Final Supplemental Environmental Impact Report
Volume II

Rio del Valle Middle School Existing Campus Expansion Master Plan
County of Ventura, California
SCH# 2022060117

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SECTION 1 INTRODUCTION

The Rio School District (RSD or District), as Lead Agency, prepared this Supplement (SEIR) to the Environmental Impact Report (EIR) to provide the public and interested public agencies with additional information regarding the potential environmental impacts and related mitigation of the Rio Del Valle Middle School (RDV) existing and proposed educational Campus Expansion Master Plan.

Rational and Compelling Reason (RDV Campus Expansion)

The RDV educational campus expansion consists of approximately 41.5 acres. (Figure 1). The original campus is 20.2 acres and consists of classrooms, playfields, administrative facilities, and a joint use gymnasium.

The northern campus expansion area (10 acres) was recently acquired and has been designated for the District's agricultural/farm program, including an access road and an area for future farm storage as well as for farm equipment and an agricultural classroom area. However, this parcel is no longer a part of the modified project since it will remain in agricultural use and was removed from the annexation plan presented in the FEIR at the request of the City of Oxnard staff. The District is no longer proposing to annex the northern campus expansion area into the City of Oxnard. Therefore, the SEIR revises how the project annexation plan addresses zoning discrepancies through the annexation process. The SEIR only includes the existing main campus and southern campus expansion areas in the annexation to the City of Oxnard. Addition of the northern campus expansion area to the RDV campus is no longer considered part of the modified project.

The southern campus expansion area (11.3 acres) was also recently purchased and is the primary focus of the District-certified Final EIR (FEIR) and this SEIR. The aforementioned FEIR and SEIR also includes a parking area expansion situated on portions of both the existing RDV campus and the new southern campus expansion area. The southern campus expansion area also includes future classrooms intended for students from City-approved residential housing, as outlined in both the District's Facilities Finance Master Plan and the Developer Fee Mitigation Study.

The District Transportation and Parking Facility (DTPF) was originally proposed in the FEIR to be located in the center of the southern campus expansion area. However, upon evaluation by the District and review by City staff, the District and City discussed moving the DTPF to the southeast corner of the southern campus expansion area along with the proposed DTPF building and proposed food services building. This change in the DTPF location is shown in the modified project (Figure 1) and evaluated in the SEIR. Additionally, revisions to the proposed faculty/visitors parking and new student drop off area are proposed along Rose Avenue. The proposed parking area is to mitigate parent drop off traffic congestion on Rose Avenue by expanding student drop off areas.

State agency approvals include the California Department of Education (CDE) and the California Department of Toxic Substances Control (DTSC). The Division of the State Architect (DSA) most recently approved fields and related structures constructed in 2022.

All impacts and related mitigation for the proposed project were set forth in the Board-approved FEIR and no new impacts have been identified in this focused SEIR, which was requested by City of Oxnard staff. The SEIR includes appropriate requested revisions to project improvements, scheduling, and annexation plans. Additionally, at the request of the City of Oxnard, the SEIR addresses specific 2017 City of Oxnard CEQA Guidelines, as agreed upon by both City and District, in order to resolve litigation.

Both the City and District further agreed to work collaboratively regarding the litigation which is reflected in the approved October 2023 Settlement Agreement or as reflected in both the 2022 State and 2017 City CEQA Guidelines.

This SEIR document is intended to be used together with the District-certified FEIR, so that it may adequately apply to the modifications to the project described in Sections 2 and 3. The District-certified FEIR addressed the environmental effects and potential impacts of the existing RDV expansion plan which split construction and improvements into two phases. Following adoption of the FEIR in January 2023, District staff re-evaluated the project based on comments received from the City of Oxnard and the terms of the October 2023 Settlement Agreement and determined that revisions to the proposed project description and schedule were necessary to clarify timing and phasing with respect to the annexation plan, as well as reducing the three parcels to two parcels (existing main campus and southern campus expansion areas) being annexed to the City of Oxnard at their request.

This document evaluates whether the modifications to the proposed project covered by the FEIR represented in this SEIR would result in any new or substantially more adverse significant effects or require any new mitigation measures not identified in the certified FEIR. The focus of the supplemental information is specifically related to the project modifications which affect the annexation to the City of Oxnard. This analysis does not revisit project components which are not involved in the annexation plan.

Included in **Appendix A** are the certified FEIR and Mitigation Monitoring and Reporting Program (MMRP) for the 2022 project. **Appendix A Figure 2-1** is a vicinity/location map showing the study area for the proposed project covered by the FEIR. **Appendix A Figure 2-2** shows current and surrounding land uses. The new construction included in the proposed project covered by the FEIR are shown on the conceptual site plan in **Appendix A Figure 2-3** and elevation drawings included in **Appendix A Figure 2-4**. Included in **Appendix B** are three water resource system reports that have been updated according to revisions presented in Section 2, for the purposes of evaluating potential impacts. **Appendix C** includes the updated Traffic and Circulation Study and VMT Analysis. **Appendix D** includes a Historic Resources Report. **Appendix E** includes a Joint Use Agreement for the Construction and Operation of the RDV Gymnasium. **Appendix F** includes bus maintenance purchase orders. **Figure 1** of this SEIR, Project Site Plan, shows the project elements discussed in this SEIR in highlight, among the background of the entire proposed project covered by the FEIR. These are the only elements affected by the changes represented herein. Potential impacts related to the changes represented in Section 2, are discussed under resource area headings in Section 5, which is also where analyses of 2017 City of Oxnard CEQA Guidelines Thresholds that were not included in the FEIR are located.

SECTION 2 DESCRIPTION OF PROPOSED REVISIONS

2.1 BACKGROUND

As analyzed in the FEIR, RSD's Rio Del Valle Middle School (RDV), located at 3100 Rose Avenue (Assessor Parcel Number 144-0-110-445) in unincorporated County of Ventura, serves middle school students (Grades 6-8) from the City of Oxnard, the unincorporated community of El Rio, and from other areas served by the District across the greater Oxnard Plain. RDV is one of the District's two middle school campuses. With an enrollment of approximately 819 students, RDV is the largest campus in the District by number of students enrolled. The campus was designed and constructed in the late 1950s and early 1960s, opening in the fall of 1961. Since opening, the campus's enrollment, learning programs, and facilities needs have been impacted significantly. The aging campus is facing several notable pressures and challenges, and the proposed project covered by the FEIR seeks to expand the RDV campus and related programs to meet the immediate educational, recreational, student safety, parking, interior traffic circulation, and support facilities needs of District students, as well as to accommodate planned educational programs and transportation parking shortfalls.

