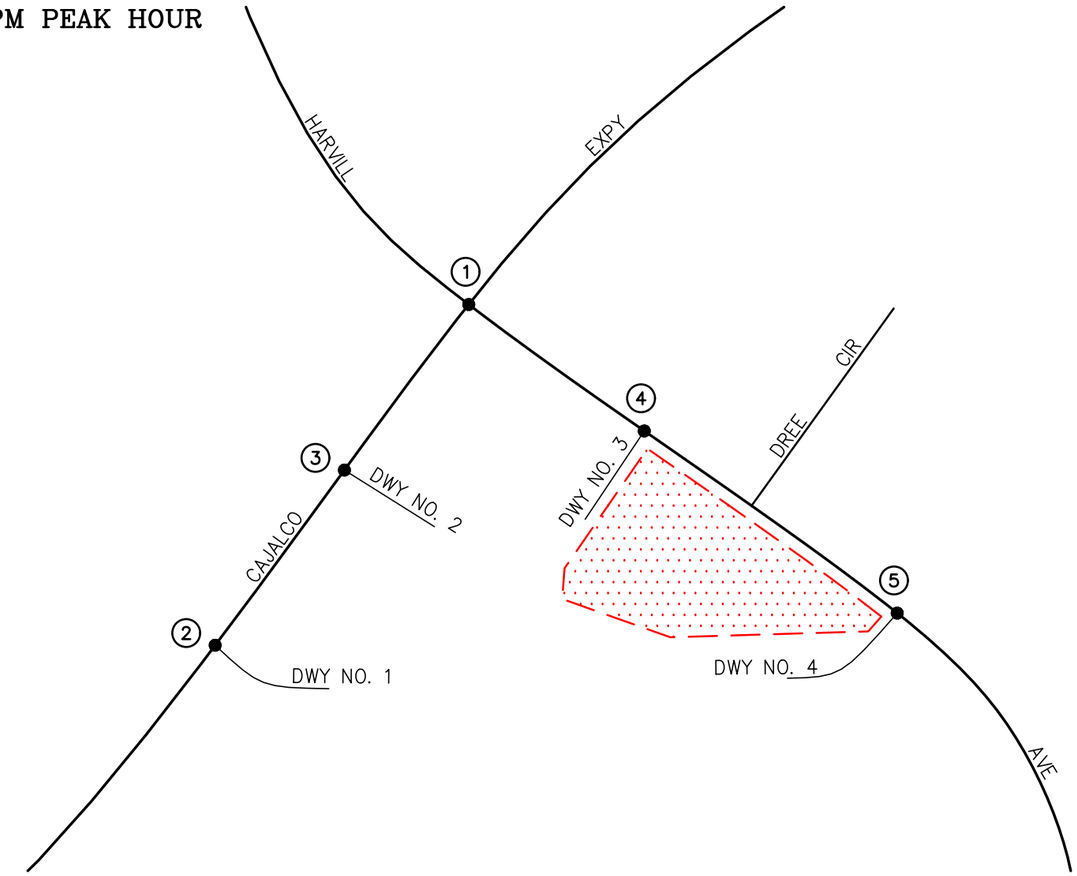
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

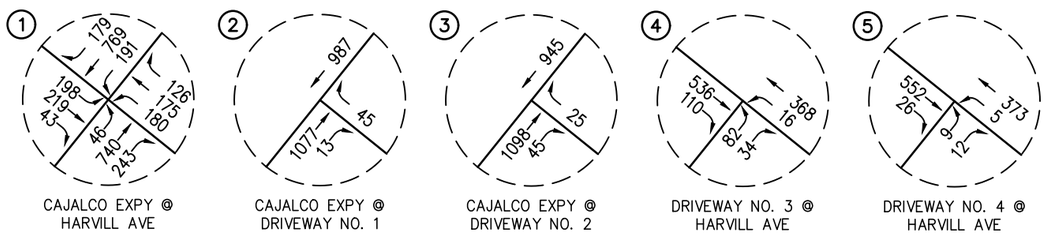
AM PEAK HOUR





PM PEAK HOUR





n:\4400\2214456 - cng fueling station addition, county of riverside\dwg\4456 f-10.dwg LDP 16:14:42 11-10-2021 tucker

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 10

EXISTING PLUS AMBIENT GROWTH (YEAR 2023) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

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TABLE 1
PROJECT TRAFFIC GENERATION FORECAST – PROPOSED OPERATIONS FOR TIME FILL POSTS[1]
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Time of Day	(1) Passenger Vehicles Associated with Trucks		(2) Trucks		(3) Trucks (PCE = 1.5)		(4) Total Vehicle Trips (1) + (3)		
	In	Out	In	Out	In	Out	In	Out	Total
5:00 AM	9	0	0	9	0	14	9	14	23
5:30 AM	9	0	0	9	0	14	9	14	23
6:00 AM	9	0	0	9	0	14	9	14	23
6:30 AM	9	0	0	9	0	14	9	14	23
7:00 AM	10	0	0	10	0	15	10	15	25
7:30 AM	9	0	0	9	0	14	9	14	23
8:00 AM	***10***	***0***	***0***	***10***	***0***	***15***	***10***	***15***	***25***
8:30 AM	***10***	***0***	***0***	***10***	***0***	***15***	***10***	***15***	***25***
9:00 AM	9	0	0	9	0	14	9	14	23
9:30 AM	9	0	0	9	0	14	9	14	23
10:00 AM	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
5:00 PM	***0***	***12***	***12***	***0***	***18***	***0***	***18***	***12***	***30***
5:30 PM	***0***	***12***	***12***	***0***	***18***	***0***	***18***	***12***	***30***
6:00 PM	0	12	12	0	18	0	18	12	30
6:30 PM	0	11	11	0	17	0	17	11	28
7:00 PM	0	12	12	0	18	0	18	12	30
7:30 PM	0	11	11	0	17	0	17	11	28
8:00 PM	0	12	12	0	18	0	18	12	30
8:30 PM	0	11	11	0	17	0	17	11	28
9:00 PM	0	0	0	0	0	0	0	0	0
CNG Fueling Station Project (Time Fill Posts) Trip Generation Forecast					**Daily (PCE)**		**470[2]**		
					AM Peak Hour (PCE)		**20**	**30**	**50**
					PM Peak Hour (PCE)		**36**	**24**	**60**

[1] Source: based on the proposed operations for the 93 time fill posts provided by the project applicant, which consists of the following.

- 93 trucks will enter the site between 5:00 PM – 9:00 PM. This results in an average of 23 trucks per hour entering the site over the 4-hour period. After the truck is parked in the time fill post parking space, the truck driver will leave the site in a passenger vehicle. This results in an average of 23 passenger vehicles per hour leaving the site over the 4-hour period. During the truck rollout in the morning (i.e. between 5:00 AM – 10:00 AM), on average, 19 passenger vehicles will enter the site and 19 trucks will exit the site over the 5-hour period.

[2] It should be noted that the vehicle trips (Non PCE) are 372 daily, 40 AM peak hour and 48 PM peak hour.

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TABLE 2

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (HCM 6 METHODOLOGY)[3]

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and ≤ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and ≤ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and ≤ 55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	Very long traffic delays This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.
F	≥ 80.0	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

[3] Source: *Highway Capacity Manual 6*, Chapter 19: Signalized Intersections.

LINSCOTT LAW & GREENSPAN engineers

TABLE 3
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM 6 METHODOLOGY)[4,5]
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

4 Source: *Highway Capacity Manual 6*, Chapter 20: Two-Way Stop-Controlled Intersections. The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

5 Source: *Highway Capacity Manual 6*, Chapter 21: All-Way Stop-Controlled Intersections. For approaches and intersection-wide assessment, LOS is defined solely by control delay.

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TABLE 4
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Key Intersection	Time Period	Minimum Acceptable LOS	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Impact	
			HCM	LOS	HCM	LOS	Increase	Yes/No
1. Cajalco Expressway at Harvill Avenue	AM	LOS D	24.2 s/v	C	24.5 s/v	C	0.3 s/v	No
	PM		22.8 s/v	C	23.2 s/v	C	0.4 s/v	No
2. Cajalco Expressway at Driveway No. 1	AM	LOS D	13.7 s/v	B	13.8 s/v	B	0.1 s/v	No
	PM		14.4 s/v	B	14.6 s/v	B	0.2 s/v	No
3. Cajalco Expressway at Driveway No. 2	AM	LOS D	13.4 s/v	B	13.4 s/v	B	0.0 s/v	No
	PM		14.6 s/v	B	14.6 s/v	B	0.0 s/v	No
4. Driveway No. 3 at Harvill Avenue	AM	LOS D	12.7 s/v	B	13.3 s/v	B	0.6 s/v	No
	PM		13.4 s/v	B	14.0 s/v	B	0.6 s/v	No
5. Driveway No. 4 at Harvill Avenue	AM	LOS D	11.8 s/v	B	11.9 s/v	B	0.1 s/v	No
	PM		13.8 s/v	B	14.1 s/v	B	0.3 s/v	No

Note:

- s/v = seconds per vehicle

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TABLE 5
EXISTING PLUS AMBIENT GROWTH (YEAR 2023) PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Key Intersection	Time Period	Minimum Acceptable LOS	(1) Existing Traffic Conditions		(2) Existing Plus A.G. (Year 2023) Without Project Traffic Conditions		(3) Existing Plus A.G. (Year 2023) Plus Project Traffic Conditions		(4) Impact	
			HCM	LOS	HCM	LOS	HCM	LOS	Increase	Yes/No
1. Cajalco Expressway at Harvill Avenue	AM	LOS D	24.2 s/v	C	24.5 s/v	C	24.9 s/v	C	0.4 s/v	No
	PM		22.8 s/v	C	23.1 s/v	C	23.5 s/v	C	0.4 s/v	No
2. Cajalco Expressway at Driveway No. 1	AM	LOS D	13.7 s/v	B	14.0 s/v	B	14.2 s/v	B	0.2 s/v	No
	PM		14.4 s/v	B	14.8 s/v	B	15.0 s/v	B	0.2 s/v	No
3. Cajalco Expressway at Driveway No. 2	AM	LOS D	13.4 s/v	B	13.7 s/v	B	13.7 s/v	B	0.0 s/v	No
	PM		14.6 s/v	B	14.9 s/v	B	15.0 s/v	B	0.1 s/v	No
4. Driveway No. 3 at Harvill Avenue	AM	LOS D	12.7 s/v	B	13.0 s/v	B	13.5 s/v	B	0.5 s/v	No
	PM		13.4 s/v	B	13.8 s/v	B	14.4 s/v	B	0.6 s/v	No
5. Driveway No. 4 at Harvill Avenue	AM	LOS D	11.8 s/v	B	12.0 s/v	B	12.2 s/v	B	0.2 s/v	No
	PM		13.8 s/v	B	14.2 s/v	B	14.5 s/v	B	0.3 s/v	No

Note:

- s/v = seconds per vehicle

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TABLE 6
PEAK HOUR INTERSECTION QUEUING ANALYSIS
CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

Key Study Intersection	(1) Estimated Storage Provided (feet)	(2) Existing Traffic Conditions				(3) Existing Plus Project Traffic Conditions				(4) Existing Plus Ambient Growth (Year 2023) Without Project Traffic Conditions				(5) Existing Plus Ambient Growth (Year 2023) Plus Project Traffic Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[6]	Adequate Storage (Yes/No)
1. Cajalco Expressway at Harvill Avenue																	
SB Dual Left-Turn Lanes	200’	102’	Yes	87’	Yes	109’	Yes	98’	Yes	107’	Yes	91’	Yes	115’	Yes	102’	Yes
2. Cajalco Expressway at Driveway No. 1																	
WB Right-Turn Lane	70’	10’	Yes	8’	Yes	11’	Yes	9’	Yes	11’	Yes	9’	Yes	12’	Yes	10’	Yes
3. Cajalco Expressway at Driveway No. 2																	
WB Right-Turn Lane	60’	5’	Yes	5’	Yes	5’	Yes	5’	Yes	6’	Yes	6’	Yes	6’	Yes	6’	Yes
4. Driveway No. 3 at Harvill Avenue																	
NB Left-Turn Lane	55’	17’	Yes	15’	Yes	22’	Yes	19’	Yes	18’	Yes	17’	Yes	23’	Yes	21’	Yes
NB Right-Turn Lane	55’	3’	Yes	5’	Yes	4’	Yes	5’	Yes	3’	Yes	5’	Yes	4’	Yes	5’	Yes
EB Shared Through/Right-Turn Lane	300’	0’	Yes	0’	Yes	0’	Yes	0’	Yes	0’	Yes	0’	Yes	0’	Yes	0’	Yes
WB Left-Turn Lane	60’	3’	Yes	2’	Yes	3’	Yes	2’	Yes	3’	Yes	2’	Yes	3’	Yes	2’	Yes
5. Driveway No. 4 at Harvill Avenue																	
NB Shared Left/Right-Turn Lane	40’	1’	Yes	4’	Yes	2’	Yes	5’	Yes	1’	Yes	4’	Yes	2’	Yes	5’	Yes

Notes:

- NB = Northbound
- SB = Southbound
- EB = Eastbound
- WB = Westbound

[6] Queue is based on the *95th Percentile Queue* and is reported in total queue length (feet) per lane for signalized and unsignalized intersections.

APPENDIX A

EXISTING TRAFFIC COUNT DATA

APPENDIX A-I

EXISTING TRAFFIC COUNT WORKSHEETS

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

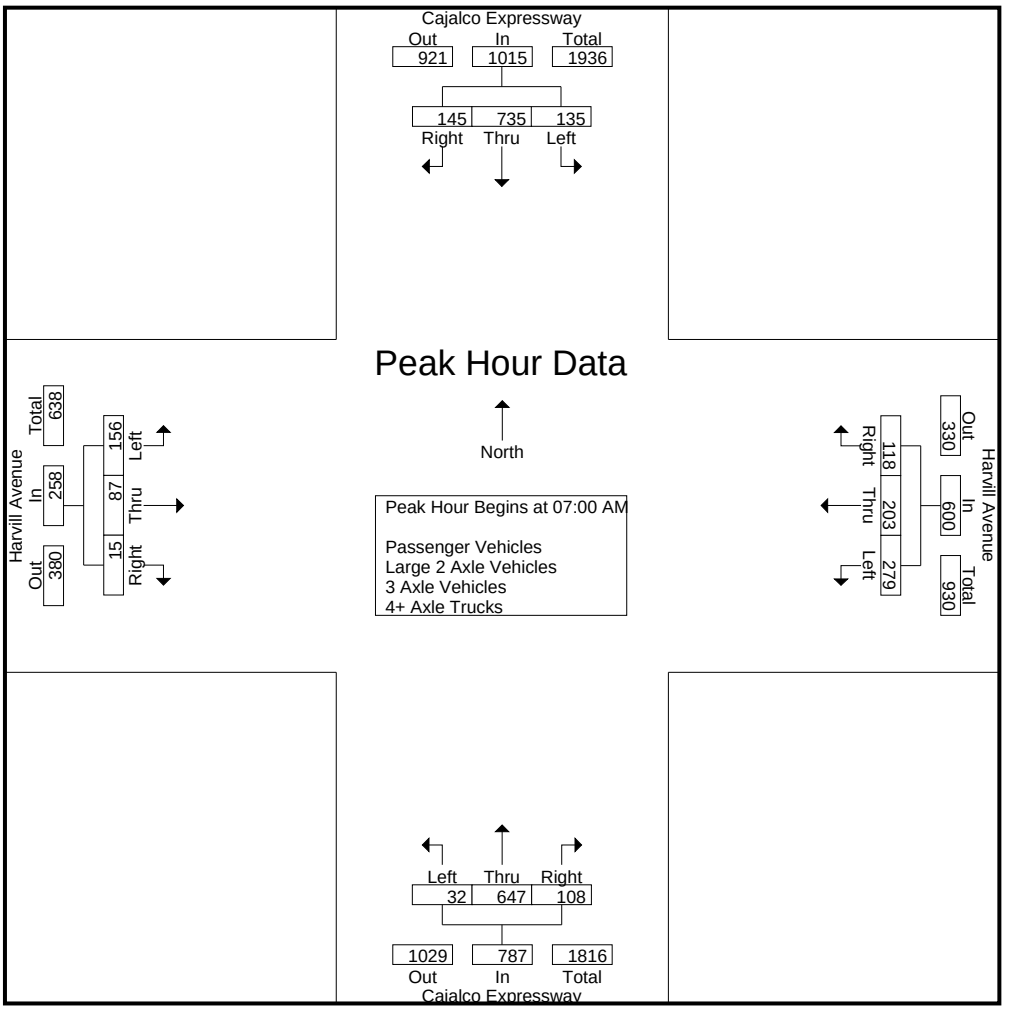
	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	30	164	28	222	63	40	25	128	4	152	10	166	35	16	1	52	568
07:15 AM	29	201	36	266	96	42	33	171	4	160	24	188	40	20	5	65	690
07:30 AM	49	187	43	279	66	69	29	164	10	175	34	219	32	23	4	59	721
07:45 AM	27	183	38	248	54	52	31	137	14	160	40	214	49	28	5	82	681
Total	135	735	145	1015	279	203	118	600	32	647	108	787	156	87	15	258	2660
08:00 AM	37	145	29	211	32	46	33	111	4	159	20	183	36	24	2	62	567
08:15 AM	39	167	37	243	41	20	27	88	10	126	25	161	50	30	4	84	576
08:30 AM	28	171	33	232	35	19	30	84	6	141	25	172	35	19	3	57	545
08:45 AM	30	118	28	176	28	15	14	57	6	115	24	145	22	17	5	44	422
Total	134	601	127	862	136	100	104	340	26	541	94	661	143	90	14	247	2110
Grand Total	269	1336	272	1877	415	303	222	940	58	1188	202	1448	299	177	29	505	4770
Apprch %	14.3	71.2	14.5		44.1	32.2	23.6		4	82	14		59.2	35	5.7		
Total %	5.6	28	5.7	39.4	8.7	6.4	4.7	19.7	1.2	24.9	4.2	30.4	6.3	3.7	0.6	10.6	
Passenger Vehicles	200	1239	259	1698	395	291	179	865	45	1093	192	1330	281	155	25	461	4354
% Passenger Vehicles	74.3	92.7	95.2	90.5	95.2	96	80.6	92	77.6	92	95	91.9	94	87.6	86.2	91.3	91.3
Large 2 Axle Vehicles	25	52	4	81	9	10	18	37	4	40	4	48	9	13	1	23	189
% Large 2 Axle Vehicles	9.3	3.9	1.5	4.3	2.2	3.3	8.1	3.9	6.9	3.4	2	3.3	3	7.3	3.4	4.6	4
3 Axle Vehicles	2	2	4	8	1	2	3	6	4	10	2	16	3	3	0	6	36
% 3 Axle Vehicles	0.7	0.1	1.5	0.4	0.2	0.7	1.4	0.6	6.9	0.8	1	1.1	1	1.7	0	1.2	0.8
4+ Axle Trucks	42	43	5	90	10	0	22	32	5	45	4	54	6	6	3	15	191
% 4+ Axle Trucks	15.6	3.2	1.8	4.8	2.4	0	9.9	3.4	8.6	3.8	2	3.7	2	3.4	10.3	3	4

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	30	164	28	222	63	40	25	128	4	152	10	166	35	16	1	52	568
07:15 AM	29	**201**	36	266	**96**	42	**33**	**171**	4	160	24	188	40	20	**5**	65	690
07:30 AM	**49**	187	**43**	**279**	66	**69**	29	164	10	**175**	34	**219**	32	23	4	59	**721**
07:45 AM	27	183	38	248	54	52	31	137	**14**	160	**40**	214	**49**	**28**	5	**82**	681
Total Volume	135	735	145	1015	279	203	118	600	32	647	108	787	156	87	15	258	2660
% App. Total	13.3	72.4	14.3		46.5	33.8	19.7		4.1	82.2	13.7		60.5	33.7	5.8		
PHF	.689	.914	.843	.909	.727	.736	.894	.877	.571	.924	.675	.898	.796	.777	.750	.787	.922

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:30 AM			
+0 mins.	30	164	28	222	63	40	25	128	4	160	24	188	32	23	4	59
+15 mins.	29	**201**	36	266	**96**	42	**33**	**171**	10	**175**	34	**219**	49	28	**5**	82
+30 mins.	**49**	187	**43**	**279**	66	**69**	29	164	**14**	160	**40**	214	36	24	2	62
+45 mins.	27	183	38	248	54	52	31	137	4	159	20	183	**50**	**30**	4	**84**
Total Volume	135	735	145	1015	279	203	118	600	32	654	118	804	167	105	15	287
% App. Total	13.3	72.4	14.3		46.5	33.8	19.7		4	81.3	14.7		58.2	36.6	5.2	
PHF	.689	.914	.843	.909	.727	.736	.894	.877	.571	.934	.738	.918	.835	.875	.750	.854

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County of Riverside
N/S: Cajalco Expressway
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File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	21	157	27	205	60	37	23	120	2	143	10	155	31	12	1	44	524
07:15 AM	25	189	34	248	93	40	26	159	4	147	23	174	39	19	4	62	643
07:30 AM	33	172	39	244	64	67	22	153	9	162	34	205	31	22	4	57	659
07:45 AM	22	168	37	227	52	51	26	129	12	147	39	198	46	26	5	77	631
Total	101	686	137	924	269	195	97	561	27	599	106	732	147	79	14	240	2457
08:00 AM	32	136	28	196	29	43	25	97	3	144	20	167	35	23	0	58	518
08:15 AM	32	148	37	217	40	20	21	81	8	118	22	148	47	24	3	74	520
08:30 AM	17	159	31	207	31	18	22	71	4	125	23	152	31	15	3	49	479
08:45 AM	18	110	26	154	26	15	14	55	3	107	21	131	21	14	5	40	380
Total	99	553	122	774	126	96	82	304	18	494	86	598	134	76	11	221	1897
Grand Total	200	1239	259	1698	395	291	179	865	45	1093	192	1330	281	155	25	461	4354
Apprch %	11.8	73	15.3		45.7	33.6	20.7		3.4	82.2	14.4		61	33.6	5.4		
Total %	4.6	28.5	5.9	39	9.1	6.7	4.1	19.9	1	25.1	4.4	30.5	6.5	3.6	0.6	10.6	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	21	157	27	205	60	37	23	120	2	143	10	155	31	12	1	44	524
07:15 AM	25	**189**	34	**248**	**93**	40	**26**	**159**	4	147	23	174	39	19	4	62	643
07:30 AM	**33**	172	**39**	244	64	**67**	22	153	9	**162**	34	**205**	31	22	4	57	**659**
07:45 AM	22	168	37	227	52	51	26	129	**12**	147	**39**	198	**46**	**26**	**5**	**77**	631
Total Volume	101	686	137	924	269	195	97	561	27	599	106	732	147	79	14	240	2457
% App. Total	10.9	74.2	14.8		48	34.8	17.3		3.7	81.8	14.5		61.2	32.9	5.8		
PHF	.765	.907	.878	.931	.723	.728	.933	.882	.563	.924	.679	.893	.799	.760	.700	.779	.932

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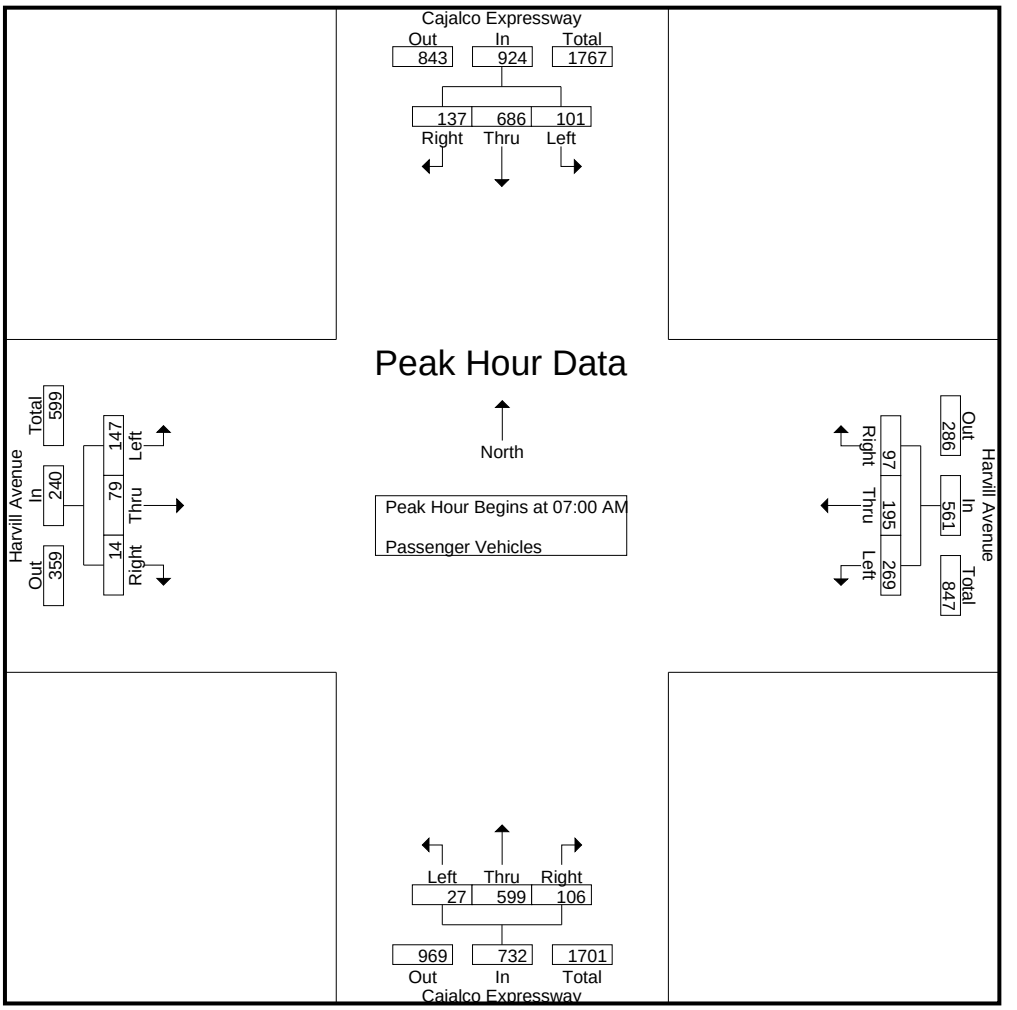
County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	21	157	27	205	60	37	23	120	2	143	10	155	31	12	1	44
+15 mins.	25	**189**	34	**248**	**93**	40	**26**	**159**	4	147	23	174	39	19	4	62
+30 mins.	**33**	172	**39**	244	64	**67**	22	153	9	**162**	34	**205**	31	22	4	57
+45 mins.	22	168	37	227	52	51	26	129	**12**	147	**39**	198	**46**	**26**	**5**	**77**
Total Volume	101	686	137	924	269	195	97	561	27	599	106	732	147	79	14	240
% App. Total	10.9	74.2	14.8		48	34.8	17.3		3.7	81.8	14.5		61.2	32.9	5.8	
PHF	.765	.907	.878	.931	.723	.728	.933	.882	.563	.924	.679	.893	.799	.760	.700	.779

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	5	0	7	1	2	0	3	1	2	0	3	2	3	0	5	18
07:15 AM	1	8	1	10	2	1	6	9	0	5	0	5	0	1	0	1	25
07:30 AM	8	7	1	16	1	2	2	5	0	6	0	6	0	1	0	1	28
07:45 AM	2	8	0	10	0	1	3	4	1	7	1	9	2	2	0	4	27
Total	13	28	2	43	4	6	11	21	2	20	1	23	4	7	0	11	98
08:00 AM	2	6	0	8	2	3	3	8	0	5	0	5	0	0	1	1	22
08:15 AM	1	11	0	12	0	0	1	1	1	3	2	6	3	3	0	6	25
08:30 AM	3	5	1	9	2	1	3	6	1	12	1	14	2	3	0	5	34
08:45 AM	6	2	1	9	1	0	0	1	0	0	0	0	0	0	0	0	10
Total	12	24	2	38	5	4	7	16	2	20	3	25	5	6	1	12	91
Grand Total	25	52	4	81	9	10	18	37	4	40	4	48	9	13	1	23	189
Apprch %	30.9	64.2	4.9		24.3	27	48.6		8.3	83.3	8.3		39.1	56.5	4.3		
Total %	13.2	27.5	2.1	42.9	4.8	5.3	9.5	19.6	2.1	21.2	2.1	25.4	4.8	6.9	0.5	12.2	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	5	0	7	1	**2**	0	3	**1**	2	0	3	**2**	**3**	0	**5**	18
07:15 AM	1	**8**	**1**	10	**2**	1	**6**	**9**	0	5	0	5	0	1	0	1	25
07:30 AM	**8**	7	1	**16**	1	2	2	5	0	6	0	6	0	1	0	1	**28**
07:45 AM	2	8	0	10	0	1	3	4	1	**7**	**1**	**9**	2	2	0	4	27
Total Volume	13	28	2	43	4	6	11	21	2	20	1	23	4	7	0	11	98
% App. Total	30.2	65.1	4.7		19	28.6	52.4		8.7	87	4.3		36.4	63.6	0		
PHF	.406	.875	.500	.672	.500	.750	.458	.583	.500	.714	.250	.639	.500	.583	.000	.550	.875

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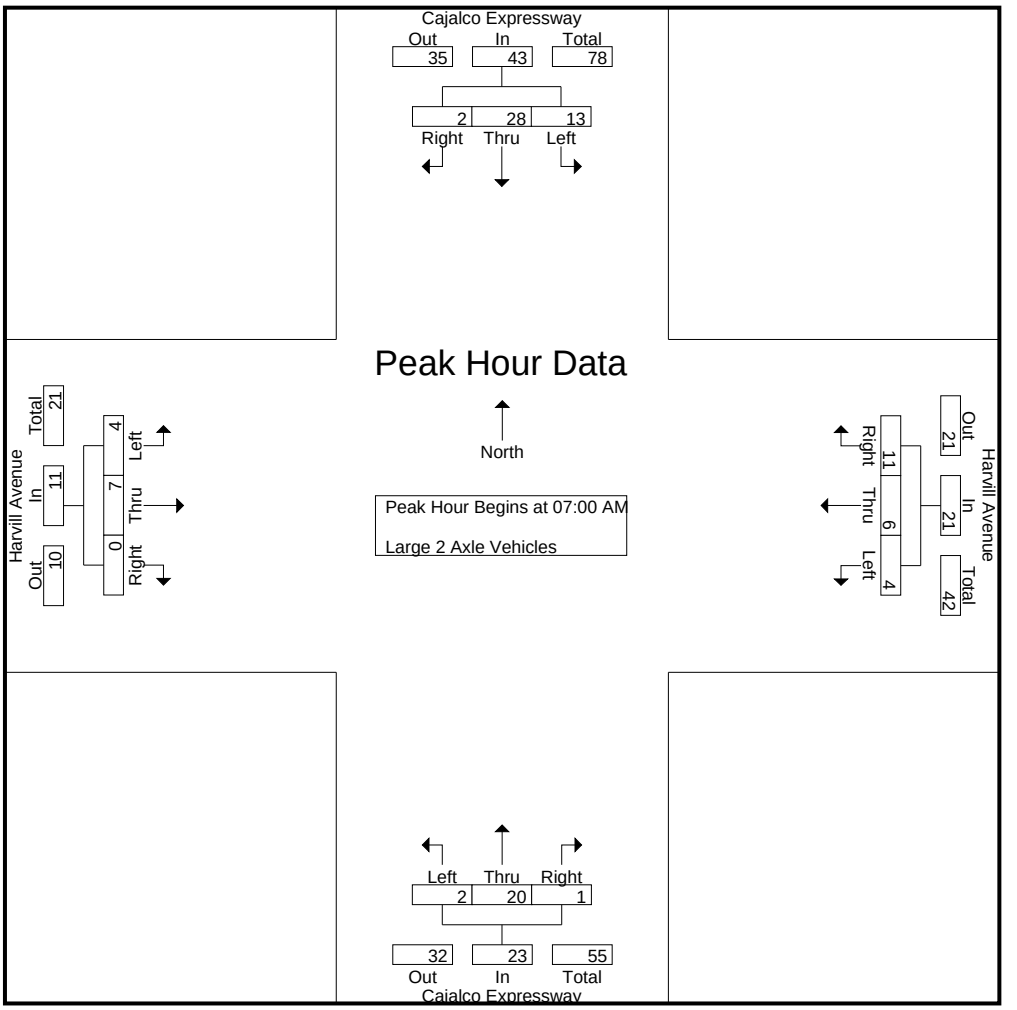
County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	2	5	0	7	1	**2**	0	3	**1**	2	0	3	**2**	**3**	0	**5**
+15 mins.	1	**8**	**1**	10	**2**	1	**6**	**9**	0	5	0	5	0	1	0	1
+30 mins.	**8**	7	1	**16**	1	2	2	5	0	6	0	6	0	1	0	1
+45 mins.	2	8	0	10	0	1	3	4	1	**7**	**1**	**9**	2	2	0	4
Total Volume	13	28	2	43	4	6	11	21	2	20	1	23	4	7	0	11
% App. Total	30.2	65.1	4.7		19	28.6	52.4		8.7	87	4.3		36.4	63.6	0	
PHF	.406	.875	.500	.672	.500	.750	.458	.583	.500	.714	.250	.639	.500	.583	.000	.550

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	2
07:15 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:30 AM	1	0	2	3	0	0	0	0	1	2	0	3	0	0	0	0	6
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	1	2	2	5	0	2	0	2	1	4	0	5	0	0	0	0	12
08:00 AM	0	0	1	1	0	0	0	0	0	1	0	1	1	1	0	2	4
08:15 AM	0	0	0	0	0	0	3	3	1	2	1	4	0	1	0	1	8
08:30 AM	0	0	1	1	0	0	0	0	0	1	0	1	2	1	0	3	5
08:45 AM	1	0	0	1	1	0	0	1	2	2	1	5	0	0	0	0	7
Total	1	0	2	3	1	0	3	4	3	6	2	11	3	3	0	6	24
Grand Total	2	2	4	8	1	2	3	6	4	10	2	16	3	3	0	6	36
Apprch %	25	25	50		16.7	33.3	50		25	62.5	12.5		50	50	0		
Total %	5.6	5.6	11.1	22.2	2.8	5.6	8.3	16.7	11.1	27.8	5.6	44.4	8.3	8.3	0	16.7	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**1**	0	**1**	0	1	0	1	0	0	0	0	2
07:15 AM	0	**1**	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:30 AM	**1**	0	**2**	**3**	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0	**6**
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total Volume	1	2	2	5	0	2	0	2	1	4	0	5	0	0	0	0	12
% App. Total	20	40	40		0	100	0		20	80	0		0	0	0		
PHF	.250	.500	.250	.417	.000	.500	.000	.500	.250	.500	.000	.417	.000	.000	.000	.000	.500

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
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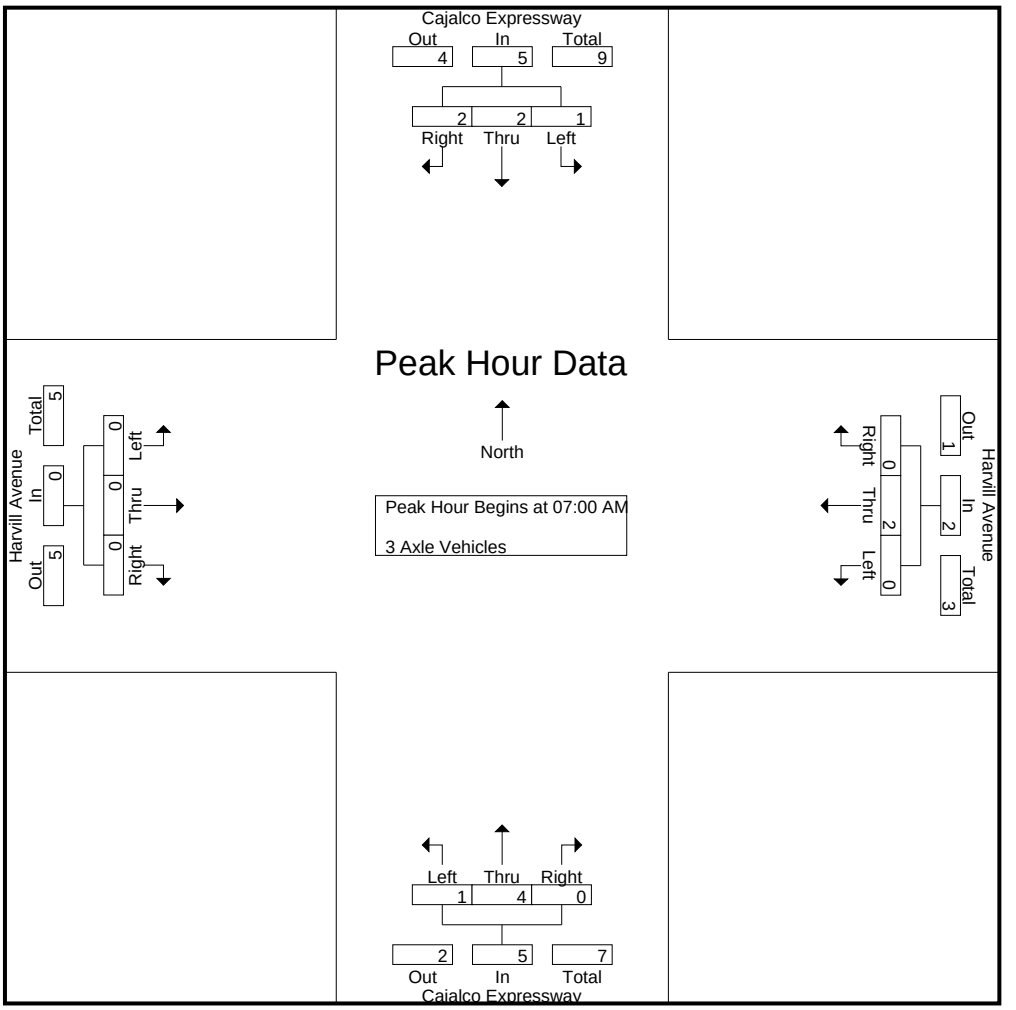

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	1	0	1	0	0	0	0
+15 mins.	0	**1**	0	1	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	**2**	**3**	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	1	2	2	5	0	2	0	2	1	4	0	5	0	0	0	0
% App. Total	20	40	40		0	100	0		20	80	0		0	0	0	
PHF	.250	.500	.250	.417	.000	.500	.000	.500	.250	.500	.000	.417	.000	.000	.000	.000

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County of Riverside
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Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	7	2	1	10	2	0	2	4	1	6	0	7	2	1	0	3	24
07:15 AM	3	3	1	7	1	0	1	2	0	8	1	9	1	0	1	2	20
07:30 AM	7	8	1	16	1	0	5	6	0	5	0	5	1	0	0	1	28
07:45 AM	3	6	1	10	2	0	2	4	1	5	0	6	1	0	0	1	21
Total	20	19	4	43	6	0	10	16	2	24	1	27	5	1	1	7	93
08:00 AM	3	3	0	6	1	0	5	6	1	9	0	10	0	0	1	1	23
08:15 AM	6	8	0	14	1	0	2	3	0	3	0	3	0	2	1	3	23
08:30 AM	8	7	0	15	2	0	5	7	1	3	1	5	0	0	0	0	27
08:45 AM	5	6	1	12	0	0	0	0	1	6	2	9	1	3	0	4	25
Total	22	24	1	47	4	0	12	16	3	21	3	27	1	5	2	8	98
Grand Total	42	43	5	90	10	0	22	32	5	45	4	54	6	6	3	15	191
Apprch %	46.7	47.8	5.6		31.2	0	68.8		9.3	83.3	7.4		40	40	20		
Total %	22	22.5	2.6	47.1	5.2	0	11.5	16.8	2.6	23.6	2.1	28.3	3.1	3.1	1.6	7.9	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**7**	2	**1**	10	**2**	0	2	4	**1**	6	0	7	**2**	**1**	0	**3**	24
07:15 AM	3	3	1	7	1	0	1	2	0	**8**	**1**	**9**	1	0	**1**	2	20
07:30 AM	7	**8**	1	**16**	1	0	**5**	**6**	0	5	0	5	1	0	0	1	**28**
07:45 AM	3	6	1	10	2	0	2	4	1	5	0	6	1	0	0	1	21
Total Volume	20	19	4	43	6	0	10	16	2	24	1	27	5	1	1	7	93
% App. Total	46.5	44.2	9.3		37.5	0	62.5		7.4	88.9	3.7		71.4	14.3	14.3		
PHF	.714	.594	1.00	.672	.750	.000	.500	.667	.500	.750	.250	.750	.625	.250	.250	.583	.830

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill AM
Site Code : 05721412
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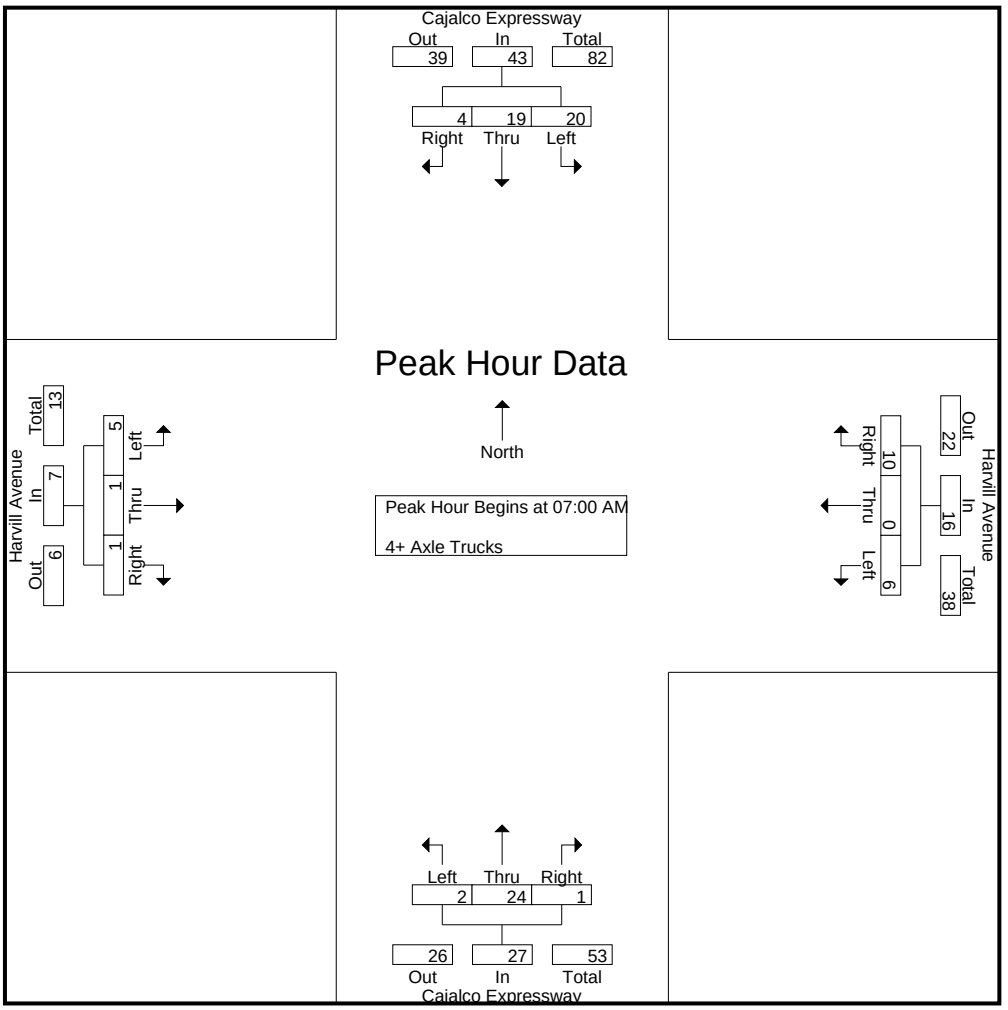

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**7**	2	**1**	10	**2**	0	2	4	**1**	6	0	7	**2**	**1**	0	**3**
+15 mins.	3	3	1	7	1	0	1	2	0	**8**	**1**	**9**	1	0	**1**	2
+30 mins.	7	**8**	1	**16**	1	0	**5**	**6**	0	5	0	5	1	0	0	1
+45 mins.	3	6	1	10	2	0	2	4	1	5	0	6	1	0	0	1
Total Volume	20	19	4	43	6	0	10	16	2	24	1	27	5	1	1	7
% App. Total	46.5	44.2	9.3		37.5	0	62.5		7.4	88.9	3.7		71.4	14.3	14.3	
PHF	.714	.594	1.000	.672	.750	.000	.500	.667	.500	.750	.250	.750	.625	.250	.250	.583

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	34	182	37	253	49	54	33	136	12	142	63	217	40	51	12	103	709
04:15 PM	32	189	46	267	33	36	29	98	11	142	61	214	51	43	6	100	679
04:30 PM	30	166	34	230	42	32	27	101	5	185	56	246	58	56	6	120	697
04:45 PM	24	159	46	229	40	33	16	89	5	198	41	244	39	41	8	88	650
Total	120	696	163	979	164	155	105	424	33	667	221	921	188	191	32	411	2735
05:00 PM	27	187	38	252	38	29	18	85	10	190	45	245	37	41	5	83	665
05:15 PM	26	164	40	230	39	23	20	82	8	192	46	246	42	51	5	98	656
05:30 PM	22	154	31	207	36	25	10	71	7	201	56	264	51	58	10	119	661
05:45 PM	19	174	23	216	38	23	27	88	5	170	35	210	34	36	7	77	591
Total	94	679	132	905	151	100	75	326	30	753	182	965	164	186	27	377	2573
Grand Total	214	1375	295	1884	315	255	180	750	63	1420	403	1886	352	377	59	788	5308
Apprch %	11.4	73	15.7		42	34	24		3.3	75.3	21.4		44.7	47.8	7.5		
Total %	4	25.9	5.6	35.5	5.9	4.8	3.4	14.1	1.2	26.8	7.6	35.5	6.6	7.1	1.1	14.8	
Passenger Vehicles	173	1317	280	1770	308	246	167	721	50	1350	387	1787	345	361	52	758	5036
% Passenger Vehicles	80.8	95.8	94.9	93.9	97.8	96.5	92.8	96.1	79.4	95.1	96	94.8	98	95.8	88.1	96.2	94.9
Large 2 Axle Vehicles	3	33	5	41	3	3	2	8	1	39	8	48	6	6	1	13	110
% Large 2 Axle Vehicles	1.4	2.4	1.7	2.2	1	1.2	1.1	1.1	1.6	2.7	2	2.5	1.7	1.6	1.7	1.6	2.1
3 Axle Vehicles	7	5	5	17	2	3	6	11	3	6	1	10	1	2	1	4	42
% 3 Axle Vehicles	3.3	0.4	1.7	0.9	0.6	1.2	3.3	1.5	4.8	0.4	0.2	0.5	0.3	0.5	1.7	0.5	0.8
4+ Axle Trucks	31	20	5	56	2	3	5	10	9	25	7	41	0	8	5	13	120
% 4+ Axle Trucks	14.5	1.5	1.7	3	0.6	1.2	2.8	1.3	14.3	1.8	1.7	2.2	0	2.1	8.5	1.6	2.3

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**34**	182	37	253	**49**	**54**	**33**	**136**	**12**	142	**63**	217	40	51	**12**	103	**709**
04:15 PM	32	**189**	**46**	**267**	33	36	29	98	11	142	61	214	51	43	6	100	679
04:30 PM	30	166	34	230	42	32	27	101	5	185	56	**246**	**58**	**56**	6	**120**	697
04:45 PM	24	159	46	229	40	33	16	89	5	**198**	41	244	39	41	8	88	650
Total Volume	120	696	163	979	164	155	105	424	33	667	221	921	188	191	32	411	2735
% App. Total	12.3	71.1	16.6		38.7	36.6	24.8		3.6	72.4	24		45.7	46.5	7.8		
PHF	.882	.921	.886	.917	.837	.718	.795	.779	.688	.842	.877	.936	.810	.853	.667	.856	.964

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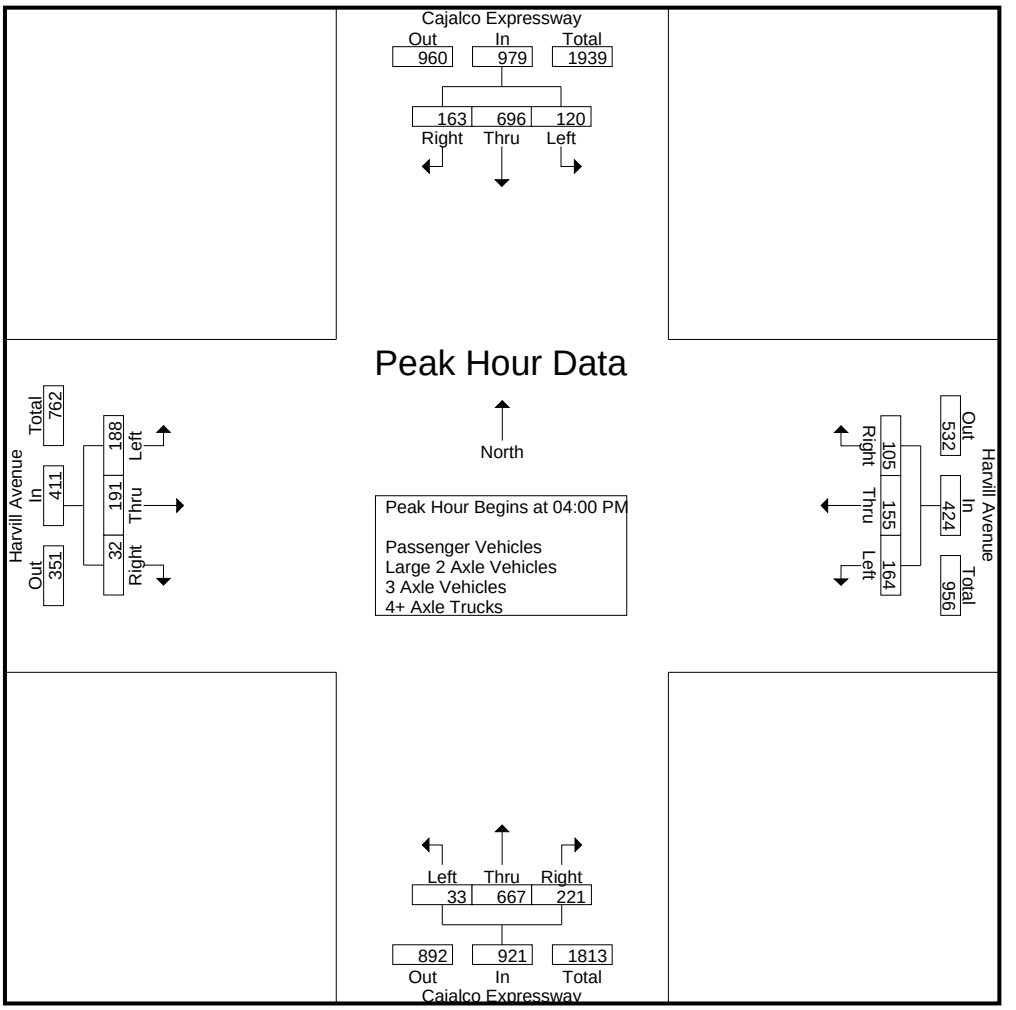
County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	**34**	182	37	253	**49**	**54**	**33**	**136**	5	198	41	244	40	51	**12**	103
+15 mins.	32	**189**	**46**	**267**	33	36	29	98	**10**	190	45	245	51	43	6	100
+30 mins.	30	166	34	230	42	32	27	101	8	192	46	246	**58**	**56**	6	**120**
+45 mins.	24	159	46	229	40	33	16	89	7	**201**	**56**	**264**	39	41	8	88
Total Volume	120	696	163	979	164	155	105	424	30	781	188	999	188	191	32	411
% App. Total	12.3	71.1	16.6		38.7	36.6	24.8		3	78.2	18.8		45.7	46.5	7.8	
PHF	.882	.921	.886	.917	.837	.718	.795	.779	.750	.971	.839	.946	.810	.853	.667	.856