The aging campus is facing several notable pressures and challenges in the next several years. These include:

1. An expected increase of approximately 250 students at RDV, for an overall estimated enrollment of approximately 1,069 students. These increases will come largely from large residential projects either actively planned or in development in the City of Oxnard, including the buildouts of the Wagon Wheel and RiverPark communities, as well as the planned Maulhardt Ranch development and Rio Urbana.
2. An increase in community demand for use of District facilities at RDV, including sports fields, gymnasium, and multi-purpose spaces. The nearby unincorporated community of El Rio is a historically disadvantaged community, and lacks adequate parks, recreation, and community spaces. Therefore, RDV serves as a much-needed recreation and community space for area residents.
3. A high percentage of all District bus trips head to and from the RDV campus and community. Approximately 40% of all District bus trips travel to or from RDV, which has a high percentage of students who depend on bus transportation. This represents a plurality of all bus trips undertaken daily in the District, with no campus having a higher percentage of overall District trips when compared to RDV.
4. Ongoing circulation and parking configuration challenges which result in significant impacts to Rose Avenue during student drop off and pick up time. Frequently, traffic backs up onto Rose Avenue, impeding the flow of traffic and creating hazards for students, parents, and the general public. Additionally, the original parking areas constructed in the 1960s are undersized and inadequate for the needs of RDV in the 21st century.

To address these challenges, the objectives of the RDV Campus Expansion are as follows:

1. Address significant community health, safety, and welfare issues including congested traffic and parking conditions.
2. Streamline District student transportation to improve safety and reduce vehicle miles traveled (VMT).

3. Accommodate existing and projected future student enrollment within the District.
4. Locate school facilities within close proximity to students' residences.
5. Provide new facilities that meet the District's educational program specifications and community needs.
6. Consolidated facilities that reflect the need and efficient use of limited land resources.
7. Ensure cost-effective use of state and local public resources funding sources.

2.2 PROPOSED PROJECT COVERED BY THE FEIR

Prior to the proposed project covered by the FEIR, the existing main campus was approximately 30.2 acres, including the 20.2-acre main campus (APN 144-0-110-445) and northern campus expansion area (10.0 acres) (a portion of APN 144-0-110-225) to the north of the main campus buildings. The proposed project covered by the FEIR, located on a portion of APN 144-0-110-590, added approximately 11.3 acres to the south, resulting in an approximately 41.5-acre campus (project Site). The current western and eastern property lines were extended southward on their current bearings, until terminating at Collins Street. Access to the project Site is via driveway connections to Collins Street and Rose Avenue, from the proposed campus Parking Lot A and the existing Parking Lot B off Rose Avenue. A 25-foot-wide access road would run from south to north providing a secondary point of access through the existing RDV parking area.

Therefore, most of the project elements described in the modified project presented below, are the same as those described here under the proposed project covered by the FEIR, with the major distinctions being the timing and phasing of the improvements with respect to annexation to the City of Oxnard. All three parcels (southern campus expansion area, northern campus expansion area and existing main campus) associated with the proposed project were proposed for annexation into the City of Oxnard in the original EIR. However, due to its continued agricultural use, the northern campus expansion area has been removed from the planned annexation to the City of Oxnard and is no longer considered a part of this modified project.

Impacts to the northern campus expansion area were identified in the original EIR and are not affected by the modifications to the modified project addressed in this document. The modifications and project elements discussed in this document do not include the northern campus expansion area, so impacts to the northern campus expansion area will not be analyzed further in this SEIR.

The proposed project covered by the FEIR included development within the expanded campus which would occur in two phases, described in the following paragraphs, including options for: new classrooms, library and media center, multi-purposed building, transportation and parking facilities, recreational facilities including a 320-meter track, flag football field, six basketball courts, baseball field, softball field, P.E. and lunch play field, four sand volleyball courts, two soccer fields, jogging path, an athletic restroom/storage building, and up to 10 tennis courts and/or pickleball courts.

The expanded RDV campus will provide significant health and safety improvements, additional on-Site parking, and a bus turnout lane. Six of the District's 17 buses (13 buses for routes and 4 spare buses) are used for RDV student transportation during and after school programs; RSD buses would be housed on the southern campus expansion area (DTPF) with the buildout of the proposed project. The DTPF was analyzed in the FEIR, but since it is part of the two areas being annexed to the City of Oxnard, some minor changes are addressed in the Traffic and Transportation Section of this SEIR.

The existing main campus includes the RDV Gymnasium (gym) which is located adjacent to the proposed southern campus expansion area. It should be noted that the gym is a Joint Use facility partially funded by the County and shared with community organizations including the John F. Flynn Community Clinic and the Sheriff's Department as set forth and described in a Joint Use Agreement (see Appendix E). The District has exclusive use of the gym during regular and summer school hours and during school events. The County provides a share of the operation and maintenance budget for the gym. In return, the County and community organizations may use the gym for uses that are compatible with school purposes, during hours when the school is not using the gym. The John F. Flynn Community Clinic operates as a pediatric well-child clinic, serving approximately 18 to 20 patients per day, spread relatively evenly throughout the day. The clinic provides services three days a week and offers nurse-only visits for pediatric vaccinations on the other two days, operating from 8:00 a.m. to 5:00 p.m. Monday through Friday. Activities include medical care and training, with minimal parking and traffic demand, as detailed in the Transportation section of this SEIR. The Sheriff's Department also has access to the gym on an as-needed basis, historically a few times a month with one or two sheriff vehicles, unless required for emergency use, resulting in minimal parking and traffic impacts. The proposed infrastructure improvements, including the addition of Parking Lot A with 150 spaces, are designed to support these existing joint uses, particularly during community events or peak times such as sporting events, without necessitating an intensification of activities. The additional parking and circulation enhancements improve safety and accessibility for current operations, accommodating existing demand without encouraging significant increases in the number of people or activities onsite."

The existing parking along with ingress and egress at RDV has been inadequate for several decades due to expansions of both Rose Avenue and the school itself, and therefore RSD is proposing to assign overflow parking on the proposed new adjacent parking area (Parking Lot A) when school is not in session.