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	29	167	37	233	49	51	32	132	10	129	62	201	38	47	7	92	658
04:15 PM	24	178	42	244	30	34	26	90	7	136	59	202	49	41	6	96	632
04:30 PM	23	161	32	216	42	29	25	96	5	174	53	232	58	55	6	119	663
04:45 PM	17	153	44	214	40	32	14	86	4	189	37	230	39	36	8	83	613
Total	93	659	155	907	161	146	97	404	26	628	211	865	184	179	27	390	2566
05:00 PM	21	183	38	242	37	29	17	83	7	179	44	230	37	40	5	82	637
05:15 PM	25	153	38	216	38	23	18	79	5	187	43	235	41	50	5	96	626
05:30 PM	19	152	28	199	36	25	10	71	7	194	55	256	50	58	9	117	643
05:45 PM	15	170	21	206	36	23	25	84	5	162	34	201	33	34	6	73	564
Total	80	658	125	863	147	100	70	317	24	722	176	922	161	182	25	368	2470
Grand Total	173	1317	280	1770	308	246	167	721	50	1350	387	1787	345	361	52	758	5036
Apprch %	9.8	74.4	15.8		42.7	34.1	23.2		2.8	75.5	21.7		45.5	47.6	6.9		
Total %	3.4	26.2	5.6	35.1	6.1	4.9	3.3	14.3	1	26.8	7.7	35.5	6.9	7.2	1	15.1	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**29**	167	37	233	**49**	**51**	**32**	**132**	**10**	129	**62**	201	38	47	7	92	658
04:15 PM	24	**178**	42	**244**	30	34	26	90	7	136	59	202	49	41	6	96	632
04:30 PM	23	161	32	216	42	29	25	96	5	174	53	**232**	**58**	**55**	6	**119**	**663**
04:45 PM	17	153	**44**	214	40	32	14	86	4	**189**	37	230	39	36	**8**	83	613
Total Volume	93	659	155	907	161	146	97	404	26	628	211	865	184	179	27	390	2566
% App. Total	10.3	72.7	17.1		39.9	36.1	24		3	72.6	24.4		47.2	45.9	6.9		
PHF	.802	.926	.881	.929	.821	.716	.758	.765	.650	.831	.851	.932	.793	.814	.844	.819	.968

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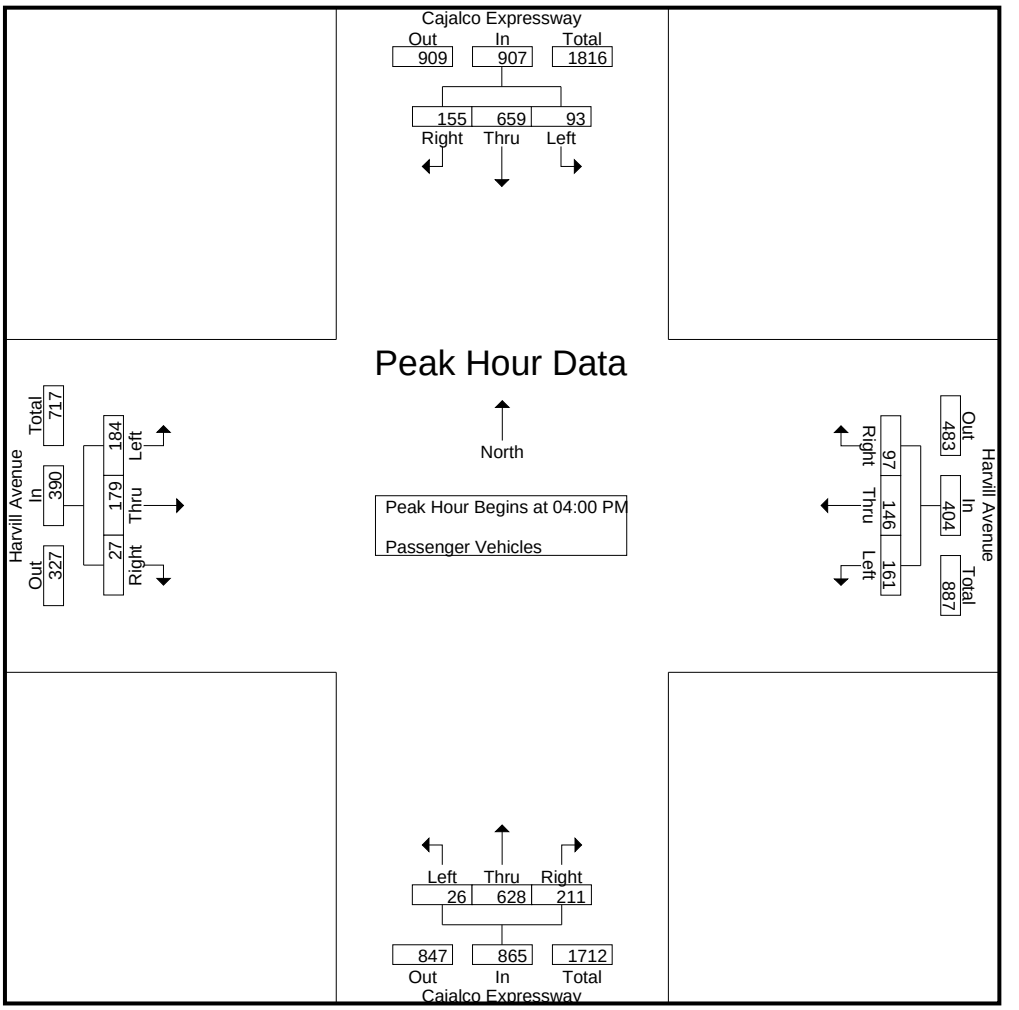
County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**29**	167	37	233	**49**	**51**	**32**	**132**	**10**	129	**62**	201	38	47	7	92
+15 mins.	24	**178**	42	**244**	30	34	26	90	7	136	59	202	49	41	6	96
+30 mins.	23	161	32	216	42	29	25	96	5	174	53	**232**	**58**	**55**	6	**119**
+45 mins.	17	153	**44**	214	40	32	14	86	4	**189**	37	230	39	36	**8**	83
Total Volume	93	659	155	907	161	146	97	404	26	628	211	865	184	179	27	390
% App. Total	10.3	72.7	17.1		39.9	36.1	24		3	72.6	24.4		47.2	45.9	6.9	
PHF	.802	.926	.881	.929	.821	.716	.758	.765	.650	.831	.851	.932	.793	.814	.844	.819

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	8	0	8	0	1	1	2	0	8	1	9	2	0	1	3	22
04:15 PM	0	8	1	9	1	0	0	1	0	4	0	4	2	1	0	3	17
04:30 PM	0	3	1	4	0	1	0	1	0	7	3	10	0	1	0	1	16
04:45 PM	2	1	1	4	0	1	1	2	0	3	1	4	0	2	0	2	12
Total	2	20	3	25	1	3	2	6	0	22	5	27	4	4	1	9	67
05:00 PM	0	3	0	3	0	0	0	0	1	7	1	9	0	0	0	0	12
05:15 PM	0	7	0	7	0	0	0	0	0	2	0	2	1	0	0	1	10
05:30 PM	0	1	1	2	0	0	0	0	0	4	1	5	0	0	0	0	7
05:45 PM	1	2	1	4	2	0	0	2	0	4	1	5	1	2	0	3	14
Total	1	13	2	16	2	0	0	2	1	17	3	21	2	2	0	4	43
Grand Total	3	33	5	41	3	3	2	8	1	39	8	48	6	6	1	13	110
Apprch %	7.3	80.5	12.2		37.5	37.5	25		2.1	81.2	16.7		46.2	46.2	7.7		
Total %	2.7	30	4.5	37.3	2.7	2.7	1.8	7.3	0.9	35.5	7.3	43.6	5.5	5.5	0.9	11.8	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**8**	0	8	0	**1**	**1**	**2**	0	**8**	1	9	**2**	0	**1**	**3**	**22**
04:15 PM	0	8	**1**	**9**	**1**	0	0	1	0	4	0	4	2	1	0	3	17
04:30 PM	0	3	1	4	0	1	0	1	0	7	**3**	**10**	0	1	0	1	16
04:45 PM	**2**	1	1	4	0	1	1	2	0	3	1	4	0	**2**	0	2	12
Total Volume	2	20	3	25	1	3	2	6	0	22	5	27	4	4	1	9	67
% App. Total	8	80	12		16.7	50	33.3		0	81.5	18.5		44.4	44.4	11.1		
PHF	.250	.625	.750	.694	.250	.750	.500	.750	.000	.688	.417	.675	.500	.500	.250	.750	.761

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County of Riverside
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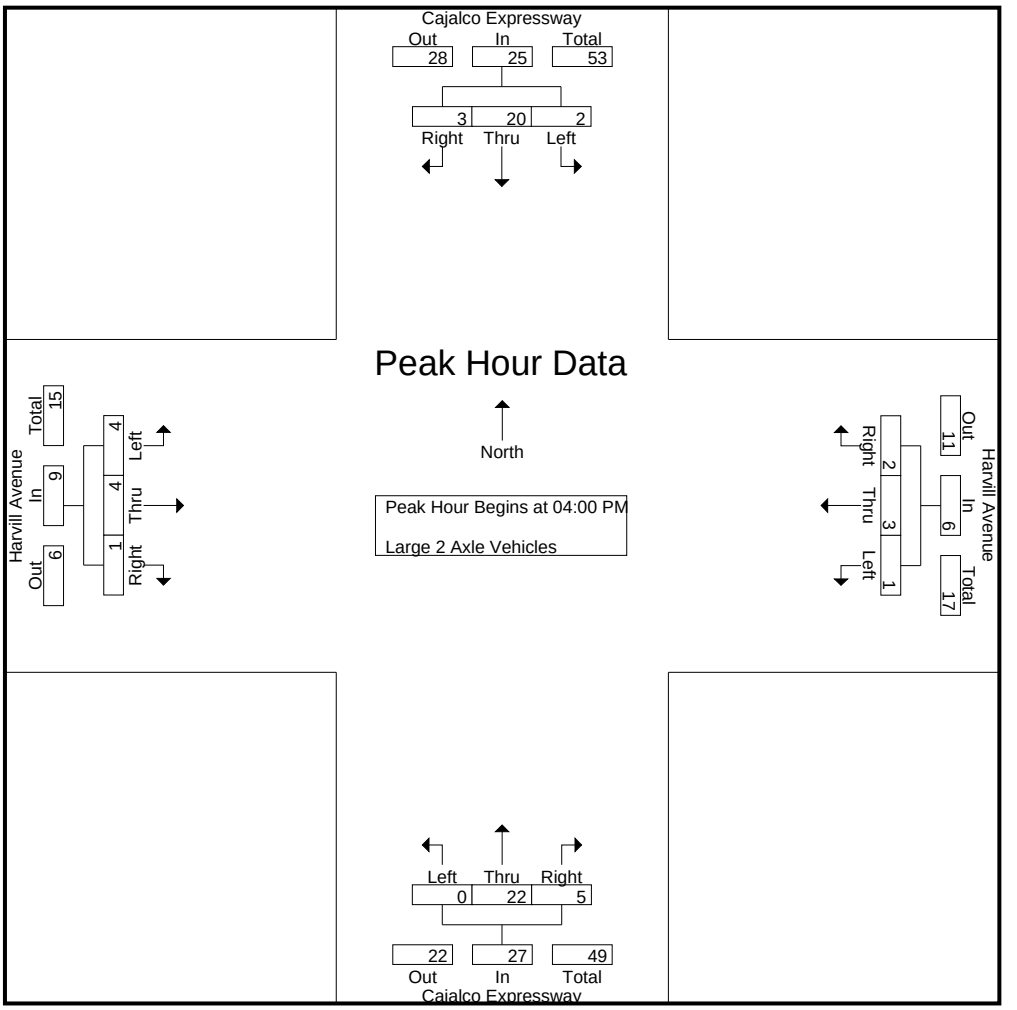
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**8**	0	8	0	**1**	**1**	**2**	0	**8**	1	9	**2**	0	**1**	**3**
+15 mins.	0	8	**1**	**9**	**1**	0	0	1	0	4	0	4	2	1	0	3
+30 mins.	0	3	1	4	0	1	0	1	0	7	**3**	**10**	0	1	0	1
+45 mins.	**2**	1	1	4	0	1	1	2	0	3	1	4	0	**2**	0	2
Total Volume	2	20	3	25	1	3	2	6	0	22	5	27	4	4	1	9
% App. Total	8	80	12		16.7	50	33.3		0	81.5	18.5		44.4	44.4	11.1	
PHF	.250	.625	.750	.694	.250	.750	.500	.750	.000	.688	.417	.675	.500	.500	.250	.750

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	1	0	2	0	0	0	0	1	1	0	2	0	1	0	1	5
04:15 PM	1	0	3	4	1	2	3	6	1	1	0	2	0	1	0	1	13
04:30 PM	2	0	0	2	0	1	0	1	0	1	0	1	0	0	0	0	4
04:45 PM	1	0	0	1	0	0	1	1	1	2	0	3	0	0	0	0	5
Total	5	1	3	9	1	3	4	8	3	5	0	8	0	2	0	2	27
05:00 PM	2	1	0	3	1	0	0	1	0	0	0	0	0	0	0	0	4
05:15 PM	0	1	1	2	0	0	1	1	0	0	1	1	0	0	0	0	4
05:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	1	0	1	2	4
05:45 PM	0	1	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
Total	2	4	2	8	1	0	2	3	0	1	1	2	1	0	1	2	15
Grand Total	7	5	5	17	2	3	6	11	3	6	1	10	1	2	1	4	42
Apprch %	41.2	29.4	29.4		18.2	27.3	54.5		30	60	10		25	50	25		
Total %	16.7	11.9	11.9	40.5	4.8	7.1	14.3	26.2	7.1	14.3	2.4	23.8	2.4	4.8	2.4	9.5	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	**1**	0	2	0	0	0	0	**1**	1	0	2	0	**1**	0	**1**	5
04:15 PM	1	0	**3**	**4**	**1**	**2**	**3**	**6**	1	1	0	2	0	1	0	1	**13**
04:30 PM	**2**	0	0	2	0	1	0	1	0	1	0	1	0	0	0	0	4
04:45 PM	1	0	0	1	0	0	1	1	1	**2**	0	**3**	0	0	0	0	5
Total Volume	5	1	3	9	1	3	4	8	3	5	0	8	0	2	0	2	27
% App. Total	55.6	11.1	33.3		12.5	37.5	50		37.5	62.5	0		0	100	0		
PHF	.625	.250	.250	.563	.250	.375	.333	.333	.750	.625	.000	.667	.000	.500	.000	.500	.519

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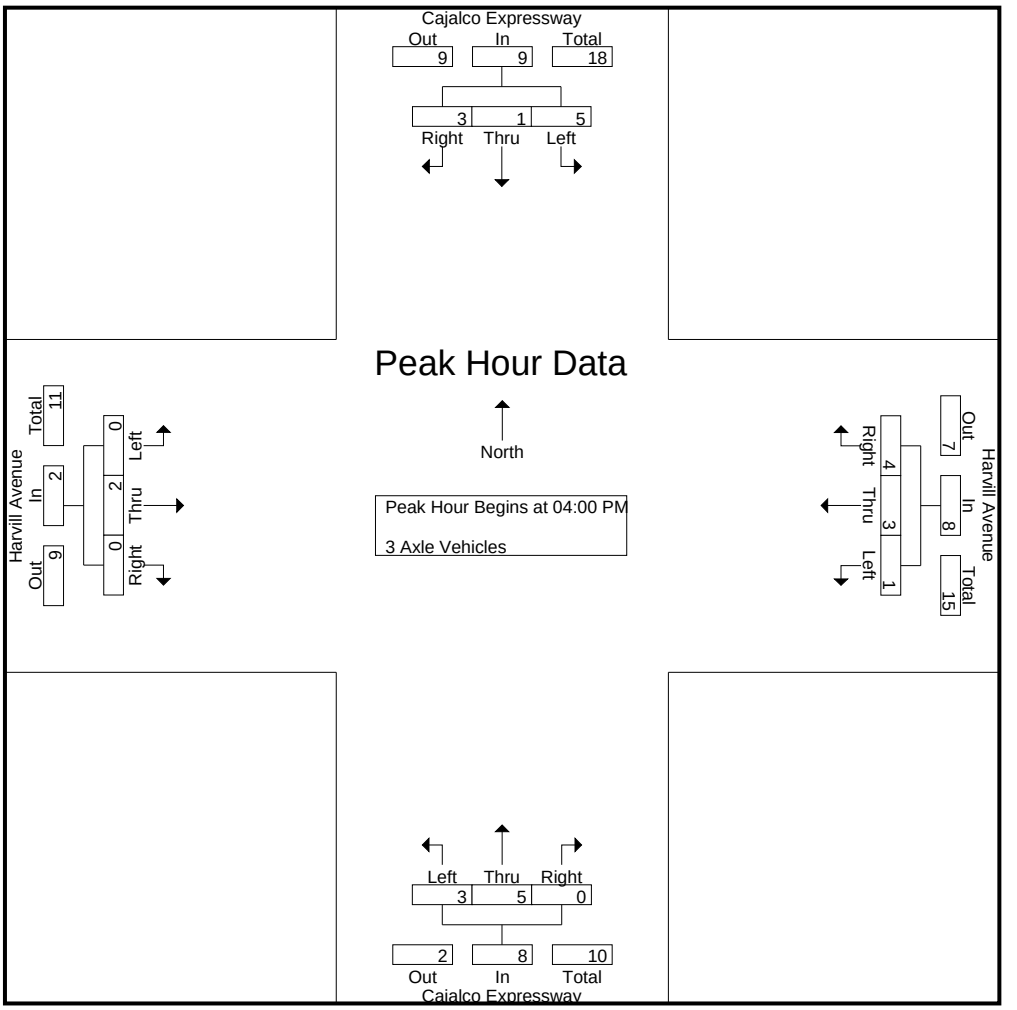
County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	1	**1**	0	2	0	0	0	0	**1**	1	0	2	0	**1**	0	**1**
+15 mins.	1	0	**3**	**4**	**1**	**2**	**3**	**6**	1	1	0	2	0	1	0	1
+30 mins.	**2**	0	0	2	0	1	0	1	0	1	0	1	0	0	0	0
+45 mins.	1	0	0	1	0	0	1	1	1	**2**	0	**3**	0	0	0	0
Total Volume	5	1	3	9	1	3	4	8	3	5	0	8	0	2	0	2
% App. Total	55.6	11.1	33.3		12.5	37.5	50		37.5	62.5	0		0	100	0	
PHF	.625	.250	.250	.563	.250	.375	.333	.333	.750	.625	.000	.667	.000	.500	.000	.500

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	6	0	10	0	2	0	2	1	4	0	5	0	3	4	7	24
04:15 PM	7	3	0	10	1	0	0	1	3	1	2	6	0	0	0	0	17
04:30 PM	5	2	1	8	0	1	2	3	0	3	0	3	0	0	0	0	14
04:45 PM	4	5	1	10	0	0	0	0	0	4	3	7	0	3	0	3	20
Total	20	16	2	38	1	3	2	6	4	12	5	21	0	6	4	10	75
05:00 PM	4	0	0	4	0	0	1	1	2	4	0	6	0	1	0	1	12
05:15 PM	1	3	1	5	1	0	1	2	3	3	2	8	0	1	0	1	16
05:30 PM	3	0	1	4	0	0	0	0	0	3	0	3	0	0	0	0	7
05:45 PM	3	1	1	5	0	0	1	1	0	3	0	3	0	0	1	1	10
Total	11	4	3	18	1	0	3	4	5	13	2	20	0	2	1	3	45
Grand Total	31	20	5	56	2	3	5	10	9	25	7	41	0	8	5	13	120
Apprch %	55.4	35.7	8.9		20	30	50		22	61	17.1		0	61.5	38.5		
Total %	25.8	16.7	4.2	46.7	1.7	2.5	4.2	8.3	7.5	20.8	5.8	34.2	0	6.7	4.2	10.8	

	Cajalco Expressway Southbound				Harvill Avenue Westbound				Cajalco Expressway Northbound				Harvill Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	**6**	0	**10**	0	**2**	0	2	1	**4**	0	5	0	**3**	**4**	**7**	**24**
04:15 PM	**7**	3	0	10	**1**	0	0	1	**3**	1	2	6	0	0	0	0	17
04:30 PM	5	2	**1**	8	0	1	**2**	**3**	0	3	0	3	0	0	0	0	14
04:45 PM	4	5	1	10	0	0	0	0	0	4	**3**	**7**	0	3	0	3	20
Total Volume	20	16	2	38	1	3	2	6	4	12	5	21	0	6	4	10	75
% App. Total	52.6	42.1	5.3		16.7	50	33.3		19	57.1	23.8		0	60	40		
PHF	.714	.667	.500	.950	.250	.375	.250	.500	.333	.750	.417	.750	.000	.500	.250	.357	.781

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County of Riverside
N/S: Cajalco Expressway
E/W: Harvill Avenue
Weather: Clear

File Name : 01_CRV_Cajalco_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
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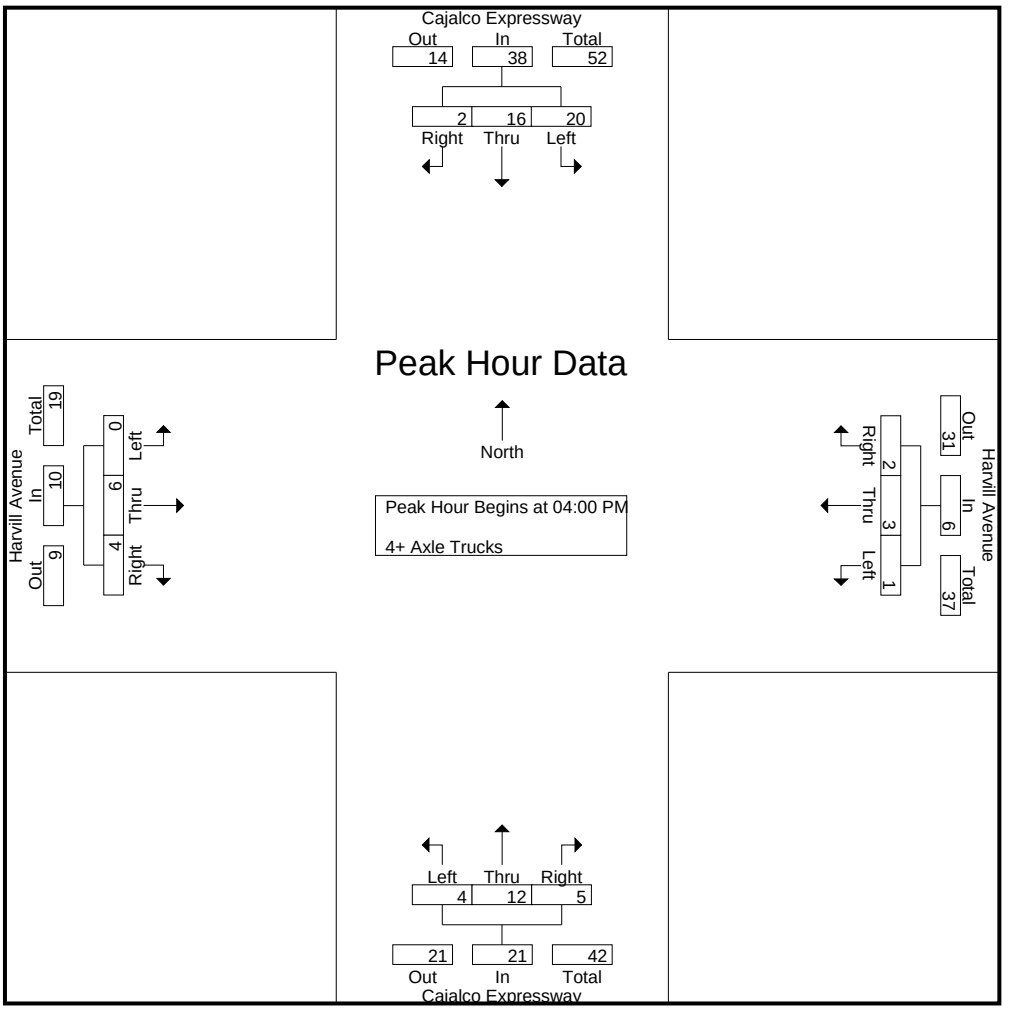

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	4	**6**	0	**10**	0	**2**	0	2	1	**4**	0	5	0	**3**	**4**	**7**
+15 mins.	**7**	3	0	10	**1**	0	0	1	**3**	1	2	6	0	0	0	0
+30 mins.	5	2	**1**	8	0	1	**2**	**3**	0	3	0	3	0	0	0	0
+45 mins.	4	5	1	10	0	0	0	0	0	4	**3**	**7**	0	3	0	3
Total Volume	20	16	2	38	1	3	2	6	4	12	5	21	0	6	4	10
% App. Total	52.6	42.1	5.3		16.7	50	33.3		19	57.1	23.8		0	60	40	
PHF	.714	.667	.500	.950	.250	.375	.250	.500	.333	.750	.417	.750	.000	.500	.250	.357

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 AM
Site Code : 05721412
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	230	230	0	4	4	164	0	164	398
07:15 AM	0	305	305	0	7	7	189	1	190	502
07:30 AM	0	255	255	0	5	5	224	0	224	484
07:45 AM	0	254	254	0	3	3	219	0	219	476
Total	0	1044	1044	0	19	19	796	1	797	1860
08:00 AM	0	185	185	0	3	3	194	1	195	383
08:15 AM	0	207	207	0	3	3	168	0	168	378
08:30 AM	0	210	210	0	4	4	173	1	174	388
08:45 AM	0	166	166	0	5	5	159	2	161	332
Total	0	768	768	0	15	15	694	4	698	1481
Grand Total	0	1812	1812	0	34	34	1490	5	1495	3341
Apprch %	0	100		0	100		99.7	0.3		
Total %	0	54.2	54.2	0	1	1	44.6	0.1	44.7	
Passenger Vehicles	0	1666	1666	0	2	2	1385	2	1387	3055
% Passenger Vehicles	0	91.9	91.9	0	5.9	5.9	93	40	92.8	91.4
Large 2 Axle Vehicles	0	79	79	0	3	3	60	0	60	142
% Large 2 Axle Vehicles	0	4.4	4.4	0	8.8	8.8	4	0	4	4.3
3 Axle Vehicles	0	4	4	0	5	5	12	1	13	22
% 3 Axle Vehicles	0	0.2	0.2	0	14.7	14.7	0.8	20	0.9	0.7
4+ Axle Trucks	0	63	63	0	24	24	33	2	35	122
% 4+ Axle Trucks	0	3.5	3.5	0	70.6	70.6	2.2	40	2.3	3.7

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	230	230	0	4	4	164	0	164	398
07:15 AM	0	**305**	**305**	0	**7**	**7**	189	**1**	190	**502**
07:30 AM	0	255	255	0	5	5	**224**	0	**224**	484
07:45 AM	0	254	254	0	3	3	219	0	219	476
Total Volume	0	1044	1044	0	19	19	796	1	797	1860
% App. Total	0	100		0	100		99.9	0.1		
PHF	.000	.856	.856	.000	.679	.679	.888	.250	.890	.926

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County of Riverside
N/S: Cajalco Expressway
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File Name : 02_CRV_Cajalco_DW 1 AM
Site Code : 05721412
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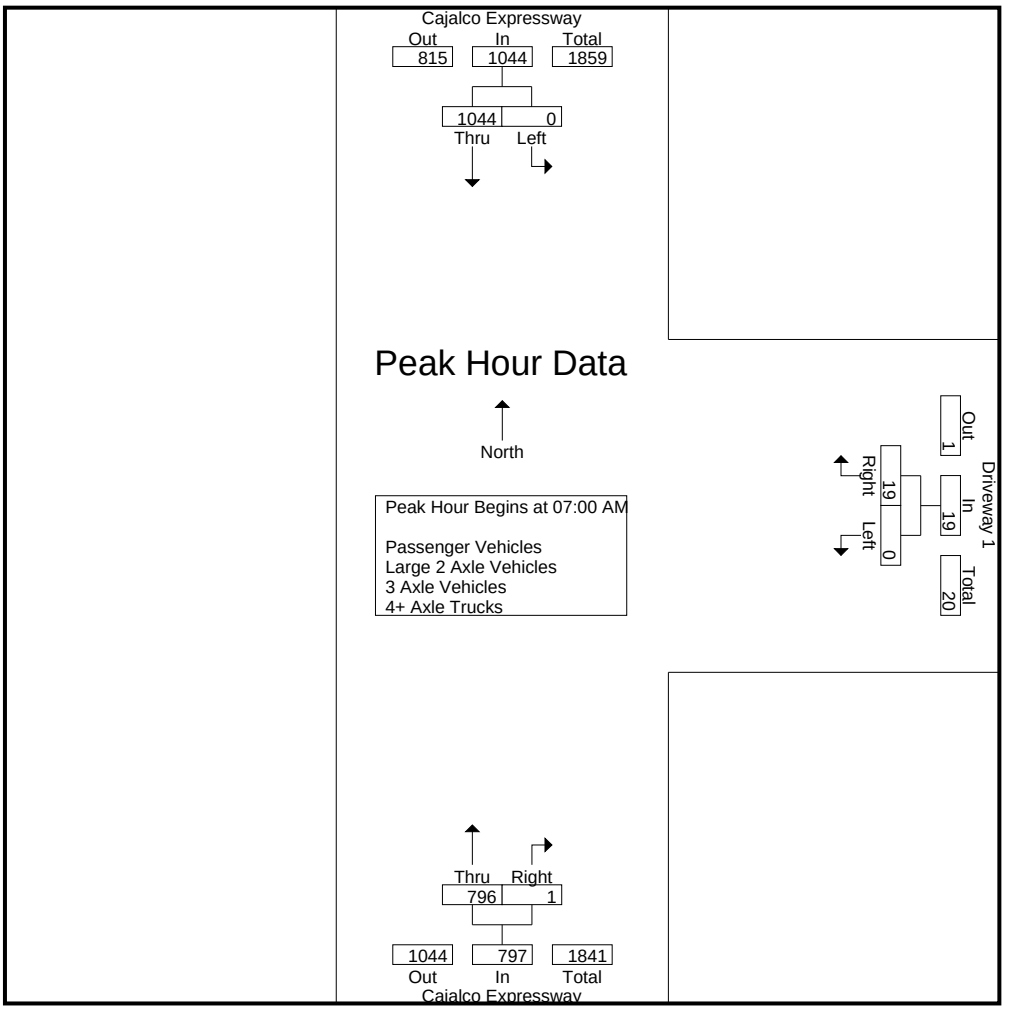

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	0	230	230	0	4	4	189	**1**	190
+15 mins.	0	**305**	**305**	0	**7**	**7**	**224**	0	**224**
+30 mins.	0	255	255	0	5	5	219	0	219
+45 mins.	0	254	254	0	3	3	194	1	195
Total Volume	0	1044	1044	0	19	19	826	2	828
% App. Total	0	100		0	100		99.8	0.2	
PHF	.000	.856	.856	.000	.679	.679	.922	.500	.924

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County of Riverside
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E/W: Driveway 1
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File Name : 02_CRV_Cajalco_DW 1 AM
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Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	218	218	0	0	0	154	0	154	372
07:15 AM	0	286	286	0	0	0	179	0	179	465
07:30 AM	0	235	235	0	1	1	210	0	210	446
07:45 AM	0	232	232	0	0	0	206	0	206	438
Total	0	971	971	0	1	1	749	0	749	1721
08:00 AM	0	166	166	0	0	0	179	1	180	346
08:15 AM	0	184	184	0	1	1	153	0	153	338
08:30 AM	0	193	193	0	0	0	154	0	154	347
08:45 AM	0	152	152	0	0	0	150	1	151	303
Total	0	695	695	0	1	1	636	2	638	1334
Grand Total	0	1666	1666	0	2	2	1385	2	1387	3055
Apprch %	0	100		0	100		99.9	0.1		
Total %	0	54.5	54.5	0	0.1	0.1	45.3	0.1	45.4	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	218	218	0	0	0	154	0	154	372
07:15 AM	0	**286**	**286**	0	0	0	179	0	179	**465**
07:30 AM	0	235	235	0	**1**	**1**	**210**	0	**210**	446
07:45 AM	0	232	232	0	0	0	206	0	206	438
Total Volume	0	971	971	0	1	1	749	0	749	1721
% App. Total	0	100		0	100		100	0		
PHF	.000	.849	.849	.000	.250	.250	.892	.000	.892	.925

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File Name : 02_CRV_Cajalco_DW 1 AM
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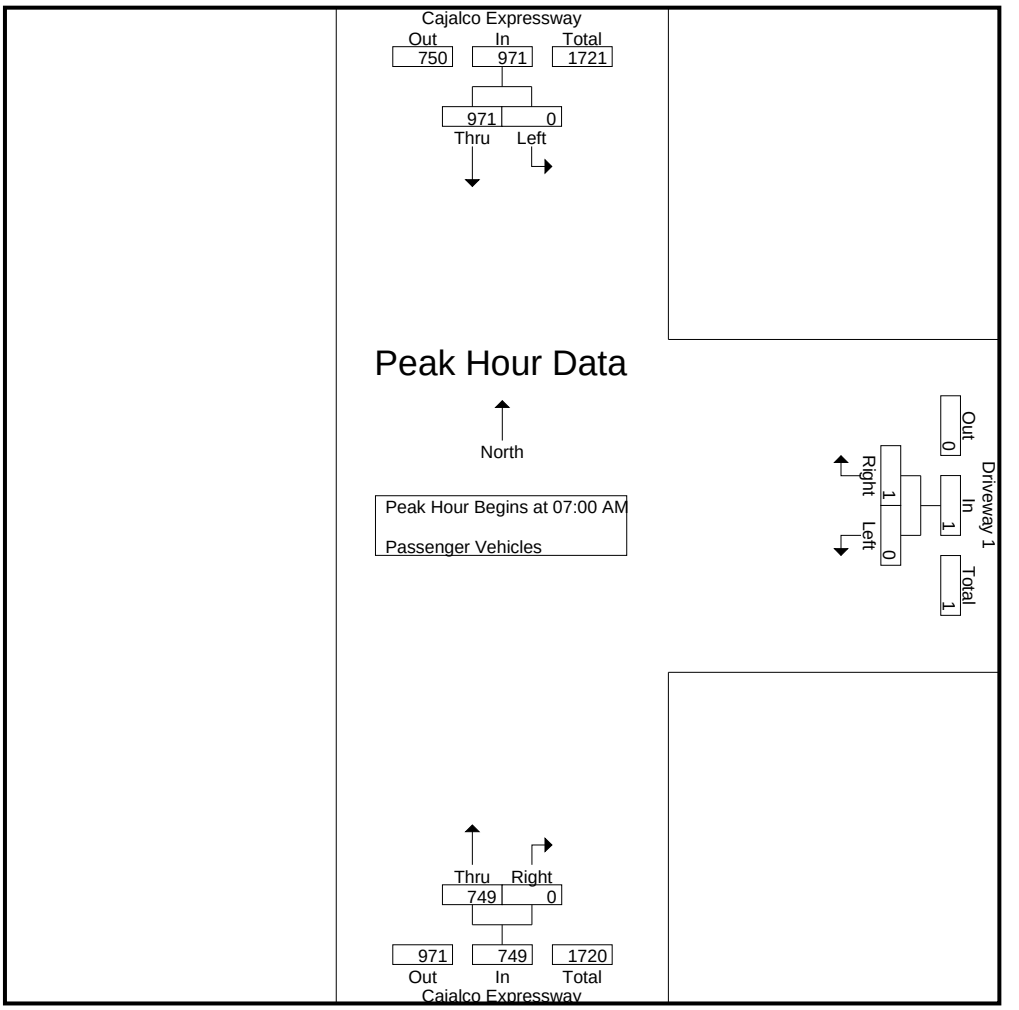

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	218	218	0	0	0	154	0	154
+15 mins.	0	**286**	**286**	0	0	0	179	0	179
+30 mins.	0	235	235	0	**1**	**1**	**210**	0	**210**
+45 mins.	0	232	232	0	0	0	206	0	206
Total Volume	0	971	971	0	1	1	749	0	749
% App. Total	0	100		0	100		100	0	
PHF	.000	.849	.849	.000	.250	.250	.892	.000	.892

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 AM
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Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	8	8	0	0	0	4	0	4	12
07:15 AM	0	10	10	0	1	1	6	0	6	17
07:30 AM	0	11	11	0	0	0	8	0	8	19
07:45 AM	0	13	13	0	1	1	9	0	9	23
Total	0	42	42	0	2	2	27	0	27	71
08:00 AM	0	13	13	0	1	1	6	0	6	20
08:15 AM	0	11	11	0	0	0	9	0	9	20
08:30 AM	0	7	7	0	0	0	16	0	16	23
08:45 AM	0	6	6	0	0	0	2	0	2	8
Total	0	37	37	0	1	1	33	0	33	71
Grand Total	0	79	79	0	3	3	60	0	60	142
Apprch %	0	100		0	100		100	0		
Total %	0	55.6	55.6	0	2.1	2.1	42.3	0	42.3	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	8	8	0	0	0	4	0	4	12
07:15 AM	0	10	10	0	**1**	**1**	6	0	6	17
07:30 AM	0	11	11	0	0	0	8	0	8	19
07:45 AM	0	**13**	**13**	0	1	1	**9**	0	**9**	**23**
Total Volume	0	42	42	0	2	2	27	0	27	71
% App. Total	0	100		0	100		100	0		
PHF	.000	.808	.808	.000	.500	.500	.750	.000	.750	.772

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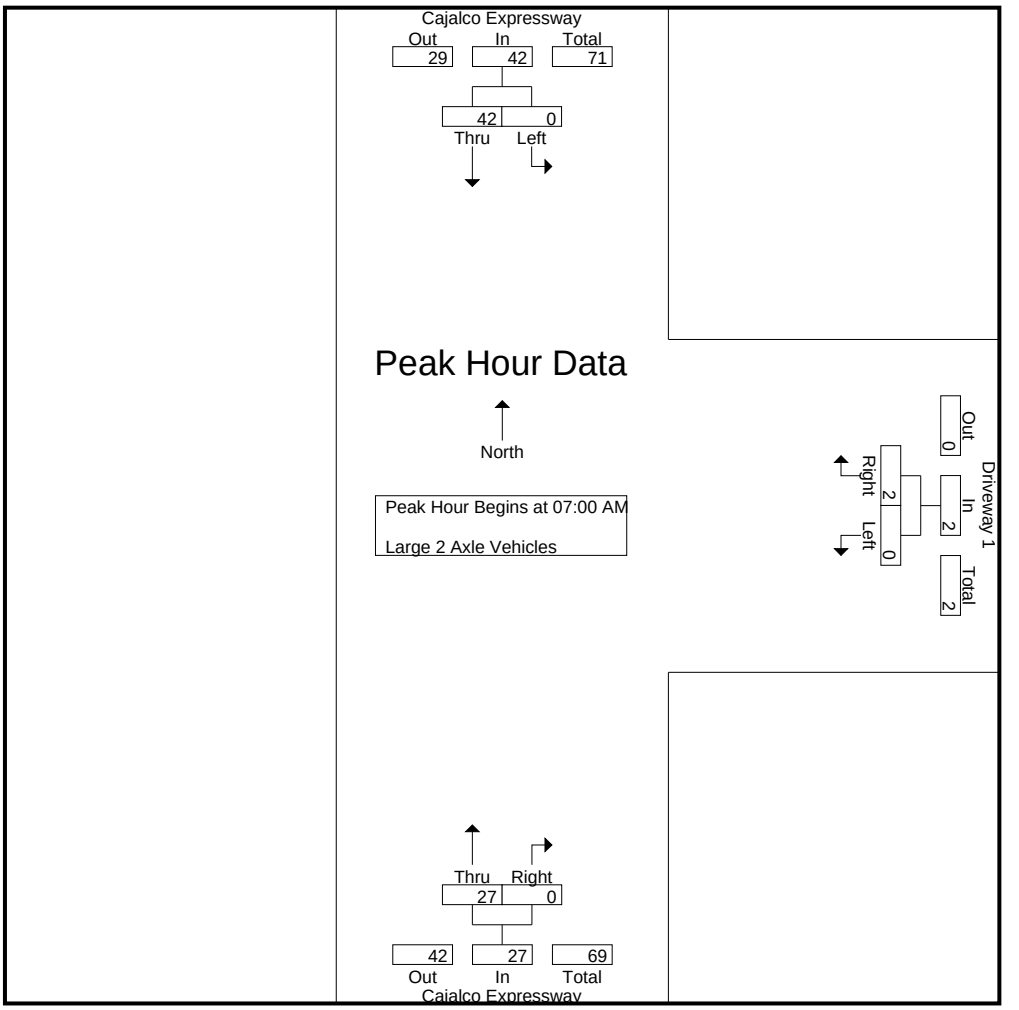

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	8	8	0	0	0	4	0	4
+15 mins.	0	10	10	0	**1**	**1**	6	0	6
+30 mins.	0	11	11	0	0	0	8	0	8
+45 mins.	0	**13**	**13**	0	1	1	**9**	0	**9**
Total Volume	0	42	42	0	2	2	27	0	27
% App. Total	0	100		0	100		100	0	
PHF	.000	.808	.808	.000	.500	.500	.750	.000	.750

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 AM
Site Code : 05721412
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Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	2	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	1	1	2	0	2	3
07:45 AM	0	1	1	0	1	1	0	0	0	2
Total	0	3	3	0	3	3	2	0	2	8
08:00 AM	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	1	1	0	2	2	3	0	3	6
08:30 AM	0	0	0	0	0	0	2	0	2	2
08:45 AM	0	0	0	0	0	0	4	1	5	5
Total	0	1	1	0	2	2	10	1	11	14
Grand Total	0	4	4	0	5	5	12	1	13	22
Apprch %	0	100		0	100		92.3	7.7		
Total %	0	18.2	18.2	0	22.7	22.7	54.5	4.5	59.1	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	**1**	**1**	0	0	0	1
07:15 AM	0	**2**	**2**	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	1	1	**2**	0	**2**	**3**
07:45 AM	0	1	1	0	1	1	0	0	0	2
Total Volume	0	3	3	0	3	3	2	0	2	8
% App. Total	0	100		0	100		100	0		
PHF	.000	.375	.375	.000	.750	.750	.250	.000	.250	.667

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County of Riverside
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File Name : 02_CRV_Cajalco_DW 1 AM
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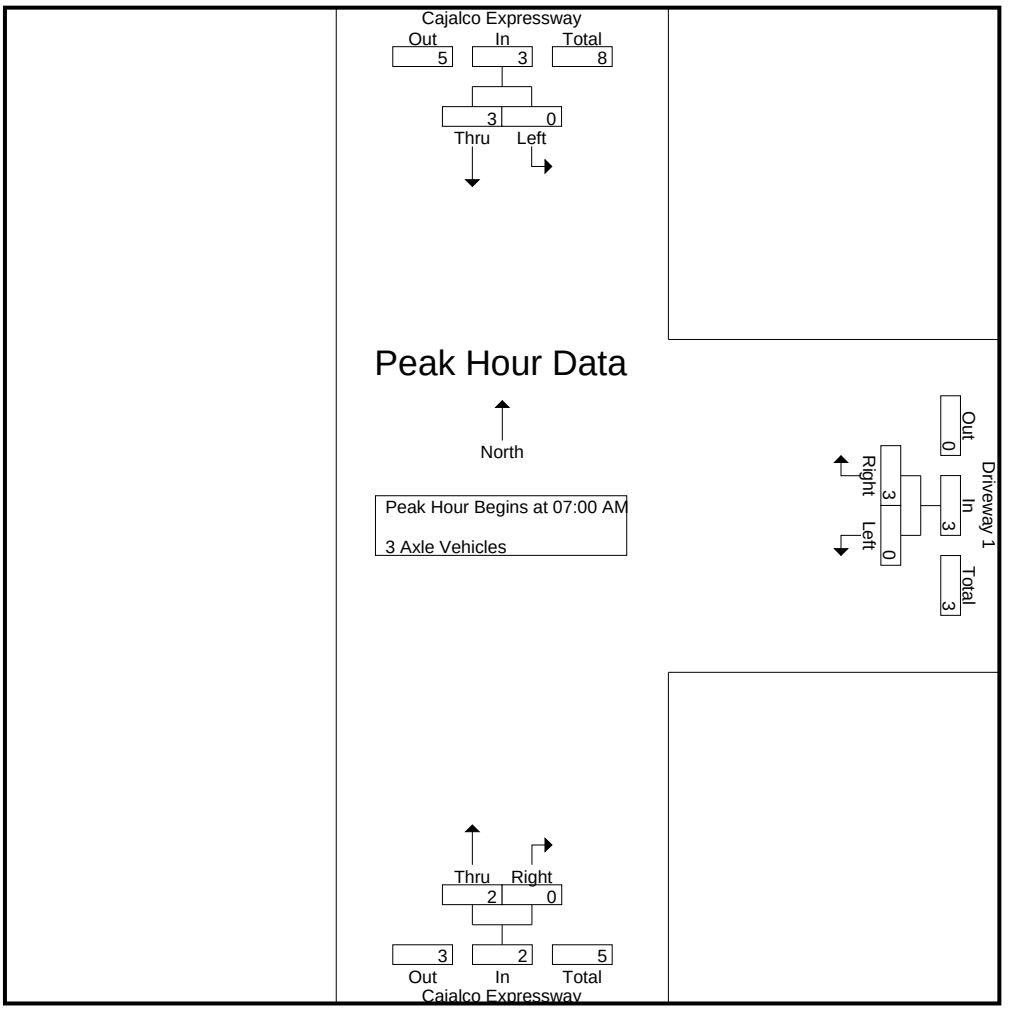

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	0	**2**	**2**	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	**2**	0	**2**
+45 mins.	0	1	1	0	1	1	0	0	0
Total Volume	0	3	3	0	3	3	2	0	2
% App. Total	0	100		0	100		100	0	
PHF	.000	.375	.375	.000	.750	.750	.250	.000	.250

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Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 AM
Site Code : 05721412
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Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	0	3	3	6	0	6	13
07:15 AM	0	7	7	0	6	6	4	1	5	18
07:30 AM	0	9	9	0	3	3	4	0	4	16
07:45 AM	0	8	8	0	1	1	4	0	4	13
Total	0	28	28	0	13	13	18	1	19	60
08:00 AM	0	6	6	0	2	2	8	0	8	16
08:15 AM	0	11	11	0	0	0	3	0	3	14
08:30 AM	0	10	10	0	4	4	1	1	2	16
08:45 AM	0	8	8	0	5	5	3	0	3	16
Total	0	35	35	0	11	11	15	1	16	62
Grand Total	0	63	63	0	24	24	33	2	35	122
Apprch %	0	100		0	100		94.3	5.7		
Total %	0	51.6	51.6	0	19.7	19.7	27	1.6	28.7	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	0	3	3	**6**	0	**6**	13
07:15 AM	0	7	7	0	**6**	**6**	4	**1**	5	**18**
07:30 AM	0	**9**	**9**	0	3	3	4	0	4	16
07:45 AM	0	8	8	0	1	1	4	0	4	13
Total Volume	0	28	28	0	13	13	18	1	19	60
% App. Total	0	100		0	100		94.7	5.3		
PHF	.000	.778	.778	.000	.542	.542	.750	.250	.792	.833

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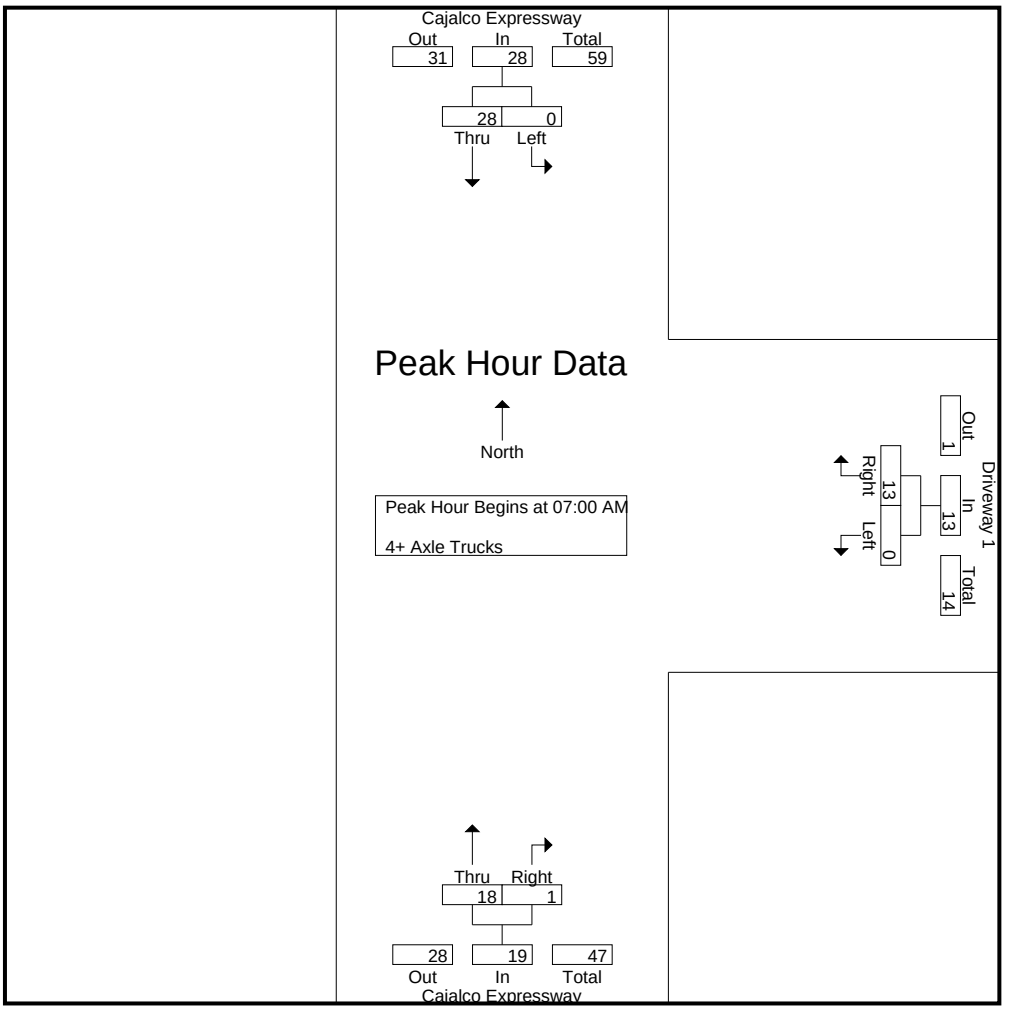

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	0	3	3	**6**	0	**6**
+15 mins.	0	7	7	0	**6**	**6**	4	**1**	5
+30 mins.	0	**9**	**9**	0	3	3	4	0	4
+45 mins.	0	8	8	0	1	1	4	0	4
Total Volume	0	28	28	0	13	13	18	1	19
% App. Total	0	100		0	100		94.7	5.3	
PHF	.000	.778	.778	.000	.542	.542	.750	.250	.792

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N/S: Cajalco Expressway
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Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	235	235	0	3	3	218	0	218	456
04:15 PM	0	243	243	0	1	1	224	0	224	468
04:30 PM	0	225	225	0	3	3	246	1	247	475
04:45 PM	0	217	217	0	4	4	249	3	252	473
Total	0	920	920	0	11	11	937	4	941	1872
05:00 PM	1	223	224	0	4	4	253	0	253	481
05:15 PM	0	234	234	0	2	2	252	1	253	489
05:30 PM	0	201	201	0	2	2	255	0	255	458
05:45 PM	0	213	213	0	1	1	221	1	222	436
Total	1	871	872	0	9	9	981	2	983	1864
Grand Total	1	1791	1792	0	20	20	1918	6	1924	3736
Apprch %	0.1	99.9		0	100		99.7	0.3		
Total %	0	47.9	48	0	0.5	0.5	51.3	0.2	51.5	
Passenger Vehicles	1	1696	1697	0	1	1	1846	4	1850	3548
% Passenger Vehicles	100	94.7	94.7	0	5	5	96.2	66.7	96.2	95
Large 2 Axle Vehicles	0	57	57	0	0	0	42	1	43	100
% Large 2 Axle Vehicles	0	3.2	3.2	0	0	0	2.2	16.7	2.2	2.7
3 Axle Vehicles	0	8	8	0	2	2	6	0	6	16
% 3 Axle Vehicles	0	0.4	0.4	0	10	10	0.3	0	0.3	0.4
4+ Axle Trucks	0	30	30	0	17	17	24	1	25	72
% 4+ Axle Trucks	0	1.7	1.7	0	85	85	1.3	16.7	1.3	1.9

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	225	225	0	3	3	246	1	247	475
04:45 PM	0	217	217	0	**4**	**4**	249	**3**	252	473
05:00 PM	**1**	223	224	0	4	4	**253**	0	**253**	481
05:15 PM	0	**234**	**234**	0	2	2	252	1	253	**489**
Total Volume	1	899	900	0	13	13	1000	5	1005	1918
% App. Total	0.1	99.9		0	100		99.5	0.5		
PHF	.250	.960	.962	.000	.813	.813	.988	.417	.993	.981

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
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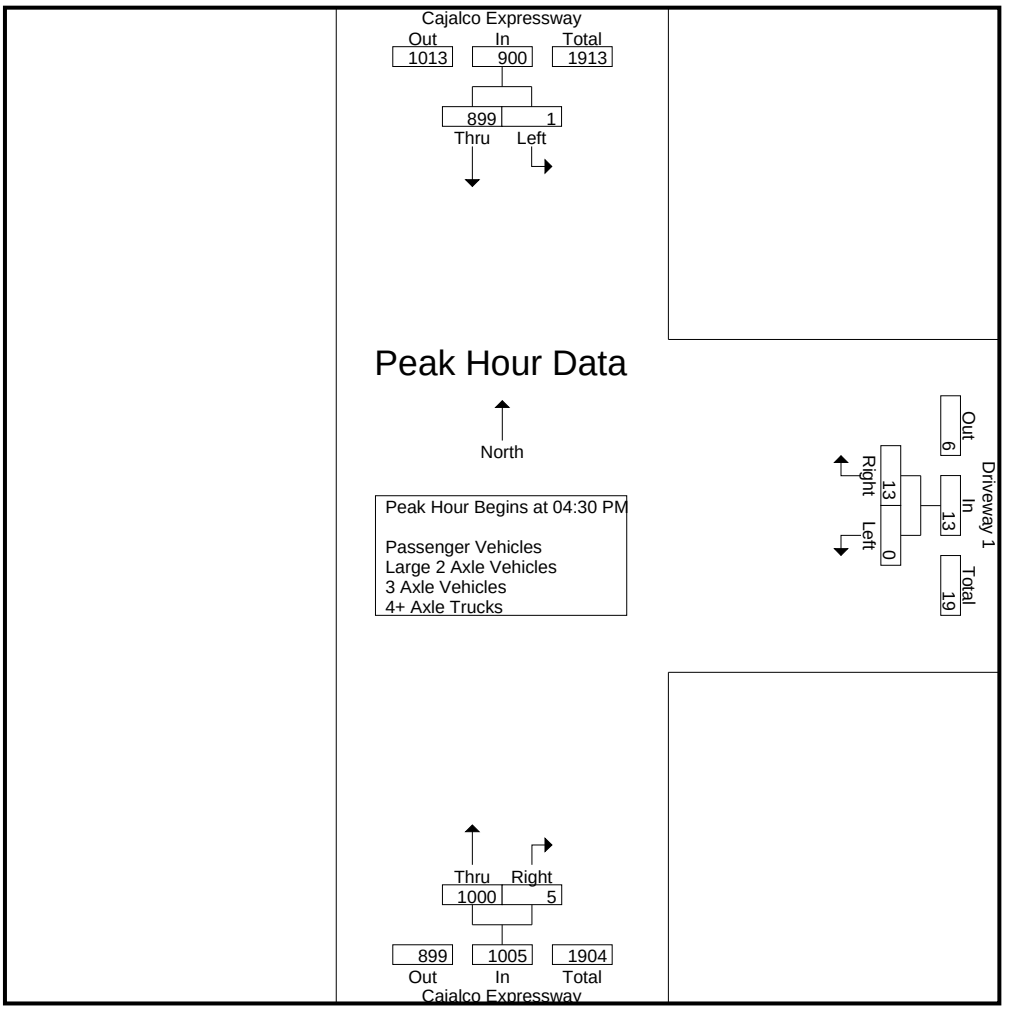

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:45 PM		
+0 mins.	0	235	235	0	3	3	249	**3**	252
+15 mins.	0	**243**	**243**	0	**4**	**4**	253	0	253
+30 mins.	0	225	225	0	4	4	252	1	253
+45 mins.	0	217	217	0	2	2	**255**	0	**255**
Total Volume	0	920	920	0	13	13	1009	4	1013
% App. Total	0	100		0	100		99.6	0.4	
PHF	.000	.947	.947	.000	.813	.813	.989	.333	.993

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
Start Date : 8/17/2021
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Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	214	214	0	0	0	209	0	209	423
04:15 PM	0	225	225	0	0	0	215	0	215	440
04:30 PM	0	217	217	0	0	0	234	1	235	452
04:45 PM	0	205	205	0	0	0	238	2	240	445
Total	0	861	861	0	0	0	896	3	899	1760
05:00 PM	1	215	216	0	0	0	247	0	247	463
05:15 PM	0	219	219	0	0	0	243	1	244	463
05:30 PM	0	196	196	0	1	1	247	0	247	444
05:45 PM	0	205	205	0	0	0	213	0	213	418
Total	1	835	836	0	1	1	950	1	951	1788
Grand Total	1	1696	1697	0	1	1	1846	4	1850	3548
Apprch %	0.1	99.9		0	100		99.8	0.2		
Total %	0	47.8	47.8	0	0	0	52	0.1	52.1	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	217	217	0	0	0	234	1	235	452
04:45 PM	0	205	205	0	0	0	238	**2**	240	445
05:00 PM	**1**	215	216	0	0	0	**247**	0	**247**	**463**
05:15 PM	0	**219**	**219**	0	0	0	243	1	244	463
Total Volume	1	856	857	0	0	0	962	4	966	1823
% App. Total	0.1	99.9		0	0		99.6	0.4		
PHF	.250	.977	.978	.000	.000	.000	.974	.500	.978	.984

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County of Riverside
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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
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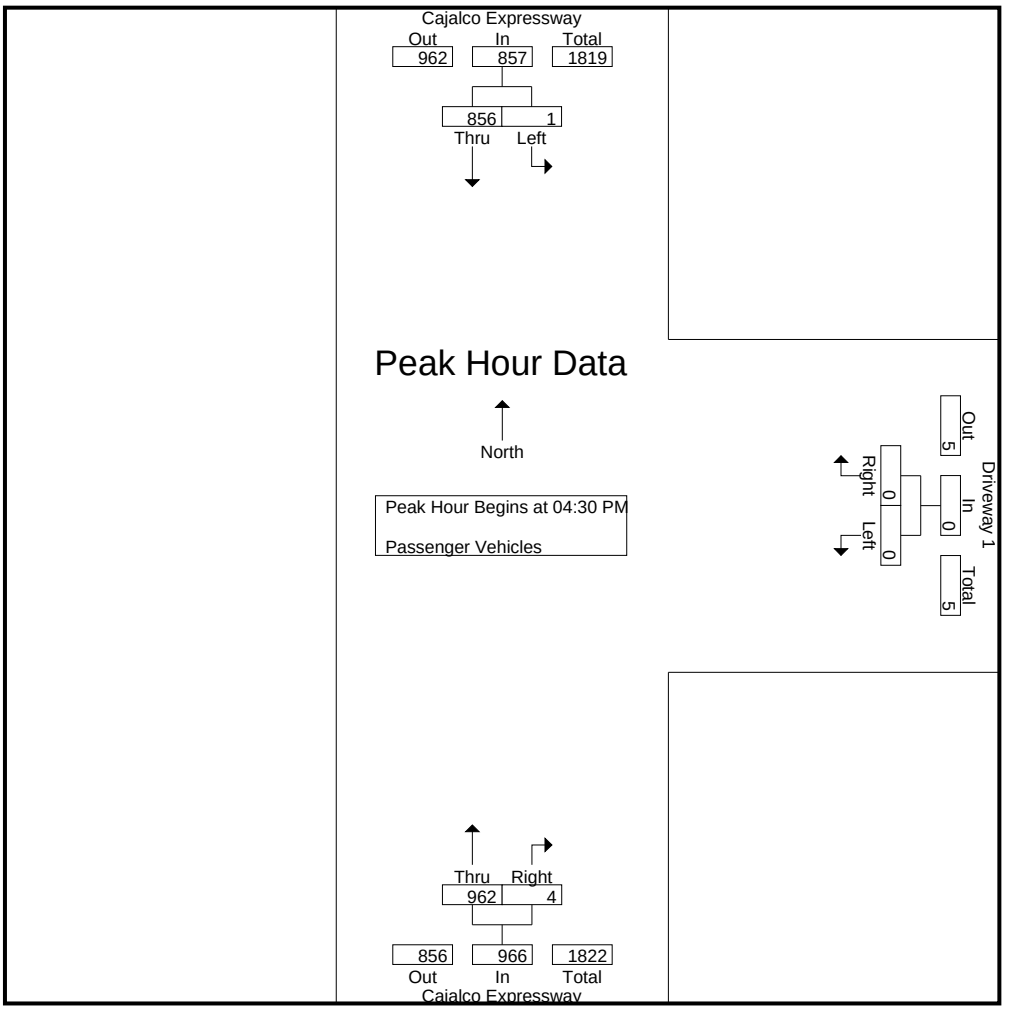

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	217	217	0	0	0	234	1	235
+15 mins.	0	205	205	0	0	0	238	**2**	240
+30 mins.	**1**	215	216	0	0	0	**247**	0	**247**
+45 mins.	0	**219**	**219**	0	0	0	243	1	244
Total Volume	1	856	857	0	0	0	962	4	966
% App. Total	0.1	99.9		0	0		99.6	0.4	
PHF	.250	.977	.978	.000	.000	.000	.974	.500	.978

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County of Riverside
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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
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Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	11	11	0	0	0	6	0	6	17
04:15 PM	0	13	13	0	0	0	1	0	1	14
04:30 PM	0	6	6	0	0	0	10	0	10	16
04:45 PM	0	6	6	0	0	0	6	1	7	13
Total	0	36	36	0	0	0	23	1	24	60
05:00 PM	0	4	4	0	0	0	5	0	5	9
05:15 PM	0	10	10	0	0	0	3	0	3	13
05:30 PM	0	3	3	0	0	0	5	0	5	8
05:45 PM	0	4	4	0	0	0	6	0	6	10
Total	0	21	21	0	0	0	19	0	19	40
Grand Total	0	57	57	0	0	0	42	1	43	100
Apprch %	0	100		0	0		97.7	2.3		
Total %	0	57	57	0	0	0	42	1	43	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	6	6	0	0	0	**10**	0	**10**	**16**
04:45 PM	0	6	6	0	0	0	6	**1**	7	13
05:00 PM	0	4	4	0	0	0	5	0	5	9
05:15 PM	0	**10**	**10**	0	0	0	3	0	3	13
Total Volume	0	26	26	0	0	0	24	1	25	51
% App. Total	0	100		0	0		96	4		
PHF	.000	.650	.650	.000	.000	.000	.600	.250	.625	.797

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County of Riverside
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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
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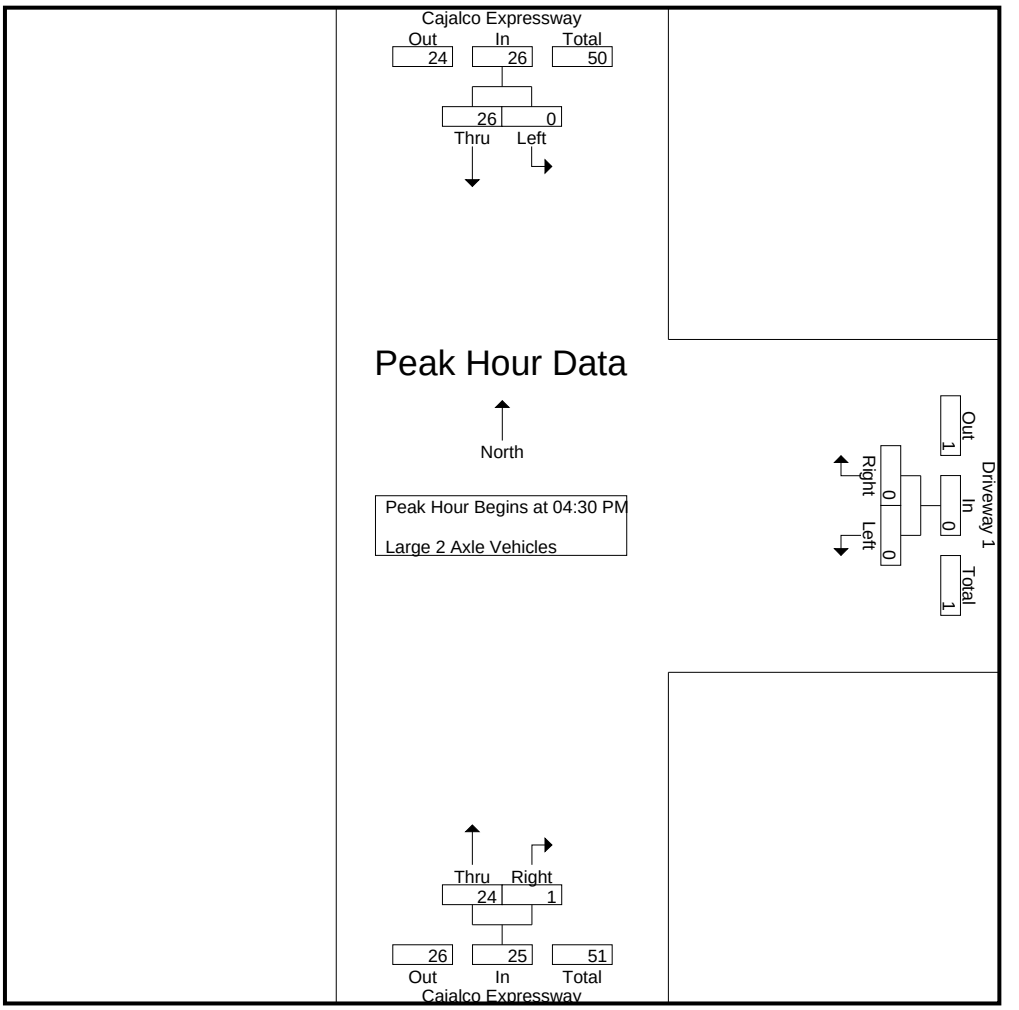

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	6	6	0	0	0	**10**	0	**10**
+15 mins.	0	6	6	0	0	0	6	**1**	7
+30 mins.	0	4	4	0	0	0	5	0	5
+45 mins.	0	**10**	**10**	0	0	0	3	0	3
Total Volume	0	26	26	0	0	0	24	1	25
% App. Total	0	100		0	0		96	4	
PHF	.000	.650	.650	.000	.000	.000	.600	.250	.625

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County of Riverside
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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
Start Date : 8/17/2021
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Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	1	1	0	1	1	1	0	1	3
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	1	1	2	0	2	3
Total	0	2	2	0	2	2	5	0	5	9
05:00 PM	0	2	2	0	0	0	0	0	0	2
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	2	2	0	0	0	0	0	0	2
05:45 PM	0	1	1	0	0	0	0	0	0	1
Total	0	6	6	0	0	0	1	0	1	7
Grand Total	0	8	8	0	2	2	6	0	6	16
Apprch %	0	100		0	100		100	0		
Total %	0	50	50	0	12.5	12.5	37.5	0	37.5	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	**1**	**1**	**2**	0	**2**	**3**
05:00 PM	0	**2**	**2**	0	0	0	0	0	0	2
05:15 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	3	3	0	1	1	4	0	4	8
% App. Total	0	100		0	100		100	0		
PHF	.000	.375	.375	.000	.250	.250	.500	.000	.500	.667

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Weather: Clear

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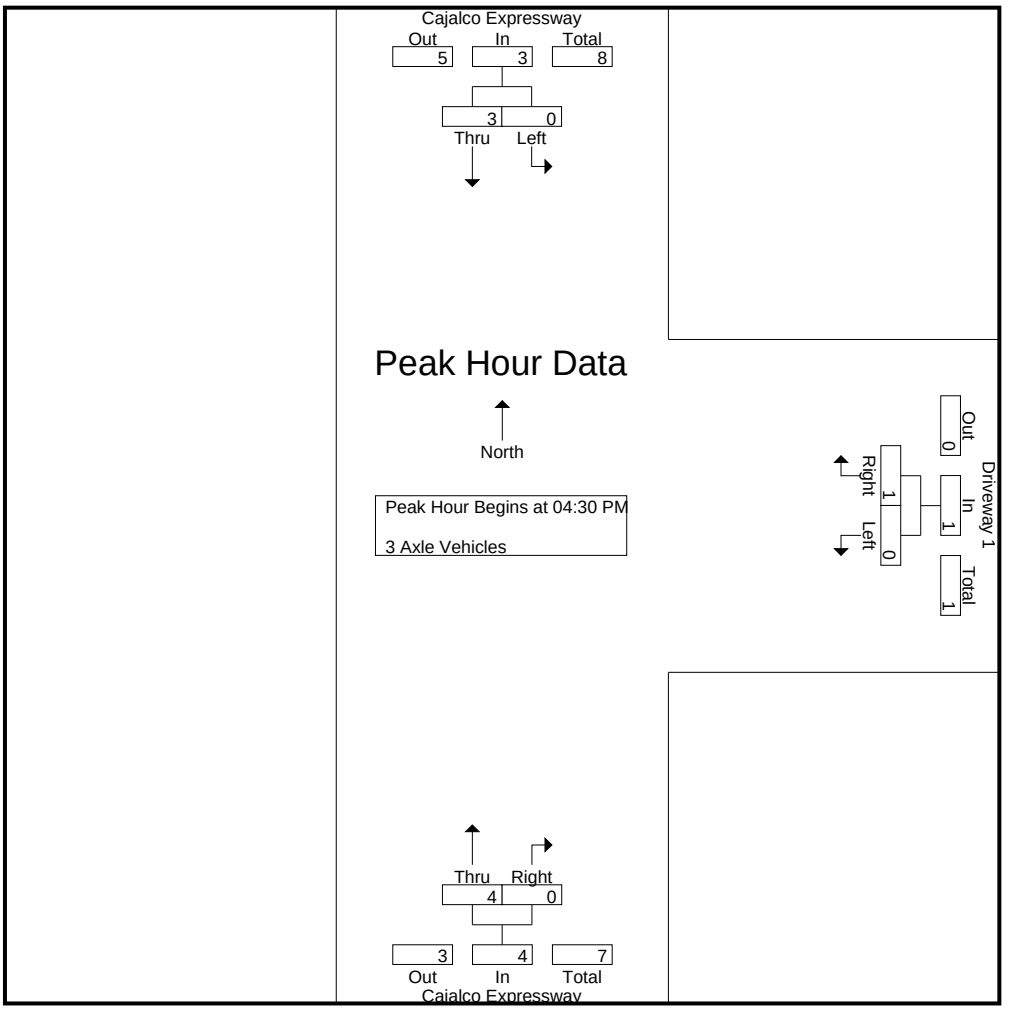

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	**1**	**1**	**2**	0	**2**
+30 mins.	0	**2**	**2**	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	3	3	0	1	1	4	0	4
% App. Total	0	100		0	100		100	0	
PHF	.000	.375	.375	.000	.250	.250	.500	.000	.500

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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
Site Code : 05721412
Start Date : 8/17/2021
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Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	9	9	0	3	3	2	0	2	14
04:15 PM	0	4	4	0	0	0	7	0	7	11
04:30 PM	0	2	2	0	3	3	1	0	1	6
04:45 PM	0	6	6	0	3	3	3	0	3	12
Total	0	21	21	0	9	9	13	0	13	43
05:00 PM	0	2	2	0	4	4	1	0	1	7
05:15 PM	0	4	4	0	2	2	5	0	5	11
05:30 PM	0	0	0	0	1	1	3	0	3	4
05:45 PM	0	3	3	0	1	1	2	1	3	7
Total	0	9	9	0	8	8	11	1	12	29
Grand Total	0	30	30	0	17	17	24	1	25	72
Apprch %	0	100		0	100		96	4		
Total %	0	41.7	41.7	0	23.6	23.6	33.3	1.4	34.7	

	Cajalco Expressway Southbound			Driveway 1 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	2	2	0	3	3	1	0	1	6
04:45 PM	0	**6**	**6**	0	3	3	3	0	3	**12**
05:00 PM	0	2	2	0	**4**	**4**	1	0	1	7
05:15 PM	0	4	4	0	2	2	**5**	0	**5**	11
Total Volume	0	14	14	0	12	12	10	0	10	36
% App. Total	0	100		0	100		100	0		
PHF	.000	.583	.583	.000	.750	.750	.500	.000	.500	.750

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E/W: Driveway 1
Weather: Clear

File Name : 02_CRV_Cajalco_DW 1 PM
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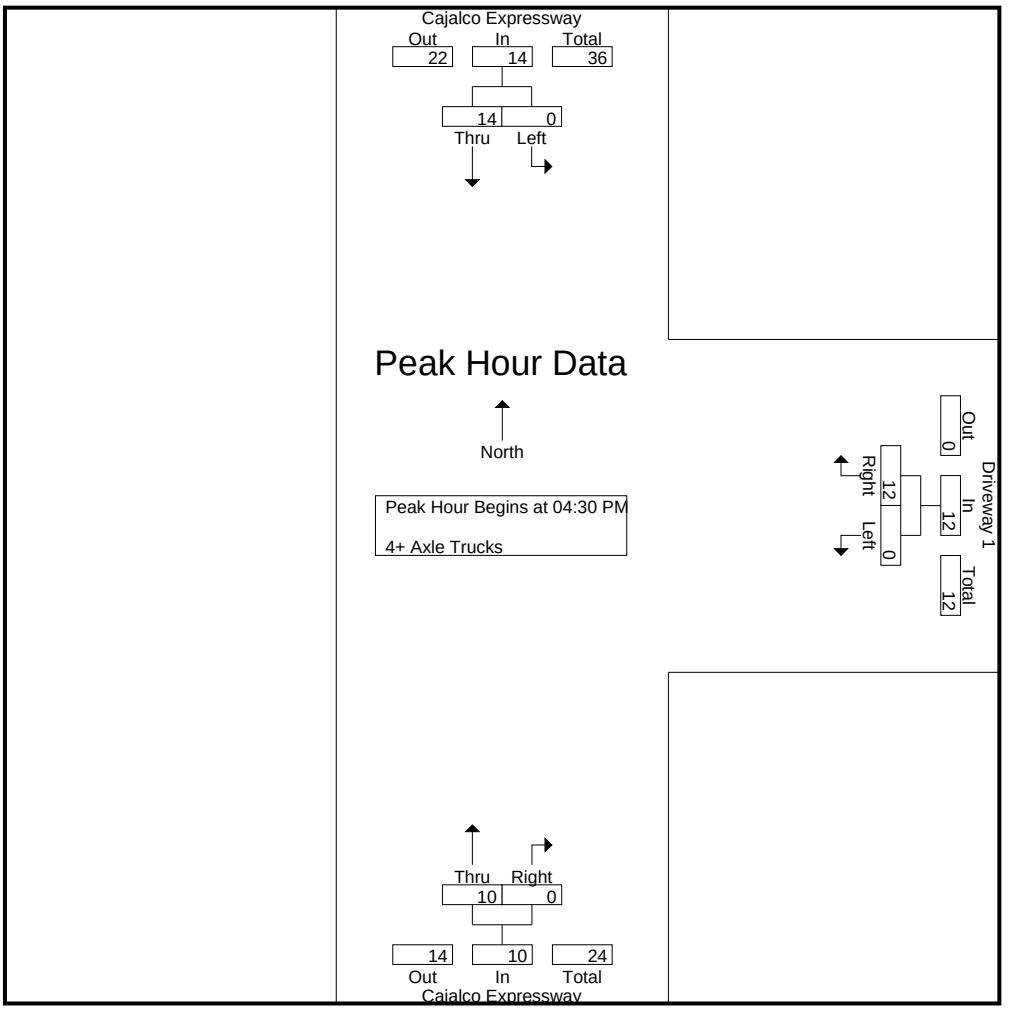

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	2	2	0	3	3	1	0	1
+15 mins.	0	**6**	**6**	0	3	3	3	0	3
+30 mins.	0	2	2	0	**4**	**4**	1	0	1
+45 mins.	0	4	4	0	2	2	**5**	0	**5**
Total Volume	0	14	14	0	12	12	10	0	10
% App. Total	0	100		0	100		100	0	
PHF	.000	.583	.583	.000	.750	.750	.500	.000	.500

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County of Riverside
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E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
Site Code : 05721412
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	233	233	0	6	6	159	10	169	408
07:15 AM	0	309	309	0	2	2	187	9	196	507
07:30 AM	0	260	260	0	5	5	216	13	229	494
07:45 AM	0	243	243	0	8	8	201	13	214	465
Total	0	1045	1045	0	21	21	763	45	808	1874
08:00 AM	0	182	182	0	6	6	178	19	197	385
08:15 AM	0	209	209	0	9	9	151	17	168	386
08:30 AM	0	206	206	0	3	3	161	12	173	382
08:45 AM	0	164	164	0	3	3	148	20	168	335
Total	0	761	761	0	21	21	638	68	706	1488
Grand Total	0	1806	1806	0	42	42	1401	113	1514	3362
Apprch %	0	100		0	100		92.5	7.5		
Total %	0	53.7	53.7	0	1.2	1.2	41.7	3.4	45	
Passenger Vehicles	0	1663	1663	0	35	35	1262	106	1368	3066
% Passenger Vehicles	0	92.1	92.1	0	83.3	83.3	90.1	93.8	90.4	91.2
Large 2 Axle Vehicles	0	79	79	0	3	3	75	6	81	163
% Large 2 Axle Vehicles	0	4.4	4.4	0	7.1	7.1	5.4	5.3	5.4	4.8
3 Axle Vehicles	0	6	6	0	0	0	16	0	16	22
% 3 Axle Vehicles	0	0.3	0.3	0	0	0	1.1	0	1.1	0.7
4+ Axle Trucks	0	58	58	0	4	4	48	1	49	111
% 4+ Axle Trucks	0	3.2	3.2	0	9.5	9.5	3.4	0.9	3.2	3.3

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	233	233	0	6	6	159	10	169	408
07:15 AM	0	**309**	**309**	0	2	2	187	9	196	**507**
07:30 AM	0	260	260	0	5	5	**216**	**13**	**229**	494
07:45 AM	0	243	243	0	**8**	**8**	201	13	214	465
Total Volume	0	1045	1045	0	21	21	763	45	808	1874
% App. Total	0	100		0	100		94.4	5.6		
PHF	.000	.845	.845	.000	.656	.656	.883	.865	.882	.924

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Weather: Clear

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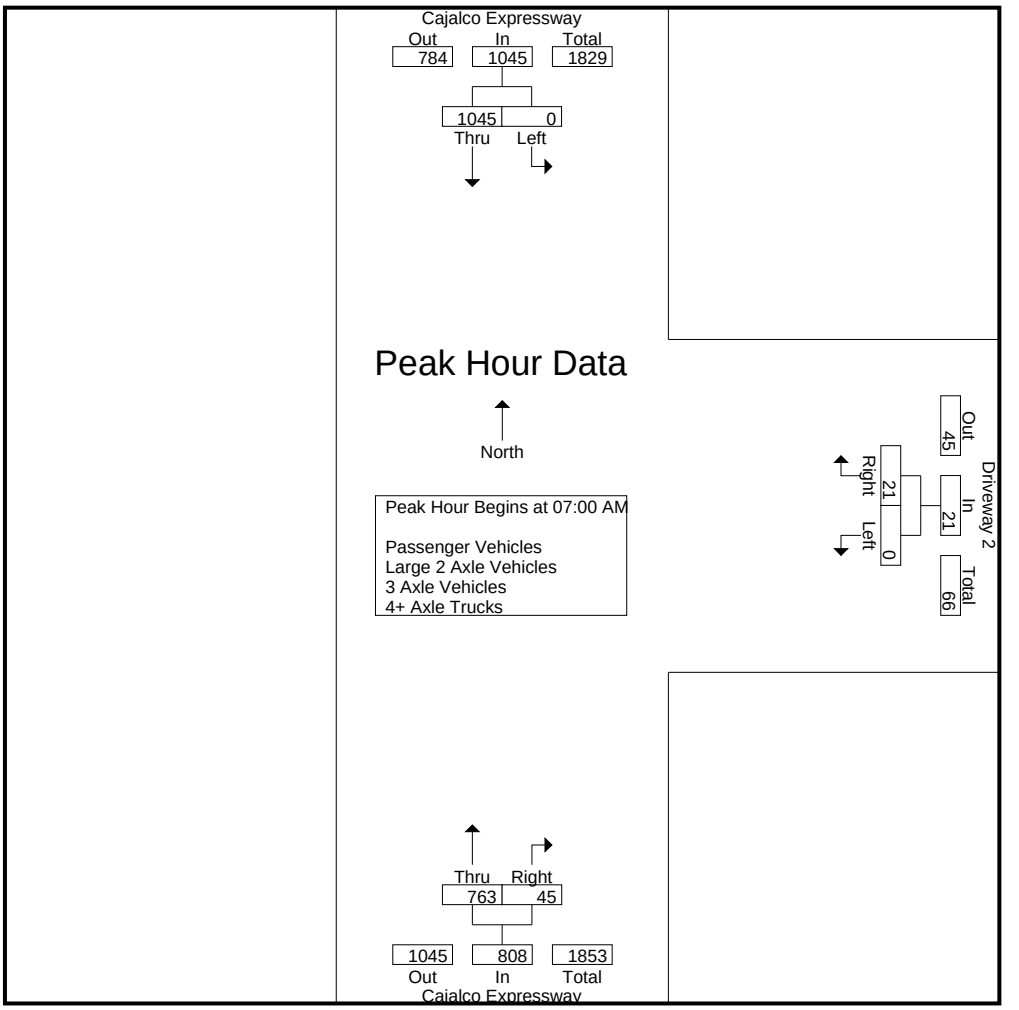

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:15 AM		
+0 mins.	0	233	233	0	5	5	187	9	196
+15 mins.	0	**309**	**309**	0	8	8	**216**	13	**229**
+30 mins.	0	260	260	0	6	6	201	13	214
+45 mins.	0	243	243	0	**9**	**9**	178	**19**	197
Total Volume	0	1045	1045	0	28	28	782	54	836
% App. Total	0	100		0	100		93.5	6.5	
PHF	.000	.845	.845	.000	.778	.778	.905	.711	.913

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E/W: Driveway 2
Weather: Clear

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Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	221	221	0	5	5	145	8	153	379
07:15 AM	0	288	288	0	2	2	169	8	177	467
07:30 AM	0	238	238	0	4	4	200	12	212	454
07:45 AM	0	224	224	0	7	7	184	13	197	428
Total	0	971	971	0	18	18	698	41	739	1728
08:00 AM	0	164	164	0	6	6	157	19	176	346
08:15 AM	0	187	187	0	6	6	138	14	152	345
08:30 AM	0	189	189	0	3	3	140	12	152	344
08:45 AM	0	152	152	0	2	2	129	20	149	303
Total	0	692	692	0	17	17	564	65	629	1338
Grand Total	0	1663	1663	0	35	35	1262	106	1368	3066
Apprch %	0	100		0	100		92.3	7.7		
Total %	0	54.2	54.2	0	1.1	1.1	41.2	3.5	44.6	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	221	221	0	5	5	145	8	153	379
07:15 AM	0	**288**	**288**	0	2	2	169	8	177	**467**
07:30 AM	0	238	238	0	4	4	**200**	12	**212**	454
07:45 AM	0	224	224	0	**7**	**7**	184	**13**	197	428
Total Volume	0	971	971	0	18	18	698	41	739	1728
% App. Total	0	100		0	100		94.5	5.5		
PHF	.000	.843	.843	.000	.643	.643	.873	.788	.871	.925

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
Site Code : 05721412
Start Date : 8/17/2021
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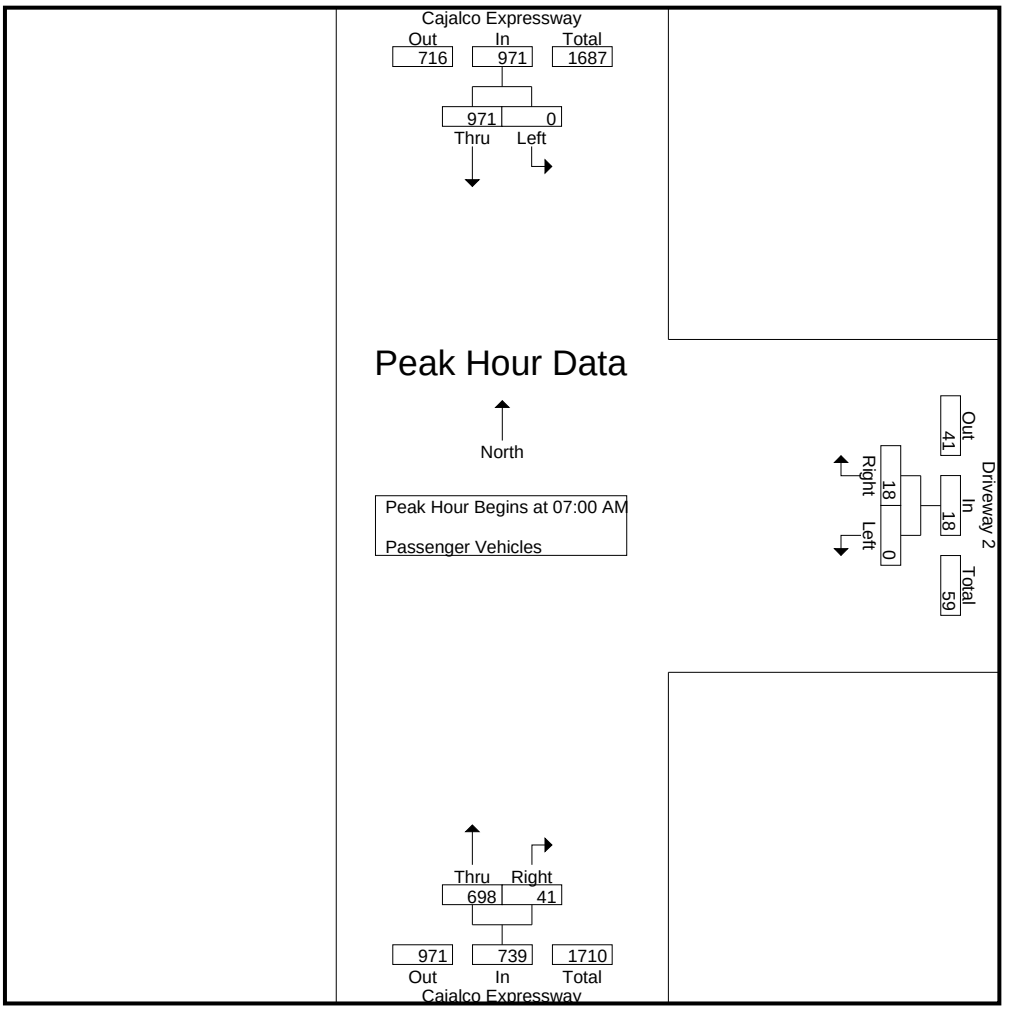

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	221	221	0	5	5	145	8	153
+15 mins.	0	**288**	**288**	0	2	2	169	8	177
+30 mins.	0	238	238	0	4	4	**200**	12	**212**
+45 mins.	0	224	224	0	**7**	**7**	184	**13**	197
Total Volume	0	971	971	0	18	18	698	41	739
% App. Total	0	100		0	100		94.5	5.5	
PHF	.000	.843	.843	.000	.643	.643	.873	.788	.871

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County of Riverside
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E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
Site Code : 05721412
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Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	8	8	0	1	1	6	2	8	17
07:15 AM	0	13	13	0	0	0	9	1	10	23
07:30 AM	0	13	13	0	0	0	10	0	10	23
07:45 AM	0	10	10	0	0	0	11	0	11	21
Total	0	44	44	0	1	1	36	3	39	84
08:00 AM	0	12	12	0	0	0	10	0	10	22
08:15 AM	0	11	11	0	2	2	7	3	10	23
08:30 AM	0	7	7	0	0	0	16	0	16	23
08:45 AM	0	5	5	0	0	0	6	0	6	11
Total	0	35	35	0	2	2	39	3	42	79
Grand Total	0	79	79	0	3	3	75	6	81	163
Apprch %	0	100		0	100		92.6	7.4		
Total %	0	48.5	48.5	0	1.8	1.8	46	3.7	49.7	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	8	8	0	**1**	**1**	6	**2**	8	17
07:15 AM	0	**13**	**13**	0	0	0	9	1	10	**23**
07:30 AM	0	13	13	0	0	0	10	0	10	23
07:45 AM	0	10	10	0	0	0	**11**	0	**11**	21
Total Volume	0	44	44	0	1	1	36	3	39	84
% App. Total	0	100		0	100		92.3	7.7		
PHF	.000	.846	.846	.000	.250	.250	.818	.375	.886	.913

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County of Riverside
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File Name : 03_CRV_Cajalco_DW 2 AM
Site Code : 05721412
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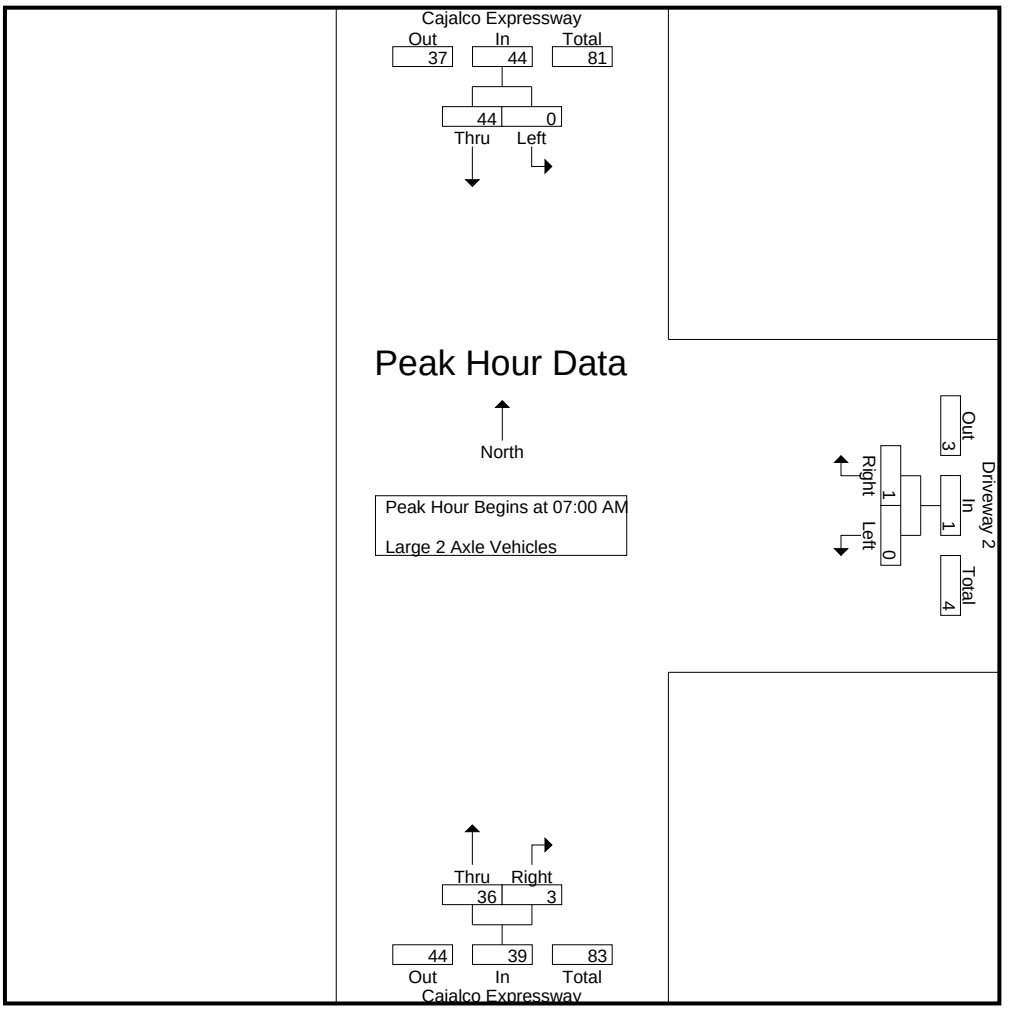

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	8	8	0	**1**	**1**	6	**2**	8
+15 mins.	0	**13**	**13**	0	0	0	9	1	10
+30 mins.	0	13	13	0	0	0	10	0	10
+45 mins.	0	10	10	0	0	0	**11**	0	**11**
Total Volume	0	44	44	0	1	1	36	3	39
% App. Total	0	100		0	100		92.3	7.7	
PHF	.000	.846	.846	.000	.250	.250	.818	.375	.886

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County of Riverside
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E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
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Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	3	3	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	3	0	3	3
07:45 AM	0	1	1	0	0	0	1	0	1	2
Total	0	4	4	0	0	0	5	0	5	9
08:00 AM	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	1	1	0	0	0	4	0	4	5
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	1	1	0	0	0	5	0	5	6
Total	0	2	2	0	0	0	11	0	11	13
Grand Total	0	6	6	0	0	0	16	0	16	22
Apprch %	0	100		0	0		100	0		
Total %	0	27.3	27.3	0	0	0	72.7	0	72.7	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	**3**	**3**	0	0	0	0	0	0	**3**
07:30 AM	0	0	0	0	0	0	**3**	0	**3**	3
07:45 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	4	4	0	0	0	5	0	5	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.333	.333	.000	.000	.000	.417	.000	.417	.750

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Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
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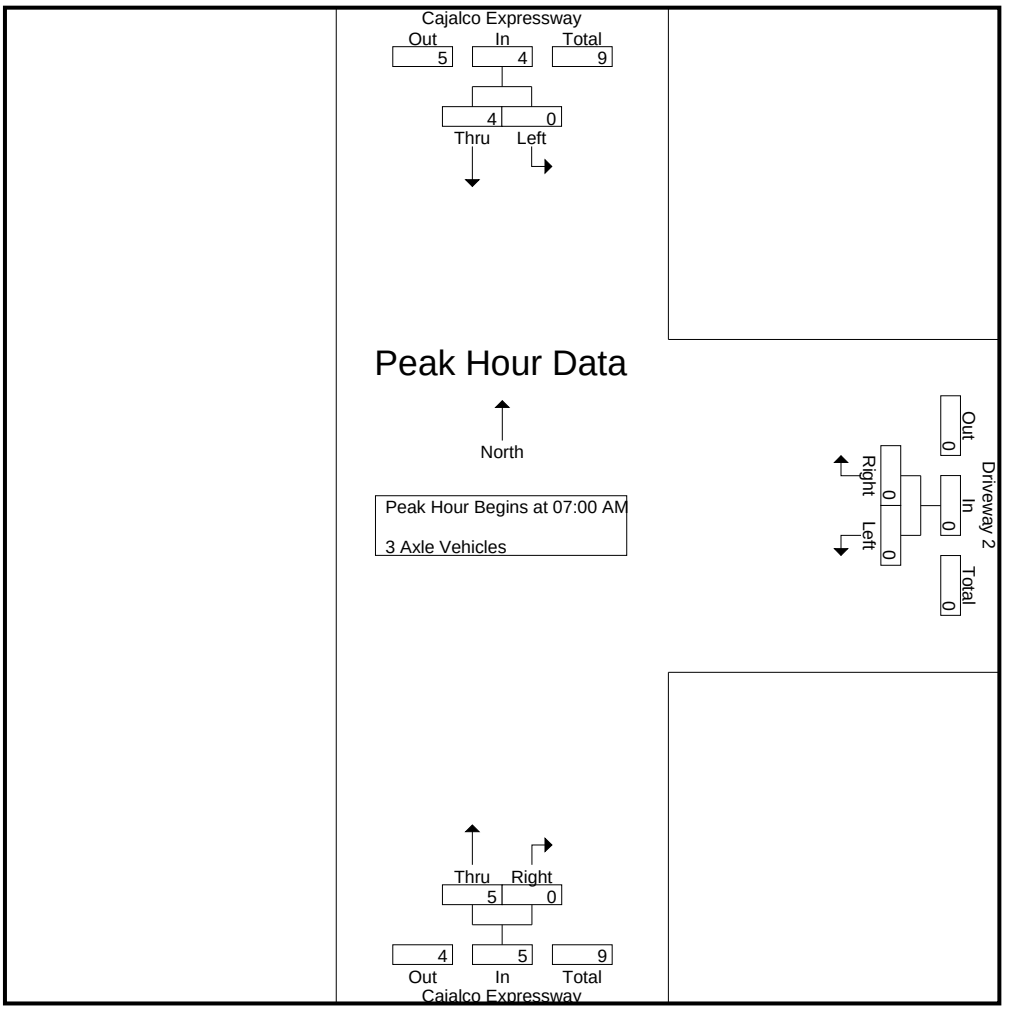

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	**3**	**3**	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	**3**	0	**3**
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	4	4	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.333	.333	.000	.000	.000	.417	.000	.417

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County of Riverside
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E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 AM
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Start Date : 8/17/2021
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Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	0	0	0	7	0	7	11
07:15 AM	0	5	5	0	0	0	9	0	9	14
07:30 AM	0	9	9	0	1	1	3	1	4	14
07:45 AM	0	8	8	0	1	1	5	0	5	14
Total	0	26	26	0	2	2	24	1	25	53
08:00 AM	0	6	6	0	0	0	10	0	10	16
08:15 AM	0	10	10	0	1	1	2	0	2	13
08:30 AM	0	10	10	0	0	0	4	0	4	14
08:45 AM	0	6	6	0	1	1	8	0	8	15
Total	0	32	32	0	2	2	24	0	24	58
Grand Total	0	58	58	0	4	4	48	1	49	111
Apprch %	0	100		0	100		98	2		
Total %	0	52.3	52.3	0	3.6	3.6	43.2	0.9	44.1	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	0	0	0	7	0	7	11
07:15 AM	0	5	5	0	0	0	**9**	0	**9**	**14**
07:30 AM	0	**9**	**9**	0	**1**	**1**	3	**1**	4	14
07:45 AM	0	8	8	0	1	1	5	0	5	14
Total Volume	0	26	26	0	2	2	24	1	25	53
% App. Total	0	100		0	100		96	4		
PHF	.000	.722	.722	.000	.500	.500	.667	.250	.694	.946