Existing Main Campus Recreational Renovations

The proposed project covered by the FEIR includes recreational renovations on the existing main campus, including a baseball field, a softball field, an athletic restroom/storage building, and up to ten new tennis and/or pickleball courts. RSD intends to make these renovated fields open to community use outside of school hours.

Phase I

Phase I activities for the proposed project covered by the FEIR included improvements on the western portion of the southern campus expansion area. Phase I has been divided under the modified project into Phase I-A and I-B. Per the City of Oxnard Municipal Code, Chapter 21, Article III, utility undergrounding associated with the proposed project covered by the FEIR, and utility undergrounding along public rights-of-way (ROWs) would be required to occur as part of Phase I. Construction of the improvements described in Phase I-B and Phases II-A and II-B of the modified project will begin after approval of this SEIR and approval of the related City of Oxnard project development application.

Utility Improvements

Existing utility lines are present within the southern campus expansion area. Utility undergrounding along public ROW were proposed to occur as part of Phase I. Water and sewer related utility improvements associated with the proposed project covered by the FEIR were proposed for construction during Phase II.

Southern California Edison (SCE) currently provides electrical service to RDV and will continue to provide electrical service to the proposed southern campus expansion area via new electrical secondary connection(s) and meter(s) (see FEIR for specifications of electrical supply). While the southern campus expansion area is currently serviced by SCE with the existing secondary power lines, it is anticipated that service will be further extended from the existing SCE primary infrastructure, which is located on the same side of the street as RDV, to service the southern campus expansion area.

Phase II

Phase II activities for the proposed project covered by the FEIR would include the remainder of the campus improvements to the remaining eastern portion of the southern campus expansion area and the northern campus expansion area. Construction will start on the following Phase II improvements in 3 to 5 years (2025–2027). These construction activities are estimated to take 18 to 24 months.

Agricultural Learning Program (Northern Campus Expansion Area)

The northern campus expansion area was originally proposed for annexation into the City of Oxnard in the FEIR. At this time, no new structures are proposed on this parcel. Due to the continued agricultural uses, the northern campus expansion area will remain within the unincorporated County of Ventura, pursuant to this SEIR. No land use changes to the northern campus expansion area would occur as part of the proposed project covered in the FEIR or modified project, and it will remain in agricultural use for the duration of the existing Ventura County Save Open Space & Agriculture Resource (SOAR) restrictions, if applicable to such property. A Notice of Exemption (NOE) for the purchase and use of the northern campus expansion area for an agricultural learning program was filed and posted with the Ventura County Clerk on August 11, 2021; no challenges to the NOE were filed. Analysis of impacts to the northern campus expansion area were carried out in the original EIR and will not be addressed further in this SEIR, and the northern campus expansion area is no longer considered a part of the project.

Classroom and Library/Media Center and Multi-Purpose Buildings

The proposed project covered by the FEIR includes the potential for construction of up to 11,600 square feet (SF) for eight new classrooms and approximately 4,000 SF library/media center and 3,575 SF multi-purpose buildings. These improvements could accommodate a potential 250-student increase, expected to occur over a 5-year period commencing at the earliest in the 2024/2025 school year.

DTPF

The DTPF and RDV shared facilities will consist of a 10,800 SF DTPF building, two 1,080 SF portable buildings, a 528 SF restroom, and conversion of the approximately 3,130 SF existing residential structure located on the project Site to office use by RSD and RDV Grounds Maintenance and Operations staff. The DTPF including buses, can be completely closed off from the general public or staff parking areas, allowing for enhanced security and operational options. Upon completion of the permanent DTPF, bus and district vehicle parking will be relocated from a temporary parking facility to this new permanent area. The DTPF will provide 35 standard, 26 bus, and four accessible parking spaces for the RDV campus.

Recreational Facilities

New school and community recreational facilities will be added including a P.E. and lunch play field, four sand volleyball courts, and a jogging path. The proposed project covered by the FEIR also includes two 1,080 SF portable classrooms for physical education. Opportunities for use of the recreational school

facilities by the community outside of school hours is in progress. Eventually, RSD will issue Use Agreements for the recreational fields hereto referred to as the RDV Sports Complex. For now, RSD is approving requests for RDV Sports Complex use under the Statutory Civic Center Act.

Utility Improvements – Water

Some changes to the water supply plan occur as a result of this SEIR (see FEIR for details about water utility connections). The FEIR stated that RDV would continue to obtain water through three existing unique sources: The City of Oxnard, a RSD-owned and operated well, and the United Water Conservation District (UWCD). Both the existing main campus and southern campus expansion areas will obtain potable water from connections to the City of Oxnard water system. The existing main campus will connect through the existing City water line on campus. The anticipated point of connection for the southern campus expansion area would be from an existing City water line(s) located in the Rose Avenue or Collins Street ROW. An approximately 8-inch diameter water line would deliver water from the City line to the proposed southern campus expansion area. It is anticipated that the water improvements proposed on the existing main campus parcel will utilize connections from existing service lines. It is anticipated that the northern campus expansion area will continue to utilize agricultural water from current sources (well water).

Utility Improvements – Sewer

The City of Oxnard provides existing sewer service to RDV through an extension of the sewer main in Rose Avenue to the RDV Site. Sewer service is proposed to be provided to the southern campus expansion area via a new connection to the City of Oxnard sewer main, separate from the existing main campus sewer. The anticipated point of connection would be on Rose Avenue or Collins Street ROW. Sewer service for new improvements on the existing main campus will be via connecting to the existing RDV sewer Point of Connection (assuming adequate capacity).

2.3 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts related to agricultural land conversion (Agriculture and Forestry Resources) were found in the FEIR to be significant and unavoidable. All other topics would be less than significant or less than significant with mitigation incorporated. Significant and unavoidable impacts to Agriculture and Forestry Resources remain as described in the FEIR.