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File Name : 03_CRV_Cajalco_DW 2 AM
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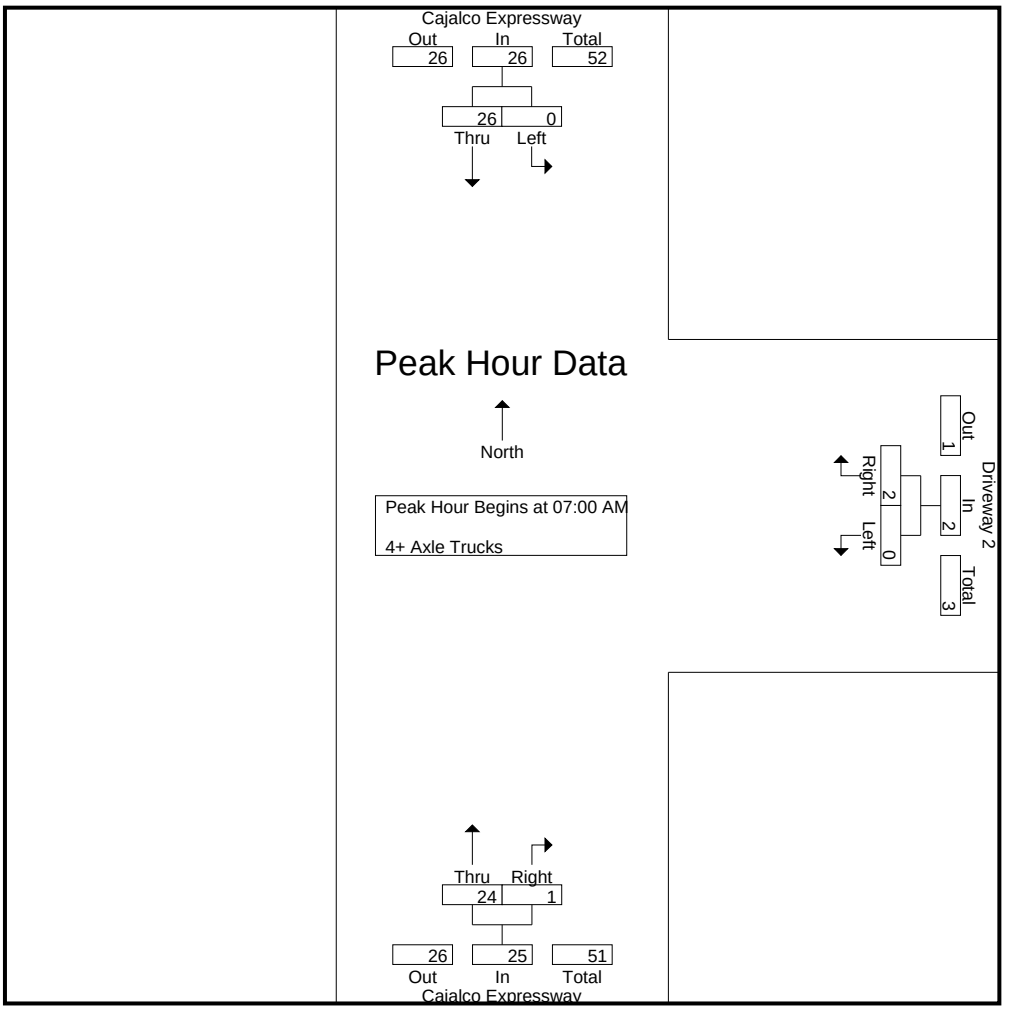

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	0	0	0	7	0	7
+15 mins.	0	5	5	0	0	0	**9**	0	**9**
+30 mins.	0	**9**	**9**	0	**1**	**1**	3	**1**	4
+45 mins.	0	8	8	0	1	1	5	0	5
Total Volume	0	26	26	0	2	2	24	1	25
% App. Total	0	100		0	100		96	4	
PHF	.000	.722	.722	.000	.500	.500	.667	.250	.694

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Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 PM
Site Code : 05721412
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	242	242	0	2	2	213	10	223	467
04:15 PM	0	239	239	0	3	3	213	8	221	463
04:30 PM	0	216	216	0	6	6	243	5	248	470
04:45 PM	0	217	217	0	5	5	237	12	249	471
Total	0	914	914	0	16	16	906	35	941	1871
05:00 PM	0	228	228	0	8	8	245	13	258	494
05:15 PM	0	219	219	0	3	3	241	7	248	470
05:30 PM	0	203	203	0	7	7	262	10	272	482
05:45 PM	0	220	220	0	3	3	212	12	224	447
Total	0	870	870	0	21	21	960	42	1002	1893
Grand Total	0	1784	1784	0	37	37	1866	77	1943	3764
Apprch %	0	100		0	100		96	4		
Total %	0	47.4	47.4	0	1	1	49.6	2	51.6	
Passenger Vehicles	0	1690	1690	0	34	34	1746	74	1820	3544
% Passenger Vehicles	0	94.7	94.7	0	91.9	91.9	93.6	96.1	93.7	94.2
Large 2 Axle Vehicles	0	57	57	0	3	3	70	3	73	133
% Large 2 Axle Vehicles	0	3.2	3.2	0	8.1	8.1	3.8	3.9	3.8	3.5
3 Axle Vehicles	0	8	8	0	0	0	9	0	9	17
% 3 Axle Vehicles	0	0.4	0.4	0	0	0	0.5	0	0.5	0.5
4+ Axle Trucks	0	29	29	0	0	0	41	0	41	70
% 4+ Axle Trucks	0	1.6	1.6	0	0	0	2.2	0	2.1	1.9

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	217	217	0	5	5	237	12	249	471
05:00 PM	0	**228**	**228**	0	**8**	**8**	245	**13**	258	**494**
05:15 PM	0	219	219	0	3	3	241	7	248	470
05:30 PM	0	203	203	0	7	7	**262**	10	**272**	482
Total Volume	0	867	867	0	23	23	985	42	1027	1917
% App. Total	0	100		0	100		95.9	4.1		
PHF	.000	.951	.951	.000	.719	.719	.940	.808	.944	.970

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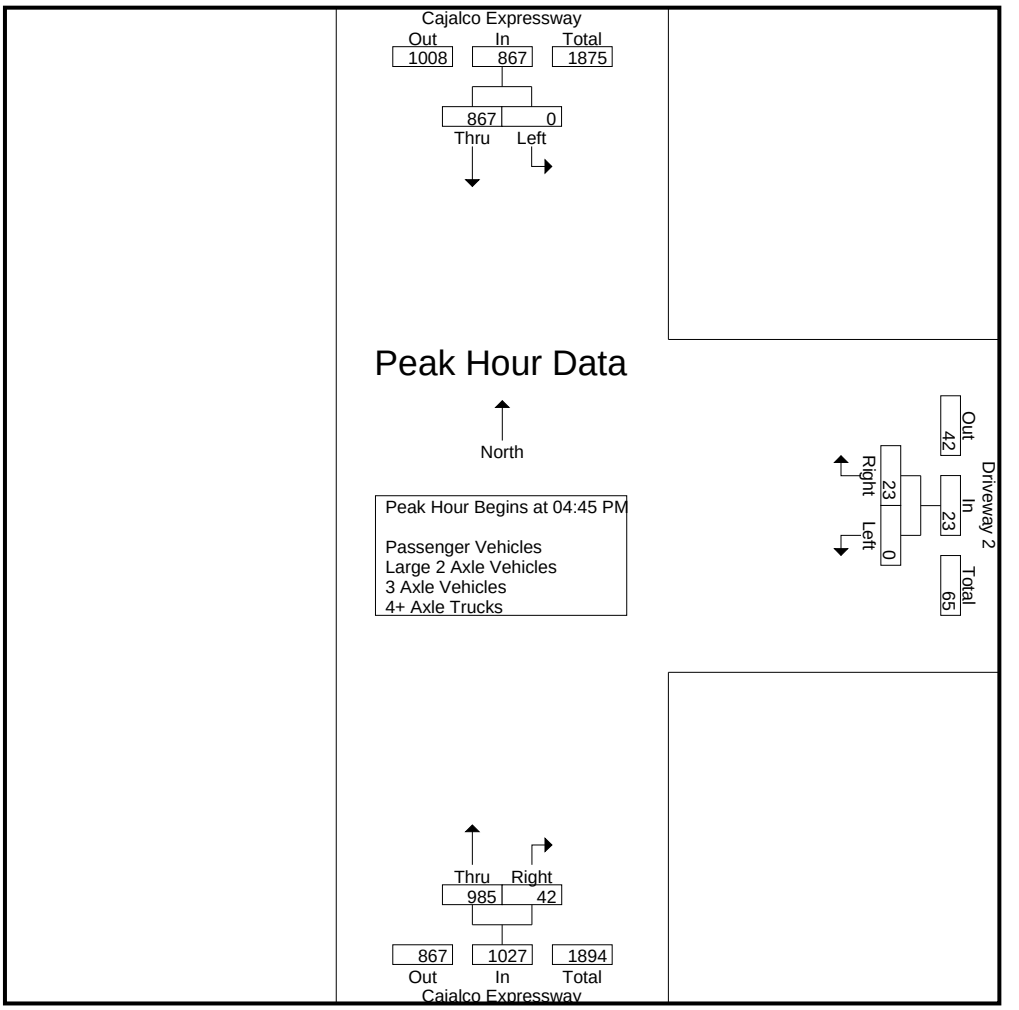

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:45 PM		
+0 mins.	0	**242**	**242**	0	5	5	237	12	249
+15 mins.	0	239	239	0	**8**	**8**	245	**13**	258
+30 mins.	0	216	216	0	3	3	241	7	248
+45 mins.	0	217	217	0	7	7	**262**	10	**272**
Total Volume	0	914	914	0	23	23	985	42	1027
% App. Total	0	100		0	100		95.9	4.1	
PHF	.000	.944	.944	.000	.719	.719	.940	.808	.944

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Groups Printed- Passenger Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	219	219	0	2	2	195	9	204	425
04:15 PM	0	222	222	0	3	3	198	8	206	431
04:30 PM	0	209	209	0	6	6	226	4	230	445
04:45 PM	0	206	206	0	5	5	220	11	231	442
Total	0	856	856	0	16	16	839	32	871	1743
05:00 PM	0	221	221	0	6	6	231	13	244	471
05:15 PM	0	204	204	0	3	3	226	7	233	440
05:30 PM	0	197	197	0	7	7	250	10	260	464
05:45 PM	0	212	212	0	2	2	200	12	212	426
Total	0	834	834	0	18	18	907	42	949	1801
Grand Total	0	1690	1690	0	34	34	1746	74	1820	3544
Apprch %	0	100		0	100		95.9	4.1		
Total %	0	47.7	47.7	0	1	1	49.3	2.1	51.4	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	206	206	0	5	5	220	11	231	442
05:00 PM	0	**221**	**221**	0	6	6	231	**13**	244	**471**
05:15 PM	0	204	204	0	3	3	226	7	233	440
05:30 PM	0	197	197	0	**7**	**7**	**250**	10	**260**	464
Total Volume	0	828	828	0	21	21	927	41	968	1817
% App. Total	0	100		0	100		95.8	4.2		
PHF	.000	.937	.937	.000	.750	.750	.927	.788	.931	.964

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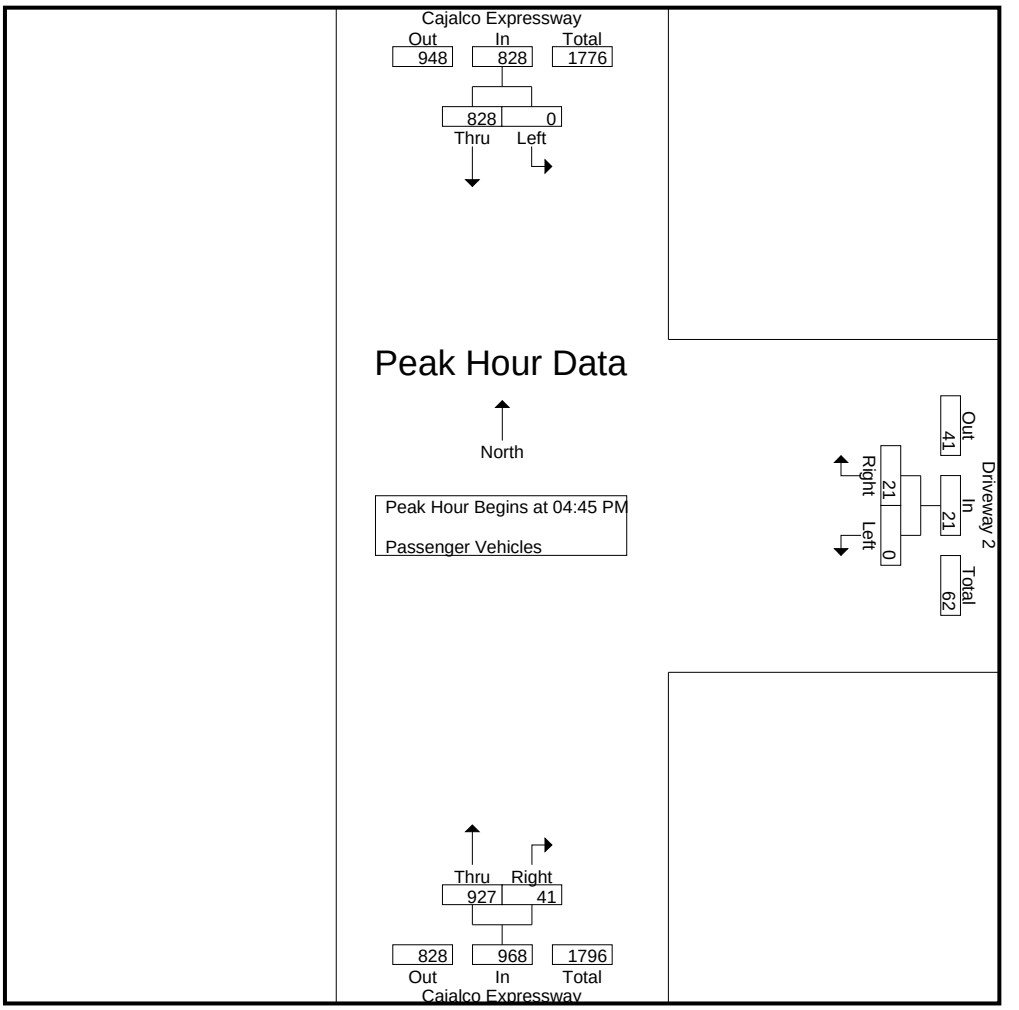

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	206	206	0	5	5	220	11	231
+15 mins.	0	**221**	**221**	0	6	6	231	**13**	244
+30 mins.	0	204	204	0	3	3	226	7	233
+45 mins.	0	197	197	0	**7**	**7**	**250**	10	**260**
Total Volume	0	828	828	0	21	21	927	41	968
% App. Total	0	100		0	100		95.8	4.2	
PHF	.000	.937	.937	.000	.750	.750	.927	.788	.931

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County of Riverside
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Groups Printed- Large 2 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	12	12	0	0	0	11	1	12	24
04:15 PM	0	12	12	0	0	0	7	0	7	19
04:30 PM	0	5	5	0	0	0	12	1	13	18
04:45 PM	0	6	6	0	0	0	8	1	9	15
Total	0	35	35	0	0	0	38	3	41	76
05:00 PM	0	4	4	0	2	2	8	0	8	14
05:15 PM	0	10	10	0	0	0	6	0	6	16
05:30 PM	0	4	4	0	0	0	9	0	9	13
05:45 PM	0	4	4	0	1	1	9	0	9	14
Total	0	22	22	0	3	3	32	0	32	57
Grand Total	0	57	57	0	3	3	70	3	73	133
Apprch %	0	100		0	100		95.9	4.1		
Total %	0	42.9	42.9	0	2.3	2.3	52.6	2.3	54.9	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	6	6	0	0	0	8	**1**	**9**	15
05:00 PM	0	4	4	0	**2**	**2**	8	0	8	14
05:15 PM	0	**10**	**10**	0	0	0	6	0	6	**16**
05:30 PM	0	4	4	0	0	0	**9**	0	9	13
Total Volume	0	24	24	0	2	2	31	1	32	58
% App. Total	0	100		0	100		96.9	3.1		
PHF	.000	.600	.600	.000	.250	.250	.861	.250	.889	.906

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 PM
Site Code : 05721412
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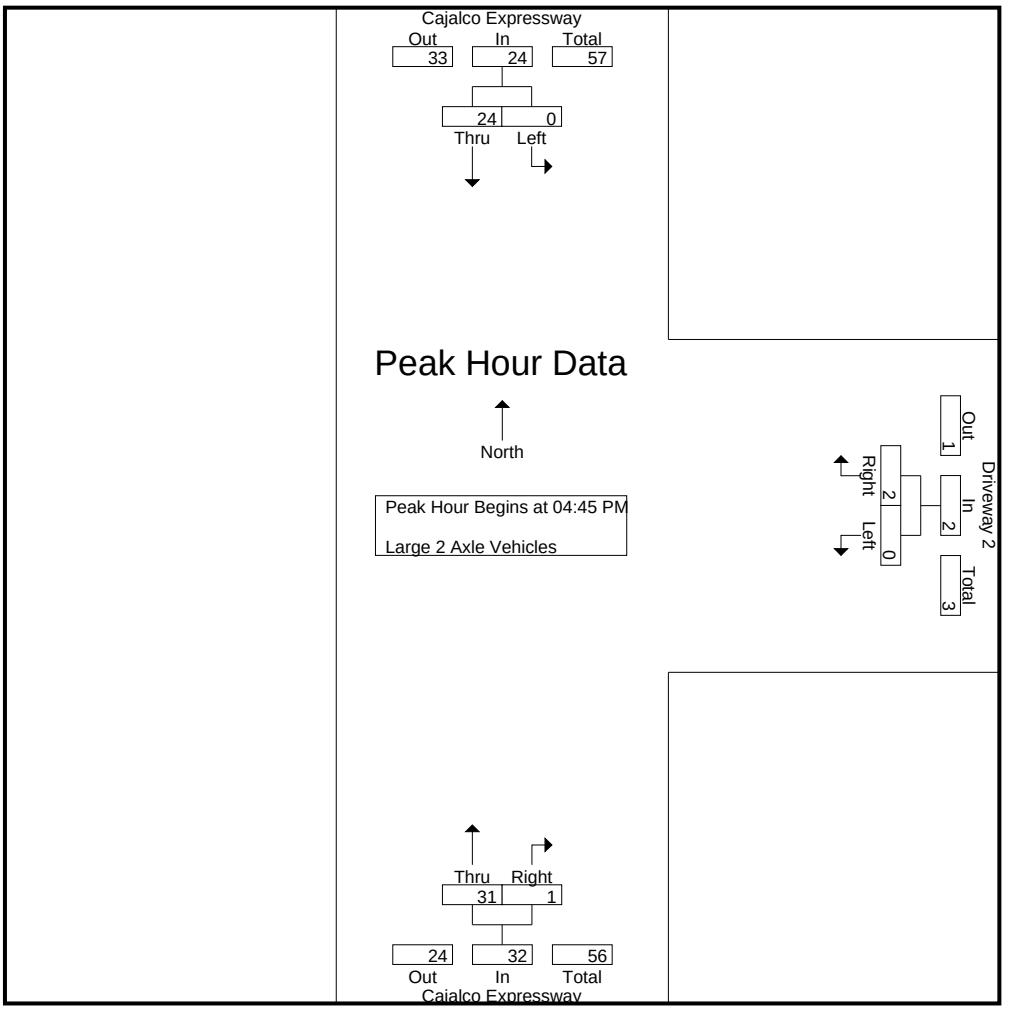

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	6	6	0	0	0	8	**1**	**9**
+15 mins.	0	4	4	0	**2**	**2**	8	0	8
+30 mins.	0	**10**	**10**	0	0	0	6	0	6
+45 mins.	0	4	4	0	0	0	**9**	0	9
Total Volume	0	24	24	0	2	2	31	1	32
% App. Total	0	100		0	100		96.9	3.1	
PHF	.000	.600	.600	.000	.250	.250	.861	.250	.889

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County of Riverside
N/S: Cajalco Expressway
E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 PM
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Groups Printed- 3 Axle Vehicles

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	1	1	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	3	0	3	3
Total	0	2	2	0	0	0	7	0	7	9
05:00 PM	0	2	2	0	0	0	0	0	0	2
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	2	2	0	0	0	0	0	0	2
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	6	6	0	0	0	2	0	2	8
Grand Total	0	8	8	0	0	0	9	0	9	17
Apprch %	0	100		0	0		100	0		
Total %	0	47.1	47.1	0	0	0	52.9	0	52.9	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	**3**	0	**3**	**3**
05:00 PM	0	**2**	**2**	0	0	0	0	0	0	2
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	5	5	0	0	0	4	0	4	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.333	.000	.333	.750

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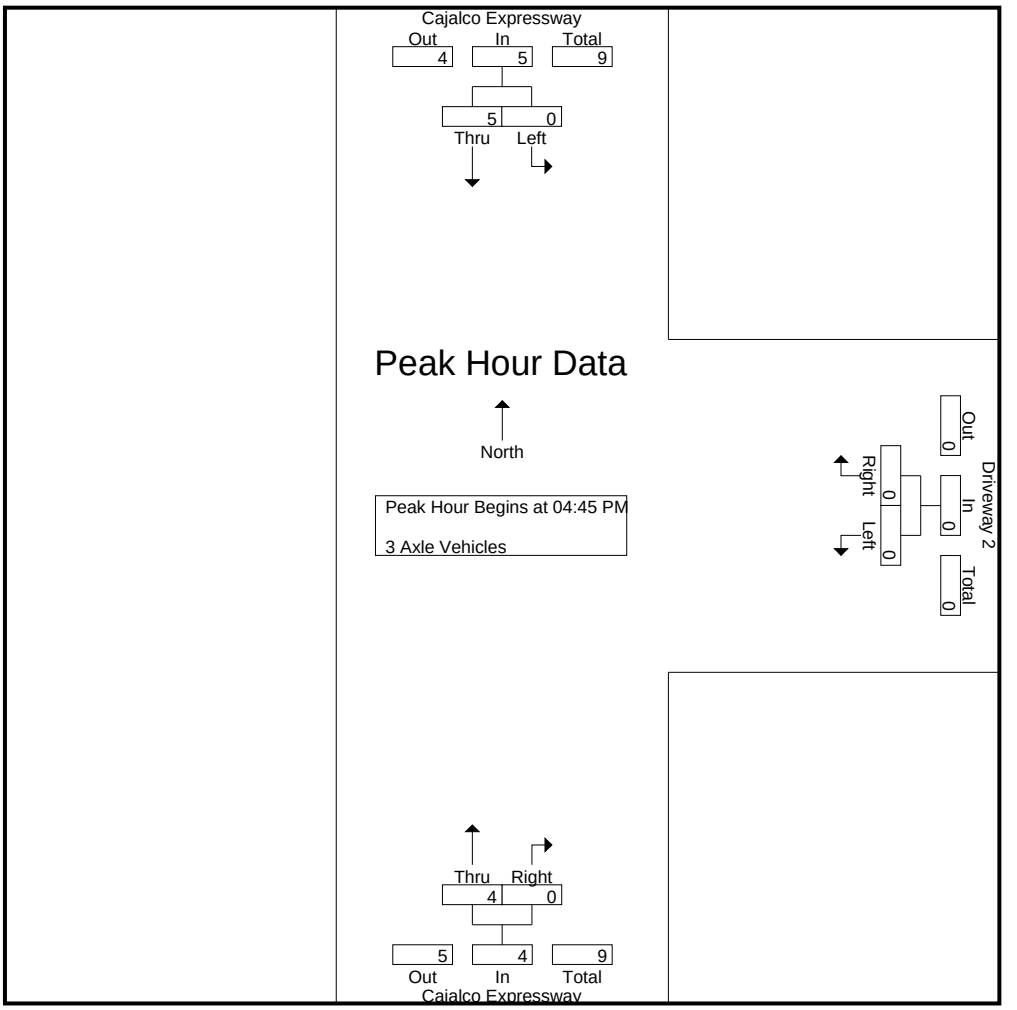

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	**3**	0	**3**
+15 mins.	0	**2**	**2**	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	1	0	1
+45 mins.	0	2	2	0	0	0	0	0	0
Total Volume	0	5	5	0	0	0	4	0	4
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.333	.000	.333

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County of Riverside
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E/W: Driveway 2
Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 PM
Site Code : 05721412
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Groups Printed- 4+ Axle Trucks

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	10	10	0	0	0	6	0	6	16
04:15 PM	0	4	4	0	0	0	6	0	6	10
04:30 PM	0	2	2	0	0	0	4	0	4	6
04:45 PM	0	5	5	0	0	0	6	0	6	11
Total	0	21	21	0	0	0	22	0	22	43
05:00 PM	0	1	1	0	0	0	6	0	6	7
05:15 PM	0	4	4	0	0	0	8	0	8	12
05:30 PM	0	0	0	0	0	0	3	0	3	3
05:45 PM	0	3	3	0	0	0	2	0	2	5
Total	0	8	8	0	0	0	19	0	19	27
Grand Total	0	29	29	0	0	0	41	0	41	70
Apprch %	0	100		0	0		100	0		
Total %	0	41.4	41.4	0	0	0	58.6	0	58.6	

	Cajalco Expressway Southbound			Driveway 2 Westbound			Cajalco Expressway Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**5**	**5**	0	0	0	6	0	6	11
05:00 PM	0	1	1	0	0	0	6	0	6	7
05:15 PM	0	4	4	0	0	0	**8**	0	**8**	**12**
05:30 PM	0	0	0	0	0	0	3	0	3	3
Total Volume	0	10	10	0	0	0	23	0	23	33
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.719	.000	.719	.688

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County of Riverside
N/S: Cajalco Expressway
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Weather: Clear

File Name : 03_CRV_Cajalco_DW 2 PM
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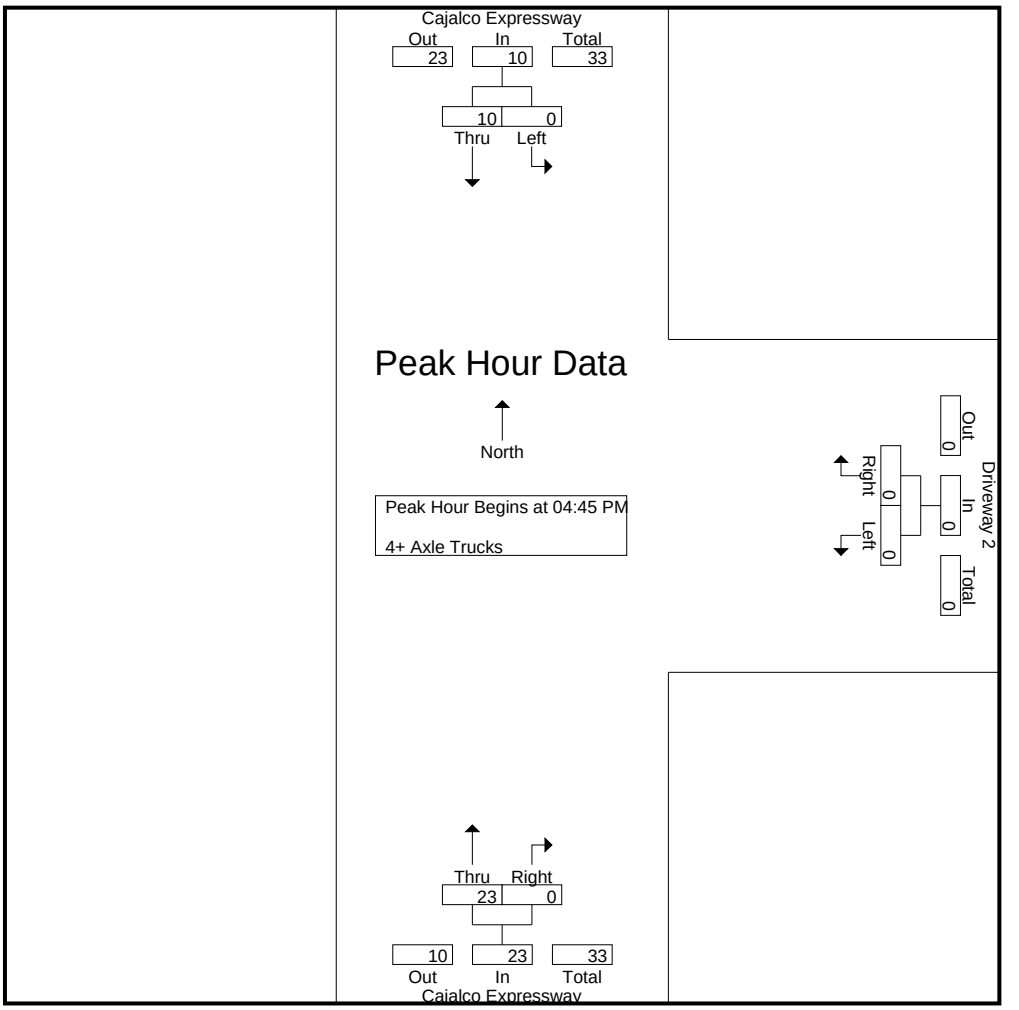

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**5**	**5**	0	0	0	6	0	6
+15 mins.	0	1	1	0	0	0	6	0	6
+30 mins.	0	4	4	0	0	0	**8**	0	**8**
+45 mins.	0	0	0	0	0	0	3	0	3
Total Volume	0	10	10	0	0	0	23	0	23
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.719	.000	.719

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County of Riverside
N/S: Driveway 3
E/W: Harvill Avenue
Weather: Clear

File Name : 04_CRV_DW3_Harvill AM
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Start Date : 8/17/2021
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	6	118	124	8	5	13	37	17	54	191
07:15 AM	5	146	151	18	6	24	57	10	67	242
07:30 AM	8	153	161	24	4	28	74	17	91	280
07:45 AM	8	99	107	16	8	24	72	13	85	216
Total	27	516	543	66	23	89	240	57	297	929
08:00 AM	1	85	86	30	4	34	45	21	66	186
08:15 AM	4	38	42	26	3	29	65	16	81	152
08:30 AM	3	50	53	21	4	25	51	12	63	141
08:45 AM	3	40	43	22	2	24	52	15	67	134
Total	11	213	224	99	13	112	213	64	277	613
Grand Total	38	729	767	165	36	201	453	121	574	1542
Apprch %	5	95		82.1	17.9		78.9	21.1		
Total %	2.5	47.3	49.7	10.7	2.3	13	29.4	7.8	37.2	
Passenger Vehicles	31	675	706	143	34	177	396	87	483	1366
% Passenger Vehicles	81.6	92.6	92	86.7	94.4	88.1	87.4	71.9	84.1	88.6
Large 2 Axle Vehicles	3	19	22	17	2	19	25	16	41	82
% Large 2 Axle Vehicles	7.9	2.6	2.9	10.3	5.6	9.5	5.5	13.2	7.1	5.3
3 Axle Vehicles	1	4	5	0	0	0	5	0	5	10
% 3 Axle Vehicles	2.6	0.5	0.7	0	0	0	1.1	0	0.9	0.6
4+ Axle Trucks	3	31	34	5	0	5	27	18	45	84
% 4+ Axle Trucks	7.9	4.3	4.4	3	0	2.5	6	14.9	7.8	5.4

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	6	118	124	8	5	13	37	**17**	54	191
07:15 AM	5	146	151	18	6	24	57	10	67	242
07:30 AM	**8**	**153**	**161**	**24**	4	**28**	**74**	17	**91**	**280**
07:45 AM	8	99	107	16	**8**	24	72	13	85	216
Total Volume	27	516	543	66	23	89	240	57	297	929
% App. Total	5	95		74.2	25.8		80.8	19.2		
PHF	.844	.843	.843	.688	.719	.795	.811	.838	.816	.829

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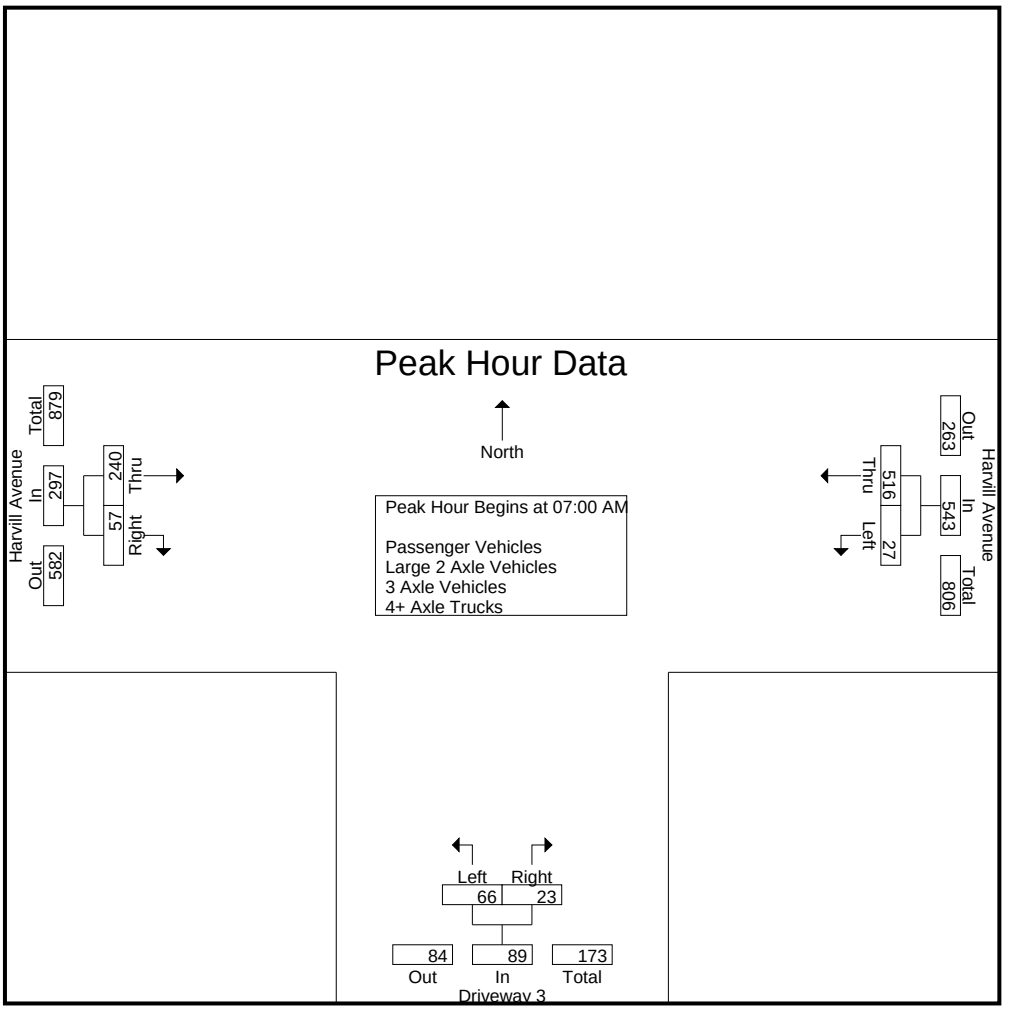

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	6	118	124	24	4	28	**74**	17	**91**
+15 mins.	5	146	151	16	**8**	24	72	13	85
+30 mins.	**8**	**153**	**161**	**30**	4	**34**	45	**21**	66
+45 mins.	8	99	107	26	3	29	65	16	81
Total Volume	27	516	543	96	19	115	256	67	323
% App. Total	5	95		83.5	16.5		79.3	20.7	
PHF	.844	.843	.843	.800	.594	.846	.865	.798	.887

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County of Riverside
N/S: Driveway 3
E/W: Harvill Avenue
Weather: Clear

File Name : 04_CRV_DW3_Harvill AM
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Groups Printed- Passenger Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	5	114	119	7	5	12	32	10	42	173
07:15 AM	4	136	140	17	6	23	54	8	62	225
07:30 AM	6	147	153	19	4	23	63	11	74	250
07:45 AM	7	94	101	13	8	21	69	10	79	201
Total	22	491	513	56	23	79	218	39	257	849
08:00 AM	1	76	77	23	4	27	42	19	61	165
08:15 AM	3	33	36	25	3	28	55	11	66	130
08:30 AM	3	40	43	18	2	20	40	9	49	112
08:45 AM	2	35	37	21	2	23	41	9	50	110
Total	9	184	193	87	11	98	178	48	226	517
Grand Total	31	675	706	143	34	177	396	87	483	1366
Apprch %	4.4	95.6		80.8	19.2		82	18		
Total %	2.3	49.4	51.7	10.5	2.5	13	29	6.4	35.4	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	5	114	119	7	5	12	32	10	42	173
07:15 AM	4	136	140	17	6	**23**	54	8	62	225
07:30 AM	6	**147**	**153**	**19**	4	23	63	**11**	74	**250**
07:45 AM	**7**	94	101	13	**8**	21	**69**	10	**79**	201
Total Volume	22	491	513	56	23	79	218	39	257	849
% App. Total	4.3	95.7		70.9	29.1		84.8	15.2		
PHF	.786	.835	.838	.737	.719	.859	.790	.886	.813	.849

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County of Riverside
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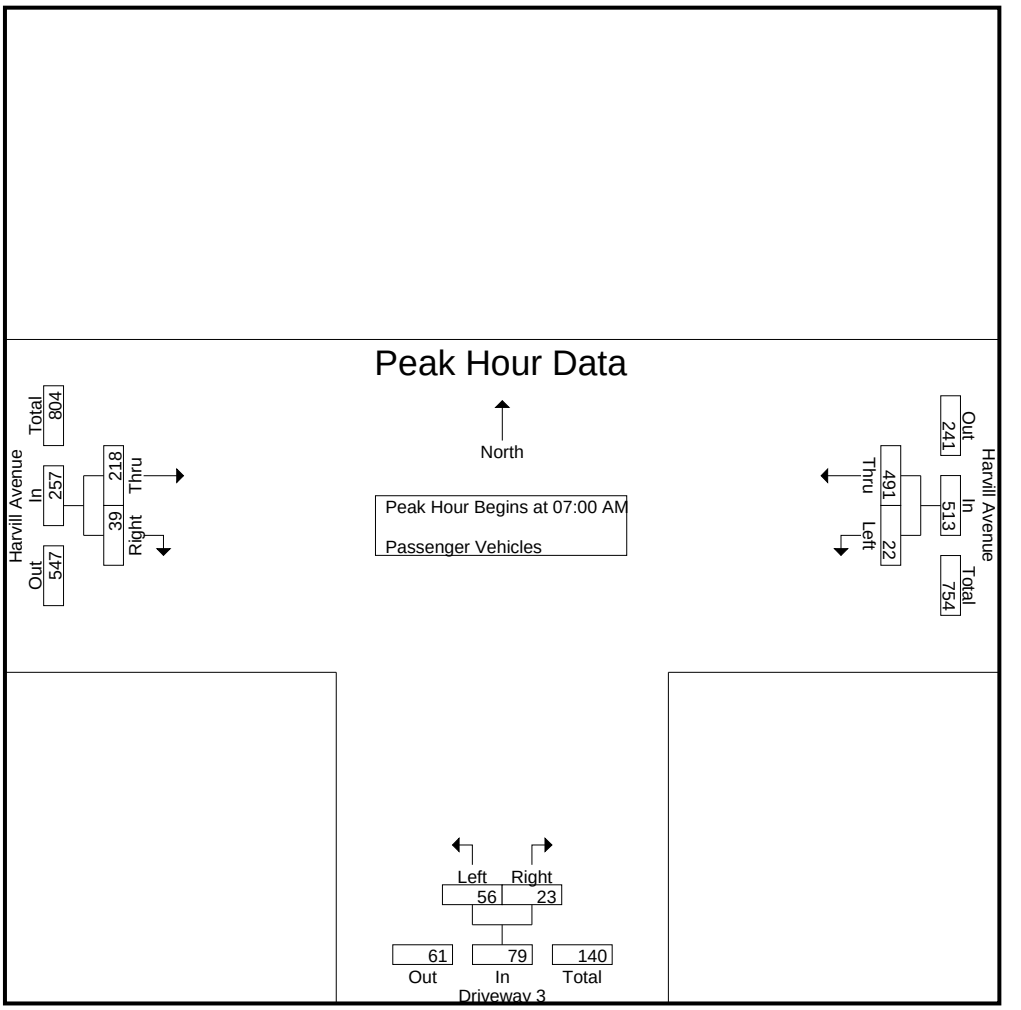

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	5	114	119	7	5	12	32	10	42
+15 mins.	4	136	140	17	6	**23**	54	8	62
+30 mins.	6	**147**	**153**	**19**	4	23	63	**11**	74
+45 mins.	**7**	94	101	13	**8**	21	**69**	10	**79**
Total Volume	22	491	513	56	23	79	218	39	257
% App. Total	4.3	95.7		70.9	29.1		84.8	15.2	
PHF	.786	.835	.838	.737	.719	.859	.790	.886	.813

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County of Riverside
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Groups Printed- Large 2 Axle Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	4	5	1	0	1	4	5	9	15
07:15 AM	0	6	6	1	0	1	1	1	2	9
07:30 AM	1	1	2	3	0	3	6	3	9	14
07:45 AM	0	1	1	2	0	2	2	1	3	6
Total	2	12	14	7	0	7	13	10	23	44
08:00 AM	0	4	4	6	0	6	0	2	2	12
08:15 AM	1	1	2	0	0	0	5	1	6	8
08:30 AM	0	1	1	3	2	5	4	0	4	10
08:45 AM	0	1	1	1	0	1	3	3	6	8
Total	1	7	8	10	2	12	12	6	18	38
Grand Total	3	19	22	17	2	19	25	16	41	82
Apprch %	13.6	86.4		89.5	10.5		61	39		
Total %	3.7	23.2	26.8	20.7	2.4	23.2	30.5	19.5	50	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	4	5	1	0	1	4	**5**	**9**	**15**
07:15 AM	0	**6**	**6**	1	0	1	1	1	2	9
07:30 AM	1	1	2	**3**	0	**3**	**6**	3	9	14
07:45 AM	0	1	1	2	0	2	2	1	3	6
Total Volume	2	12	14	7	0	7	13	10	23	44
% App. Total	14.3	85.7		100	0		56.5	43.5		
PHF	.500	.500	.583	.583	.000	.583	.542	.500	.639	.733

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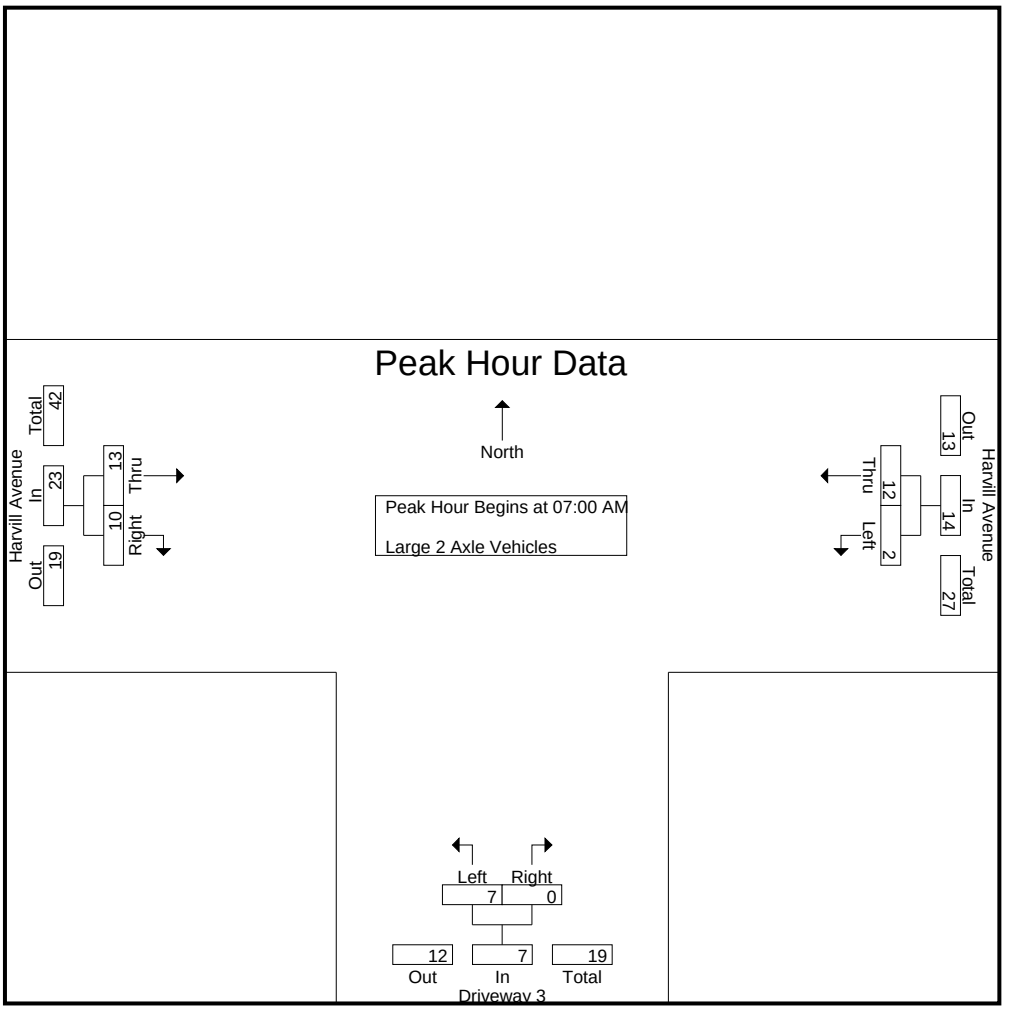

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	4	5	1	0	1	4	**5**	**9**
+15 mins.	0	**6**	**6**	1	0	1	1	1	2
+30 mins.	1	1	2	**3**	0	**3**	**6**	3	9
+45 mins.	0	1	1	2	0	2	2	1	3
Total Volume	2	12	14	7	0	7	13	10	23
% App. Total	14.3	85.7		100	0		56.5	43.5	
PHF	.500	.500	.583	.583	.000	.583	.542	.500	.639

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County of Riverside
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Site Code : 05721412
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Groups Printed- 3 Axle Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	1	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	1	2	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	2	2	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	1	1	0	0	0	3	0	3	4
Total	0	3	3	0	0	0	5	0	5	8
Grand Total	1	4	5	0	0	0	5	0	5	10
Apprch %	20	80		0	0		100	0		
Total %	10	40	50	0	0	0	50	0	50	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	**1**	**1**	**2**	0	0	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	2	0	0	0	0	0	0	2
% App. Total	50	50		0	0		0	0		
PHF	.250	.250	.250	.000	.000	.000	.000	.000	.000	.250

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County of Riverside
N/S: Driveway 3
E/W: Harvill Avenue
Weather: Clear

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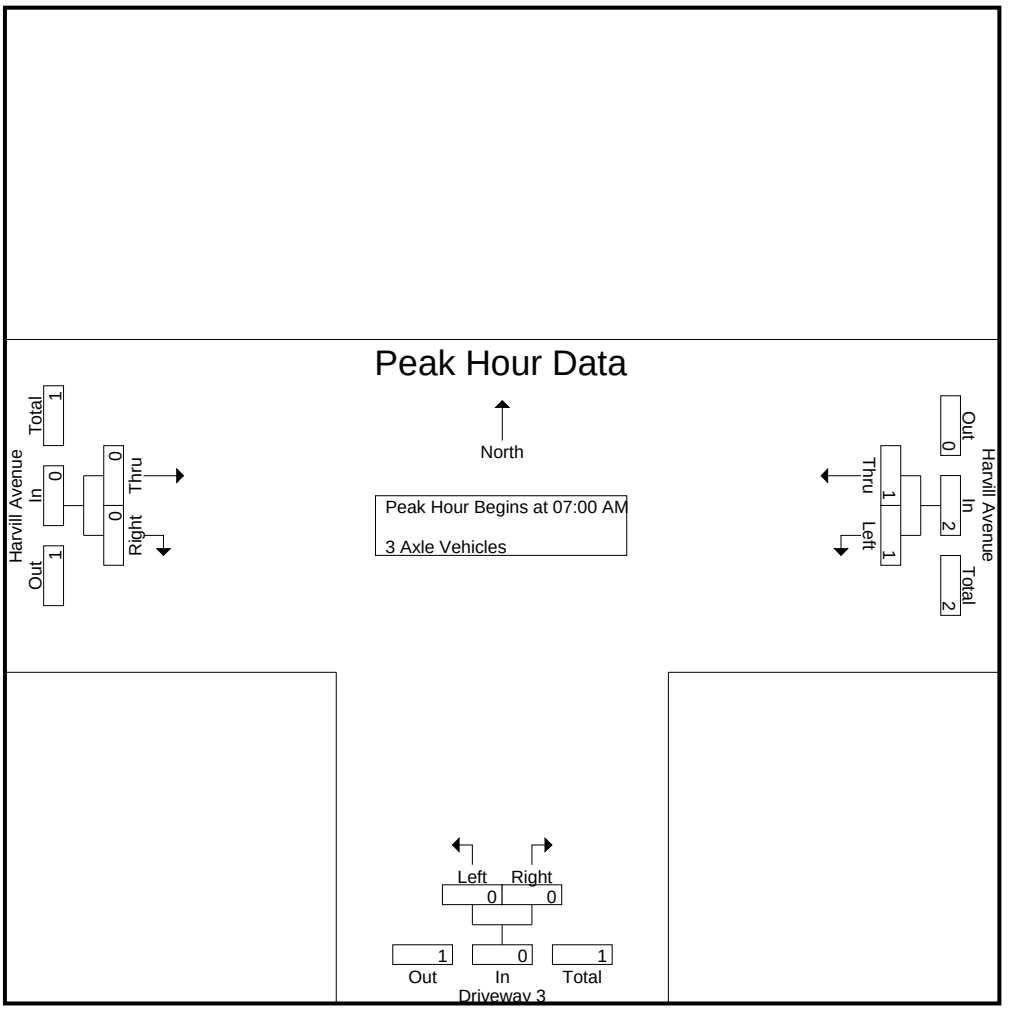

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	**1**	**1**	**2**	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	1	2	0	0	0	0	0	0
% App. Total	50	50		0	0		0	0	
PHF	.250	.250	.250	.000	.000	.000	.000	.000	.000

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County of Riverside
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Weather: Clear