SECTION 3 SUPPLEMENT – MODIFIED PROJECT

In the District-certified EIR, the Project included the annexation of the northern campus expansion area into the City of Oxnard. However, under this SEIR, the District is proposing the annexation of the southern campus expansion and existing main campus areas only into the City of Oxnard. All proposed classroom facilities will be connected to the existing campus via direct pedestrian pathways (see **Figure 1**). Improvements completed prior to 2023 in 2022 are shown as existing, and elements pertinent to annexation are highlighted. For maintenance, security, and emergency needs, the proposed educational buildings can be accessed by vehicle via a paved fire access road, which connects to the proposed north-south access road from Collins Street and the existing campus parking lot, as well as the proposed DTPF area. Fire access roads serving the proposed buildings offer access to the existing fire access road that loops the "old" main campus as well. The existing road outlets by Parking Lot B in the northwest corner of the RDV campus. There are three potential fire access routes to proposed buildings: the proposed N/S access road and Parking Lot A, DTPF, and existing main campus fire access road. All road resurfacing and reconstruction will use rubberized asphalt, curb to curb. The exact specifications and locations of fire access roads is subject to approval by the Oxnard Fire Department. This Final SEIR addresses the annexation of the existing main campus (20.2 acres, APN 144-0-110-445) and the southern campus expansion area (11.3 acres, APN 144-0-110-590) to the service areas of the Metropolitan Water District of Southern California (Metropolitan) and Calleguas Municipal Water District (Calleguas), with the approval of the Ventura Local Agency Formation Commission (LAFCO) to secure potable water service from the City of Oxnard. The annexation process includes compliance with water standby charges and other conditions set by Metropolitan and Calleguas, as required under Metropolitan's Administrative Code Sections 3100, 3104(b), and 4509. The RSD will coordinate with Metropolitan, ensuring alignment with regional water supply requirements. This annexation supports the project's water infrastructure improvements, detailed in Section 5.19, and facilitates discretionary approvals by responsible agencies.

Existing Main Campus – Completed 2022 Improvements

The 2022 improvements were discussed in the original EIR: construction of a new parking lot (Parking Lot B), a 320-meter track, flag football field, two (2) soccer fields, and four (4) basketball courts. These 2022 improvements were discussed in the FEIR since they were completed by the District prior to completion of the FEIR, and there was a potential for cumulative effects in light of the proposed project. However, they are not considered a part of the modified project and will not be analyzed in this SEIR beyond reference to their consideration in the FEIR, related to the potential for cumulative impacts.

Existing Main Campus – Modified Project

The second portion of the field renovations analyzed under the original FEIR in Phase I, is included in the scope of the modified project under Phase I-A (as described below) and will take place before the annexation of the existing main campus to the City of Oxnard. These field renovation plans include: one (1) baseball field, one (1) softball field, ten (10) tennis/handball courts, and a 1,900 SF restroom, snack bar, and athletic equipment storage building, as well as required storm water treatment improvements. These improvements were analyzed for potentially significant environmental impacts in the original EIR and will not be analyzed further in this SEIR, except for such mitigation as may be necessary from the aggregate of these improvements and the balance of the Project relative to public utility services.

The proposed fields will accommodate the immediate and anticipated increase in student enrollment and the associated demand on recreational facilities. The District intends to make these renovated fields open to community use outside of school hours. All other existing educational and community uses occurring

on the existing main campus will remain "as is" and will not be modified, expanded upon, or otherwise altered in any manner by the modified project. The modified project clarifies that the existing joint uses of the RDV Gymnasium by the John F. Flynn Community Clinic and the Sheriff's Department, as described in the Joint Use Agreement (see Appendix E), are not planned for expansion. These existing uses will benefit from the additional parking and other infrastructure improvements proposed in the modified project, such as Parking Lot A and enhanced circulation features.

Southern Campus Expansion Area – Modified Project

The location of the southern campus expansion area has not changed and is shown with current land use on **Figure 2-4** of the EIR. No work will take place on the southern campus expansion area or any areas subject to City of Oxnard annexation until all required permits and approvals, including but not limited to final annexation of the modified Project into the City have been obtained. The modified southern campus expansion area will be developed with 1) improved parking and circulation features, 2) a DTPF for buses and District vehicles, and 3) an instruction/athletic expansion area. Development includes a new parking lot (Parking Lot A), a new secondary access road from Collins Street, and a new bus drop off area that will provide much needed parking and alleviate congestion that currently occurs daily during student drop off and pick up hours. This area will also alleviate existing traffic congestion on Rose Avenue.

All proposed facilities will be connected to the existing main campus via direct pedestrian pathways. For maintenance, security, and emergency needs, the proposed educational buildings would be accessible by vehicle via a paved fire access road, which connects to the proposed north-south access road from Collins Street and the existing campus parking lot, as well as proposed DTPF area.

> **New parking lot, student drop off area, and bus drop off area.** These improvements are shown on Figure 1 as Parking Lot A and are located in the western portion of the southern campus expansion area and the western portion of the existing main campus along the Rose Avenue frontage. The new parking lot and student drop off area will alleviate overcrowding in the existing campus parking lot adjacent to the administration offices and gym, and the existing northwestern campus parking area (Parking Lot B), shown on Figure 1 as Parking Lot B. Currently, due to lack of adequate parking, school related drop off and pick up traffic impacts Rose Avenue, with long queues of cars waiting to turn into the school parking lot. These queues often cause traffic in the right-hand lane on northbound Rose Avenue to be severely impacted. To mitigate this, the modified Project is proposing the construction of an improved "entry only" driveway from Rose Avenue, complete with a dedicated right hand turn lane. Additionally, the student drop off area has been substantially enhanced from the existing configuration, with an approximate curb length of 450 feet, and two adjacent travel lanes. The addition of the new parking area (Parking Lot A), with its 150 spaces, will free up the existing Parking Lot B to be used for parent and visitor parking, with staff parking moving to Parking Lot A. Additional parking will be used for teachers, staff and visitors as well as during school, sporting events and shared community uses (i.e., Little League teams using the baseball fields). Some of the groups that RDV anticipates using the RDV Sports Complex include Oxnard Youth Baseball, Oxnard Youth Soccer, and Rio Area community youth sports groups. Buses will not be parked in Parking Lot A. Buses will be parked in the DTPF.
>
> Furthermore, the proposed new school bus drop-off lanes will allow the proposed three drop off lanes near the main campus entrance to be used solely by parents, reducing potential conflicts between the large bus vehicles and standard passenger cars. Previously, the existing single drop-off lane was used by buses and parents and also served as a key internal circulation route through

the parking lot. This created congestion and long wait times for parents to drop off or pick up students. The dedicated, bus only drop-off area is located immediately adjacent to the existing gym. In addition to these benefits, the proposed new parking lot (Parking Lot A) will also provide additional community parking for the Almanza Community Gymnasium and athletic fields when opened to the public for community use outside of school hours.