File Name : 04_CRV_DW3_Harvill AM
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Groups Printed- 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	2	3	3
07:15 AM	0	3	3	0	0	0	2	1	3	6
07:30 AM	1	5	6	2	0	2	5	3	8	16
07:45 AM	1	4	5	1	0	1	1	2	3	9
Total	2	12	14	3	0	3	9	8	17	34
08:00 AM	0	5	5	1	0	1	3	0	3	9
08:15 AM	0	2	2	1	0	1	4	4	8	11
08:30 AM	0	9	9	0	0	0	6	3	9	18
08:45 AM	1	3	4	0	0	0	5	3	8	12
Total	1	19	20	2	0	2	18	10	28	50
Grand Total	3	31	34	5	0	5	27	18	45	84
Apprch %	8.8	91.2		100	0		60	40		
Total %	3.6	36.9	40.5	6	0	6	32.1	21.4	53.6	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	1	2	3	3
07:15 AM	0	3	3	0	0	0	2	1	3	6
07:30 AM	**1**	**5**	**6**	**2**	0	**2**	**5**	**3**	**8**	**16**
07:45 AM	1	4	5	1	0	1	1	2	3	9
Total Volume	2	12	14	3	0	3	9	8	17	34
% App. Total	14.3	85.7		100	0		52.9	47.1		
PHF	.500	.600	.583	.375	.000	.375	.450	.667	.531	.531

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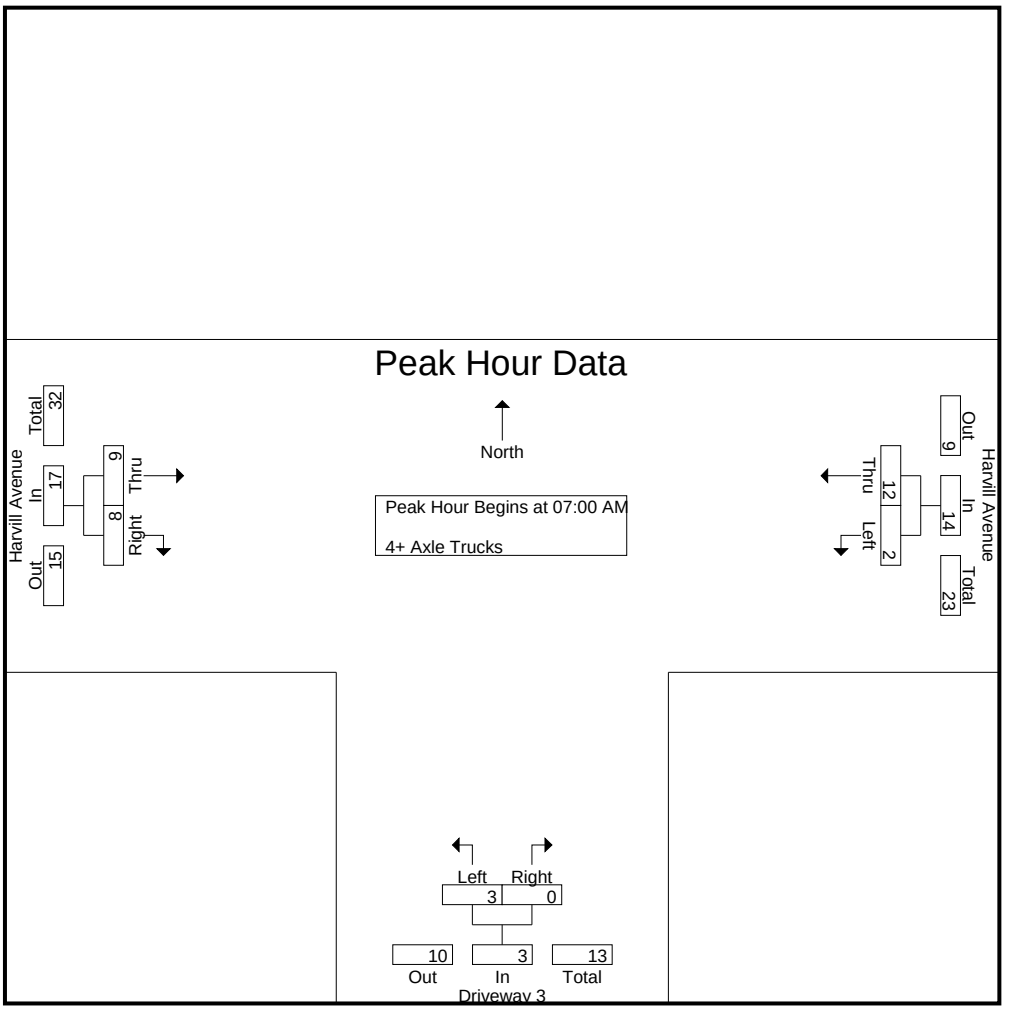

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	2	3
+15 mins.	0	3	3	0	0	0	2	1	3
+30 mins.	**1**	**5**	**6**	**2**	0	**2**	**5**	**3**	**8**
+45 mins.	1	4	5	1	0	1	1	2	3
Total Volume	2	12	14	3	0	3	9	8	17
% App. Total	14.3	85.7		100	0		52.9	47.1	
PHF	.500	.600	.583	.375	.000	.375	.450	.667	.531

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	5	98	103	17	6	23	136	11	147	273
04:15 PM	2	78	80	14	9	23	122	17	139	242
04:30 PM	4	89	93	12	8	20	114	21	135	248
04:45 PM	2	70	72	17	7	24	93	12	105	201
Total	13	335	348	60	30	90	465	61	526	964
05:00 PM	6	67	73	16	10	26	103	17	120	219
05:15 PM	4	66	70	10	9	19	103	17	120	209
05:30 PM	5	48	53	16	8	24	108	22	130	207
05:45 PM	3	53	56	29	3	32	77	9	86	174
Total	18	234	252	71	30	101	391	65	456	809
Grand Total	31	569	600	131	60	191	856	126	982	1773
Apprch %	5.2	94.8		68.6	31.4		87.2	12.8		
Total %	1.7	32.1	33.8	7.4	3.4	10.8	48.3	7.1	55.4	
Passenger Vehicles	29	544	573	127	57	184	798	109	907	1664
% Passenger Vehicles	93.5	95.6	95.5	96.9	95	96.3	93.2	86.5	92.4	93.9
Large 2 Axle Vehicles	1	6	7	2	3	5	18	2	20	32
% Large 2 Axle Vehicles	3.2	1.1	1.2	1.5	5	2.6	2.1	1.6	2	1.8
3 Axle Vehicles	0	10	10	0	0	0	7	3	10	20
% 3 Axle Vehicles	0	1.8	1.7	0	0	0	0.8	2.4	1	1.1
4+ Axle Trucks	1	9	10	2	0	2	33	12	45	57
% 4+ Axle Trucks	3.2	1.6	1.7	1.5	0	1	3.9	9.5	4.6	3.2

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**5**	**98**	**103**	**17**	6	23	**136**	11	**147**	**273**
04:15 PM	2	78	80	14	**9**	23	122	17	139	242
04:30 PM	4	89	93	12	8	20	114	**21**	135	248
04:45 PM	2	70	72	17	7	**24**	93	12	105	201
Total Volume	13	335	348	60	30	90	465	61	526	964
% App. Total	3.7	96.3		66.7	33.3		88.4	11.6		
PHF	.650	.855	.845	.882	.833	.938	.855	.726	.895	.883

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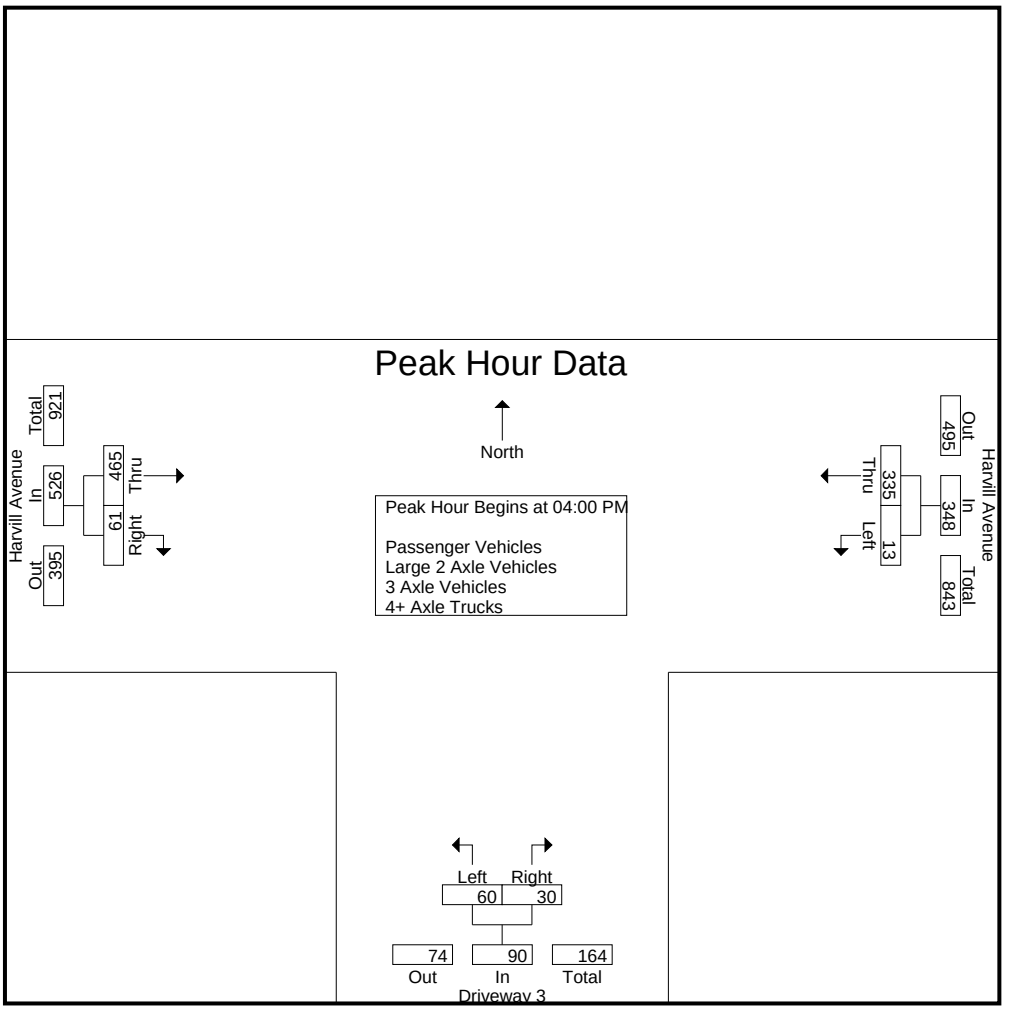

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			04:00 PM		
+0 mins.	**5**	**98**	**103**	16	**10**	26	**136**	11	**147**
+15 mins.	2	78	80	10	9	19	122	17	139
+30 mins.	4	89	93	16	8	24	114	**21**	135
+45 mins.	2	70	72	**29**	3	**32**	93	12	105
Total Volume	13	335	348	71	30	101	465	61	526
% App. Total	3.7	96.3		70.3	29.7		88.4	11.6	
PHF	.650	.855	.845	.612	.750	.789	.855	.726	.895

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Groups Printed- Passenger Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	5	94	99	17	6	23	129	9	138	260
04:15 PM	2	72	74	13	8	21	114	12	126	221
04:30 PM	4	85	89	11	8	19	107	16	123	231
04:45 PM	2	68	70	15	6	21	80	9	89	180
Total	13	319	332	56	28	84	430	46	476	892
05:00 PM	6	65	71	16	10	26	96	16	112	209
05:15 PM	3	63	66	10	9	19	98	17	115	200
05:30 PM	4	48	52	16	8	24	104	21	125	201
05:45 PM	3	49	52	29	2	31	70	9	79	162
Total	16	225	241	71	29	100	368	63	431	772
Grand Total	29	544	573	127	57	184	798	109	907	1664
Apprch %	5.1	94.9		69	31		88	12		
Total %	1.7	32.7	34.4	7.6	3.4	11.1	48	6.6	54.5	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**5**	**94**	**99**	**17**	6	**23**	**129**	9	**138**	**260**
04:15 PM	2	72	74	13	**8**	21	114	12	126	221
04:30 PM	4	85	89	11	8	19	107	**16**	123	231
04:45 PM	2	68	70	15	6	21	80	9	89	180
Total Volume	13	319	332	56	28	84	430	46	476	892
% App. Total	3.9	96.1		66.7	33.3		90.3	9.7		
PHF	.650	.848	.838	.824	.875	.913	.833	.719	.862	.858

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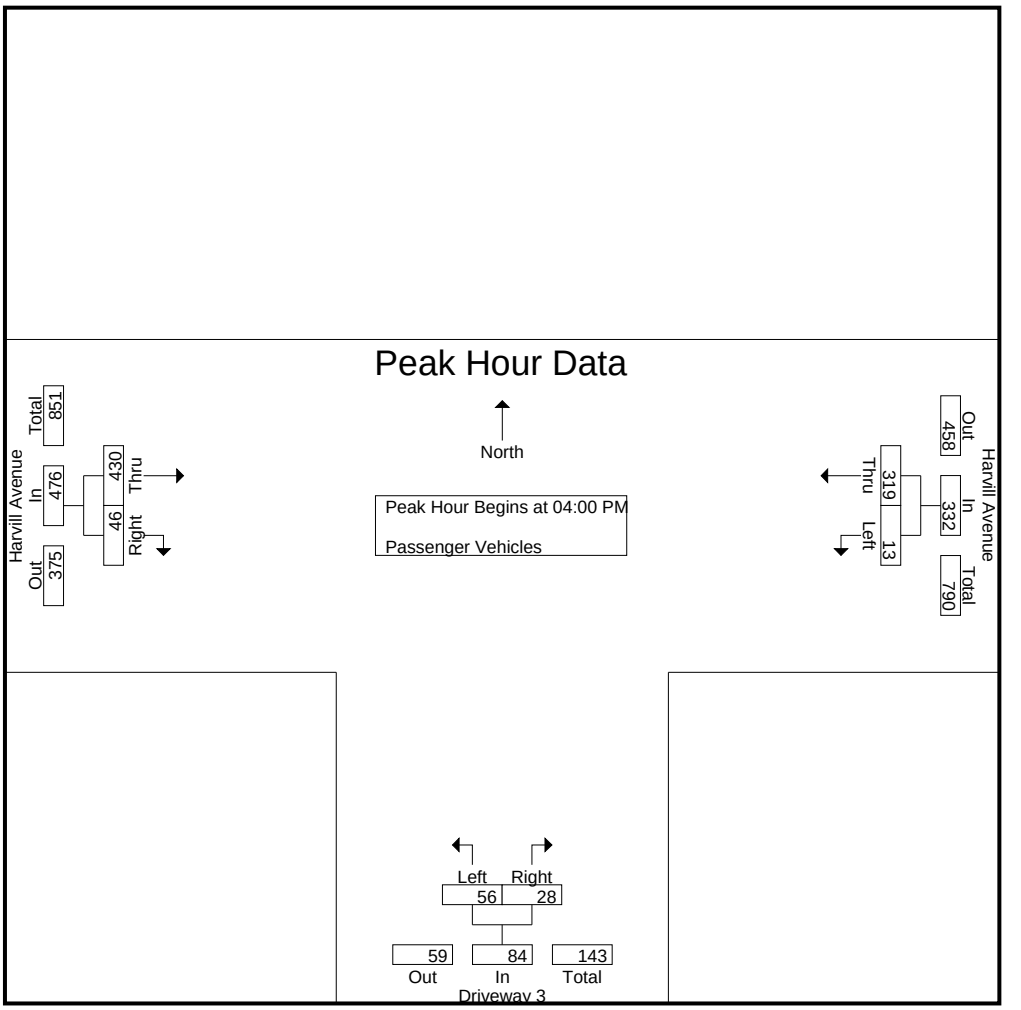

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	**5**	**94**	**99**	**17**	6	**23**	**129**	9	**138**
+15 mins.	2	72	74	13	**8**	21	114	12	126
+30 mins.	4	85	89	11	8	19	107	**16**	123
+45 mins.	2	68	70	15	6	21	80	9	89
Total Volume	13	319	332	56	28	84	430	46	476
% App. Total	3.9	96.1		66.7	33.3		90.3	9.7	
PHF	.650	.848	.838	.824	.875	.913	.833	.719	.862

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Groups Printed- Large 2 Axle Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	0	0	0	1
04:15 PM	0	1	1	0	1	1	2	0	2	4
04:30 PM	0	1	1	0	0	0	4	1	5	6
04:45 PM	0	1	1	2	1	3	5	1	6	10
Total	0	4	4	2	2	4	11	2	13	21
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	1	0	0	0	2	0	2	3
05:45 PM	0	2	2	0	1	1	4	0	4	7
Total	1	2	3	0	1	1	7	0	7	11
Grand Total	1	6	7	2	3	5	18	2	20	32
Apprch %	14.3	85.7		40	60		90	10		
Total %	3.1	18.8	21.9	6.2	9.4	15.6	56.2	6.2	62.5	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**1**	**1**	0	0	0	0	0	0	1
04:15 PM	0	1	1	0	**1**	1	2	0	2	4
04:30 PM	0	1	1	0	0	0	4	**1**	5	6
04:45 PM	0	1	1	**2**	1	**3**	**5**	1	**6**	**10**
Total Volume	0	4	4	2	2	4	11	2	13	21
% App. Total	0	100		50	50		84.6	15.4		
PHF	.000	1.00	1.00	.250	.500	.333	.550	.500	.542	.525

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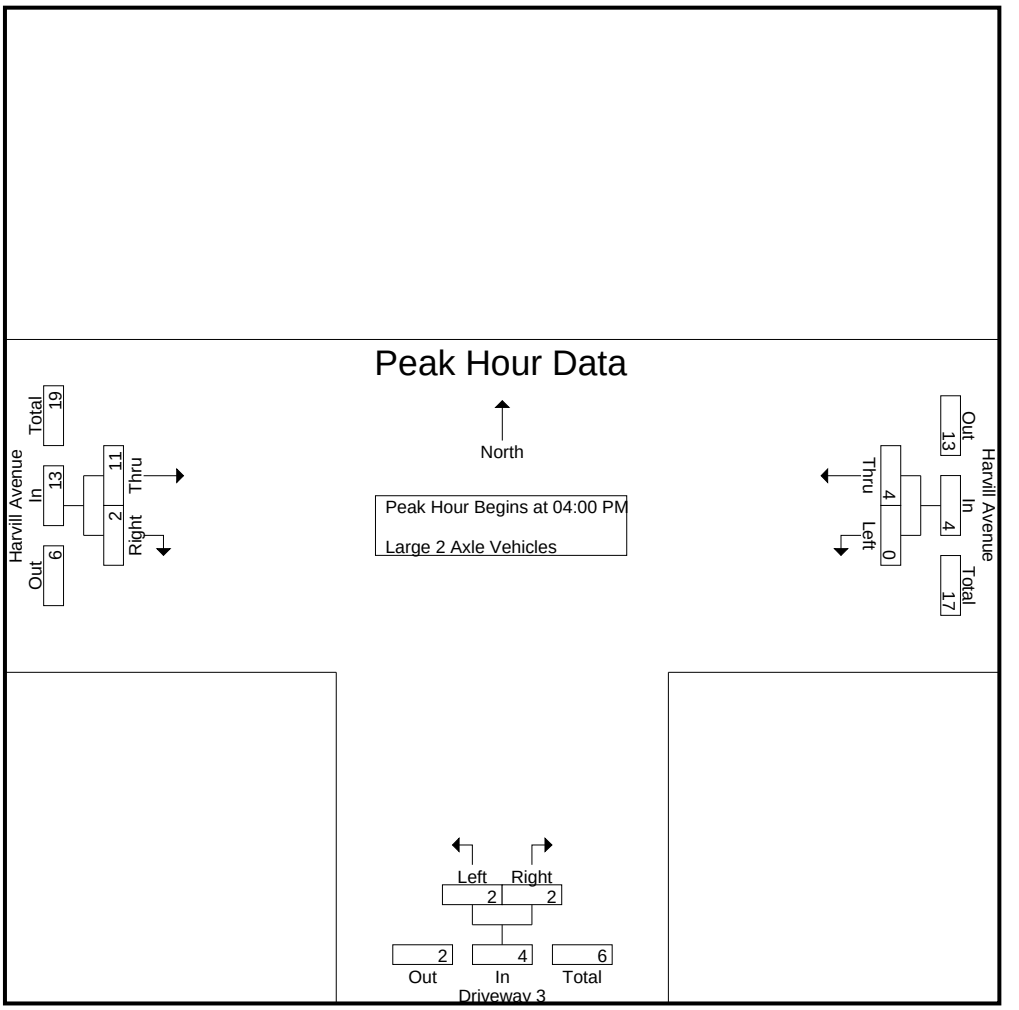

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	**1**	**1**	0	0	0	0	0	0
+15 mins.	0	1	1	0	**1**	1	2	0	2
+30 mins.	0	1	1	0	0	0	4	**1**	5
+45 mins.	0	1	1	**2**	1	**3**	**5**	1	**6**
Total Volume	0	4	4	2	2	4	11	2	13
% App. Total	0	100		50	50		84.6	15.4	
PHF	.000	1.000	1.000	.250	.500	.333	.550	.500	.542

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Groups Printed- 3 Axle Vehicles

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	2	0	2	3
04:15 PM	0	4	4	0	0	0	0	2	2	6
04:30 PM	0	1	1	0	0	0	1	1	2	3
04:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	7	7	0	0	0	4	3	7	14
05:00 PM	0	1	1	0	0	0	2	0	2	3
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	1	0	0	0	0	0	0	1
Total	0	3	3	0	0	0	3	0	3	6
Grand Total	0	10	10	0	0	0	7	3	10	20
Apprch %	0	100		0	0		70	30		
Total %	0	50	50	0	0	0	35	15	50	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	1	1	0	0	0	**2**	0	**2**	3
04:15 PM	0	**4**	**4**	0	0	0	0	**2**	2	**6**
04:30 PM	0	1	1	0	0	0	1	1	2	3
04:45 PM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	7	7	0	0	0	4	3	7	14
% App. Total	0	100		0	0		57.1	42.9		
PHF	.000	.438	.438	.000	.000	.000	.500	.375	.875	.583

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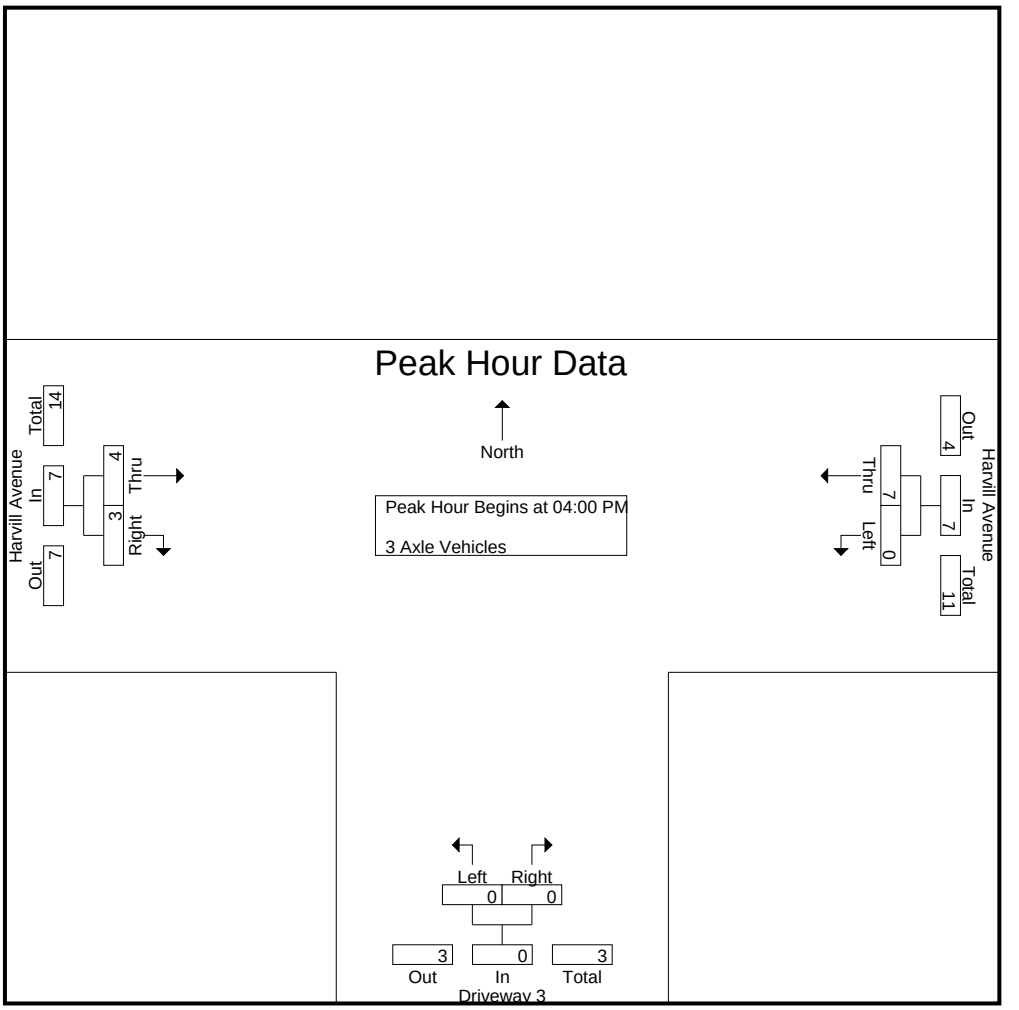

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	1	1	0	0	0	**2**	0	**2**
+15 mins.	0	**4**	**4**	0	0	0	0	**2**	2
+30 mins.	0	1	1	0	0	0	1	1	2
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	7	7	0	0	0	4	3	7
% App. Total	0	100		0	0		57.1	42.9	
PHF	.000	.438	.438	.000	.000	.000	.500	.375	.875

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Groups Printed- 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	5	2	7	9
04:15 PM	0	1	1	1	0	1	6	3	9	11
04:30 PM	0	2	2	1	0	1	2	3	5	8
04:45 PM	0	0	0	0	0	0	7	2	9	9
Total	0	5	5	2	0	2	20	10	30	37
05:00 PM	0	1	1	0	0	0	4	1	5	6
05:15 PM	1	2	3	0	0	0	4	0	4	7
05:30 PM	0	0	0	0	0	0	2	1	3	3
05:45 PM	0	1	1	0	0	0	3	0	3	4
Total	1	4	5	0	0	0	13	2	15	20
Grand Total	1	9	10	2	0	2	33	12	45	57
Apprch %	10	90		100	0		73.3	26.7		
Total %	1.8	15.8	17.5	3.5	0	3.5	57.9	21.1	78.9	

	Harvill Avenue Westbound			Driveway 3 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**2**	**2**	0	0	0	5	2	7	9
04:15 PM	0	1	1	**1**	0	**1**	6	**3**	**9**	**11**
04:30 PM	0	2	2	1	0	1	2	3	5	8
04:45 PM	0	0	0	0	0	0	**7**	2	9	9
Total Volume	0	5	5	2	0	2	20	10	30	37
% App. Total	0	100		100	0		66.7	33.3		
PHF	.000	.625	.625	.500	.000	.500	.714	.833	.833	.841

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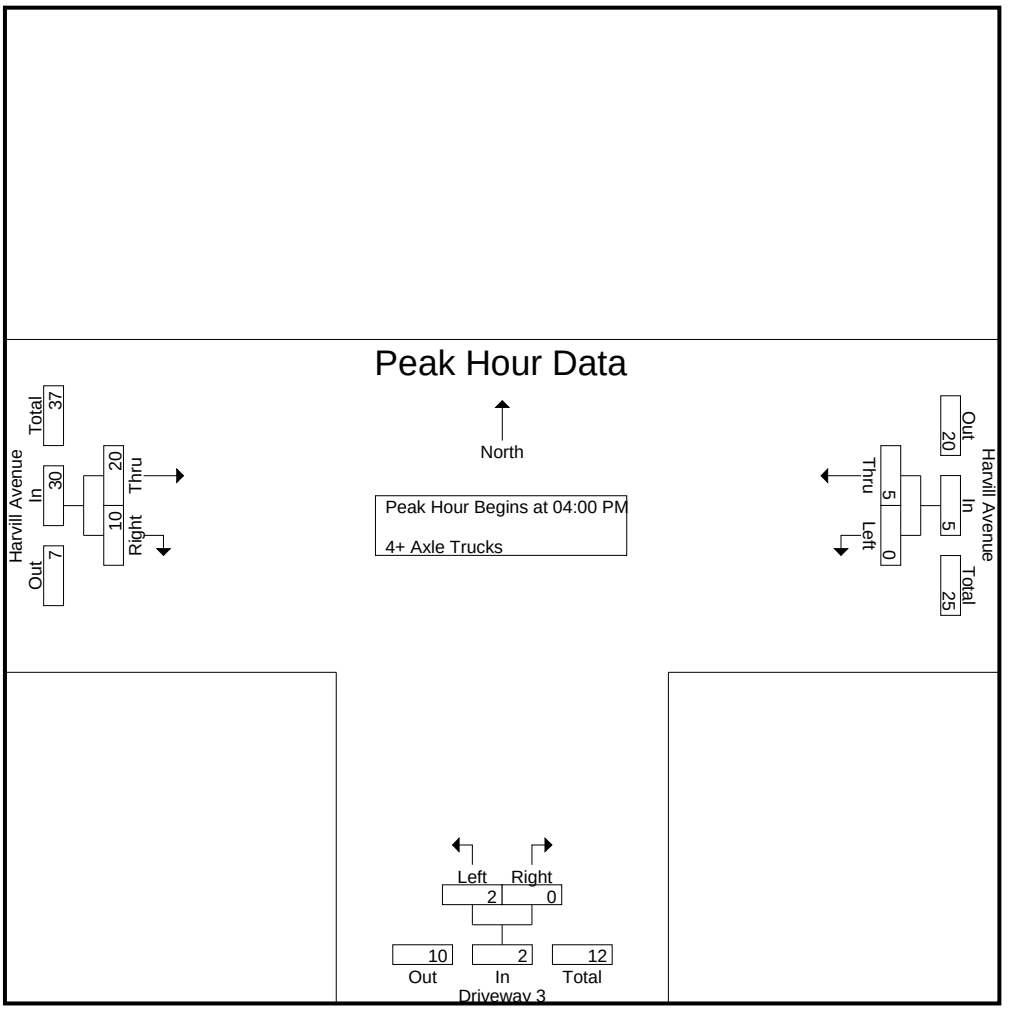
County of Riverside
N/S: Driveway 3
E/W: Harvill Avenue
Weather: Clear

File Name : 04_CRV_DW3_Harvill PM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	**2**	**2**	0	0	0	5	2	7
+15 mins.	0	1	1	**1**	0	**1**	6	**3**	**9**
+30 mins.	0	2	2	1	0	1	2	3	5
+45 mins.	0	0	0	0	0	0	**7**	2	9
Total Volume	0	5	5	2	0	2	20	10	30
% App. Total	0	100		100	0		66.7	33.3	
PHF	.000	.625	.625	.500	.000	.500	.714	.833	.833

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	123	123	0	0	0	43	0	43	166
07:15 AM	0	156	156	0	0	0	57	3	60	216
07:30 AM	1	154	155	1	0	1	73	3	76	232
07:45 AM	0	111	111	0	1	1	81	0	81	193
Total	1	544	545	1	1	2	254	6	260	807
08:00 AM	1	90	91	0	0	0	52	1	53	144
08:15 AM	1	40	41	0	0	0	63	3	66	107
08:30 AM	0	53	53	1	0	1	50	2	52	106
08:45 AM	0	46	46	0	1	1	51	4	55	102
Total	2	229	231	1	1	2	216	10	226	459
Grand Total	3	773	776	2	2	4	470	16	486	1266
Apprch %	0.4	99.6		50	50		96.7	3.3		
Total %	0.2	61.1	61.3	0.2	0.2	0.3	37.1	1.3	38.4	
Passenger Vehicles	0	705	705	0	1	1	413	4	417	1123
% Passenger Vehicles	0	91.2	90.9	0	50	25	87.9	25	85.8	88.7
Large 2 Axle Vehicles	1	29	30	0	0	0	31	3	34	64
% Large 2 Axle Vehicles	33.3	3.8	3.9	0	0	0	6.6	18.8	7	5.1
3 Axle Vehicles	0	5	5	0	0	0	8	0	8	13
% 3 Axle Vehicles	0	0.6	0.6	0	0	0	1.7	0	1.6	1
4+ Axle Trucks	2	34	36	2	1	3	18	9	27	66
% 4+ Axle Trucks	66.7	4.4	4.6	100	50	75	3.8	56.2	5.6	5.2

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	123	123	0	0	0	43	0	43	166
07:15 AM	0	**156**	**156**	0	0	0	57	**3**	60	216
07:30 AM	**1**	154	155	**1**	0	**1**	73	3	76	**232**
07:45 AM	0	111	111	0	**1**	1	**81**	0	**81**	193
Total Volume	1	544	545	1	1	2	254	6	260	807
% App. Total	0.2	99.8		50	50		97.7	2.3		
PHF	.250	.872	.873	.250	.250	.500	.784	.500	.802	.870

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Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
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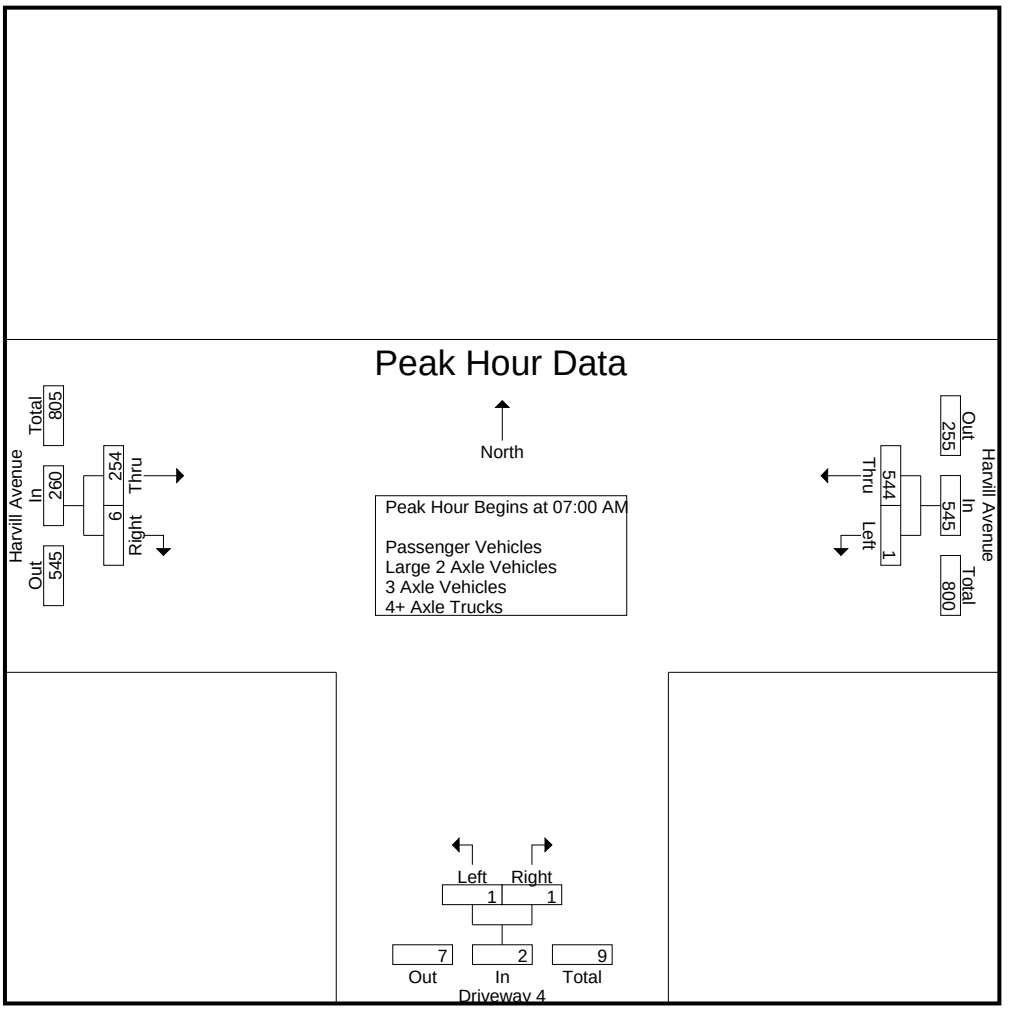

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	0	123	123	0	0	0	73	**3**	76
+15 mins.	0	**156**	**156**	0	0	0	**81**	0	**81**
+30 mins.	**1**	154	155	**1**	0	**1**	52	1	53
+45 mins.	0	111	111	0	**1**	1	63	3	66
Total Volume	1	544	545	1	1	2	269	7	276
% App. Total	0.2	99.8		50	50		97.5	2.5	
PHF	.250	.872	.873	.250	.250	.500	.830	.583	.852

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- Passenger Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	118	118	0	0	0	37	0	37	155
07:15 AM	0	143	143	0	0	0	55	1	56	199
07:30 AM	0	147	147	0	0	0	62	0	62	209
07:45 AM	0	103	103	0	0	0	77	0	77	180
Total	0	511	511	0	0	0	231	1	232	743
08:00 AM	0	80	80	0	0	0	49	0	49	129
08:15 AM	0	34	34	0	0	0	54	1	55	89
08:30 AM	0	44	44	0	0	0	38	1	39	83
08:45 AM	0	36	36	0	1	1	41	1	42	79
Total	0	194	194	0	1	1	182	3	185	380
Grand Total	0	705	705	0	1	1	413	4	417	1123
Apprch %	0	100		0	100		99	1		
Total %	0	62.8	62.8	0	0.1	0.1	36.8	0.4	37.1	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	118	118	0	0	0	37	0	37	155
07:15 AM	0	143	143	0	0	0	55	**1**	56	199
07:30 AM	0	**147**	**147**	0	0	0	62	0	62	**209**
07:45 AM	0	103	103	0	0	0	**77**	0	**77**	180
Total Volume	0	511	511	0	0	0	231	1	232	743
% App. Total	0	100		0	0		99.6	0.4		
PHF	.000	.869	.869	.000	.000	.000	.750	.250	.753	.889

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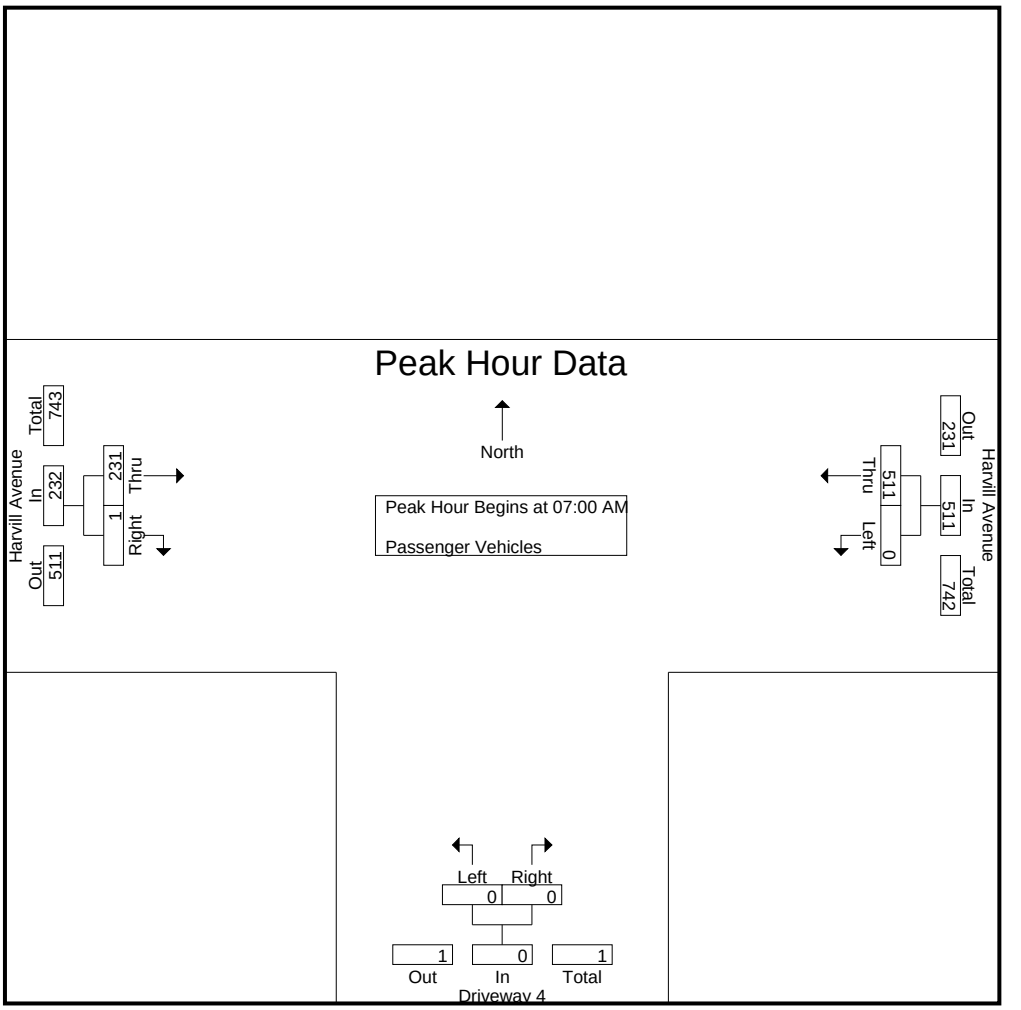

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	118	118	0	0	0	37	0	37
+15 mins.	0	143	143	0	0	0	55	**1**	56
+30 mins.	0	**147**	**147**	0	0	0	62	0	62
+45 mins.	0	103	103	0	0	0	**77**	0	**77**
Total Volume	0	511	511	0	0	0	231	1	232
% App. Total	0	100		0	0		99.6	0.4	
PHF	.000	.869	.869	.000	.000	.000	.750	.250	.753

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
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Groups Printed- Large 2 Axle Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	0	0	0	4	0	4	6
07:15 AM	0	8	8	0	0	0	1	1	2	10
07:30 AM	1	4	5	0	0	0	6	2	8	13
07:45 AM	0	3	3	0	0	0	3	0	3	6
Total	1	17	18	0	0	0	14	3	17	35
08:00 AM	0	3	3	0	0	0	1	0	1	4
08:15 AM	0	4	4	0	0	0	5	0	5	9
08:30 AM	0	1	1	0	0	0	6	0	6	7
08:45 AM	0	4	4	0	0	0	5	0	5	9
Total	0	12	12	0	0	0	17	0	17	29
Grand Total	1	29	30	0	0	0	31	3	34	64
Apprch %	3.3	96.7		0	0		91.2	8.8		
Total %	1.6	45.3	46.9	0	0	0	48.4	4.7	53.1	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	0	0	0	4	0	4	6
07:15 AM	0	**8**	**8**	0	0	0	1	1	2	10
07:30 AM	**1**	4	5	0	0	0	**6**	**2**	**8**	**13**
07:45 AM	0	3	3	0	0	0	3	0	3	6
Total Volume	1	17	18	0	0	0	14	3	17	35
% App. Total	5.6	94.4		0	0		82.4	17.6		
PHF	.250	.531	.563	.000	.000	.000	.583	.375	.531	.673

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County of Riverside
N/S: Driveway 4
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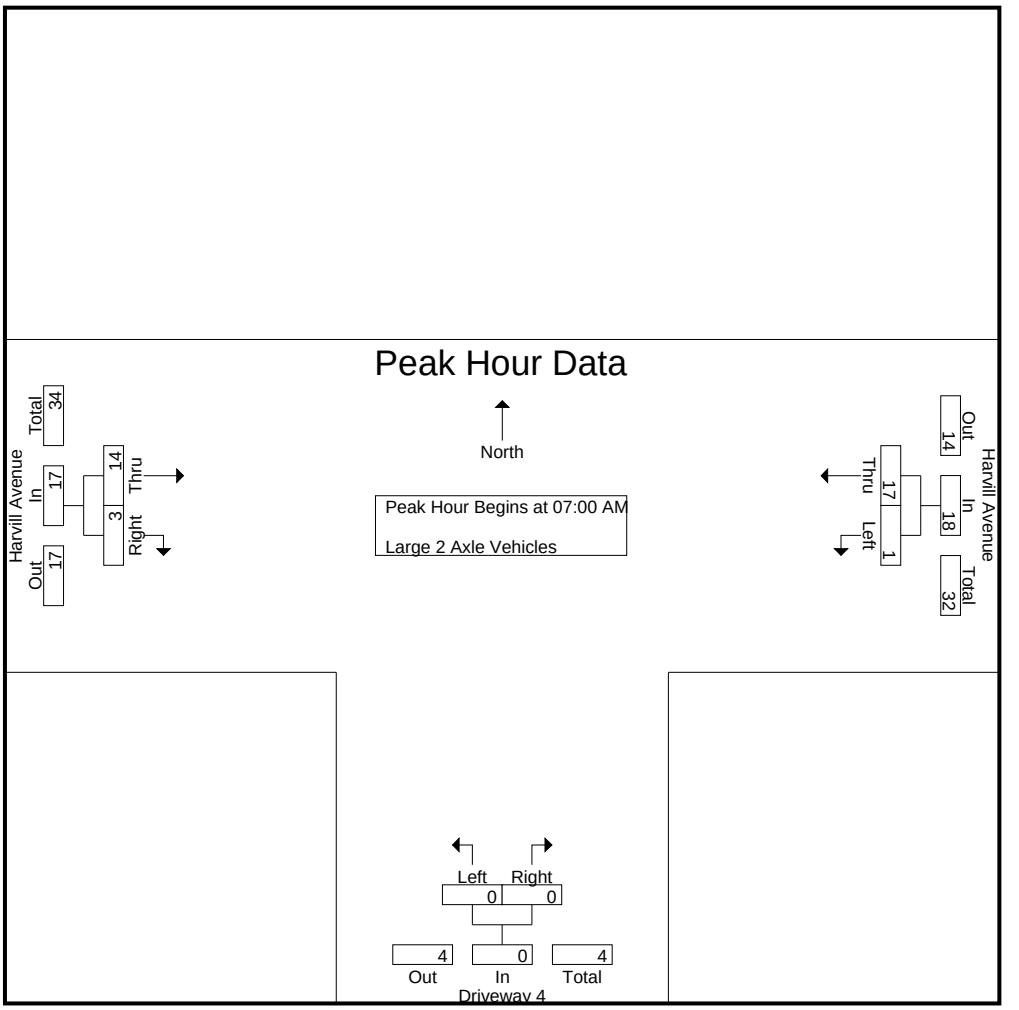
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	0	0	0	4	0	4
+15 mins.	0	**8**	**8**	0	0	0	1	1	2
+30 mins.	**1**	4	5	0	0	0	**6**	**2**	**8**
+45 mins.	0	3	3	0	0	0	3	0	3
Total Volume	1	17	18	0	0	0	14	3	17
% App. Total	5.6	94.4		0	0		82.4	17.6	
PHF	.250	.531	.563	.000	.000	.000	.583	.375	.531

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
Start Date : 8/17/2021
Page No : 1

Groups Printed- 3 Axle Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	2	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	2	2	0	0	0	1	0	1	3
08:00 AM	0	1	1	0	0	0	0	0	0	1
08:15 AM	0	1	1	0	0	0	2	0	2	3
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	1	1	0	0	0	4	0	4	5
Total	0	3	3	0	0	0	7	0	7	10
Grand Total	0	5	5	0	0	0	8	0	8	13
Apprch %	0	100		0	0		100	0		
Total %	0	38.5	38.5	0	0	0	61.5	0	61.5	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	**2**	**2**	0	0	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	**1**	0	**1**	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	1	0	1	3
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.375

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
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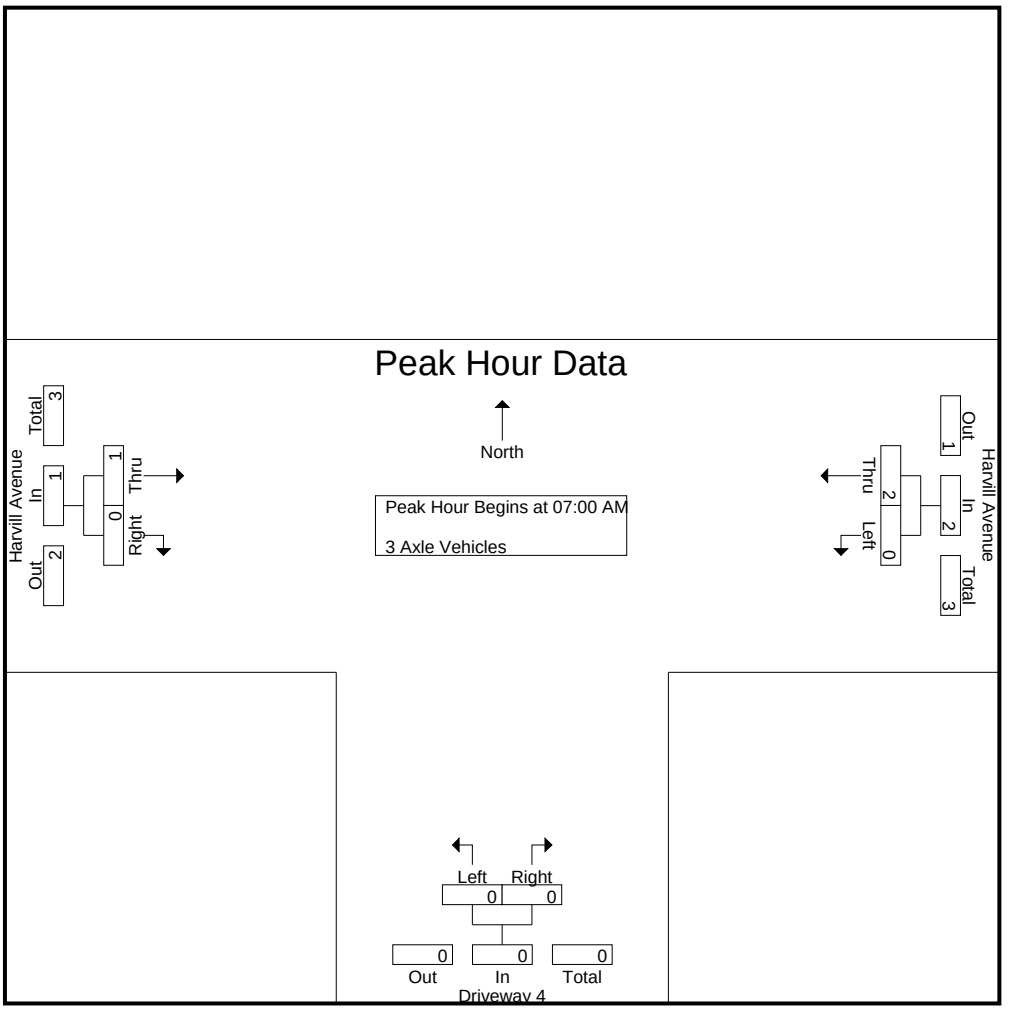

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	**2**	**2**	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	**1**	0	**1**
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	2	2	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

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County of Riverside
N/S: Driveway 4
E/W: Harvill Avenue
Weather: Clear

File Name : 05_CRV_DW4_Harvill AM
Site Code : 05721412
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Groups Printed- 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	0	0	2	0	2	5
07:15 AM	0	3	3	0	0	0	1	1	2	5
07:30 AM	0	3	3	1	0	1	4	1	5	9
07:45 AM	0	5	5	0	1	1	1	0	1	7
Total	0	14	14	1	1	2	8	2	10	26
08:00 AM	1	6	7	0	0	0	2	1	3	10
08:15 AM	1	1	2	0	0	0	2	2	4	6
08:30 AM	0	8	8	1	0	1	5	1	6	15
08:45 AM	0	5	5	0	0	0	1	3	4	9
Total	2	20	22	1	0	1	10	7	17	40
Grand Total	2	34	36	2	1	3	18	9	27	66
Apprch %	5.6	94.4		66.7	33.3		66.7	33.3		
Total %	3	51.5	54.5	3	1.5	4.5	27.3	13.6	40.9	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	0	0	0	2	0	2	5
07:15 AM	0	3	3	0	0	0	1	**1**	2	5
07:30 AM	0	3	3	**1**	0	**1**	**4**	1	**5**	**9**
07:45 AM	0	**5**	**5**	0	**1**	1	1	0	1	7
Total Volume	0	14	14	1	1	2	8	2	10	26
% App. Total	0	100		50	50		80	20		
PHF	.000	.700	.700	.250	.250	.500	.500	.500	.500	.722

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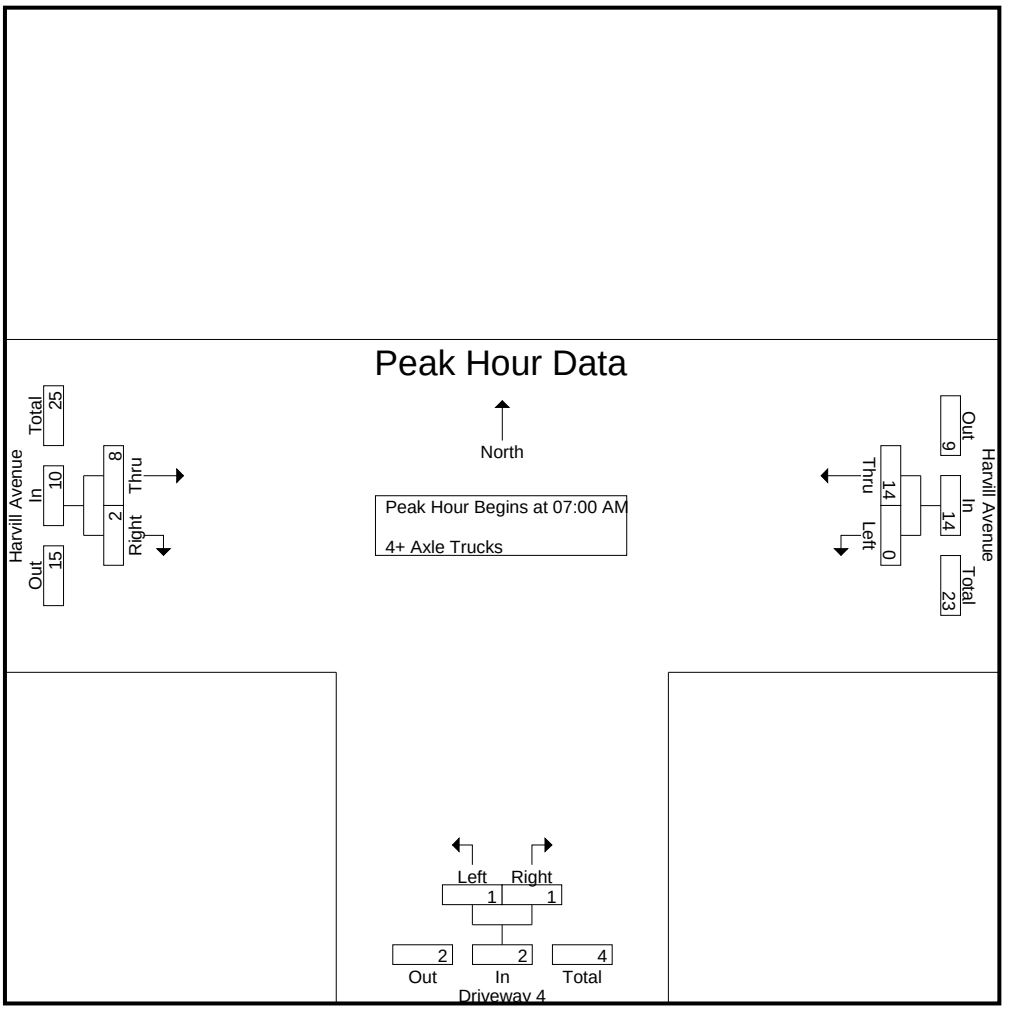

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	0	0	0	2	0	2
+15 mins.	0	3	3	0	0	0	1	**1**	2
+30 mins.	0	3	3	**1**	0	**1**	**4**	1	**5**
+45 mins.	0	**5**	**5**	0	**1**	1	1	0	1
Total Volume	0	14	14	1	1	2	8	2	10
% App. Total	0	100		50	50		80	20	
PHF	.000	.700	.700	.250	.250	.500	.500	.500	.500

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County of Riverside
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	101	101	2	0	2	136	3	139	242
04:15 PM	0	77	77	0	1	1	128	2	130	208
04:30 PM	0	90	90	1	1	2	128	2	130	222
04:45 PM	0	71	71	1	3	4	96	3	99	174
Total	0	339	339	4	5	9	488	10	498	846
05:00 PM	0	77	77	1	0	1	112	1	113	191
05:15 PM	0	70	70	1	0	1	109	0	109	180
05:30 PM	0	48	48	0	0	0	116	1	117	165
05:45 PM	1	57	58	1	0	1	78	2	80	139
Total	1	252	253	3	0	3	415	4	419	675
Grand Total	1	591	592	7	5	12	903	14	917	1521
Apprch %	0.2	99.8		58.3	41.7		98.5	1.5		
Total %	0.1	38.9	38.9	0.5	0.3	0.8	59.4	0.9	60.3	
Passenger Vehicles	0	564	564	2	3	5	844	3	847	1416
% Passenger Vehicles	0	95.4	95.3	28.6	60	41.7	93.5	21.4	92.4	93.1
Large 2 Axle Vehicles	0	11	11	0	0	0	29	0	29	40
% Large 2 Axle Vehicles	0	1.9	1.9	0	0	0	3.2	0	3.2	2.6
3 Axle Vehicles	0	8	8	2	0	2	5	1	6	16
% 3 Axle Vehicles	0	1.4	1.4	28.6	0	16.7	0.6	7.1	0.7	1.1
4+ Axle Trucks	1	8	9	3	2	5	25	10	35	49
% 4+ Axle Trucks	100	1.4	1.5	42.9	40	41.7	2.8	71.4	3.8	3.2

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**101**	**101**	**2**	0	2	**136**	**3**	**139**	**242**
04:15 PM	0	77	77	0	1	1	128	2	130	208
04:30 PM	0	90	90	1	1	2	128	2	130	222
04:45 PM	0	71	71	1	**3**	**4**	96	3	99	174
Total Volume	0	339	339	4	5	9	488	10	498	846
% App. Total	0	100		44.4	55.6		98	2		
PHF	.000	.839	.839	.500	.417	.563	.897	.833	.896	.874

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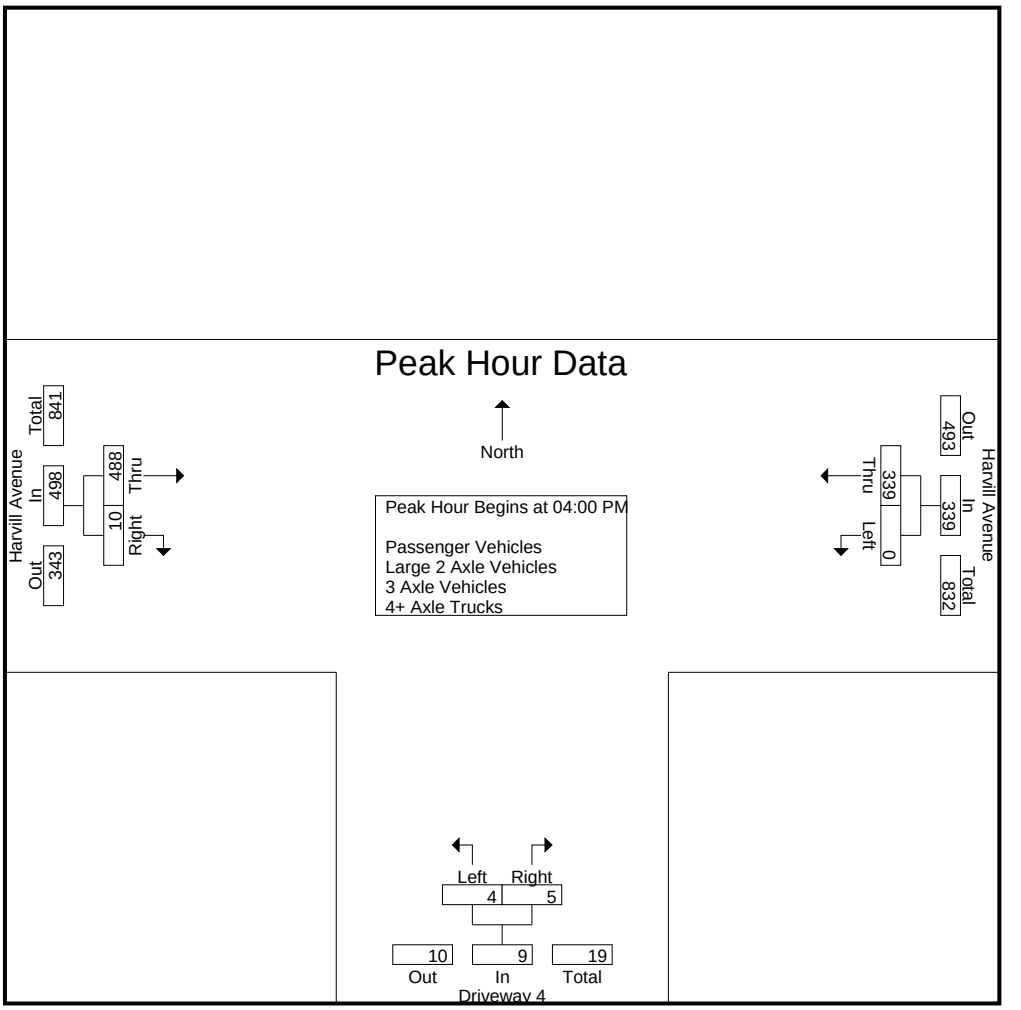

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	**101**	**101**	**2**	0	2	**136**	**3**	**139**
+15 mins.	0	77	77	0	1	1	128	2	130
+30 mins.	0	90	90	1	1	2	128	2	130
+45 mins.	0	71	71	1	**3**	**4**	96	3	99
Total Volume	0	339	339	4	5	9	488	10	498
% App. Total	0	100		44.4	55.6		98	2	
PHF	.000	.839	.839	.500	.417	.563	.897	.833	.896

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Groups Printed- Passenger Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	98	98	1	0	1	131	0	131	230
04:15 PM	0	69	69	0	0	0	119	1	120	189
04:30 PM	0	87	87	0	1	1	119	1	120	208
04:45 PM	0	68	68	0	2	2	85	0	85	155
Total	0	322	322	1	3	4	454	2	456	782
05:00 PM	0	75	75	0	0	0	104	0	104	179
05:15 PM	0	68	68	0	0	0	104	0	104	172
05:30 PM	0	46	46	0	0	0	111	0	111	157
05:45 PM	0	53	53	1	0	1	71	1	72	126
Total	0	242	242	1	0	1	390	1	391	634
Grand Total	0	564	564	2	3	5	844	3	847	1416
Apprch %	0	100		40	60		99.6	0.4		
Total %	0	39.8	39.8	0.1	0.2	0.4	59.6	0.2	59.8	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**98**	**98**	**1**	0	1	**131**	0	**131**	**230**
04:15 PM	0	69	69	0	0	0	119	**1**	120	189
04:30 PM	0	87	87	0	1	1	119	1	120	208
04:45 PM	0	68	68	0	**2**	**2**	85	0	85	155
Total Volume	0	322	322	1	3	4	454	2	456	782
% App. Total	0	100		25	75		99.6	0.4		
PHF	.000	.821	.821	.250	.375	.500	.866	.500	.870	.850

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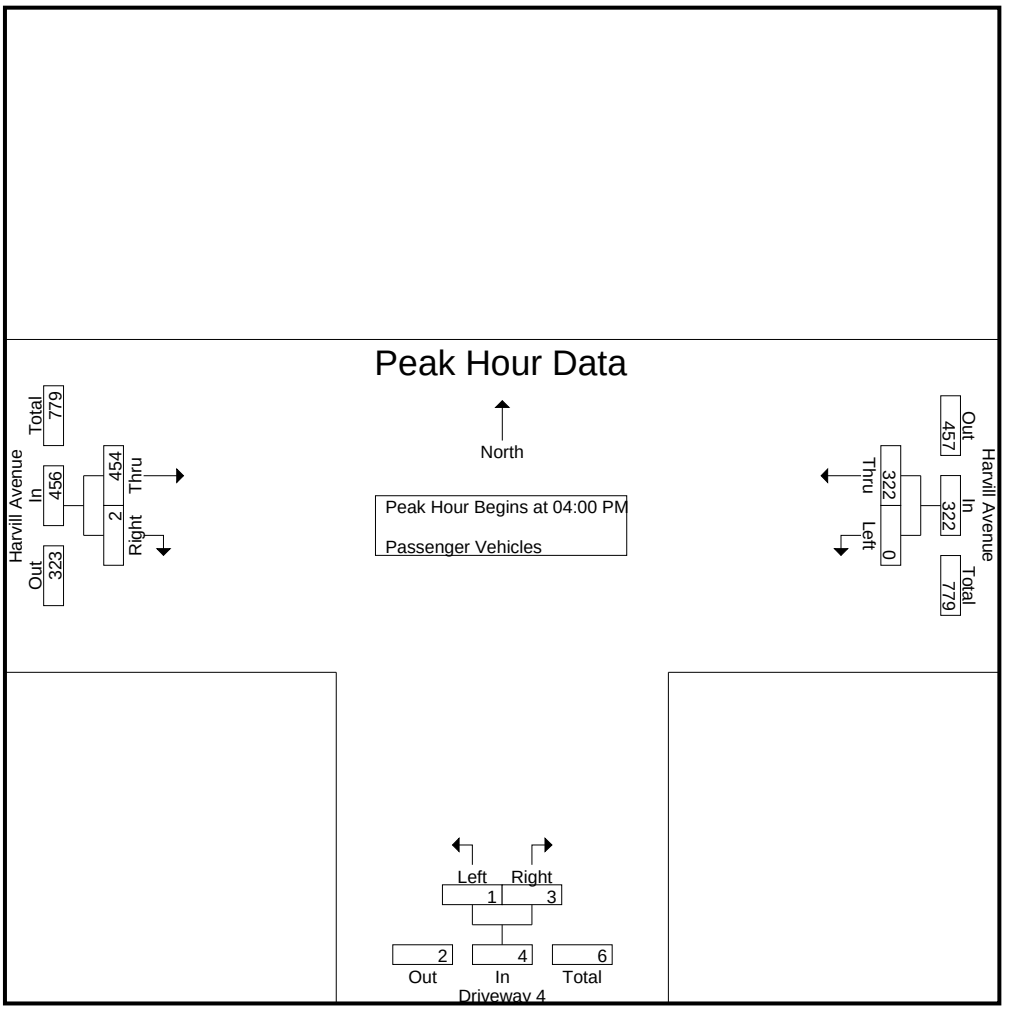

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	**98**	**98**	**1**	0	1	**131**	0	**131**
+15 mins.	0	69	69	0	0	0	119	**1**	120
+30 mins.	0	87	87	0	1	1	119	1	120
+45 mins.	0	68	68	0	**2**	**2**	85	0	85
Total Volume	0	322	322	1	3	4	454	2	456
% App. Total	0	100		25	75		99.6	0.4	
PHF	.000	.821	.821	.250	.375	.500	.866	.500	.870

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Groups Printed- Large 2 Axle Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	2	2	0	0	0	3	0	3	5
04:30 PM	0	1	1	0	0	0	7	0	7	8
04:45 PM	0	3	3	0	0	0	6	0	6	9
Total	0	7	7	0	0	0	17	0	17	24
05:00 PM	0	0	0	0	0	0	3	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	2	2	0	0	0	4	0	4	6
05:45 PM	0	2	2	0	0	0	5	0	5	7
Total	0	4	4	0	0	0	12	0	12	16
Grand Total	0	11	11	0	0	0	29	0	29	40
Apprch %	0	100		0	0		100	0		
Total %	0	27.5	27.5	0	0	0	72.5	0	72.5	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	2	2	0	0	0	3	0	3	5
04:30 PM	0	1	1	0	0	0	**7**	0	**7**	8
04:45 PM	0	**3**	**3**	0	0	0	6	0	6	**9**
Total Volume	0	7	7	0	0	0	17	0	17	24
% App. Total	0	100		0	0		100	0		
PHF	.000	.583	.583	.000	.000	.000	.607	.000	.607	.667

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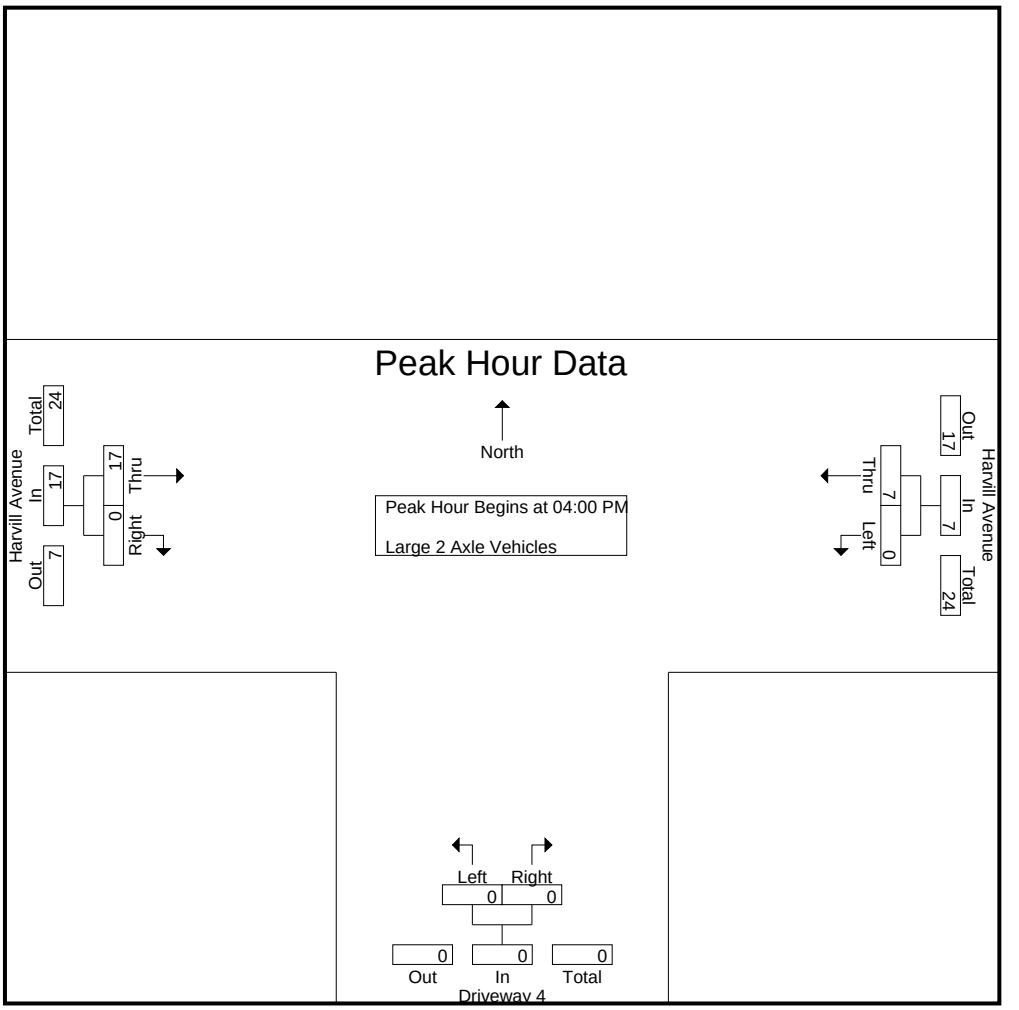

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	1	1	0	0	0	1	0	1
+15 mins.	0	2	2	0	0	0	3	0	3
+30 mins.	0	1	1	0	0	0	**7**	0	**7**
+45 mins.	0	**3**	**3**	0	0	0	6	0	6
Total Volume	0	7	7	0	0	0	17	0	17
% App. Total	0	100		0	0		100	0	
PHF	.000	.583	.583	.000	.000	.000	.607	.000	.607

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Groups Printed- 3 Axle Vehicles

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	1	2	3
04:15 PM	0	4	4	0	0	0	0	0	0	4
04:30 PM	0	1	1	0	0	0	1	0	1	2
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	6	6	1	0	1	2	1	3	10
05:00 PM	0	0	0	1	0	1	2	0	2	3
05:15 PM	0	1	1	0	0	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	1	1	0	0	0	0	0	0	1
Total	0	2	2	1	0	1	3	0	3	6
Grand Total	0	8	8	2	0	2	5	1	6	16
Apprch %	0	100		100	0		83.3	16.7		
Total %	0	50	50	12.5	0	12.5	31.2	6.2	37.5	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	1	1	0	0	0	**1**	**1**	**2**	3
04:15 PM	0	**4**	**4**	0	0	0	0	0	0	**4**
04:30 PM	0	1	1	0	0	0	1	0	1	2
04:45 PM	0	0	0	**1**	0	**1**	0	0	0	1
Total Volume	0	6	6	1	0	1	2	1	3	10
% App. Total	0	100		100	0		66.7	33.3		
PHF	.000	.375	.375	.250	.000	.250	.500	.250	.375	.625

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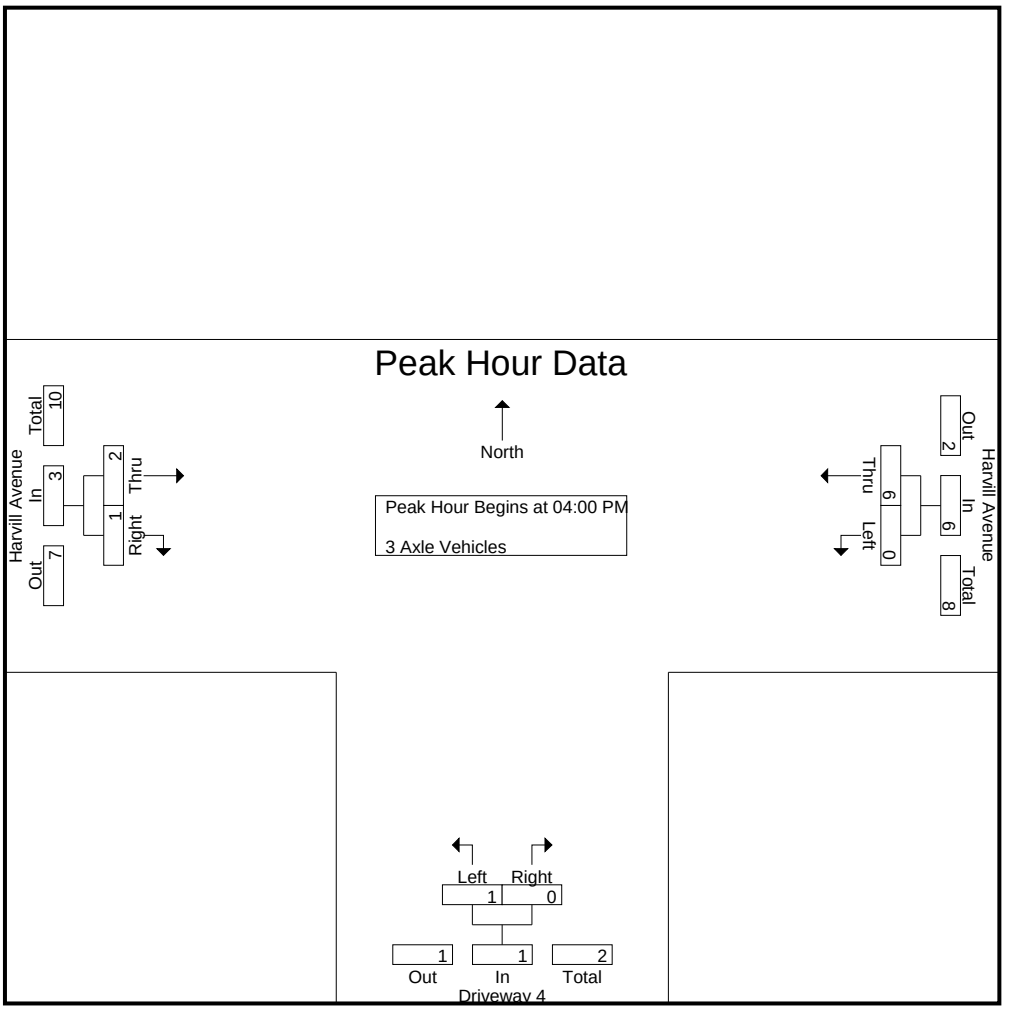

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	1	1	0	0	0	**1**	**1**	**2**
+15 mins.	0	**4**	**4**	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	1	0	1
+45 mins.	0	0	0	**1**	0	**1**	0	0	0
Total Volume	0	6	6	1	0	1	2	1	3
% App. Total	0	100		100	0		66.7	33.3	
PHF	.000	.375	.375	.250	.000	.250	.500	.250	.375

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Groups Printed- 4+ Axle Trucks

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	1	0	1	3	2	5	7
04:15 PM	0	2	2	0	1	1	6	1	7	10
04:30 PM	0	1	1	1	0	1	1	1	2	4
04:45 PM	0	0	0	0	1	1	5	3	8	9
Total	0	4	4	2	2	4	15	7	22	30
05:00 PM	0	2	2	0	0	0	3	1	4	6
05:15 PM	0	1	1	1	0	1	4	0	4	6
05:30 PM	0	0	0	0	0	0	1	1	2	2
05:45 PM	1	1	2	0	0	0	2	1	3	5
Total	1	4	5	1	0	1	10	3	13	19
Grand Total	1	8	9	3	2	5	25	10	35	49
Apprch %	11.1	88.9		60	40		71.4	28.6		
Total %	2	16.3	18.4	6.1	4.1	10.2	51	20.4	71.4	

	Harvill Avenue Westbound			Driveway 4 Northbound			Harvill Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	1	1	**1**	0	**1**	3	2	5	7
04:15 PM	0	**2**	**2**	0	**1**	1	**6**	1	7	**10**
04:30 PM	0	1	1	1	0	1	1	1	2	4
04:45 PM	0	0	0	0	1	1	5	**3**	**8**	9
Total Volume	0	4	4	2	2	4	15	7	22	30
% App. Total	0	100		50	50		68.2	31.8		
PHF	.000	.500	.500	.500	.500	1.00	.625	.583	.688	.750

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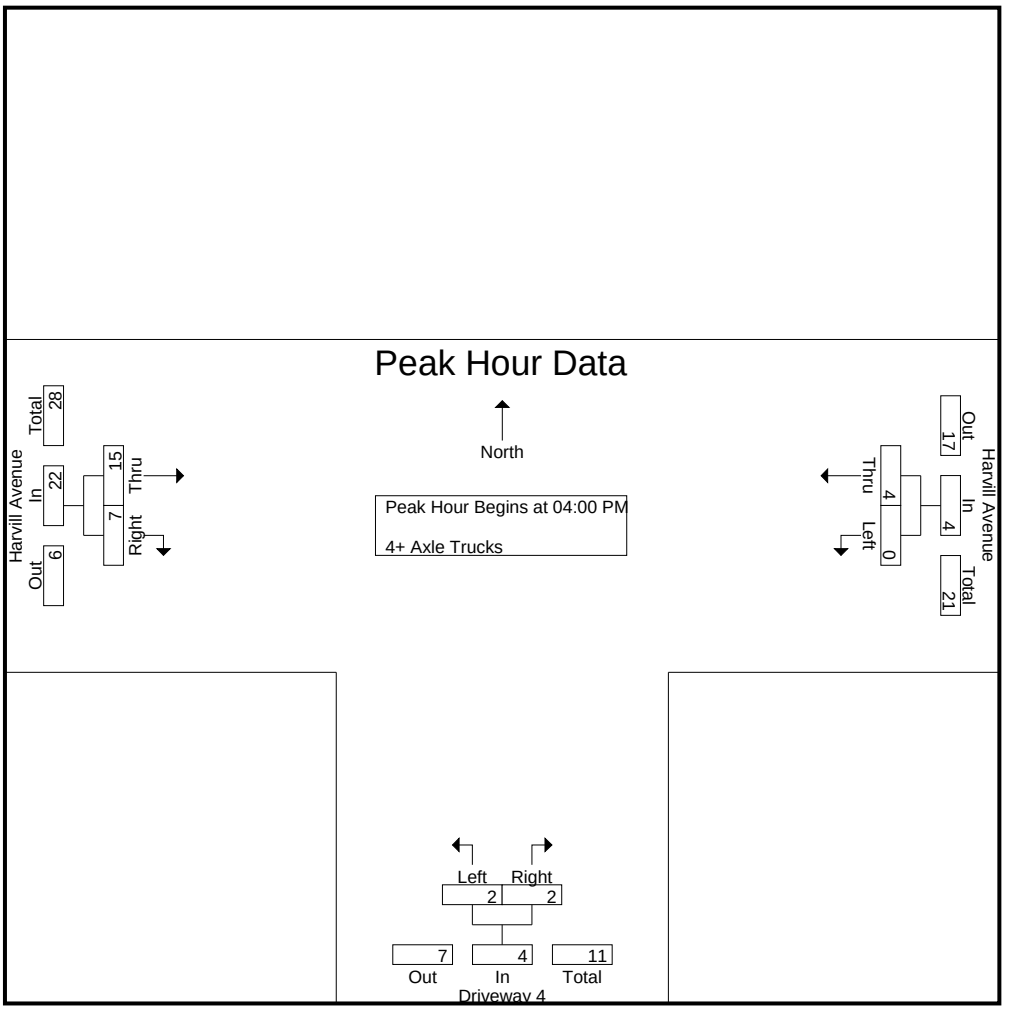


Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	1	1	**1**	0	**1**	3	2	5
+15 mins.	0	**2**	**2**	0	**1**	1	**6**	1	7
+30 mins.	0	1	1	1	0	1	1	1	2
+45 mins.	0	0	0	0	1	1	5	**3**	**8**
Total Volume	0	4	4	2	2	4	15	7	22
% App. Total	0	100		50	50		68.2	31.8	
PHF	.000	.500	.500	.500	.500	1.000	.625	.583	.688

APPENDIX A-II

CONVERSION OF TRUCK TRAFFIC TO P.C.E.'S

TABLE A-1

TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2021 AM PEAK HOUR

2.21.4456.1 - CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

1. Cajalco Expressway at Harvill Avenue											
		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	27	2	1.5	3	1	2.0	2	2	3.0	6	38
NBT	599	20	1.5	30	4	2.0	8	24	3.0	72	709
NBR	106	1	1.5	2	0	2.0	0	1	3.0	3	111
SBL	101	13	1.5	20	1	2.0	2	20	3.0	60	183
SBT	686	28	1.5	42	2	2.0	4	19	3.0	57	789
SBR	137	2	1.5	3	2	2.0	4	4	3.0	12	156
EBL	147	4	1.5	6	0	2.0	0	5	3.0	15	168
EBT	79	7	1.5	11	0	2.0	0	1	3.0	3	93
EBR	14	0	1.5	0	0	2.0	0	1	3.0	3	17
WBL	269	4	1.5	6	0	2.0	0	6	3.0	18	293
WBT	195	6	1.5	9	2	2.0	4	0	3.0	0	208
WBR	97	11	1.5	17	0	2.0	0	10	3.0	30	144

2. Cajalco Expressway at Driveway No. 1											
		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	749	27	1.5	41	2	2.0	4	18	3.0	54	848
NBR	0	0	1.5	0	0	2.0	0	1	3.0	3	3
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	971	42	1.5	63	3	2.0	6	28	3.0	84	1124
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	1	2	1.5	3	3	2.0	6	13	3.0	39	49

3. Cajalco Expressway at Driveway No. 2											
		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	698	36	1.5	54	5	2.0	10	24	3.0	72	834
NBR	41	3	1.5	5	0	2.0	0	1	3.0	3	49
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	971	44	1.5	66	4	2.0	8	26	3.0	78	1123
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	18	1	1.5	2	0	2.0	0	2	3.0	6	26

4. Driveway No. 3 at Harvill Avenue											
		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	56	7	1.5	11	0	2.0	0	3	3.0	9	76
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	23	0	1.5	0	0	2.0	0	0	3.0	0	23
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	218	13	1.5	20	0	2.0	0	9	3.0	27	265
EBR	39	10	1.5	15	0	2.0	0	8	3.0	24	78
WBL	22	2	1.5	3	1	2.0	2	2	3.0	6	33
WBT	491	12	1.5	18	1	2.0	2	12	3.0	36	547
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

5. Driveway No. 4 at Harvill Avenue											
		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	0	0	1.5	0	0	2.0	0	1	3.0	3	3
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	0	0	1.5	0	0	2.0	0	1	3.0	3	3
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	231	14	1.5	21	1	2.0	2	8	3.0	24	278
EBR	1	3	1.5	5	0	2.0	0	2	3.0	6	12
WBL	0	1	1.5	2	0	2.0	0	0	3.0	0	2
WBT	511	17	1.5	26	2	2.0	4	14	3.0	42	583
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

TABLE A-2

TRAFFIC COUNT CONVERSION TO P.C.E.'S - 2021 PM PEAK HOUR

2.21.4456.1 - CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

1. Cajalco Expressway at Harvill Avenue

		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	26	0	1.5	0	3	2.0	6	4	3.0	12	44
NBT	628	22	1.5	33	5	2.0	10	12	3.0	36	707
NBR	211	5	1.5	8	0	2.0	0	5	3.0	15	234
SBL	93	2	1.5	3	5	2.0	10	20	3.0	60	166
SBT	659	20	1.5	30	1	2.0	2	16	3.0	48	739
SBR	155	3	1.5	5	3	2.0	6	2	3.0	6	172
EBL	184	4	1.5	6	0	2.0	0	0	3.0	0	190
EBT	179	4	1.5	6	2	2.0	4	6	3.0	18	207
EBR	27	1	1.5	2	0	2.0	0	4	3.0	12	41
WBL	161	1	1.5	2	1	2.0	2	1	3.0	3	168
WBT	146	3	1.5	5	3	2.0	6	3	3.0	9	166
WBR	97	2	1.5	3	4	2.0	8	2	3.0	6	114

2. Cajalco Expressway at Driveway No. 1

		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	962	24	1.5	36	4	2.0	8	10	3.0	30	1036
NBR	4	1	1.5	2	0	2.0	0	0	3.0	0	6
SBL	1	0	1.5	0	0	2.0	0	0	3.0	0	1
SBT	856	26	1.5	39	3	2.0	6	14	3.0	42	943
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	0	0	1.5	0	1	2.0	2	12	3.0	36	38

3. Cajalco Expressway at Driveway No. 2

		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBT	927	31	1.5	47	4	2.0	8	23	3.0	69	1051
NBR	41	1	1.5	2	0	2.0	0	0	3.0	0	43
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	828	24	1.5	36	5	2.0	10	10	3.0	30	904
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBR	21	2	1.5	3	0	2.0	0	0	3.0	0	24

4. Driveway No. 3 at Harvill Avenue

		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	56	2	1.5	3	0	2.0	0	2	3.0	6	65
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	28	2	1.5	3	0	2.0	0	0	3.0	0	31
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	430	11	1.5	17	4	2.0	8	20	3.0	60	515
EBR	46	2	1.5	3	3	2.0	6	10	3.0	30	85
WBL	13	0	1.5	0	0	2.0	0	0	3.0	0	13
WBT	319	4	1.5	6	7	2.0	14	5	3.0	15	354
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

5. Driveway No. 4 at Harvill Avenue

		Large 2-Axle Trucks			3-Axle Trucks			4+ Axle Trucks			
Movements	Vehicles	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Volume	Factor	P.C.E.	Total
NBL	1	0	1.5	0	1	2.0	2	2	3.0	6	9
NBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
NBR	3	0	1.5	0	0	2.0	0	2	3.0	6	9
SBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBT	0	0	1.5	0	0	2.0	0	0	3.0	0	0
SBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
EBT	454	17	1.5	26	2	2.0	4	15	3.0	45	529
EBR	2	0	1.5	0	1	2.0	2	7	3.0	21	25
WBL	0	0	1.5	0	0	2.0	0	0	3.0	0	0
WBT	322	7	1.5	11	6	2.0	12	4	3.0	12	357
WBR	0	0	1.5	0	0	2.0	0	0	3.0	0	0

APPENDIX B

LEVEL OF SERVICE CALCULATION WORKSHEETS

APPENDIX B-I

EXISTING LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.530

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	38	709	111	183	789	156	168	93	17	293	208	144
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	709	111	183	789	156	168	93	17	293	208	144
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	192	30	50	214	42	46	25	5	79	56	39
Total Analysis Volume [veh/h]	41	769	120	198	856	169	182	101	18	318	226	156
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	49	0	19	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	47	47	7	50	61	7	9	9	11	13	13
g / C, Green / Cycle	0.05	0.53	0.53	0.08	0.55	0.68	0.08	0.10	0.10	0.12	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.08	0.06	0.24	0.11	0.05	0.03	0.03	0.09	0.11	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1774	3459	1870	1620
c, Capacity [veh/h]	91	1873	836	272	1970	1074	269	188	178	407	262	227
d1, Uniform Delay [s]	41.54	12.92	10.96	40.60	11.84	5.31	40.47	37.70	37.74	38.67	37.41	37.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.43	0.67	0.36	3.72	0.70	0.31	2.95	0.98	1.07	3.32	4.93	5.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.41	0.14	0.73	0.43	0.16	0.68	0.32	0.33	0.78	0.78	0.79
d, Delay for Lane Group [s/veh]	44.97	13.59	11.32	44.32	12.54	5.62	43.42	38.68	38.80	41.99	42.35	43.37
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.96	4.56	1.25	2.26	4.84	1.08	2.05	1.28	1.24	3.55	4.62	4.11
50th-Percentile Queue Length [ft/ln]	24.07	114.04	31.13	56.50	121.10	26.96	51.28	31.88	31.11	88.79	115.54	102.73
95th-Percentile Queue Length [veh/ln]	1.73	8.06	2.24	4.07	8.45	1.94	3.69	2.30	2.24	6.39	8.15	7.40
95th-Percentile Queue Length [ft/ln]	43.33	201.61	56.03	101.70	211.34	48.52	92.30	57.39	56.00	159.82	203.68	184.92

Movement, Approach, & Intersection Results

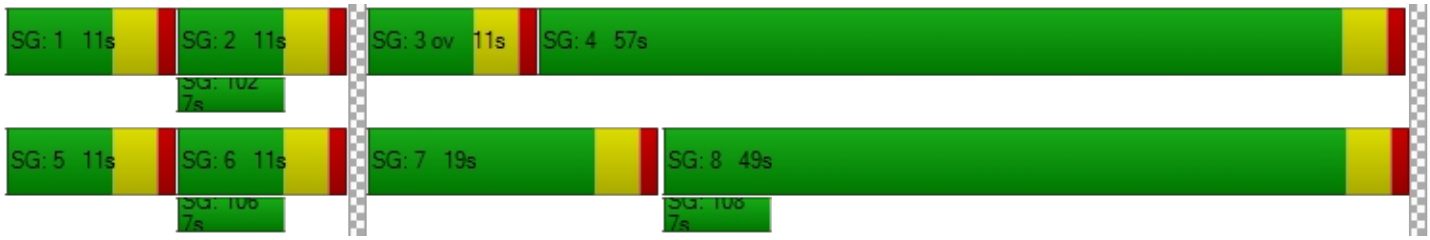
d_M, Delay for Movement [s/veh]	44.97	13.59	11.32	44.32	12.54	5.62	43.42	38.73	38.80	41.99	42.45	43.37
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	14.68			16.73			41.57			42.44		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.20											
Intersection LOS	C											
Intersection V/C	0.530											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.797	0.000	2.572	2.634
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	999	1177
d_b, Bicycle Delay [s]	38.32	38.32	11.28	7.63
l_b,int, Bicycle LOS Score for Intersection	2.327	2.569	1.808	2.137
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	848	3	0	1124	0	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	848	3	0	1124	0	49
Peak Hour Factor	0.9260	0.9260	1.0000	0.9260	1.0000	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	229	1	0	303	0	13
Total Analysis Volume [veh/h]	916	3	0	1214	0	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.65
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	9.48
d_A, Approach Delay [s/veh]	0.00		0.00		13.65	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.33					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	834	49	0	1123	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	834	49	0	1123	0	26
Peak Hour Factor	0.9240	0.9240	1.0000	0.9240	1.0000	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	226	13	0	304	0	7
Total Analysis Volume [veh/h]	903	53	0	1215	0	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.40
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.88
d_A, Approach Delay [s/veh]	0.00		0.00		13.40	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.181

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	76	23	265	78	33	547
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	23	265	78	33	547
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	7	80	24	10	165
Total Analysis Volume [veh/h]	92	28	320	94	40	660
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.04	0.00	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	13.67	9.67	0.00	0.00	8.27	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.66	0.11	0.00	0.00	0.11	0.00
95th-Percentile Queue Length [ft/ln]	16.42	2.72	0.00	0.00	2.72	0.00
d_A, Approach Delay [s/veh]	12.73		0.00		0.47	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.51					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	3	3	278	12	2	583
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	3	278	12	2	583
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	80	3	1	168
Total Analysis Volume [veh/h]	3	3	320	14	2	670
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	14.26	9.32	0.00	0.00	7.95	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.85	0.85	0.00	0.00	0.12	0.00
d_A, Approach Delay [s/veh]	11.79		0.00		0.02	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.09					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	44	707	234	166	739	172	190	207	41	168	166	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	707	234	166	739	172	190	207	41	168	166	114
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	183	61	43	192	45	49	54	11	44	43	30
Total Analysis Volume [veh/h]	46	733	243	172	767	178	197	215	43	174	172	118
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	57	0	11	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	50	50	7	52	63	7	10	10	7	10	10
g / C, Green / Cycle	0.05	0.55	0.55	0.08	0.58	0.70	0.08	0.11	0.11	0.08	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.15	0.05	0.22	0.11	0.06	0.07	0.07	0.05	0.08	0.08
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1764	3459	1870	1624
c, Capacity [veh/h]	97	1971	880	268	2053	1112	271	213	201	269	211	184
d1, Uniform Delay [s]	41.38	11.32	10.61	40.37	10.30	4.59	40.61	38.10	38.14	40.39	38.62	38.75
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.55	0.54	0.78	2.54	0.52	0.31	3.69	2.92	3.22	2.62	4.60	6.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.37	0.28	0.64	0.37	0.16	0.73	0.62	0.63	0.65	0.72	0.75
d, Delay for Lane Group [s/veh]	44.93	11.86	11.39	42.91	10.83	4.90	44.30	41.01	41.37	43.01	43.23	44.75
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.08	3.96	2.56	1.92	3.90	1.02	2.25	2.91	2.81	1.95	3.48	3.21
50th-Percentile Queue Length [ft/ln]	26.94	98.97	63.97	48.09	97.49	25.49	56.20	72.71	70.15	48.72	87.01	80.18
95th-Percentile Queue Length [veh/ln]	1.94	7.13	4.61	3.46	7.02	1.84	4.05	5.24	5.05	3.51	6.27	5.77
95th-Percentile Queue Length [ft/ln]	48.49	178.14	115.15	86.57	175.49	45.89	101.16	130.88	126.27	87.70	156.63	144.33

Movement, Approach, & Intersection Results

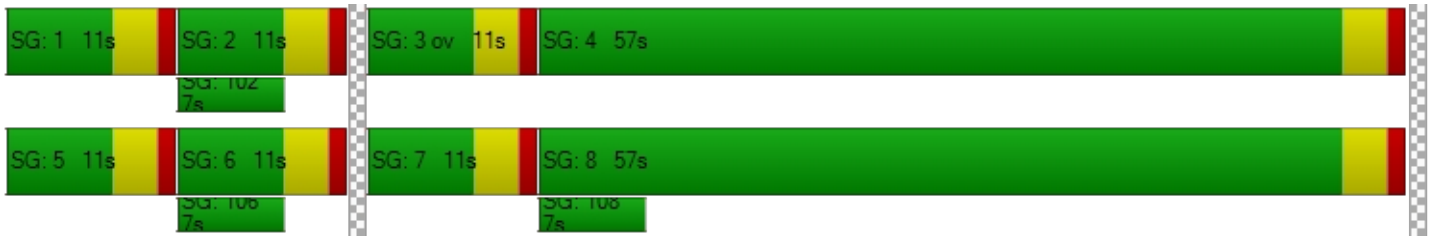
d_M, Delay for Movement [s/veh]	44.93	11.86	11.39	42.91	10.83	4.90	44.30	41.15	41.37	43.01	43.40	44.75
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.24			14.82			42.53			43.60		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	22.78											
Intersection LOS	C											
Intersection V/C	0.483											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.778	0.000	2.591	2.630
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	1177	1177
d_b, Bicycle Delay [s]	38.32	38.32	7.63	7.63
l_b,int, Bicycle LOS Score for Intersection	2.403	2.481	1.935	1.942
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	1036	6	0	944	0	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1036	6	0	944	0	38
Peak Hour Factor	0.9810	0.9810	1.0000	0.9810	1.0000	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	264	2	0	241	0	10
Total Analysis Volume [veh/h]	1056	6	0	962	0	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.40
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.30
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	7.59
d_A, Approach Delay [s/veh]	0.00		0.00		14.40	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.27					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	1051	43	0	904	0	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1051	43	0	904	0	24
Peak Hour Factor	0.9700	0.9700	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	271	11	0	233	0	6
Total Analysis Volume [veh/h]	1084	44	0	932	0	25
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.56
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.96
d_A, Approach Delay [s/veh]	0.00		0.00		14.56	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.166

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	65	31	515	85	13	354
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	31	515	85	13	354
Peak Hour Factor	0.8830	0.8830	0.8830	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	9	146	24	4	100
Total Analysis Volume [veh/h]	74	35	583	96	15	401
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.05	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	14.67	10.79	0.00	0.00	9.03	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.59	0.17	0.00	0.00	0.05	0.00
95th-Percentile Queue Length [ft/ln]	14.73	4.22	0.00	0.00	1.26	0.00
d_A, Approach Delay [s/veh]	13.42		0.00		0.33	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.33					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	9	9	529	25	0	357
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	529	25	0	357
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	151	7	0	102
Total Analysis Volume [veh/h]	10	10	605	29	0	408
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.97	10.72	0.00	0.00	8.81	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.67	3.67	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.84		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.26					
Intersection LOS	C					

APPENDIX B-II

EXISTING PLUS PROJECT LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.541

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	38	715	111	193	789	156	168	95	17	299	211	153
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	715	111	193	789	156	168	95	17	299	211	153
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	194	30	52	214	42	46	26	5	81	57	41
Total Analysis Volume [veh/h]	41	775	120	209	856	169	182	103	18	324	229	166
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	49	0	19	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	47	47	7	50	61	7	9	9	11	13	13
g / C, Green / Cycle	0.05	0.52	0.52	0.08	0.55	0.67	0.08	0.10	0.10	0.12	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.08	0.06	0.24	0.11	0.05	0.03	0.03	0.09	0.11	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1775	3459	1870	1613
c, Capacity [veh/h]	91	1858	829	272	1955	1067	269	192	183	413	270	233
d1, Uniform Delay [s]	41.54	13.18	11.15	40.74	12.06	5.45	40.47	37.52	37.55	38.59	37.22	37.26
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.43	0.69	0.37	4.55	0.71	0.32	2.95	0.94	1.03	3.34	4.94	5.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.42	0.14	0.77	0.44	0.16	0.68	0.32	0.33	0.79	0.78	0.79
d, Delay for Lane Group [s/veh]	44.97	13.87	11.52	45.29	12.78	5.77	43.42	38.46	38.58	41.93	42.16	43.18
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.96	4.66	1.26	2.42	4.90	1.10	2.05	1.29	1.26	3.62	4.78	4.23
50th-Percentile Queue Length [ft/ln]	24.07	116.54	31.48	60.42	122.62	27.46	51.28	32.30	31.52	90.44	119.60	105.76
95th-Percentile Queue Length [veh/ln]	1.73	8.20	2.27	4.35	8.54	1.98	3.69	2.33	2.27	6.51	8.37	7.60
95th-Percentile Queue Length [ft/ln]	43.33	205.06	56.67	108.76	213.43	49.44	92.30	58.14	56.74	162.80	209.28	190.09

Movement, Approach, & Intersection Results

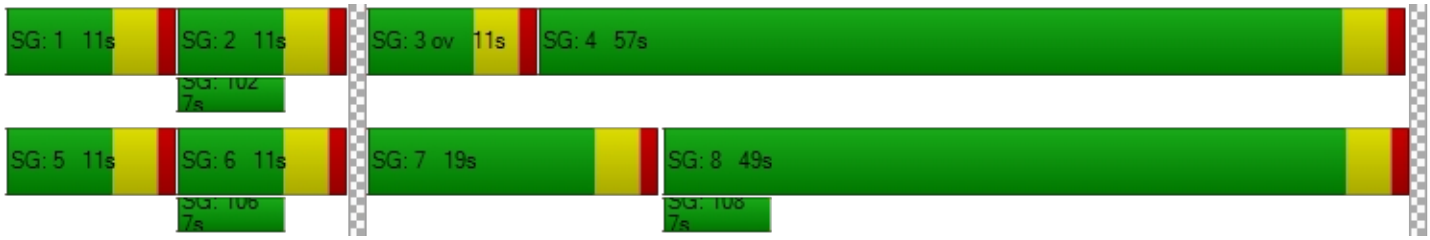
d_M, Delay for Movement [s/veh]	44.97	13.87	11.52	45.29	12.78	5.77	43.42	38.51	38.58	41.93	42.24	43.18
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	14.93			17.33			41.47			42.32		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.54											
Intersection LOS	C											
Intersection V/C	0.541											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.799	0.000	2.573	2.639
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	999	1177
d_b, Bicycle Delay [s]	38.32	38.32	11.28	7.63
l_b,int, Bicycle LOS Score for Intersection	2.332	2.578	1.810	2.153
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.126