The District Transportation & Parking Facility (DTPF). The DTPF is approximately 2.7 acres and will be located approximately 730 feet to the east of Rose Avenue, in the southeastern corner of the southern campus expansion area. The DTPF will take primary access off a new driveway from Collins Street to the south of the facility. This driveway is dedicated to DTPF utilization only and is completely separated from the general public entrance to the campus from Collins Drive, located to the west near the intersection of Rose Avenue and Collins Street. A secondary, emergency only access route links the DTPF to the campus core and Parking Lot A. The DTPF will consist of approximately 20,338 SF of buildings and structures. The proposed new buildings, which consist of a DTPF building (10,800 SF), food service building (6,850 SF), two portable offices (1,080 SF each), and restrooms (528 SF), will be a combination of modular/portable office structures and slab on grade structures. The 10,800 SF DTPF building is intended for administrative and operational purposes, including administrative offices, storage areas, and support spaces for RSD transportation operations. No vehicle maintenance activities, such as oil changes or storage and disposal of automotive materials (e.g., motor oil, transmission oil, paint, or fuel), will occur onsite; all such maintenance will continue to be conducted offsite by third-party vendors, as demonstrated by past purchase orders (see Appendix F). The revised site plan (Figure 1) and submitted plans have been updated to reflect this purpose, removing references to vehicle maintenance facilities (e.g., mechanics office or shop) to ensure consistency with the project description. Additionally, the facility will contain 26 bus parking spaces, 35 standard vehicle parking spaces, and four accessible stalls. Buses will be parked in the DTPF.

This SEIR clarifies that the bus parking areas of the Project will be used only for bus parking, and not for heavy vehicle maintenance; that no automotive maintenance products, such as motor and transmission oil, paint, or fuel will be stored or disposed of at the Project site; and bus maintenance and fueling will continue to be performed off-site by third-party vendors. Recent past purchase orders for off-site bus maintenance have been included in Appendix F, to demonstrate that heavy vehicle maintenance has been and will continue to be conducted off-site.

No vehicle maintenance will be performed at the DTPF. All vehicle maintenance (oil changes, etc.) will continue to be performed at Gibbs Truck Center (2201 E. Ventura Boulevard, Oxnard, CA 93036), or at such similar vendor as may be the recipient of future contracts awarded from time to time. The buses will be fueled at SC Fuels (3815 E. Vineyard Avenue, Oxnard, CA 93036), or at such similar vendor as may be the recipient of future contracts awarded from time to time, as is done currently (see Appendix F). No automotive maintenance products such as motor and transmission oil, paint, or fuel will be stored or disposed of at the facility. The DTPF will be surrounded by perimeter fencing, allowing the facility to be completely closed off from the rest of the campus, including the general campus and staff parking areas. This allows District vehicles and buses to be securely stored without impacting internal campus circulation or functionality.

Instructional/athletic expansion area. The instructional and athletic expansion area is located to the east of the proposed Parking Lot A and to the west of the DTPF, occupying the middle portion of the southern campus expansion area. The instructional and athletic expansion area was designed to be an extension of the academic “core” of the existing main campus, with

proposed academic buildings extending southward in alignment with those on the existing main campus. The instructional and athletic expansion area will consist of several new educational buildings, including a 4,000 SF library and media center, a 11,600 SF building for classrooms, and a 3,575 SF multi-purpose building. In addition to the three (3) permanent slab-on-grade structures, space is reserved for two potential future modular/portable classrooms, if needed due to enrollment growth and or educational programming needs. Athletic facilities included in the southern campus expansion area include four (4) sand volleyball courts, two basketball courts, and a "flex" multi-sport playfield, which can be configured into a soccer field and or a baseball field as needed by the District and the community. The instructional and athletic expansion area will provide new educational facilities to accommodate anticipated enrollment increases. This area will include new classrooms, a new library and media center, a new multi-purpose building, and additional athletic and play fields.

Off-Site Improvements. The modified project includes the following off-site and on-site transportation and pedestrian improvements, implemented in Phase I-B, to enhance safety, traffic flow, and pedestrian access while maintaining compliance with City of Oxnard standards (see Figures 1 and 2):

Signalized Intersection Enhancements:

- Upgrades at Rose Avenue/Walnut Drive and Rose Avenue/Collins Street, including signal timing with City-standard parameters (minimum greens for bicycles, CAMUTCD-compliant Walk/Don't Walk times, and yellow intervals), funded by RSD.
- Perpendicular pedestrian crossings at the north leg of these intersections, designed to minimize crossing distance and connect to the student walkway to school buildings, with details clarified in the conceptual plan (Figure 1).

Auto Center Drive/Collins Street Improvement:

- Southbound left-turn restrictions via a raised median and signage to accommodate school buses and peak-hour traffic, diverting trips to Rose Avenue/Collins Street with a restriped westbound approach.

Bus Turnaround and Drop-Off Area:

- On-site bus turnaround within the southern campus expansion area , designed with AutoTURN analysis to accommodate school bus turning radii, ensuring safe maneuvering without impacting public streets.

Enhanced drop-off area along Rose Avenue with:

- Single-lane ingress, prohibiting entry to Parking Lot A.
- Designated third lane guiding drivers to Parking Lot A.
- Southbound traffic restriction within Parking Lot A.
- Raised median to prevent southbound entry into the drop-off ingress, directing traffic to designated entry points.

- RSD-managed operations to ensure safe and efficient traffic flow, aligned with a school traffic management plan promoting mode shifts, circulation, and safety.

Pedestrian Access Improvements:

- Sidewalk along the westerly side of Rose Avenue between Auto Center Drive and Collins Street, designed to City standards for major arterials, complementing curb, gutter, sidewalk, and bike lane enhancements along Rose Avenue and Collins Street.

These improvements, depicted in the Project Site Plan (Figure 1) and Phasing Plan (Figure 2), are considered Development Application Conditions (DAC) by the City and detailed in RSD's DAC response, maintaining a less-than-significant transportation impact per the Stantec Updated Traffic and Circulation Study (Stantec 2024, Appendix C).

Infrastructure & Utilities

Infrastructure and utility improvements required to implement the modified project are to be constructed during Phase I-B of the modified project. Construction of the sewer and water upgrades will be carried out in Phase I-B, as well as storm drain improvements associated with the Phase I-B components.