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	848	7	0	1130	0	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	848	7	0	1130	0	55
Peak Hour Factor	0.9260	0.9260	1.0000	0.9260	1.0000	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	229	2	0	305	0	15
Total Analysis Volume [veh/h]	916	8	0	1220	0	59
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.81
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.43
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	10.74
d_A, Approach Delay [s/veh]	0.00		0.00		13.81	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	840	49	0	1129	0	26
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	840	49	0	1129	0	26
Peak Hour Factor	0.9240	0.9240	1.0000	0.9240	1.0000	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	227	13	0	305	0	7
Total Analysis Volume [veh/h]	909	53	0	1222	0	28
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.44
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.91
d_A, Approach Delay [s/veh]	0.00		0.00		13.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.225

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	94	26	265	90	34	547
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	26	265	90	34	547
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	8	80	27	10	165
Total Analysis Volume [veh/h]	113	31	320	109	41	660
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.22	0.04	0.00	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	14.21	9.74	0.00	0.00	8.32	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.85	0.12	0.00	0.00	0.11	0.00
95th-Percentile Queue Length [ft/ln]	21.35	3.06	0.00	0.00	2.83	0.00
d_A, Approach Delay [s/veh]	13.25		0.00		0.49	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.77					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	17.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	3	6	281	12	5	584
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	6	281	12	5	584
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	81	3	1	168
Total Analysis Volume [veh/h]	3	7	323	14	6	671
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	17.24	9.64	0.00	0.00	7.97	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	1.44	1.44	0.00	0.00	0.37	0.00
d_A, Approach Delay [s/veh]	11.92		0.00		0.07	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	23.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.495

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	44	712	234	184	739	172	190	211	41	173	168	121
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	712	234	184	739	172	190	211	41	173	168	121
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	185	61	48	192	45	49	55	11	45	44	31
Total Analysis Volume [veh/h]	46	739	243	191	767	178	197	219	43	179	174	126
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	57	0	11	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	50	50	7	52	63	7	10	10	7	10	10
g / C, Green / Cycle	0.05	0.55	0.55	0.08	0.57	0.70	0.08	0.12	0.12	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.15	0.06	0.22	0.11	0.06	0.07	0.07	0.05	0.08	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1766	3459	1870	1616
c, Capacity [veh/h]	97	1958	874	270	2041	1106	271	219	206	269	217	188
d1, Uniform Delay [s]	41.38	11.53	10.79	40.57	10.46	4.69	40.61	37.87	37.92	40.44	38.47	38.60
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.55	0.56	0.79	3.40	0.53	0.31	3.69	2.76	3.04	2.82	4.61	6.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.38	0.28	0.71	0.38	0.16	0.73	0.61	0.62	0.67	0.73	0.75
d, Delay for Lane Group [s/veh]	44.93	12.09	11.58	43.97	10.99	5.00	44.30	40.63	40.95	43.26	43.08	44.61
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.08	4.04	2.59	2.17	3.94	1.04	2.25	2.94	2.83	2.01	3.61	3.30
50th-Percentile Queue Length [ft/ln]	26.94	101.10	64.67	54.23	98.52	25.92	56.20	73.43	70.84	50.31	90.13	82.60
95th-Percentile Queue Length [veh/ln]	1.94	7.28	4.66	3.90	7.09	1.87	4.05	5.29	5.10	3.62	6.49	5.95
95th-Percentile Queue Length [ft/ln]	48.49	181.99	116.41	97.62	177.34	46.65	101.16	132.17	127.52	90.56	162.24	148.69

Movement, Approach, & Intersection Results

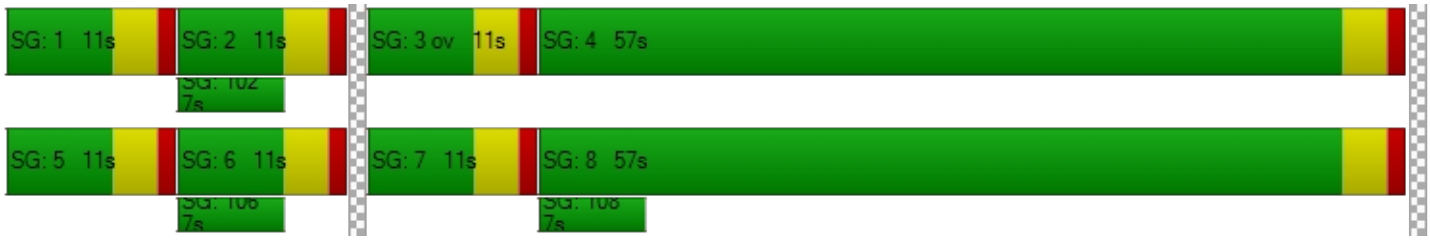
d_M, Delay for Movement [s/veh]	44.93	12.09	11.58	43.97	10.99	5.00	44.30	40.75	40.95	43.26	43.21	44.61
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.44			15.60			42.29			43.60		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.16											
Intersection LOS	C											
Intersection V/C	0.495											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.780	0.000	2.592	2.636
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	1177	1177
d_b, Bicycle Delay [s]	38.32	38.32	7.63	7.63
l_b,int, Bicycle LOS Score for Intersection	2.408	2.497	1.938	1.955
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.105

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	1036	13	0	949	0	43
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1036	13	0	949	0	43
Peak Hour Factor	0.9810	0.9810	1.0000	0.9810	1.0000	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	264	3	0	242	0	11
Total Analysis Volume [veh/h]	1056	13	0	967	0	44
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.58
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.35
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	8.72
d_A, Approach Delay [s/veh]	0.00		0.00		14.58	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.31					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	1056	43	0	909	0	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1056	43	0	909	0	24
Peak Hour Factor	0.9700	0.9700	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	272	11	0	234	0	6
Total Analysis Volume [veh/h]	1089	44	0	937	0	25
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.60
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	4.98
d_A, Approach Delay [s/veh]	0.00		0.00		14.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.203

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	79	33	515	107	15	354
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	33	515	107	15	354
Peak Hour Factor	0.8830	0.8830	0.8830	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	9	146	30	4	100
Total Analysis Volume [veh/h]	89	37	583	121	17	401
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.06	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	15.27	10.93	0.00	0.00	9.13	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.75	0.18	0.00	0.00	0.06	0.00
95th-Percentile Queue Length [ft/ln]	18.74	4.56	0.00	0.00	1.46	0.00
d_A, Approach Delay [s/veh]	13.99		0.00		0.37	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.54					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	18.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	9	12	531	25	5	359
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	12	531	25	5	359
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	152	7	1	103
Total Analysis Volume [veh/h]	10	14	608	29	6	411
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.48	10.96	0.00	0.00	8.84	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.02	0.00
95th-Percentile Queue Length [ft/ln]	4.53	4.53	0.00	0.00	0.48	0.00
d_A, Approach Delay [s/veh]	14.09		0.00		0.13	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	C					

APPENDIX B-III

EXISTING PLUS AMBIENT GROWTH LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.551

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	40	737	115	190	821	162	175	97	18	305	216	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	737	115	190	821	162	175	97	18	305	216	150
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	200	31	52	223	44	47	26	5	83	59	41
Total Analysis Volume [veh/h]	43	799	125	206	890	176	190	105	20	331	234	163
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	49	0	19	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	47	47	7	49	60	7	9	9	11	13	13
g / C, Green / Cycle	0.05	0.52	0.52	0.08	0.55	0.67	0.08	0.10	0.10	0.12	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.02	0.22	0.08	0.06	0.25	0.11	0.05	0.03	0.03	0.10	0.11	0.11
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1769	3459	1870	1618
c, Capacity [veh/h]	94	1856	829	272	1949	1064	270	190	179	419	270	234
d1, Uniform Delay [s]	41.47	13.32	11.21	40.70	12.32	5.53	40.56	37.69	37.72	38.50	37.21	37.25
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.47	0.73	0.39	4.30	0.77	0.33	3.35	1.03	1.13	3.36	4.95	5.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.43	0.15	0.76	0.46	0.17	0.70	0.33	0.34	0.79	0.78	0.79
d, Delay for Lane Group [s/veh]	44.94	14.05	11.60	45.00	13.09	5.87	43.91	38.72	38.85	41.86	42.16	43.14
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.01	4.86	1.32	2.37	5.20	1.16	2.16	1.34	1.31	3.69	4.80	4.26
50th-Percentile Queue Length [ft/ln]	25.22	121.43	32.96	59.33	129.94	28.97	53.90	33.56	32.67	92.37	120.09	106.39
95th-Percentile Queue Length [veh/ln]	1.82	8.47	2.37	4.27	8.94	2.09	3.88	2.42	2.35	6.65	8.40	7.64
95th-Percentile Queue Length [ft/ln]	45.39	211.79	59.33	106.79	223.41	52.15	97.02	60.41	58.81	166.27	209.94	190.97

Movement, Approach, & Intersection Results

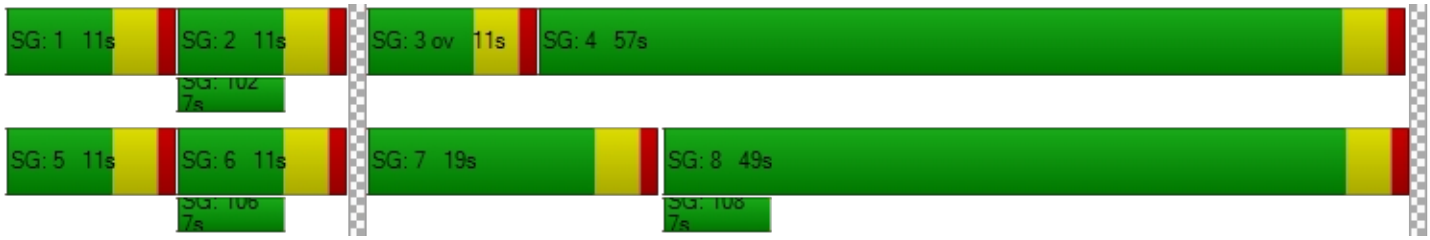
d_M, Delay for Movement [s/veh]	44.94	14.05	11.60	45.00	13.09	5.87	43.91	38.77	38.85	41.86	42.25	43.14
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	15.11			17.26			41.87			42.27		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.54											
Intersection LOS	C											
Intersection V/C	0.551											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.811	0.000	2.577	2.642
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	999	1177
d_b, Bicycle Delay [s]	38.32	38.32	11.28	7.63
l_b,int, Bicycle LOS Score for Intersection	2.357	2.609	1.819	2.160
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	882	3	0	1169	0	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	882	3	0	1169	0	51
Peak Hour Factor	0.9260	0.9260	1.0000	0.9260	1.0000	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	238	1	0	316	0	14
Total Analysis Volume [veh/h]	952	3	0	1262	0	55
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.96
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.41
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	10.18
d_A, Approach Delay [s/veh]	0.00		0.00		13.96	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.34					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.065

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	867	51	0	1168	0	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	867	51	0	1168	0	27
Peak Hour Factor	0.9240	0.9240	1.0000	0.9240	1.0000	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	235	14	0	316	0	7
Total Analysis Volume [veh/h]	938	55	0	1264	0	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.67
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.22
d_A, Approach Delay [s/veh]	0.00		0.00		13.67	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.192

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	79	24	276	81	34	569
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	24	276	81	34	569
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	7	83	24	10	172
Total Analysis Volume [veh/h]	95	29	333	98	41	686
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.04	0.00	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	13.99	9.74	0.00	0.00	8.32	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.70	0.11	0.00	0.00	0.11	0.00
95th-Percentile Queue Length [ft/ln]	17.56	2.86	0.00	0.00	2.83	0.00
d_A, Approach Delay [s/veh]	12.99		0.00		0.47	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.52					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	3	3	289	12	2	606
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	3	289	12	2	606
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	83	3	1	174
Total Analysis Volume [veh/h]	3	3	332	14	2	697
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	14.61	9.36	0.00	0.00	7.98	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.87	0.87	0.00	0.00	0.12	0.00
d_A, Approach Delay [s/veh]	11.99		0.00		0.02	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.08					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	23.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.502

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	46	735	243	173	769	179	198	215	43	175	173	119
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	735	243	173	769	179	198	215	43	175	173	119
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	191	63	45	199	46	51	56	11	45	45	31
Total Analysis Volume [veh/h]	48	762	252	179	798	186	205	223	45	182	179	123
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	57	0	11	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	50	50	7	52	63	7	11	11	7	10	10
g / C, Green / Cycle	0.06	0.55	0.55	0.08	0.57	0.70	0.08	0.12	0.12	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.03	0.21	0.16	0.05	0.22	0.12	0.06	0.07	0.07	0.05	0.09	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1763	3459	1870	1623
c, Capacity [veh/h]	99	1957	873	269	2035	1104	272	220	207	269	218	189
d1, Uniform Delay [s]	41.32	11.64	10.87	40.44	10.67	4.76	40.69	37.90	37.94	40.47	38.46	38.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.62	0.59	0.83	2.82	0.57	0.33	4.22	2.89	3.18	2.95	4.63	5.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.39	0.29	0.67	0.39	0.17	0.75	0.62	0.63	0.68	0.73	0.75
d, Delay for Lane Group [s/veh]	44.94	12.23	11.71	43.26	11.23	5.09	44.91	40.78	41.13	43.43	43.09	44.57
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.12	4.21	2.71	2.01	4.17	1.10	2.36	3.01	2.90	2.05	3.63	3.33
50th-Percentile Queue Length [ft/ln]	28.10	105.27	67.63	50.31	104.31	27.45	58.97	75.37	72.60	51.28	90.65	83.22
95th-Percentile Queue Length [veh/ln]	2.02	7.58	4.87	3.62	7.51	1.98	4.25	5.43	5.23	3.69	6.53	5.99
95th-Percentile Queue Length [ft/ln]	50.58	189.40	121.74	90.56	187.76	49.41	106.14	135.67	130.68	92.30	163.16	149.80

Movement, Approach, & Intersection Results

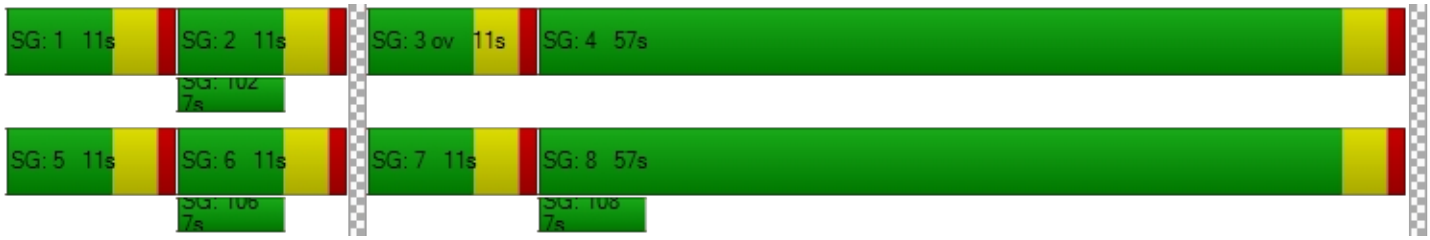
d_M, Delay for Movement [s/veh]	44.94	12.23	11.71	43.26	11.23	5.09	44.91	40.92	41.13	43.43	43.25	44.57
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.58			15.18			42.67			43.65		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.06											
Intersection LOS	C											
Intersection V/C	0.502											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.792	0.000	2.596	2.637
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	1177	1177
d_b, Bicycle Delay [s]	38.32	38.32	7.63	7.63
l_b,int, Bicycle LOS Score for Intersection	2.436	2.519	1.950	1.959
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.100

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	1077	6	0	982	0	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1077	6	0	982	0	40
Peak Hour Factor	0.9810	0.9810	1.0000	0.9810	1.0000	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	274	2	0	250	0	10
Total Analysis Volume [veh/h]	1098	6	0	1001	0	41
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.78
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.33
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	8.30
d_A, Approach Delay [s/veh]	0.00		0.00		14.78	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.28					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.067

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	1093	45	0	940	0	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1093	45	0	940	0	25
Peak Hour Factor	0.9700	0.9700	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	282	12	0	242	0	6
Total Analysis Volume [veh/h]	1127	46	0	969	0	26
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.94
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.36
d_A, Approach Delay [s/veh]	0.00		0.00		14.94	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	68	32	536	88	14	368
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	68	32	536	88	14	368
Peak Hour Factor	0.8830	0.8830	0.8830	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	9	152	25	4	104
Total Analysis Volume [veh/h]	77	36	607	100	16	417
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.06	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	15.13	10.93	0.00	0.00	9.13	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.64	0.18	0.00	0.00	0.06	0.00
95th-Percentile Queue Length [ft/ln]	16.03	4.44	0.00	0.00	1.38	0.00
d_A, Approach Delay [s/veh]	13.79		0.00		0.34	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.36					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	9	9	550	26	0	371
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	9	550	26	0	371
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	157	7	0	106
Total Analysis Volume [veh/h]	10	10	629	30	0	424
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.02	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.57	10.85	0.00	0.00	8.89	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.83	3.83	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.21		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.26					
Intersection LOS	C					

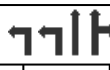
APPENDIX B-IV

EXISTING PLUS AMBIENT GROWTH PLUS PROJECT LEVEL OF SERVICE CALCULATION WORKSHEETS

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.562

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	40	743	115	200	821	162	175	99	18	311	219	159
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	743	115	200	821	162	175	99	18	311	219	159
Peak Hour Factor	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220	0.9220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	201	31	54	223	44	47	27	5	84	59	43
Total Analysis Volume [veh/h]	43	806	125	217	890	176	190	107	20	337	238	172
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	49	0	19	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	47	47	7	49	60	7	9	9	11	13	13
g / C, Green / Cycle	0.05	0.52	0.52	0.08	0.54	0.67	0.08	0.10	0.10	0.12	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.02	0.23	0.08	0.06	0.25	0.11	0.05	0.03	0.04	0.10	0.12	0.12
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1770	3459	1870	1613
c, Capacity [veh/h]	94	1842	822	272	1934	1058	270	194	184	425	278	240
d1, Uniform Delay [s]	41.47	13.58	11.41	40.84	12.54	5.67	40.56	37.51	37.54	38.43	37.02	37.05
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.47	0.76	0.39	5.34	0.79	0.34	3.35	0.99	1.09	3.37	4.96	5.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.44	0.15	0.80	0.46	0.17	0.70	0.33	0.34	0.79	0.79	0.79
d, Delay for Lane Group [s/veh]	44.94	14.34	11.80	46.18	13.33	6.01	43.91	38.50	38.63	41.80	41.98	42.95
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.01	4.97	1.33	2.54	5.26	1.18	2.16	1.36	1.32	3.76	4.96	4.38
50th-Percentile Queue Length [ft/ln]	25.22	124.22	33.33	63.45	131.53	29.49	53.90	33.98	33.08	94.02	124.10	109.44
95th-Percentile Queue Length [veh/ln]	1.82	8.62	2.40	4.57	9.02	2.12	3.88	2.45	2.38	6.77	8.62	7.81
95th-Percentile Queue Length [ft/ln]	45.39	215.62	59.99	114.22	225.57	53.09	97.02	61.16	59.54	169.24	215.44	195.23

Movement, Approach, & Intersection Results

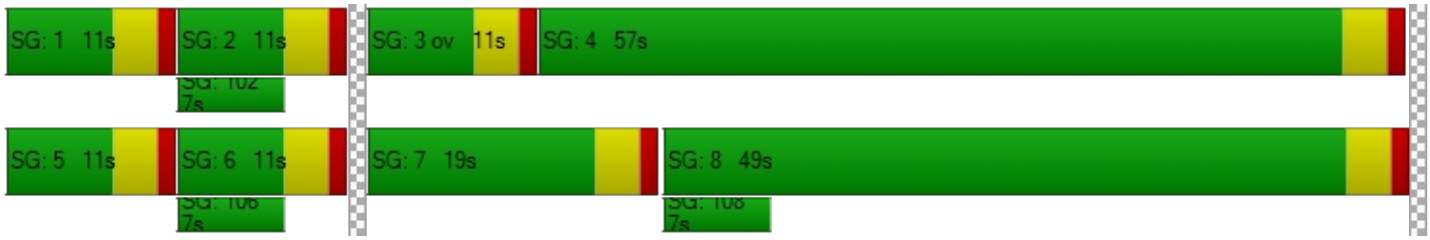
d_M, Delay for Movement [s/veh]	44.94	14.34	11.80	46.18	13.33	6.01	43.91	38.55	38.63	41.80	42.05	42.95
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	15.37			17.88			41.77			42.15		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	24.88											
Intersection LOS	C											
Intersection V/C	0.562											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.813	0.000	2.578	2.647
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	999	1177
d_b, Bicycle Delay [s]	38.32	38.32	11.28	7.63
l_b,int, Bicycle LOS Score for Intersection	2.363	2.618	1.821	2.176
Bicycle LOS	B	B	A	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	14.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.136

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	882	7	0	1175	0	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	882	7	0	1175	0	57
Peak Hour Factor	0.9260	0.9260	1.0000	0.9260	1.0000	0.9260
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	238	2	0	317	0	15
Total Analysis Volume [veh/h]	952	8	0	1269	0	62
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.15
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.47
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	11.72
d_A, Approach Delay [s/veh]	0.00		0.00		14.15	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.38					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.066

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	873	51	0	1174	0	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	873	51	0	1174	0	27
Peak Hour Factor	0.9240	0.9240	1.0000	0.9240	1.0000	0.9240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	236	14	0	318	0	7
Total Analysis Volume [veh/h]	945	55	0	1271	0	29
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	13.72
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.25
d_A, Approach Delay [s/veh]	0.00		0.00		13.72	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.238

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	97	27	276	93	35	569
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	97	27	276	93	35	569
Peak Hour Factor	0.8290	0.8290	0.8290	0.8290	0.8290	0.8290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	8	83	28	11	172
Total Analysis Volume [veh/h]	117	33	333	112	42	686
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.24	0.04	0.00	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	14.60	9.81	0.00	0.00	8.37	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.92	0.13	0.00	0.00	0.12	0.00
95th-Percentile Queue Length [ft/ln]	22.98	3.30	0.00	0.00	2.94	0.00
d_A, Approach Delay [s/veh]	13.54		0.00		0.48	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.80					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	17.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	3	6	292	12	5	607
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	6	292	12	5	607
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	2	84	3	1	174
Total Analysis Volume [veh/h]	3	7	336	14	6	698
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	17.85	9.71	0.00	0.00	8.00	0.00
Movement LOS	C	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.02	0.00
95th-Percentile Queue Length [ft/ln]	1.49	1.49	0.00	0.00	0.38	0.00
d_A, Approach Delay [s/veh]	12.15		0.00		0.07	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.16					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: Cajalco Expressway at Harvill Avenue

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.515

Intersection Setup

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Cajalco Expressway			Cajalco Expressway			Harvill Avenue			Harvill Avenue		
Base Volume Input [veh/h]	46	740	243	191	769	179	198	219	43	180	175	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	740	243	191	769	179	198	219	43	180	175	126
Peak Hour Factor	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640	0.9640
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	192	63	50	199	46	51	57	11	47	45	33
Total Analysis Volume [veh/h]	48	768	252	198	798	186	205	227	45	187	182	131
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	2	3	8	0	7	4	0
Auxiliary Signal Groups						2,3						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	7	0	7	7	7	7	7	0	7	7	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	11	0	11	11	11	11	57	0	11	57	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	7	0	7	0	0	0	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	0	0	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No	No	No	No		No	No	
Maximum Recall	No	No		No	No	No	No	No		No	No	
Pedestrian Recall	No	No		No	No	No	No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	49	49	7	51	62	7	11	11	7	11	11
g / C, Green / Cycle	0.06	0.55	0.55	0.08	0.57	0.69	0.08	0.12	0.12	0.08	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.03	0.22	0.16	0.06	0.22	0.12	0.06	0.07	0.08	0.05	0.09	0.09
s, saturation flow rate [veh/h]	1781	3560	1589	3459	3560	1589	3459	1870	1765	3459	1870	1617
c, Capacity [veh/h]	99	1941	867	272	2023	1098	272	226	213	270	225	194
d1, Uniform Delay [s]	41.32	11.89	11.08	40.60	10.84	4.87	40.69	37.65	37.69	40.53	38.29	38.41
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.62	0.61	0.85	3.72	0.58	0.33	4.22	2.71	2.97	3.19	4.64	6.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.40	0.29	0.73	0.39	0.17	0.75	0.61	0.62	0.69	0.74	0.76
d, Delay for Lane Group [s/veh]	44.94	12.50	11.93	44.32	11.42	5.21	44.91	40.35	40.67	43.72	42.93	44.42
Lane Group LOS	D	B	B	D	B	A	D	D	D	D	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.12	4.31	2.74	2.26	4.22	1.12	2.36	3.04	2.93	2.12	3.76	3.44
50th-Percentile Queue Length [ft/ln]	28.10	107.72	68.51	56.50	105.49	27.93	58.97	76.03	73.23	52.91	94.05	85.90
95th-Percentile Queue Length [veh/ln]	2.02	7.71	4.93	4.07	7.59	2.01	4.25	5.47	5.27	3.81	6.77	6.18
95th-Percentile Queue Length [ft/ln]	50.58	192.83	123.31	101.70	189.70	50.28	106.14	136.85	131.81	95.23	169.29	154.62

Movement, Approach, & Intersection Results

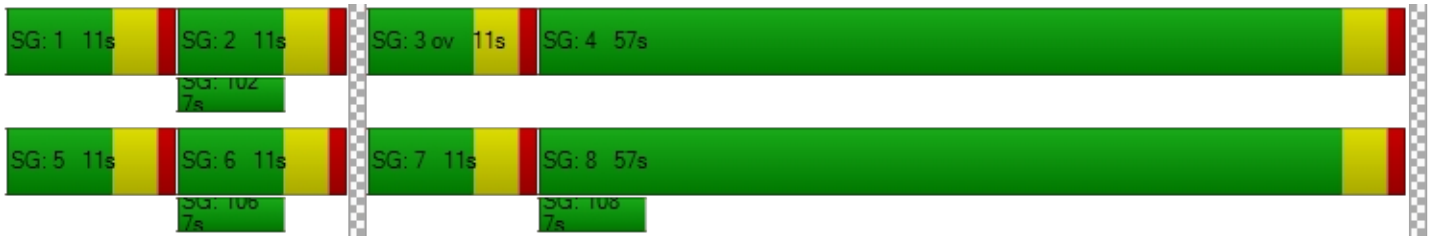
d_M, Delay for Movement [s/veh]	44.94	12.50	11.93	44.32	11.42	5.21	44.91	40.48	40.67	43.72	43.07	44.42
Movement LOS	D	B	B	D	B	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	13.82			15.95			42.40			43.66		
Approach LOS	B			B			D			D		
d_I, Intersection Delay [s/veh]	23.45											
Intersection LOS	C											
Intersection V/C	0.515											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.72	0.00	34.72	34.72
l_p,int, Pedestrian LOS Score for Intersection	2.793	0.000	2.598	2.644
Crosswalk LOS	C	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	155	155	1177	1177
d_b, Bicycle Delay [s]	38.32	38.32	7.63	7.63
l_b,int, Bicycle LOS Score for Intersection	2.441	2.535	1.953	1.972
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Cajalco Expressway at Driveway No. 1

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 1	
Base Volume Input [veh/h]	1077	13	0	987	0	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1077	13	0	987	0	45
Peak Hour Factor	0.9810	0.9810	1.0000	0.9810	1.0000	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	274	3	0	252	0	11
Total Analysis Volume [veh/h]	1098	13	0	1006	0	46
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.98
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	9.48
d_A, Approach Delay [s/veh]	0.00		0.00		14.98	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Cajalco Expressway at Driveway No. 2

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.067

Intersection Setup

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Cajalco Expressway		Cajalco Expressway		Driveway No. 2	
Base Volume Input [veh/h]	1098	45	0	945	0	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1098	45	0	945	0	25
Peak Hour Factor	0.9700	0.9700	1.0000	0.9700	1.0000	0.9700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	283	12	0	244	0	6
Total Analysis Volume [veh/h]	1132	46	0	974	0	26
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	14.98
Movement LOS	A	A		A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.22
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	5.38
d_A, Approach Delay [s/veh]	0.00		0.00		14.98	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Driveway No. 3 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.219

Intersection Setup

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 3		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	82	34	536	110	16	368
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	34	536	110	16	368
Peak Hour Factor	0.8830	0.8830	0.8830	0.8830	0.8830	0.8830
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	10	152	31	5	104
Total Analysis Volume [veh/h]	93	39	607	125	18	417
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.22	0.06	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	15.81	11.08	0.00	0.00	9.23	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.82	0.20	0.00	0.00	0.06	0.00
95th-Percentile Queue Length [ft/ln]	20.57	4.93	0.00	0.00	1.59	0.00
d_A, Approach Delay [s/veh]	14.41		0.00		0.38	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.59					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Driveway No. 4 at Harvill Avenue

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.038

Intersection Setup

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Driveway No. 4		Harvill Avenue		Harvill Avenue	
Base Volume Input [veh/h]	9	12	552	26	5	373
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	12	552	26	5	373
Peak Hour Factor	0.8740	0.8740	0.8740	0.8740	0.8740	0.8740
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	158	7	1	107
Total Analysis Volume [veh/h]	10	14	632	30	6	427
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.02	0.01	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	19.21	11.11	0.00	0.00	8.93	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.00	0.00	0.02	0.00
95th-Percentile Queue Length [ft/ln]	4.72	4.72	0.00	0.00	0.49	0.00
d_A, Approach Delay [s/veh]	14.49		0.00		0.12	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	C					

APPENDIX 4b

TECHNICAL MEMORANDUM

To:	Mr. Matt Loser Clean Energy Fuels	Date:	May 3, 2022
From:	Daniel A, Kloos, P.E., Associate Principal Linscott, Law and Greenspan, Engineers	LLG Ref:	2.21.4456.1
Subject:	***Vehicle Miles Traveled (VMT) Assessment for the CNG Fueling Station Addition Project, County of Riverside***		

As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Vehicle Miles Traveled (VMT) Assessment Technical Memorandum for the proposed CNG Fueling Station Addition Project (herein referred to as "Project"). This Technical Memorandum presents the VMT screening criteria and applies the criteria, accordingly. It should be noted that the approach and methodology outlined in this Technical Memorandum is generally consistent with the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled*, dated December 2020, which provides additional detail on the language and approach described in this Technical Memorandum.

PROJECT LOCATION AND DESCRIPTION

The project site is located at 19295 Harvill Avenue in the County of Riverside, California. ***Figure 1*** presents a Vicinity Map, which illustrates the general location of the project site and depicts the surrounding street system. ***Figure 2*** presents an existing site aerial, which shows that the site is currently vacant.

Figure 3 presents the proposed site plan for the proposed Project, prepared by Clean Energy Fuels. As shown in *Figure 3,* the proposed Project will consist of CNG time fill posts for 93 trucks and parking for 90 passenger vehicles. The proposed Project is expected to be completed by the Year 2023. General access to the proposed Project will be provided via two (2) existing right-turn in/right-turn out only driveways located along Cajalco Expressway (i.e. Driveway No. 1 and Driveway No. 2) and two (2) existing full-access driveways located along Harvill Avenue (i.e. Driveway No. 3 and Driveway No. 4). Direct access to the proposed Project will be provided via one inbound only access point (i.e. the southerly access point) and via one outbound only access point (i.e. the northerly access point) located along the Driveway No. 3 drive aisle.

VMT ASSESSMENT

On December 28, 2018, the California Natural Resources Agency adopted revised CEQA Guidelines. Among the changes to the guidelines was the removal of vehicle delay and LOS from consideration for transportation impacts under CEQA. With the

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adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled. Lead agencies are allowed to continue using their current impact criteria, or to opt into the revised transportation guidelines. However, the new guidelines must be used starting July 1, 2020, as required in CEQA section 15064.3.

In late 2019, State courts stated that under section 21099, subdivision (b)(2), existing law is that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment" under CEQA, except for roadway capacity projects. As a result of SB 743, the new metric in the CEQA guidelines for transportation impacts is VMT per capita. The legislative intent of SB 743 is to balance the needs of congestion management with statewide goals for infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.

Under the VMT methodology, screening is used to determine if a project will be required to conduct a detailed VMT analysis.

The County of Riverside has developed SB 743 VMT Impact Screening Criteria to serve as a screening tool for potential VMT impacts associated with select land use projects in the unincorporated area of Riverside County. As such, the following guidance summarizes the potential project screening and would be presumed to cause a less-than-significant impact, as shown in *Figure 3 – Screening Criteria for Development Projects* of the *County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled,* dated December 2020.

- ***Small Projects***, of which includes but not limited to, project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) as determined by a methodology acceptable to the Transportation Department.
- ***Projects Near High Quality Transit***, which includes projects within a ½ mile of an existing major transit stop and maintains a service interval frequency of 15 minutes or less during the morning and afternoon peak commute periods.
- ***Local-Serving Retail***, which includes projects with no single store on-site exceeds 50,000 SF and the project is local-serving as determined by the Transportation Department.
- ***Affordable Housing***, which includes projects with a high percentage of affordable housing as determined by the Riverside County Planning and Transportation Departments.

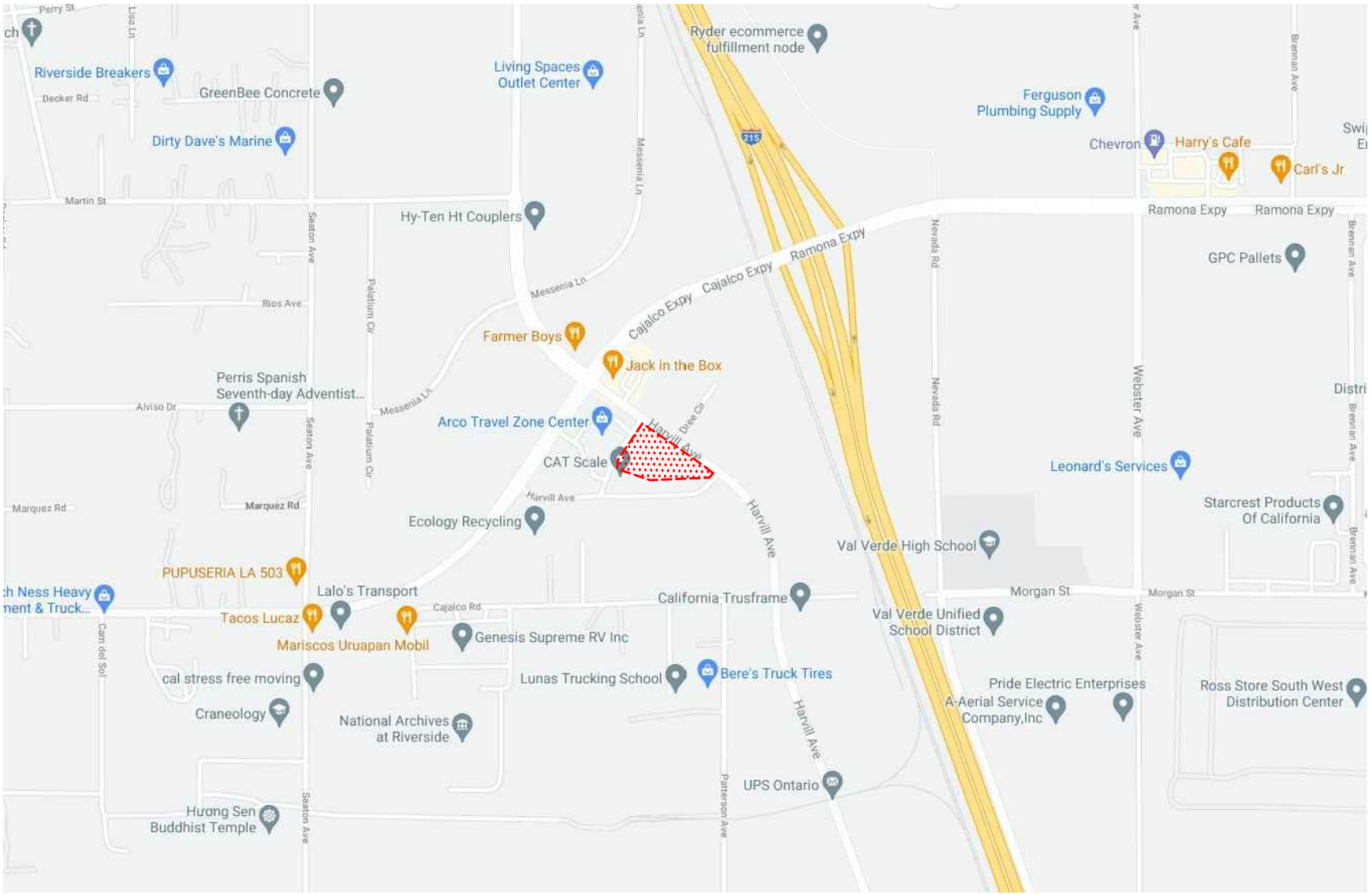
- ***Local Essential Service***, which includes projects that are considered local-serving as determined by the Transportation Department; such as day care centers, K-12 schools, Police and Fire facilities, Medical/Dental office buildings less than 50,000 SF, Government offices (in-person services such as post office, library and utilities), and Local or Community Parks.
- ***Map Based Screening***, which includes projects within areas of development that are under the threshold as shown on the screening map as allowed by the Transportation Department.
- ***Redevelopment Projects***, which includes projects that replace an existing VMT-generating land use and does not result in a net overall increase in VMT.

The proposed Project, which consists of CNG time fill posts for 93 trucks and parking for 90 passenger vehicles would screen out under the "Small Projects" criteria based on the project GHG emissions being less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e). Based on the proposed Project's *Air Quality and GHG Impact Analysis*, prepared by Giroux and Associates (dated April 2022), the proposed Project's GHG emissions would be 628.1 MTCO2e, which is below the 3,000 MTCO2e threshold. In addition, the proposed Project would also screen out under the "Local-Serving Retail" criteria, as the proposed Project will shorten trips for patrons that are currently travelling to existing Clean Energy sites that are located farther away. As a result, the proposed CNG Fueling Station Addition Project will screen out from a VMT analysis and be presumed to have a less than significant impact on VMT.

Appendix A contains an excerpt of the *Air Quality and GHG Impact Analysis*, prepared by Giroux and Associates (dated April 2022) documenting the 628.1 MTCO2e for the proposed Project.

* * * * * * * * * * *

We appreciate the opportunity to provide this Technical Memorandum. Should you have any questions regarding the memorandum, please contact us at (949) 825-6175.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

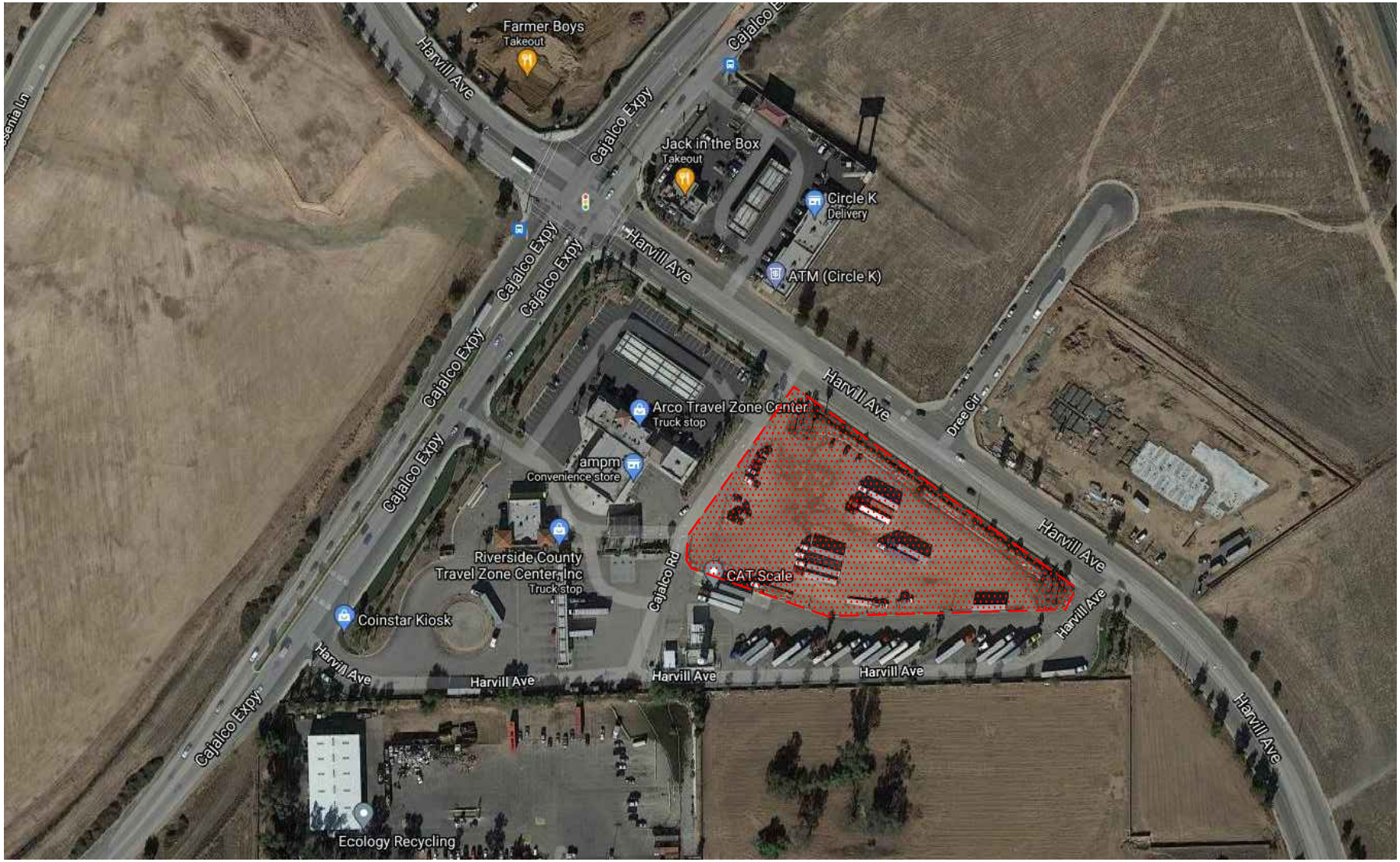
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1

VICINITY MAP

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE



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SOURCE: GOOGLE

KEY

= PROJECT SITE

FIGURE 2

EXISTING SITE AERIAL

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

SOURCE: CLEAN ENERGY

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FIGURE 3

PROJECT SITE PLAN

CNG FUELING STATION ADDITION, COUNTY OF RIVERSIDE

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APPENDIX A

AIR QUALITY AND GHG IMPACT ANALYSIS EXCERPT

AIR QUALITY and GHG IMPACT ANALYSES

CUP 03370 CLEAN ENERGY ALTERNATIVE USE

RIVERSIDE COUNTY, CALIFORNIA

Prepared by:

Sara Friedman Gerrick
Senior Engineer
Giroux & Associates

Prepared for:
Tom Dodson & Associates
Attn: Tom Dodson
PO Box 2307
San Bernardino, CA 92406-2307

Date:

April 19, 2022

Project No.: P22-016A

BACKGROUND

The project site has previously been approved for two free standing drive-through restaurants, and one free-standing restaurant. Associated trips generated from these uses are estimated to be 2,873 trips per day. Under the proposed modification, the County is being requested to grant entitlements that would allow the site to be constructed as a paved parking lot consisting of 90 Compressed Natural Gas (CNG) Time Fill spaces. This scenario would generate 470 daily trips, the fleet consisting of small delivery trucks and vans. The following analysis compares the operational emissions associated with each use.

AIR QUALITY IMPACT

DAILY OPERATIONAL IMPACTS

Operational emissions for the restaurant use were calculated using CalEEMod2020.4.0 for an assumed project build-out year of 2023 as a target for full occupancy. The project would generate 2,873 daily trips using trip rates specified in the Trip Generation Comparison prepared by Linscott Law & Greenspan for this project.

In addition to mobile sources from vehicles, general development causes smaller amounts of "area source" air pollution to be generated from on-site energy consumption (primarily space heating, hot water and landscaping). These sources represent a minimal percentage of the total project NOx and CO burdens, and a few percent of other pollutants. The inclusion of such emissions adds negligibly to the total significant project-related emissions burden as shown below.

Daily Operational Impacts Approved Restaurant Uses

	Operational Emissions (lbs/day)					
Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Area	0.26	<0.01	<0.01	<0.01	<0.01	<0.01
Energy	0.09	0.85	0.71	<0.01	0.06	0.06
Mobile	6.76	5.79	39.67	0.07	6.87	1.87
Total	**7.11**	**6.64**	**40.39**	**0.07**	**6.94**	**1.93**
SCAQMD Threshold	55	55	550	150	150	55

Source: CalEEMod2020.4.0

The Clean Energy alternative is unable to be modeled in CalEEMod. There is no such land use within CaleeMod and CaleeMod is not populated with emissions data for CNG powered vehicles. The data is available in a data base prepared by the California Air Resources Board (CARB), called the EMission FACtors model, or EMFAC. EMFAC2021 is the latest emission inventory model that CARB developed to assess emissions from on-road motor vehicles including cars, trucks, and buses in California.

EMFAC emission rates are based on a grams per mile metric. In order to calculate the anticipated mileage generated by the proposed use annual throughput data was used. Although the project anticipates use by delivery vans, EMFAC does not have data for such vehicles. Therefore, as a worst-case assumption, data for a T6 small-medium heavy duty in state truck with GVWR<=26000 lbs was used. This will overestimate any project related emissions but provides a basis of

comparison to restaurant use. The MPG for a CNG powered T6 small truck is 9 miles per gallon. With an anticipated annual throughput of 1.6 million gallons this would be the equivalent of 177,778 truck miles per year or 487 daily miles.

Operations also include passenger car vehicles. Truck drivers arrive in the early morning and the driver will park his/her vehicle then leave in a CNG vehicle to conduct deliveries. The driver will return the truck at the end of the workday and leave the project site in his/her vehicle. Thus, on a typical day, the project site will generate about 180 automobile/small pickup vehicle trips. These trips are assumed to be fueled by gasoline. As a worst case, each driver is assumed to commute a 40-mile RT distance. This would equate to 3,600 on-road miles per day attributed to driver commuting. This was also modeled in EMFAC.

All operational emissions attributed to the Clean Energy Use will be on-road truck miles. Using the assumptions discussed the following daily operational emissions are estimated.

Daily Operational Impacts Proposed Clean Energy Use

	Operational Emissions (lbs/day)					
Source:	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
T6 Trucks	0.05	1.20	7.24	0.00	0.00	0.00
LDT2 Passenger Cars	0.25	0.75	9.12	0.00	0.01	0.01
Total	0.30	1.96	16.36	0.00	0.02	0.01
SCAQMD Threshold	55	55	550	150	150	55

The following table compares both uses:

2023 Daily Operational Impacts Comparison

	Operational Emissions (lbs/day)					
Source:	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Approved Restaurant Use	7.11	6.64	40.39	0.07	6.94	1.93
Clean Energy Use	0.30	1.96	16.36	0.00	0.02	0.01
SCAQMD Threshold	55	55	550	150	150	55

Therefore, even with overestimating the size of vehicles and associated emissions fueling at the CNG pumps, emissions are still much less than the approved restaurant uses.

GHG Emissions

The input assumptions for the approved uses operational GHG emissions calculations and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod2020.4.0 output files found in the appendix of this report. The Clean Energy alternative data was obtained from EMFAC2021. EMFAC2021 was used to calculate emissions associated with the Clean Energy use.

The total operational and annualized construction emissions for the approved and proposed project are identified as follows:

Operational Emissions

Consumption Source	Approved Restaurant	Proposed Clean Energy
Area Sources	0.0	na
Energy Utilization	265.2	na
Mobile Source	1,177.8	628.1
Waste	68.3	na
Water	13.4	na
Total	**1524.7**	**628.1**
Guideline Threshold	3,000	

Even using data for a much larger and higher polluting vehicle than what is anticipated for use in the Clean Energy alternative, GHG emissions are much less than those for the approved restaurant uses.

APPENDIX 5

Emergency Response Plan

For Liquefied and Compressed Natural Gas (L/CNG) Fueling Station

Location:

Clean Energy - Perris
19295 Harvill Avenue
Perris, CA 92570
Site ID: 20319

Table of Contents

1 Emergency Response Plan 1
2 Site Description 2
3 Station Safety Equipment Overview 3
4 In Case of Emergency (ICE) 6
5 ICE Response Procedures 7
6 Emergency Contacts 8
7 General Site Map 9
8 Nearest Medical Facility 10
9 Revision Block 11
10 Safety Data Sheets 12

1 Emergency Response Plan

This Emergency Response Plan (ERP) has been prepared to establish the minimum procedures for responding to emergencies at this Clean Energy L/CNG fueling station. This Emergency Response Plan (ERP) includes protocols to ensure close coordination with local area emergency response organizations and with existing state and local Emergency Preparedness Plans. In the event there is a conflict within the standards or regulations or within pre-established site safety guidelines, the more stringent shall govern. This ERP has been prepared in accordance with:

- ☐ Chapter 6.95 of the Health & Safety Code Sections 25503-25507
- ☐ OSHA 1910.1200
- ☐ TAC 14.2131 (b) Fire Protection
- ☐ NFPA 52 Vehicular Systems Code 2016

1.1 Roles and Responsibilities

- **Employer**

Clean Energy is responsible for implementing this emergency response plan, and shall review the plan no less than annually, and update it whenever there are changes in procedures, regulations, equipment, or technology.

- **Employees**

Employees shall ensure review the emergency response plan and comply with all policies, procedures, and regulations. When necessary, and safe to do so, onsite employees shall assist in the evacuation of all affected personnel to the appropriate safe refuge area.

- **Incident Commander (IC)**

The IC is responsible for notifying the appropriate company personnel and coordinating initial emergency responses during incidents that require emergency services. Initial emergency responses include the evacuation of all affected personnel to the appropriate safe refuge area.

- **Operations Supervisor**

The Operations Supervisor is responsible for ensuring that all aspects of this plan are implemented at the operational level, and that all first responders have been properly trained per the requirements of this plan and can demonstrate the necessary level of skill and competence required to respond to emergencies.

- **Contractors**

Contractors are responsible for ensuring that all their onsite employees are trained per the requirements of this plan. Contractors shall comply with all directions and expectations delegated by Clean Energy or emergency services. In the event evacuation is necessary, all contractor personnel shall evacuate to the appropriate safe refuge area.

- **Site Visitors**

Site Visitors are responsible for complying with all directions and expectations delegated by Clean Energy or emergency services. In the event evacuation is necessary, all site visitors shall evacuate to the appropriate safe refuge area.

1.2 Training

Clean Energy shall provide emergency response training to all affected employees at the time of hire, during orientation, or before initial assignment. Training shall include information on recognizing and identifying emergency incidents, responding to those incidents, and utilizing the equipment and tools necessary to secure the site. All affected employees shall be retrained at least biennially or following any accident, change in equipment, procedural change, or whenever there is reason to believe there is a lack of proper skill or comprehension needed to work safely.

2 Site Description

The Clean Energy – ANGH Perris L/CNG station is located at 19295 Harvill Avenue, Perris, California. The station is established along the southern property line (33.839517, -117.254965) of an existing Arco Travel Zone Center, which conducts gasoline and diesel fuel sales. This Emergency Response Plan is limited to the Clean Energy L/CNG station.

This station is equipped with one (1) 18,000-gallon liquefied natural gas (LNG) storage tank and six (6) 10,000 SCF ASME compressed natural gas (CNG) storage vessels. Both the tanks and storage bottles are located above ground and protected by block wall and fence compound.

For all emergency response policies and procedures related to the gasoline and diesel fueling systems, please contract Arco Travel Zone Center.

2.1 Satellite View

2.2 Chemical Inventory

Chemical Name	Component	CAS #	Container	Quantity	Storage Location
Liquefied Natural Gas (LNG)	Liquid	74-82-8	18,000 Gal	18,000 Gal	LNG Tanks
Compressed Natural Gas (CNG)	Gas	74-82-8	10,000 SCF	60,000 SCF	CNG Storage Vessels

3 Station Safety Equipment Overview

Each L/CNG fueling station is designed with high standards for safety and reliability. This L/CNG fueling station meets and/ or exceeds all ASME and NFPA code requirements. Its emergency shutdown system has been integrated with methane detectors, fire detectors, Emergency Shutdown Device (ESD) buttons, an alarm horn, alarm beacon, and auto dialer. This same system operates on circuits equipped with battery backup power supplies; in the event of a loss of power, all equipment integrated with the emergency shutdown system will remain operational. Control air is sent to the automatic valves via plastic airlines – in the event of a fire, these plastic lines will melt, causing the valves to close.

3.1 Fire Alarm Control Panel (FACP)

The Fire Alarm Control Panel (FACP) is a UL listed auto-dialer that receives signals from our fire safety devices and transmits those signals to a 3rd party monitoring system for reporting and dispatching of the proper responders. The FACP is programmed to call a 24/7 fire monitoring service whenever an alarm zone is triggered. This monitoring service will then communicate directly with the Clean Energy Command Center.

In regard to the alarm zones, there are a total of seven programmed to communicate through the FACP:

- ☐ Zone 3 – Process Control Alarm
- ☐ Zone 4 – Emergency Shutdown Device (ESD)
- ☐ Zone 5 – Methane Device Fault
- ☐ Zone 6 – Methane Detection Alarm
- ☐ Zone 7 – Flame Detector Fault
- ☐ Zone 8 – Flame Detection
  - Activation of Zone 8 will notify the Fire Department through the fire alarm monitoring service.

3.2 Emergency Shutdown Device (ESD)

Emergency Shutdown Devices allow for manual activation of a fueling station's emergency shutdown function. This L/CNG fueling station is equipped with red "mushroom-type" buttons, which can be pushed to activate the emergency shutdown function. Once activated, the motor control center shuts off power to all solenoid valves and equipment, halting fuel dispensers for the whole station and isolating any gas in the system. ESDs have been strategically located specifically for each site in accordance with all prevailing code.

- **Activating an ESD**

The following safety measures take place automatically after an ESD activation:

- ☐ The station and pumps shut down
- ☐ All air-operated valves close
- ☐ The red alarm beacon illuminates
- ☐ The alarm horn activates
- ☐ Electrical power to all electrical equipment disconnects
- ☐ The methane-detected circuit on the fire alarm control panel activates
- ☐ The auto-dialer initiates communication to the preprogrammed phone number schedule
- ☐ The alarm is logged into the alarm system of the PLC

- **Clearing the Alarm**

- ☐ To clear the alarm, the alarm reset button on the front of the control panel must be pressed
- ☐ The alarm must be acknowledged on the PLC interface screen on front of the control cabinet

3.3 Methane Detectors

Each L/CNG fueling station is equipped with multiple methane detectors capable of measuring ranges from 0-100% of the lower explosive limit (LEL). The methane detectors are set to activate the alarm system at 20% and/or 40% of the LEL. Refer to the layout drawings for the location of each methane detector.

- **Methane Detection at 20% and 40% LEL**

The following safety measures take place automatically after a detection of 20% or 40% LEL:

- ☐ The station and pumps shut down
- ☐ All air-operated valves close
- ☐ The alarm beacon illuminates
  - 20% detection results in an amber beacon
  - 40% detection results in a red beacon
- ☐ The alarm horn activates
- ☐ The Methane Detected Circuit on the fire alarm control panel activates
- ☐ The auto-dialer initiates communication to the Clean Energy Command Center or monitoring service
- ☐ A service technician is dispatched
- ☐ The alarm is logged into the alarm system of the Programmed Logic Controller (PLC)
- ☐ A 40% detection will also result in disconnection of electrical power to all electrical equipment

- **Clearing the Alarm**

To clear a methane detection alarm, the following requirements must be met:

- ☐ Methane levels detected must fall below 20% of the LEL
- ☐ The alarm silence button on the front of the control panel must be pressed
  - This will silence the alarm horn, but will not clear the alarm or turn off the amber/red beacon
- ☐ The alarm reset button on the front of the control panel must be pressed
  - If the resent button is pressed while the detector is still reading 20% or more of the LEL, the alarm will remain active and the amber/red beacon will remain illuminated
- ☐ The alarm must be acknowledged on the Human Machine Interface (HMI) screen of the PLC control system on the front of the control cabinet

In the case of a 40% Detection, there are some additional steps/requirements:

- ☐ Pressing the reset button on the control panel after a 40% detection will restore power to the pump skid and the fuel dispensers as long as the alarm conditions are cleared, and the methane level detected onsite is below 40% of the LEL
- ☐ However, no automatic process will be permitted to start
- ☐ Offloading and dispensing will also not be permitted to start until all alarms are cleared on the HMI screen of the PLC control system

3.4 Flame Detectors

Each L/CNG fueling station is equipped with multiple ultraviolet/infrared flame detectors strategically located to provide overlapping fields of view for the whole containment, offload, and dispensing areas.

- **Flame Detection**

The following safety measures take place automatically after a flame detection:

- ☐ The station and pumps shut down
- ☐ All air-operated valves close
- ☐ The red alarm beacon illuminates
- ☐ The alarm horn activates
- ☐ The electrical power to all electrical equipment disconnects
- ☐ The Fire Detected Circuit on the FACP activates
- ☐ The FACP initiates communication to the fire monitoring service
- ☐ The alarm is logged into the alarm system of the PLC

- **Clearing the Alarm**

To clear a fire detection alarm, the following requirements must be met:

- ☐ The fire must no longer be present at the station
- ☐ If it is safe to do so, the alarm silence button on the front of the control panel must be pressed
  - This will silence the alarm horn, but will not clear the alarm or turn off the amber/red beacon
- ☐ The alarm reset button on the front of the control panel must be pressed
  - If the reset button is pressed while the detector still detects fire, the alarm will remain active and the red beacon will remain illuminated
- ☐ Offloading and dispensing will not be permitted to start until all alarms are acknowledged and cleared on the HMI screen of the PLC control system, located on the control panel

3.5 Fire Extinguishers

Each L/CNG fueling station is equipped with multiple 20 lb. dry chemical fire extinguishers. Refer to the layout drawings for the location of each fire extinguisher.

- **Fire Fighting Procedures**

Clean Energy L/CNG fueling stations due not have an onsite emergency response team; in the event of a fire, all personnel have the authority to activate the emergency shutdown system and initiate evacuation procedures. Portable fire extinguishers are only for use in incipient (early) stages of a fire, and only by those personnel trained to do so.

3.6 Pressure Relief Valves

Each section of L/CNG piping and pressure lines are equipped with relief valves to ensure the safe operating pressure of the fueling system. The relief valves protect the system from exceeding max allowable working pressure due to process upset, equipment failure, or fire. Storage vessels are equipped with dual relief valves and rupture disc assemblies.

3.7 Alarm System (Horns and Beacons)

The Alarm System is activated (horn sounds and beacons illuminate) in the event of a significant methane detection (more than 20% of the LEL), fire detection, or activation of an ESD. An alarm horn, an amber beacon, and a red beacon are located on the top of the electrical control cabinet. When the alarm system is active, you can silence the horn by pressing the “alarm silence” button on the front of the main electrical cabinet. However, to turn off the beacons and place the L/CNG fueling station back into service, acknowledge the alarms on the HMI located on the front of the control panel. If an alarm is acknowledged, but the condition causing the alarm is still present (i.e. a methane detection that has not been resolved), the alarm will not be cleared and the L/CNG fueling station will not be permitted to operate. The amber or red beacon will remain illuminated.

4 In Case of Emergency (ICE)

The ICE Protocols establish the minimum requirements for responding to incidents. During an incident, it is critical that the information released to any party not affiliated with Clean Energy be as accurate as possible, and that proper communication procedures are followed; all onsite discussions between CE employees concerning any incident shall be conducted in absolute privacy to prevent speculation. The severity of each incident will determine the appropriate course of action. Incident levels can range from a Level 1 Non-Emergency to a Level 4 Severe/Catastrophic Emergency.

4.1 Incident Levels

- **Level 1 Incident**

Level 1 incidents are non-emergency situations in which a responding CE employee can normally resolve the issues by troubleshooting, investigating, or simply resetting an alarm.

- **Level 2 Incident**

Level 2 incidents range from non-emergency situations to situations resulting in minor injury. Responding CE employees are responsible for assessing the scene once they arrive onsite and escalating the incident to the appropriate personnel. Most level 2 incidents can be resolved by following standard operating procedures including troubleshooting, resetting an alarm or fault, or temporarily removing a piece of equipment from service.

If the incident involves an employee injury, vehicle collision, or property damage, the incident must be reported to the CE Director of EHS immediately following, or as soon as practicable. Following the initial notification, a complete written incident report must be submitted to the CE Director of EHS within 24 hours.

- **Level 3 Incident**

Level 3 incidents range from minor to moderate emergencies that may require the assistance of emergency services (e.g., fire, police, etc.). Responding CE employees are responsible for assessing the scene and immediately escalating the incident to the appropriate company personnel and emergency services when needed. All level 3 incidents require a complete incident investigation, and a written report submitted to the CE Director of EHS within 24 hours of occurrence.

- **Level 4 Incident**

Level 4 incidents range from severe to catastrophic emergencies in which responding personnel cannot prevent harm to other personnel or equipment by taking reasonable actions such as engaging an ESD or isolating a system. During a Level 4 incident, the responding CE employee (or ranking employee) shall assume the role of the Incident Commander (IC) until relieved by emergency services. The IC is responsible for notifying the appropriate company personnel and coordinating the initial emergency response, which includes the evacuation of all affected personnel to a safe refuge area. Once the area is secure, the responding employee shall perform a complete incident investigation, and submit a written report to the CE Director of EHS within 24 hours of occurrence.

5 ICE Response Procedures

	Incidents Types	Escalation Protocol	Incident Response[1]
Level 1	☐ General site callout ☐ ESD engaged ☐ Hose drive-off (no injuries) ☐ Alarm reset ☐ 20% LEL methane detection	1) Notify the CE Command Center a. Dispatch CE Service Technician 2) Notify the CE Operations Supervisor	1) Assess the scene when arriving onsite 2) Troubleshoot the issue, resolve and document
Level 2	☐ 40% LEL methane detection ☐ Gas leak/odor complaint ☐ Loss of station power	1) Notify the CE Command Center a. Dispatch CE Service Technician 2) Notify the CE Operations Supervisor 3) Notify CE Director of EHS	1) Assess the scene when arriving onsite 2) Troubleshoot, resolve and document
	☐ Vehicle collision (no injury)[2] ☐ Property damage (no injury)[2] ☐ Employee injury (minor)[2] ☐ Near miss incident[2]	1) Notify the CE Command Center a. Dispatch CE Service Technician 2) Notify the CE Operations Supervisor 3) Notify CE Director of EHS	1) Assess the scene when arriving onsite 2) Investigate the incident to determine the root cause 3) Complete and submit a CE incident report
Level 3	☐ Employee injury (w/ hospitalization)[2] ☐ Vehicle collision (w/ injury)[2] ☐ Customer injury (w/ injury)[2] ☐ Subcontractor incident (w/ injury)[2] ☐ Hazmat spill (minor)[2] ☐ Fire department response	1) Contact 911 (as Needed) 2) Notify the CE Command Center a. Dispatch CE Service Technician 3) Notify the CE Operations Supervisor 4) Notify CE Director of EHS 5) Notify CE Regional Director/Regional VP 6) Notify VP of Operations	1) Assess the scene when arriving onsite 2) Organize the initial emergency response 3) Secure the area 4) Coordinate with emergency services (if applicable) 5) Investigate the incident to determine the root cause 6) Complete and submit CE incident report
Level 4	☐ Station fire[2] ☐ LNG tank failure[2] ☐ Hazmat spill (major)[2] ☐ Fatality[2]	1) Contact 911 (as Needed) 2) Notify the CE Command Center a. Dispatch CE Service Technician 3) Notify the CE Operations Supervisor 4) Notify CE Director of EHS 5) Notify CE Regional Director/Regional VP 6) Notify VP of Operations	1) Assess the scene when arriving onsite 2) Organize the initial emergency response 3) Evacuate all affected personnel to a safe refuge area 4) Secure the area 5) Coordinate with emergency services (i.e., fire, police, etc.) 6) Investigate the incident to determine the root cause 7) Complete and submit CE incident report

[1] Actual order of procedures may be differ depending on the incident scenario.
[2] Must complete an incident report for this type of incident.

6 Emergency Contacts

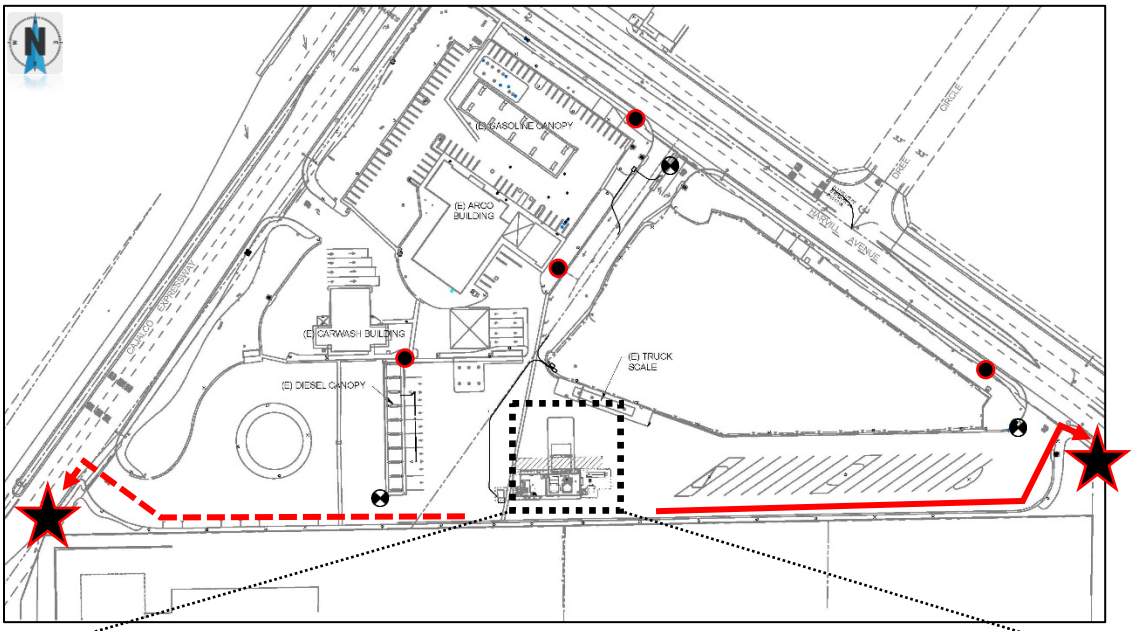
Emergency Services	Primary	24 Hour
Fire Department	911	911
Police Department	911	911
Clean Energy 24 hr. Command Center (Include station name & ID #)	866-278-3674	866-278-3674

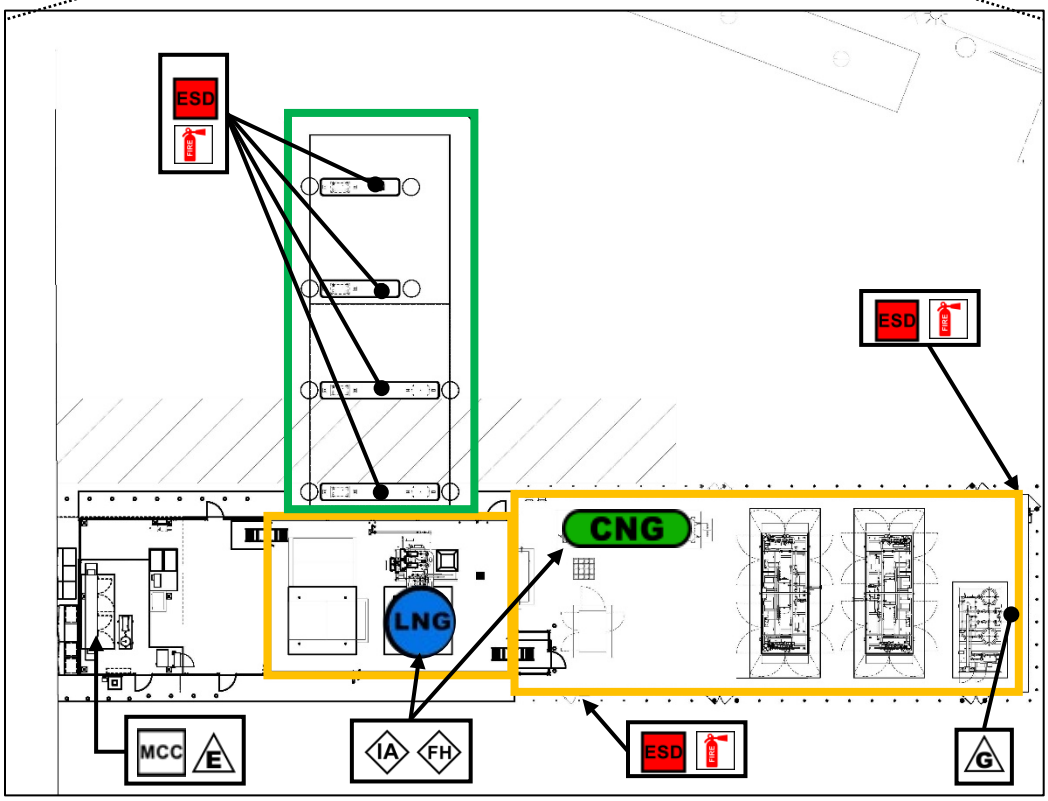
Clean Energy Contacts	Title	Primary	Alt. Number
Chris Gate	SoCal Operations Director	949-437-1219	562-370-6880
Joe Almeida	SoCal Operations Supervisor	310-984-3470	562-448-4042
Jose Armas	SoCal Operations Supervisor	310-984-3487	951-987-7172
James Wright	Director EHS	949-437-1207	562-418-8944
Bart Frabotta	Vice President of Operations	949-437-1200	310-892-9787
Barbara Johnson	Vice President of Administration	949-437-1130	714-336-0511

Reporting Agencies	Notification Requirement	Primary	Alt. Number
Office Emergency Services (California)	Spills and release above RQ	800-852-7550	916-845-8911
National Response Center (Federal)	Spills and release above RQ	800-424-8802	800-424-8802
Riverside County DEH (CUPA)	Station fire or spills above RQ	951-358-5055	951-358-5055

7 General Site Map

Legend:			
	Fuel Storage Area	G	Gas Shutoff
	Fueling Area	FH	Fire Hazard
CNG	CNG Vessels (6 x 10,000 SCF)	ESD	Emergency Shutdown Device (ESD)
LNG	LNG Tank (18,000 Gal Tank)		Fire Extinguisher
MCC	Motor Control Panel		Primary Safe Refuge Area (SRA)
E	Electrical Shutoff (Switchgear)		Evacuation Route
	Fire Hydrant		Alternate Evacuation Route
G	Gas Shutoff		Storm Drain





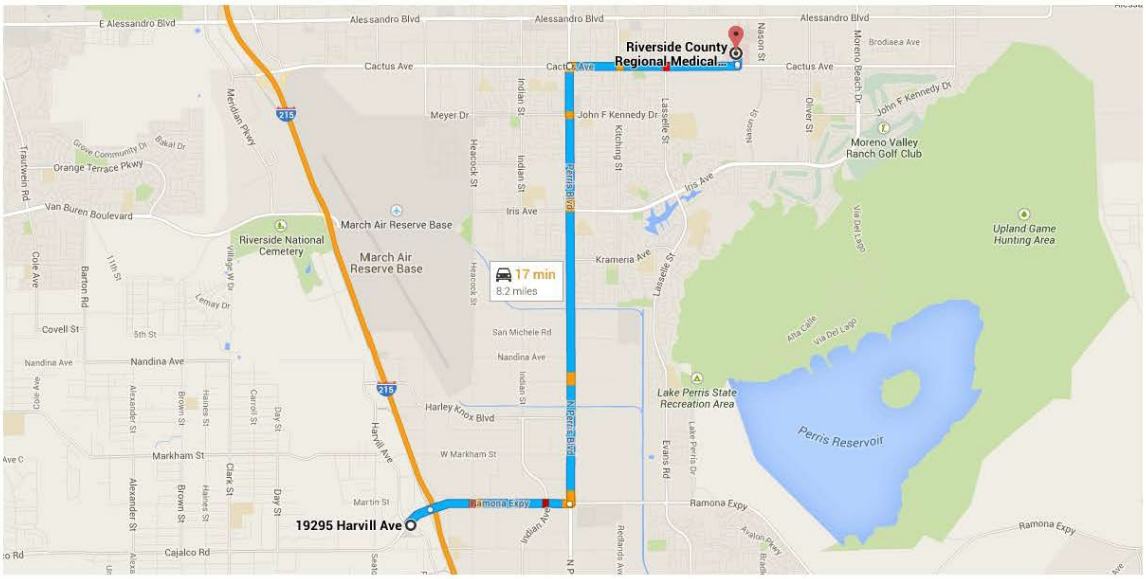
8 Nearest Medical Facility

Riverside County Regional Medical Center 26520 Cactus Ave. Moreno Valley, CA 92555	951-486-4397 – Main Google Map directions below:

Google

Drive 8.2 miles, 13 min

Directions from **19295 Harvill Ave** to **Riverside County Regional Medical Center Emergency Department**



19295 Harvill Ave
Perris, CA 92570

1. Head **northwest** on **Harvill Ave** — 157 ft
2. Turn **right** onto **Cajalco Expy** — 0.3 mi
3. Continue onto **Ramona Expy** — 1.5 mi
4. Turn **left** onto **N Perris Blvd** — 4.6 mi
5. Turn **right** onto **Cactus Ave** — 1.7 mi
6. Turn **left** — 118 ft
7. Continue straight — 404 ft

9 Revision Block

#	Revision Date	Revision Details	Revised By
	02/08/2021	Updated ERP to 2021 Template.	Luca Ferroni
	04/01/2021	Revised ERP to reflect CNG addition to existing station. This update was required by the County in order to release a 90 Series Hold for the Phase II construction permit. Changes to station layout and hazardous material inventory is not anticipated to take effect until October 2021.	Luca Ferroni

Section 1: Identification

Product Name: Liquefied Natural Gas
SDS Number: 169200
Synonyms: LNG, Natural Gas Refrigerated Liquid
Manufacturer: Clean Energy
14436 Contractor Rd
Boron, CA 93416
Customer Service: (866) 809 4869
24 Hr. Emergency: (866) 278-3674

Section 2: Hazard Identification

GHS Classification:
- Extremely Flammable gases

GHS Label Elements:
- Contains refrigerated liquefied gas; may cause cryogenic burns

Precautionary Statements:

DANGER
Contains refrigerated gas,
May cause cryogenic burns or injury

DANGER
Extremely Flammable Gas,
Keep away from sparks or open flames, No smoking

Hazard Statements:
- P202: Do not handle until all safety precautions have been read & understood
- P210: Keep away from heat, sparks, open flames, and hot surfaces – No smoking
- P243: Take precautionary measures against static discharge
- P282: Wear cold insulating gloves, face shield, and eye protection
- P381: Eliminate all ignition sources if safe to do so
- H220: Extremely flammable gas
- H261: In contact with water releases flammable gas
- H281: Contains refrigerated gas; may cause cryogenic burns or injury

Chemical Stability:
- Stable

Incompatible Products:
- Keep away from air, oxygen, strong oxidizing agents, chlorine, fluoride compounds and other halides

Reactivity Conditions:
- Keep away from sources of Ignition, heat, high temperatures, flames, sparks, welding, and static electricity

Decomposition Products:
- CO, CO2, fumes

Polymerization:
- N/A

Section 3: Composition/Information on Ingredients

Components:	CAS #	Concentrations: % by volume	LD_{50}	LC_{50}
Methane:	74-82-8	99 5%	N/A	N/A
Nitrogen:	74-84-0	0.5%	N/A	N/A

Section 4: First Aid Measures

Acute:
- Anesthetic effects at high concentrations

Chronic:
- None known or anticipated

Eye Contact:
- For contact with the LNG, remove contact lenses if present, hold eyes open and gently flush the affected eye with lukewarm water
- Seek medical attention immediately

Skin Contact:
- Liquefied gases may cause cryogenic burns or injury
- Treat frostbitten skin by flushing or immersing affected area in lukewarm water
- Do not rub affected area, do not remove clothing that adheres due to freezing
- After sensation has returned to the skin, keep skin warm, dry, and clean
- If blistering occurs, apply a sterile dressing
- Seek immediate medical attention

Inhalation:
- If symptoms develop, move victim away from the source of exposure and into fresh air in a position comfortable for breathing
- If breathing is difficult, oxygen should be administered by qualified personnel
- If symptoms persist, seek medical attention

Ingestion:
- In the unlikely event of ingestion, obtain medical attention immediately

Section 5: Firefighting Measures

Firefighting Measures:
- Isolate immediate hazard area and keep unauthorized personnel out
- Spilled material may pool on the ground and flow toward lower points until the temperature rises above -148 °F
- If the spill has not ignited, water spray can be used to direct flammable gas-air mixtures away from ignition sources
- LNG vapors are heavier than air until the vapors reach -180 °F
- If a source of ignition is present when vapor is at 5 - 15% concentration in air, vapor will burn along the flame towards the source of fuel
- If safe to do so, try to remove ignition sources
- Use non-sparking tools to shut off the gas
- Do not try to extinguish the fire if the gas leak can't be stopped
- If needed, use a combustible gas detector to establish a secure the perimeter
- If there is no risk to the surrounding area, let the fire burn itself out

Extinguishing Media:
- Dry chemical (Purple-K) and Carbon Dioxide are the most effective types
- Water is not a suitable for fighting LNG fires directly because it causes expansion of the fire by increase the vaporization rate

Rapid Phase Transition (RPT):
- Can occur from a significant difference in temperature between the LNG and a warmer liquid; can cause instantaneous vaporization
- The Sudden increase in total volume occupied by the LNG may generate a shock wave (sudden overpressure but without combustion)

Section 6: Accident Release Measures

Environmental Precautions:
- LNG will not pollute natural resources such as ground water, soil, wetlands, streams, orbeaches
- Vaporizes quickly and completely and because it is lighter than air it does not contain any pollutants from the spill

Personal Precautions:
- Use of personal precautions (remove ignition sources or sufficiently ventilate) and PPE to mitigate exposure LNG liquid and vapor

Containment & Cleanup:
- Notify relevant authorities in accordance with all applicable regulations
- Recommended measures are based on the most likely spill scenarios for LNG

Section 7: Handling and Storage

Precautions Safe Handling:
- To only be handled by trained personnel with equipment specifically designed for LNG and following standard operating procedures
- Keep away from ignition sources such as heat, sparks, and open flame
- Take precautionary measures against static discharge

Safe Storage Conditions:
- Store only in containers compatible for Liquefied Natural Gas storage
- Cold burns may occur during filling operations
- Wear appropriate personal protective equipment
- Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition
- Gas can accumulate in confined spaces and limit available oxygen
- Use only with adequate ventilation

Safe Storage Conditions:
- Electrostatic charge may accumulate and create a hazardous condition when handling this material
- To avoid fire, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring
- Post area with proper signage: i.e., no smoking, no open flames, PPE requirements, and cryogenic hazard

Section 8: Exposure Controls / Personal Protection

Engineering Controls:
- Provide adequate ventilation to maintain 19 5% oxygen, less than 1% methane (20% of LEL). Use a Combustible Gas Meter.
- If ventilation is not adequate to maintain airborne concentrations below exposure limits, additional controls may be required

Eye/Face Protection:
- The use of eye protection (i.e., goggles) meeting ANSI Z87 1 is required when there is potential for liquid contact to the eye
- Depending on conditions of use, a face shield may be necessary

Skin/Hand Protection:
- Wear thermal insulating gloves and face shield or eye protection when working with materials with thermal hazards (hot or cold)

Respiratory Protection:
- A NIOSH approved self-contained breathing apparatus (SCBA) or equivalent shall be used when oxygen is deficient (O2 < 19.5 %)
- Respirators shall only be worn by qualified personnel
- Suggestions provided for exposure control and specific types of protective equipment are based on readily available information
- Specific situations may require consultation regarding industrial hygiene, safety, or engineering to ensure proper protection

Section 9: Physical and Chemical Properties

Molecular Formula:	*CH4*	**Melting Point:**	*N/A*
Physical Form:	*Liquid gas (cryogenic)*	**Density:**	*0 415 at -164 °C*
Color & Odor:	*Colorless /odorless*	**Molecular Weight:**	*16 043 g/mol*
Odor Threshold:	*No Data*	**Vapor Pressure:**	*4 52 Mpa*
Vapor Density (Air):	*0.6*	**Evaporation Rate:**	*N/A*
Boiling Point:	*-161 5 °C (-258 7 °F)*	**Water/Oil Coefficient:**	*0 0812*
Freezing Point:	*-182 47 °C (-296 5 °F)*	**pH:**	*N/A*
Lower Explosive Limits:	*5 % at 25 °C (77 °F)*	**Gas/Liquid Equivalent:**	*630 v/v (1 013, 15 °C)*
Upper Explosive Limits:	*15 % at 25 °C (77 °F)*	**Auto-ignition Temp:**	*999 °F / 537 °C*
Flash Point:	*-136 0 °C (-212 8 °F)*		

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal ambient and anticipated conditions of use

Incompatible Products: Keep away from air, oxygen, strong oxidizing agents, chlorine and fluoride compounds, and otherhalides

Conditions to Avoid: Avoid all possible sources of ignition, heat will increase pressure in the storage tank

Decomposition Product: CO, CO2, Fumes

Reactivity Conditions: Keep away from sources of Ignition, heat, high temperatures, flames, sparks, welding, and static electricity

Section 11: Toxicological Information

Signs and Symptoms:
- Light hydrocarbon gases are simple asphyxiant and can cause anesthetic effects at high concentrations
- Symptoms of overexposure, which are reversible if exposure is stopped, can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances, and vomiting
- Continued exposure can lead to hypoxia, rapid breathing, numbness, unconsciousness, and death

Exposure Points:
- Respiratory tracts and skin. Physiologically inert
- Ingestion unlikely during normal industrial use

Ingestion:
- Ingestion is not anticipated

Contact with Skin or Eyes:
- Tissue damage caused by frostbite on contact with liquefied gas
- Vapors are not irritants, but direct contact of the eyes and skin with the cold vapors or liquid may cause frostbite, burns, and lesions
- Signs of frostbite include a change in skin color to grey or white, followed later by blisters. Skin may become inflamed and painful

Acute Toxicity:
- Methane is a simple asphyxiant and its vapors may have a narcotic effect

Exposure to Vapors:
- The principle symptoms of asphyxiation are rapid pulse, respiration, headaches, dizziness, visual problems, mental confusion, impaired coordination, mood changes, weakness, trembling, numbness of extremities, and unconsciousness
- The effects of asphyxiation may be more rapid during physical effort since oxygen consumption is increased
- Even though non-toxic by inhalation, exposure to high concentrations may cause a depression of the nervous system (rapid respiration, dizziness, headaches), but without any long-term effects
- People with pre-existing heart, lung, or blood conditions may have an increased sensitivity to asphyxiation

Carcinogenicity:
- Not known to be associated with carcinogenic effects

Mutagenicity:
- Not considered to be a mutagenic hazard

Chronic Exposure:
- No Data

Reproductive Toxicity:
- Not expected to cause reproductive toxicity

Other Comments:
- High concentrations may reduce oxygen availability
- Hypoxia during pregnancy may have adverse effects on a developing fetus

Section 12: Ecological Information

Toxicity:
- LNG will readily evaporate from the surface and would not be expected to have significant adverse effects in the aquatic environment

Persistence and Degradability:
- The hydrocarbons in the material are expected to be biodegradable
- In practice, hydrocarbon gases are not likely to remain in solution long enough for biodegradation to be a significant loss process

Bioaccumulation:
- Does not bio-accumulate

Mobility in Soil:
- Due to extreme volatility of petroleum gases, air is the only environmental compartment in which these hydrocarbons will be found

Other Adverse Effects:
- None anticipated

Section 13: Disposal Considerations

Proper Disposal:
- This material is a gas and would not typically be managed as a waste

Section 14: Transportation / Department of Transportation (DOT)

Proper Shipping Name:
- Natural Gas, Refrigerated, Liquid

Hazard Class:
- 2 1

DOT Identification No:
- 1972

ERG Number:
- 115

Label/Placard:
- Flammable Gas

Section 15: Regulatory Information

California Prop 65:
- Material does not contain any chemicals which are known to California to cause cancer, birth defects, or other reproductive harm

EPA RQ:
- EPA's petroleum exclusions apply to this material (CERCLA 101 (14)

CERCLA/SARA Section 313 & 40 CFR 372
- This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372

CERCLA/SARA Sec 311/312

Acute Health:	Yes	Pressure Hazard:	Yes
Chronic Health:	No	Reactive Hazard:	No
Fire Hazard:	Yes		

International Hazard Class:
- Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the SDS contains all the information required by the regulation

Section 16: Other Information

Date of Issue: June 05, 2019

Disclaimer of Expressed and Implied Warranties

The information presented in this safety datasheet is based on data believed to be accurate as of the date this safety datasheet was prepared. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of the information provided above, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use In addition, no authorization is given nor implied to practice any patented invention without a license.

Section 1: Identification

Product Name: Compressed Natural Gas (CNG)
SDS Number: 169201
Synonyms: CNG
Manufacturer: Clean Energy
4675 MacArthur Ct
Suite 800
Newport Beach, CA 92660
Customer Service: (866) 809 4869
24 Hr. Emergency: (866) 278-3674

Section 2: Hazard Identification

GHS Classification:
- Flammable Gas – Category 1

GHS Label Elements:
- Gas Under Pressure – Compressed Gas

Precautionary Statements:

DANGER
Contains refrigerated gas,
May cause cryogenic burns or injury

DANGER
Extremely Flammable Gas,
Keep away from sparks or open flames, No smoking

Hazard Statements:
- H220: Extremely flammable gas
- H280: Contains gas under pressure; may explode if heated
- P381: Eliminate all ignition sources if safe to do so
- P403: Store in well-ventilated places
- P410: Protect from sunlight

Chemical Stability:
- Stable

Reactivity Conditions:
- Keep away from sources of Ignition, heat, high temperatures, flames, sparks, welding, and static electricity

Decomposition Products:
- CO, CO2, fumes

Polymerization:
- N/A

Section 3: Composition/Information on Ingredients

Components:	CAS #	Concentrations: % by volume
Methane:	74-82-8	94 - 99%
Ethane:	74-84-0	0 - 5%
Nitrogen:	7727-37-9	< 1%
Butane:	106-97-8	< 1%
Pentane:	109-66-0	< 1%

Section 4: First Aid Measures

Acute:
- Anesthetic effects at high concentrations

Chronic:
- None known or anticipated

Eye Contact:
- If irritation or redness develops from exposure, flush eyes with clean water Seek medical attention immediately
- If symptoms persist, seek medical attention

Skin Contact:
- Wash skin with plenty of water

Inhalation:
- If respiratory symptoms develop, move victim away from the source of exposure and into fresh air
- If breathing is difficult, qualified personnel should administer oxygen or artificial respiration
- If symptoms persist, seek medical attention

Ingestion:
- The material is gas under normal conditions and ingestion is unlikely

Section 5: Firefighting Measures

Firefighting Procedures:
- Extremely flammable
- Material can be ignited by heat, sparks, flames, or other sources of ignition
- Vapors may travel considerable distances to a source of ignition where they can ignite, or flash back
- May create vapor/air hazard indoors, outdoors, or in confined spaces
- Isolate immediate hazard area and keep unauthorized personnel out
- Stop spill/release if it can be done safely. If not, allow fire to burn
- Move undamaged containers from the hazard area if it can be done safely
- Stay away from ends of container
- Water spray may be useful in minimizing or dispersing vapors and to protect personnel
- Cool equipment exposed to fire with water if it can be done safely

Special Equipment for Firefighters:
- Wear positive-pressure Self-Contained Breathing Apparatus (SCBA) and protective firefighting clothing: helmet, coat, pants, boots, etc.
- If protective equipment is not available, fight fire from a protected location or safe distance

Combustion Products:
- Combustion may yield smoke, CO, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed

Section 6: Accident Release Measures

Personal Precautions:
- Extremely flammable
- Keep sources of ignition and hot surfaces away from release if safe to do
- Beware of accumulation of gas in low areas where explosive concentrations may occur
- Ventilate area and allow to evaporation
- Stay upwind and away from release
- For large releases, notify persons downwind of the release, isolate immediate hazard area and keep unauthorized personnel out
- Wear appropriate protective equipment, as conditions warrant

Environmental Precautions:
- Stop the release if it can be done safely
- Water spray may be useful in minimizing or dispersing vapors

Containment & Cleanup:
- Notify relevant authorities in accordance with all applicable regulations

Section 7: Handling and Storage

Handling Precautions:
- To be handled by trained personnel only, using equipment specifically designed for CNG, and following standard operating procedures
- Keep away from ignition sources such as heat/sparks/open flame
- Take precautionary measures against static discharge
- Use appropriate personal protective equipment

Safe Storage Conditions:
- Store only in cylinders/bottles compatible for CNG (capable of storing highly compressed gas)
- Keep container(s) tightly closed and properly labeled
- Use and store material in cool, dry, well ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition
- Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. May explode and cause injury or death
- Gas can accumulate in confined spaces and limit oxygen. Use only with adequate ventilation
- Electrostatic charge may accumulate and create a hazardous condition when handling this material
- To avoid fire, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material
- Post area with proper signage such as no smoking, no open flames, personal protective equipment requirements, and cryogenic hazard

Section 8: Exposure Controls / Personal Protection

Engineering Controls:
- If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required

Eye/Face Protection:
- Wear only ANSI Z87.1 or better approved safety glasses, over glasses or goggles whenever working with compresses gases

Skin/Hand Protection:
- The use of skin protection is not normally required; however, good industrial hygiene practice suggests the use of gloves or other appropriate skin protection whenever working with chemicals

Respiratory Protection:
- A NIOSH approved, self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode should be used in situations of oxygen deficiency (Oxygen content less than 19.5 %), unknown exposure concentrations, or situations that are Immediately Dangerous to Life or Health (IDLH)
- A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed whenever workplace conditions warrant a respirator's use

Section 9: Physical and Chemical Properties

Molecular Formula:	CH4, C2H6, C3H8, C4H10	**Melting Point:**	N/A
Physical Form:	Natural Gas, Compressed	**Density:**	0.615 at -164 °C
Color & Odor:	Colorless and odorless	**Molecular Weight:**	17.66 g/mol
Odor Threshold:	0.001 ppm	**Vapor Pressure:**	4.52 Mpa
Vapor Density (Air):	0.58	**Evaporation Rate:**	N/A
Boiling Point:	-161.5 °C (-258.7 °F)	**Water/Oil Partition Coefficient:**	N/A
Freezing Point:	-187 to -182 °C	**pH:**	N/A
Lower Explosive Limits:	3.7 % at 25 °C (77 °F)	**Flash Point:**	-184 °C / -299 °F
Upper Explosive Limits:	17 % at 25 °C (77 °F)	**Auto-ignition Temperature:**	899 °F / 482 °C
Molecular Formula:	CH4, C2H6, C3H8, C4H10	**Melting Point:**	N/A

Section 10: Stability and Reactivity

Chemical Stability:
- Stable under normal ambient and anticipated conditions of use

Incompatible Products:
- Keep away from air, oxygen, oxidizing agents, chlorine and fluoride compounds and other halides

Conditions to Avoid:
- Avoid all possible sources of ignition. Heat will increase pressure in the storage tank

Decomposition Products:
- CO, CO2, Fumes

Reactivity Conditions:
- Keep away from sources of: Ignition, heat, high temp, flames, sparks, welding, and static electricity

Section 11: Toxicological Information

Aspiration Hazard:
- Not applicable

Skin Corrosion/Irritation:
- Skin exposure is not anticipated

Eye Damage/Irritation:
- Not expected to be irritating

Signs & Symptoms:
- Simple asphyxiants and can cause anesthetic effects at high concentrations
- Symptoms of overexposure include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances, and vomiting
- Continued exposure can lead to hypoxia (inadequate oxygen), rapid breathing, cyanosis (bluish discoloration of the skin), and numbness of the extremities, unconsciousness, and death

Skin Sensitization:
- Skin contact is not anticipated

Respiratory Sensitization:
- Not expected to be a respiratory sensitizer

Target Organ Toxicity Single Exposure:
- Not expected to cause organ effects from single exposure

Target Organ Toxicity Repeated Exposure:
- Not expected to cause organ effects from repeated exposure

Reproductive Toxicity:
- Not expected to cause reproductive toxicity

Other Comments:
- High concentrations may reduce the amount of oxygen available, especially in confined spaces

Section 12: Ecological Information

Toxicity:
- Petroleum gases will readily evaporate from the surface and not be expected to have adverse effects in the aquatic environment
- Classification: No classified hazards

Persistence & Degradability:
- The hydrocarbons in this material are expected to be inherently biodegradable
- Hydrocarbon gases are not likely to remain in solution long enough for biodegradation to be a significant loss process

Bioaccumulation:
- Does not bio-accumulate

Mobility in Soil:
- Due to the extreme volatility of the gas, air is the only environmental compartment in which these hydrocarbons will be found

Section 13: Disposal Considerations

Proper Disposal:
- This material is a gas and would not typically be managed as a waste

Section 14: Transportation / Department of Transportation (DOT)

Proper Shipping Name:
- Natural Gas, Compressed

Hazard Class:
- 2.1

DOT Identification No:
- 1971

ERG Number:
- 115

Label:
- Flammable Gas

Placard:
- Flammable Gas

Section 15: Regulatory Information

California Proposition 65:
- This material does not contain any chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the requirements of California Proposition 65

EPA Reportable Quantity (CERCLA)
- EPA's petroleum exclusions apply to this material. (CERCLA 101(14)

CERCLA/SARA Section 313 & 40 CFR 372:
- This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372

CERCLA/SARA Section 311/312

Acute Health:	Yes
Chronic Health:	No
Fire Hazard:	Yes
Pressure Hazard:	Yes
Reactive Hazard:	No

International Hazard Classification:
- Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the SDS contains all the information required by the regulation

Section 16: Other Information

Date of Issue: **09/09/2020**

Disclaimer of Expressed and Implied Warranties:

Clean Energy is solely a distributor of Compressed Natural Gas (CNG) from local municipalities. As a result, material composition shall have ranges of individual ingredients. User of this SDS shall contact the municipal utility supplier for accurate composition of the CNG being distributed in your local region. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of the information provided above, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

Certified Unified Program Agency

HAZARDOUS MATERIALS MANAGEMENT PERMIT

AREA #: H02
DISTRICT #: H003

SITE ADDRESS 19295 Harvill Ave
Perris, CA 92570

OWNER: Clean Energy
DBA: Clean Energy

MAILING ADDRESS: James Wright
4675 MacArtur Ct Ste 800
Newport Beach, CA 92660

EPA ID:
FACILITY #: FA0045245
CERS ID: 10615945
PERMIT ISSUANCE DATE: 10/26/2021
PERMIT EXPIRATION DATE: 11/30/2022

Regulated Programs:

PR0068391 5150 - Level III

This permit is granted for the business indicated on the condition that the business will comply with the laws, ordinances and regulations that are now or may hereafter be in force by the United States Government, the State of California, and the County of Riverside pertaining to the above mentioned business.

- **This permit serves as a receipt for payment of fees for the above listed programs.**
- **This permit must be renewed on or before the expiration date shown above.**
- **Inspection of this business may be conducted by a duly authorized representative of the Director of Environmental Health.**

POST IN A CONSPICUOUS PLACE

THIS PERMIT IS NOT TRANSFERABLE OR REFUNDABLE

APPENDIX 6

SUMMARY OF MITIGATION MEASURES FROM 2003 INITIAL STUDY

AESTHETICS

2. Mt. Palomar Observatory
The project is conditioned that all lighting shall be hooded and low sodium so as to not affect nighttime views in the area and all lighting plans are to be checked for compliance with Ordinance 655 prior to building permit issuance. (COA.10; PLANNING.3 and .80; PLANNING.21)

3. Other Lighting Issues
The project is conditioned to hood all lighting and to comply with Ordinance 655. (COA.10; PLANNING.3 and .80; PLANNING.21)

BIOLOGICAL RESOURCES

6. Wildlife & Vegetation
The project is conditioned that Stephen's Kangaroo Rat fees are to be paid prior to grading permit issuance. (COA.60; PLANNING.8)

GEOLOGY AND SOILS

12. Groundshaking Zone
The project is conditioned that prior to grading permit issuance, a geotechnical report for groundshaking hazards is required. (COA.60; PLANNING.13)

18. Erosion
The project is conditioned to provide proper drainage facilities. (COA FLOOD RI.13)

HAZARDS AND HAZARDOUS MATERIALS

20. Hazards and Hazardous Materials
The project will be responsible for having the correct permits to ensure that the gasoline and other hazardous materials will be kept away from the general public. Riverside County Hazardous Materials has requested a business emergency plan for storage of hazardous materials. If further review is needed, the Hazardous Materials Department reserves the right to regulate further. Review of the tanks used to store the hazardous materials will be reviewed by the County Health Department. (COA.90; E.HEALTH.1,2,3,4,5)

21. Airports
The project is conditioned to comply with the conditions outlined in the staff report from ALUC dated July 18, 2002. (COA.10; PLANNING.38, .39 and .80; PLANNING.16)

HYDROLOGY AND WATER QUALITY

23. Water Quality Impacts
The project is conditioned to comply with NPDES prior to grading permits. (COA.10; PLANNING.33 and .60; PLANNING.1) The project is also conditioned by the Riverside County Flood Control District, to achieve the goals mentioned in the flood hazard report prior to grading and prior to building permit issuance. (COA.60; FLOOD RI.6,9,10; and FLOOD RI.1,2) The project is conditioned for appropriate permits regarding hazardous materials. (COA.90; E.HEALTH.1-5 and .90; PLANNING.34)

24. Floodplains
In order to achieve the goals in the flood hazard report, Riverside County Flood Control District has conditioned the project prior to grading permit issuance and prior to building permit issuance. (COA.60; FLOOD RI.6,9,10 and .80; FLOOD RI.1,2)

NOISE

28. Airport Noise
The project is conditioned to comply with the conditions outlined in the staff report from ALUC dated July 18, 2002. (COA.10; PLANNING.38,39 and .80; PLANNING.16)

POPULATION AND HOUSING

33. Housing
The project is conditioned to comply with the conditions of the Economic Development Agency letter dated February 26, 2003, prior to building permit issuance. (COA.80; PLANNING.27)

PUBLIC SERVICES

35. Sheriff Services
The project is conditioned that prior to building permit issuance, a clearance letter is required from the Riverside County Sheriff Department, stating their conditions and concerns have been addressed. (COA.80; PLANNING.26) The project has been conditioned for payment of mitigation fees pursuant to Ordinance 659. (COA.90; PLANNING.31)

36. Schools
The project is conditioned for the payment of school impact fees in accordance with state law. (COA.80; PLANNING.18)

37. Libraries
The project has been conditioned for the payment of mitigation fees pursuant to Ordinance 659. (COA.90; PLANNING.31)

TRANSPORTATION / TRAFFIC

41. Circulation
The project is conditioned to comply with those conditions of the Transportation Department regarding traffic loads, hazardous design features and road improvements. (COA.80; TRANS.8,15 and .90; TRANS.1,2,7,8,10,11,13,14)

UTILITY AND SERVICE SYSTEMS

43. Water
The project is conditioned to comply with the requirements of the Riverside County Department of Environmental Health regarding water and sewer connections, prior to building permit issuance. (COA.80; E.HEALTH.1,4)

44. Sewer
The project is conditioned to comply with the requirements of the Riverside County Department of Environmental Health regarding water and sewer connections, prior to building permit issuance. (COA.80; E.HEALTH.1 and 80; E.HEALTH.1,4)

45. Solid Waste

The project is conditioned prior to building permit issuance that Recycling Collection and Landing Area is approved by the Waste Management Department, and prior to final inspection that such facility is built. (COA.80; PLANNING.17 and .90; PLANNING.40)

46. Utilities

Potential impact to utility companies shall be mitigated through compliance with the requirements and conditions of the applicable utility company.