The RDV Middle School Campus Master Plan Project includes on-site improvements, such as new classrooms, a bus drop-off area, and Parking Lot A, as well as off-site infrastructure to support annexation to the City of Oxnard and enhance access and safety (see Figure 1). Off-site improvements include sewer, water, and storm drain connections, as well as curb, gutter, sidewalk, and bike lane improvements along the project frontage on Rose Avenue and Collins Street, constructed in Phase I-B to align with City of Oxnard standards. These improvements, depicted in the site plan (Figure 1) and phasing plan (Figure 2), also encompass roadway and signalized intersection enhancements (e.g., Rose Avenue/Walnut Drive and Rose Avenue/Collins Street) in Phase I-B, as detailed in Section 3.1 and Section 5.17 Transportation.

The modified project includes off-site roadway infrastructure improvements to adjacent roadways, specifically Rose Avenue and Collins Street, to mitigate traffic impacts and support project implementation. These improvements, to be completed in Phase I-B, include the construction of curbs, gutters, sidewalks, and bike lanes along the project frontages of Rose Avenue and Collins Street, as well as the entire parking plan for Parking Lot A. Additionally, the RSD will upgrade the traffic signal at the egress to RDV Middle School and contribute a pro rata share (estimated at 10%) toward the traffic signal at the Collins Street intersection. These improvements enhance traffic flow, pedestrian and cyclist safety, and access to the campus, with construction and operational impacts evaluated in the Transportation (Section 5.17), Air Quality (Section 5.3), Noise (Section 5.13), and Utilities and Service Systems (Section 5.19) sections of this SEIR. Additional measures may be taken beyond the mitigation identified herein, as part of the annexation process.

Water. RDV currently obtains water through three existing unique sources: The City of Oxnard, an RSD owned and operated well, and the United Water Conservation District (UWCD). Based on future direction from prospective water purveyors, as well as RSD's consultant's professional judgement, the modified project's southern campus expansion area will obtain potable water from a new connection to the City of Oxnard water system. The anticipated point of connection would be from an existing City water line(s) located in the Rose Avenue or Collins Street ROW. An approximately 8-inch diameter water line would deliver water from the City line to the proposed southern campus expansion area. It is anticipated that the water improvements proposed on the existing main campus will utilize connections from existing

service lines. At this time, it is anticipated that the northern campus expansion area will continue to utilize agricultural water from current sources (well water). All water upgrades will be carried out in Phase I-B.

Sewer. The City of Oxnard provides existing sewer service to RDV through an extension of the sewer main in Rose Avenue to the existing main campus. Sewer service is proposed to be provided to the southern campus expansion area via a new connection to the City of Oxnard sewer main, separate from the existing main campus sewer. The anticipated point of connection would be on the Rose Avenue or Collins Street ROW. Sewer service for new improvements on the existing main campus would be via connecting to the existing RDV sewer point of connection.

The District shall be responsible for upgrading downstream improvements as directed by the City Engineer based on the Public Works Sewer Modeling. The sewer modeling shall assume that vacant land downstream of the project is fully developed and built out.

Stormwater. Stormwater improvements will be constructed in a phased approach concurrent with each phase of the project as described in the 'Modified Project Phasing' section (Section 3). The modified project is subject to compliance with the 2021 Ventura County Municipal Separate Storm Sewer (MS4) Permit. Low flows will be treated prior to flowing into the proposed infiltration basin, with hydrodynamic separators assumed for treatment. Infiltration will be 18' below existing grade, requiring separate detention and infiltration to allow for deeper infiltration. Construction will be divided into three phases (I-B, II-A, II-B), with each phase handling stormwater conveyance separately.

Infiltration for Phases I-B, II-A, and II-B will be combined into one underground infiltration basin with a total volume of 15,000 CF, constructed as part of Phase I-B. Detention for all three phases will be consolidated into a single above-ground detention basin with a total volume of 34,600 CF, also constructed during Phase I-B, which may be modified to a below-ground storage basin during Phase II-B. The detention basin is designed to mitigate 10-, 50-, and 100-year post-development peak runoff to the 10-year pre-development condition, exceeding City of Oxnard requirements, to address an existing deficiency in the City's storm drainage system, including tributary runoff to Lateral H, for which RSD is not responsible (Jensen Design & Survey 2024b, Appendix B; Chau, 2025). The Preliminary Drainage Study (Jensen Design & Survey 2024b, Appendix B) analyzes flow conveyance and detention for the tributary draining to Lateral H under existing, intended design, and proposed development conditions, ensuring no adverse impact on Lateral H's capacity.

Calculated detention volumes for each phase are: Phase I-B, 14,700 CF; Phase II-A, 15,700 CF; and Phase II-B, 3,200 CF, totaling 34,600 CF. These measures, combined with the Stormwater Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) measures, prevent downstream flooding and maintain compliance with City and Ventura County Watershed Protection District standards (Jensen Design & Survey 2024b, Appendix B).

Electrical & Lighting. SCE currently provides electrical service to RDV. SCE will provide electrical service to the proposed southern campus expansion area via new electrical secondary connection(s) and meter(s). SCE has existing 17 kilovolt (KV) overhead primary power lines located in the Rose Avenue ROW, on the eastern side of Rose Avenue along the western Site boundary. Electrical power is supplied to the southern campus expansion area from the overhead primary power lines located in the Rose Avenue ROW by a run of overhead secondary power lines routed approximately 600 feet east from Rose Avenue and approximately 55 feet south of the north boundary of the southern campus expansion area. Electrical power is also routed from this run of overhead secondary power lines to a pole on the southern boundary of the existing main campus adjacent to the gym. There are two pole-mounted electrical

transformers located along the run of overhead secondary power lines in the southern campus expansion area approximately 520 feet and 600 feet east of Rose Avenue. Another pole-mounted electrical transformer is located along the overhead primary power lines located in Rose Avenue immediately adjacent to the western boundary of the southern campus expansion area approximately 280 feet south of the northern boundary of the southern campus expansion area.

While the southern campus expansion area is currently serviced by SCE with the existing secondary power lines, it is anticipated that service would be further extended from the existing SCE primary infrastructure, located on the same side of the street as RDV, to service the southern campus expansion area.

Staffing. The modified project may generate some new positions associated with the school expansion. Additional staff may include teachers, administrative, DTPF, food services, and support staff. However, RDV is an existing active middle school, so new positions associated with the modified project would be minimal. Most or all the potential additional staff could be hired from the existing qualified applicant pool already residing within or within reasonable commuting distance of the RSD. However, if teachers or other staff are hired outside the RSD area to fill a specific role(s), it may result in a few new staff and their families moving into surrounding neighborhoods, thus creating a slight increase in the local population. On page 3-209 of the Hazards and Hazardous Materials section of the original EIR, Table 3-42 shows the existing staff of 70 potentially increasing to 95.

3.1 MODIFIED PROJECT PHASING

The modified project will be implemented in three phases (I-B, II-A, II-B), as detailed below and depicted in the phasing plan (Figure 2). Phase I-B includes critical infrastructure and access improvements to support the project and annexation to the City of Oxnard, including off-site sewer, water, and storm drain improvements, landscape improvements along Rose Avenue and Collins Street adjacent to Parking Lot A, fire access lane, and bus drop-off area/drop-off lane. To address the City of Oxnard's recommendation, off-site roadway improvements and signalized intersection enhancements, such as those at Rose Avenue/Walnut Drive and Rose Avenue/Collins Street, are also included in Phase I-B to ensure early implementation of traffic-related infrastructure, as depicted in Figure 2. These improvements, which may include signal timing updates and directional signage, are considered Development Application Conditions (DAC) by the City and are addressed in the RSD's response to the City's DAC comments, separate from CEQA mitigation requirements. The Stantec Updated Traffic and Circulation Study (Stantec 2024, Appendix C) confirms that these improvements maintain a less-than-significant transportation impact, as the project does not conflict with applicable transportation plans, policies, or safety standards (see Section 5.17 Transportation). Subsequent phases (II-A and II-B) will include additional on-site improvements, with storm drain treatment improvements deferred to Phase II-A, as negotiated in the Settlement Agreement.

Per the October 2023 Settlement Agreement, all off-site improvements and improvements impacting the public right-of-way, including but not limited to off-site sewer, water, storm drain infrastructure, landscape improvements along Collins Street, fire access land, and bus drop-off area/drop-off lane, will be completed in Phase I-B, except for specific storm water treatment improvements associated with later project components (e.g., District Vehicle/Bus Parking), which are scheduled for Phase II-A. The project phasing plan is illustrated in Figure 2, which depicts the sequence and location of improvements for each phase, including off-site roadway improvements to Rose Avenue and Collins Street (see Figure 2).

Per request by the City of Oxnard, this SEIR clarifies that all sewer and water upgrades, including storm drain improvements associated with those components, are intended to be completed in Phase I. Additionally, all off-site sewer, water, and storm drain improvements will be completed in Phase I-B, such that Phase II-A and/or Phase II-B improvements (see new phasing described below under modified project heading [Section 3]), shall not be commenced without those components in place. This SEIR further clarifies that all off-site sewer improvements would be completed prior to commencing Phase II activities.

RSD shall contract for and complete necessary Phase I-A and Phase I-B improvements first. Provided all Phase I-A and I-B improvements have been substantially completed, the District may thereafter pursue the Phase II-A and/or Phase II-B improvements either separately or simultaneously. For purposes of this subsection, “substantial completion” shall include that off-site sewer, water, and storm drain improvements have been completed, such that Phase II-A and/or Phase II-B improvements shall not be commenced without those components in place. All improvements in the ROW shall be completed in Phase I-B. In no event shall the Phase II-A or II-B improvements be completed before the necessary Phase I-A and I-B improvements have been completed.

The modified project phases are detailed as follows.

Phase I-A

1. Proposed Baseball Field
2. Proposed Softball Field
3. 1,900 SF Athletic Restrooms/Storage Building
4. Proposed Tennis and/or Handball Courts (x10)
5. Phase I-A Storm Water Treatment Improvements

Phase I-B

1. Student Drop Off Lanes
2. Parking Lot A (large southern parking area)
3. New north/south access road east of Parking Lot A
4. Landscape improvements along the full length of Rose Avenue and along Collins Street adjacent to Parking Lot A
5. Water and Sewer Improvements, including all off-site sewer and water infrastructure as required by the City of Oxnard
6. Utility Undergrounding & Electrical Infrastructure
7. Phase I-B Storm Drain Infrastructure Installation, including all initial off-site storm drain improvements as required by the City of Oxnard (specific storm water treatment improvements are scheduled for Phases II-A and II-B)
8. Public ROW Improvements in Collins Street, including fire access road and bus drop-off area/drop-off lane, as required by the City of Oxnard

9. Off-Site Roadway Improvements to Rose Avenue and Collins Street, including curbs, gutters, sidewalks, bike lanes, and traffic signal upgrades (e.g., upgrade to the traffic signal at the RDV egress and a pro rata share of the traffic signal at Collins Street), to mitigate CEQA-identified traffic impacts (see Section 5.17 and Figure 2 for phasing details)

Phase II-A

1. DTPF Building (10,800 SF)
2. Food Services Building (6,850 SF)
3. DTPF Parking Areas
4. Farmhouse Renovations/Conversion to District transportation offices
5. Office Portables (x2) and Restrooms for District transportation offices
6. Additional Landscape Improvements along Collins Street, excluding areas adjacent to Parking Lot A completed in Phase I-B
7. Bus Drop Off Area/Drop Off Lane
8. Phase II-A Storm Water Treatment Improvements, including specific treatments for components such as District Vehicle/Bus Parking, distinct from the initial storm drain infrastructure installed in Phase I-B (see Figure 2).

Phase II-B

1. 11,600 SF Classrooms (x8)
2. 3,575 SF Multi-Purpose Building
3. 4,000 SF Library and Media Center
4. Portable PE Classrooms (x2)
5. “Flex” Multi-Sport Field
6. Basketball Courts (x2)
7. Sand Volleyball Courts (x4)
8. Phase II-B Storm Water Treatment Improvements, distinct from the initial storm drain infrastructure installed in Phase I-B (see Figure 2).

The exact start date for construction is contingent upon the timing of the permitting and approval process. The modified project requires approvals from several regulatory agencies at the local, county, and state levels. Upon receipt of all necessary entitlements and approvals, it is anticipated that the complete buildout of the RDV Campus Expansion Plan would occur over the course of approximately 2 to 3 years.

LAND USE DATA

OVERALL CAMPUS EXPANSION SUMMARY

EXISTING RIO DEL VALLE MIDDLE SCHOOL SITE	20.2 ACRES
SOUTH CAMPUS EXPANSION AREA	11.3 ACRES
TOTAL AREA:	31.5 ACRES

PROPOSED BUILDINGS/STRUCTURES

ACADEMIC & INSTRUCTIONAL BUILDINGS	
CLASSROOMS (x8)	11,600 S.F.
LIBRARY & MEDIA CENTER	4,000 S.F.
MULTI PURPOSED BUILDING	3,575 S.F.
MAINTENANCE & OPERATIONS BUILDINGS:	
MAINTENANCE BUILDING	10,800 S.F.
FOOD SERVICE BUILDING	6,850 S.F.
PORTABLE #1	1,080 S.F.
PORTABLE #2	1,080 S.F.
RESTROOMS	528 S.F.
ATHLETIC BUILDINGS	
RESTROOMS/STORAGE BUILDING	1,900 S.F.
TOTAL BUILDING AREA PROPOSED:	41,413 S.F.

FIELDS/ATHLETIC FACILITIES

320 METER TRACK
FLAG FOOTBALL FIELD
BASEBALL FIELDS (x2)
SOFTBALL FIELD
P.E. & "FLEX" PLAY FIELD
SAND VOLLEYBALL COURTS (x4)
OUTDOOR BASKETBALL COURTS (x6)
TENNIS COURTS AND/OR HANDBALL COURTS (x10)
SOCCER FIELDS (x2 to 3)

PARKING DATA

PARKING LOT 'A'

STANDARD PARKING SPACES:	142 SPACES
ACCESSIBLE PARKING SPACES:	8 SPACES

PARKING LOT 'B'

STANDARD PARKING SPACES:	91 SPACES
ACCESSIBLE PARKING SPACES:	4 SPACES

TRANSPORTATION & PARKING FACILITY

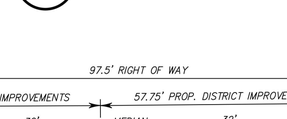
STANDARD PARKING SPACES:	35 SPACES
BUS PARKING SPACES:	26 SPACES
ACCESSIBLE PARKING SPACES:	4 SPACES

PARKING SUMMARY

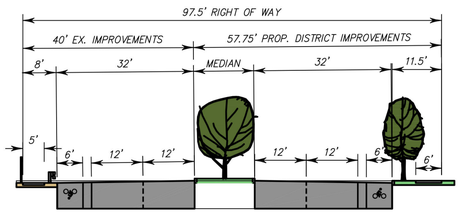
STANDARD PARKING SPACES:	**268 SPACES**
BUS PARKING SPACES:	**26 SPACES**
ACCESSIBLE PARKING SPACES:	**16 SPACES**

NOTES

1) PROJECT SITE IS LOCATED AT 3100 ROSE AVENUE, AND CONSISTS OF ASSESSOR PARCEL NUMBER(S) 144-0-110-445 (EXISTING CAMPUS), AND 144-0-110-650 (SOUTHERN EXPANSION AREA).
2) EXISTING CAMPUS AND SOUTHERN EXPANSION AREA PROPOSED FOR ANNEXATION INTO THE CITY OF OXNARD, AS SHOWN ON THE PLAN.
3) ALL DIMENSIONS SHOWN HEREON ARE APPROXIMATE
4) ALL TREES AND LANDSCAPE DESIGN FEATURES ARE CONCEPTUAL IN NATURE AND PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY.
5) STREET SECTIONS ON THIS SHEET ARE ILLUSTRATIVE, PLEASE REFER TO THE PRELIMINARY GRADING PLAN FOR TECHNICAL ENGINEERING SECTIONS.



A — COLLINS DRIVE
1" = 20'

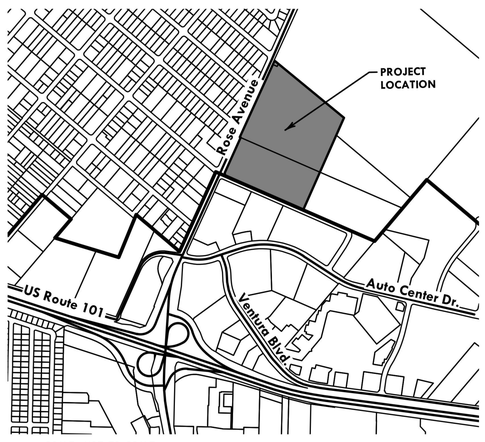


B — ROSE AVENUE
1" = 20'

LEGEND

- EXST. CITY OF OXNARD CITY LIMITS
- EXST. CITY OF OXNARD SPHERE OF INFLUENCE
- DISTRICT TRANSPORTATION & PARKING FACILITY
- PROP. CITY OF OXNARD CITY LIMITS & SPHERE OF INFLUENCE
- PHASE I-A, DOES NOT REQUIRE CITY OF OXNARD APPROVALS FOR DEVELOPMENT.

VICINITY MAP



SCALE: NOT TO SCALE

60' 30' 0' 60' 120'
GRAPHIC SCALE: 1"=60'

REVISION	DATE

CLIENT: RIO SCHOOL DISTRICT

ENGINEER & LAND USE PLANNER:
JENSEN DESIGN & SURVEY, INC
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979
www.jdscivil.com

DWG Name: 6207 RDV Master Plan Site Plan.dwg

Rio Del Valle Middle School
Illustrative Site Plan
Campus Master Plan

TETRA TECH
5383 Hollister Ave., Suite 130
Santa Barbara, CA 93111

TC NO	DATE	DRAWN BY	MAP NO	FIGURE
	12/22/23			1

PROJECT PHASING

THE PROPOSED PROJECT CAN GENERALLY BE CLASSIFIED INTO TWO PHASES, PHASE I AND PHASE II. BOTH PHASES CAN BE BROKEN DOWN INTO TWO "SUB-PHASES", NOTED AS PHASE I-A AND PHASE I-B, AND PHASE II-A AND II-B. THESE PHASES ARE DETAILED BELOW.

PHASE I-A

1. PROPOSED BASEBALL FIELD
2. PROPOSED SOFTBALL FIELD
3. 1,900 SF ATHLETIC RESTROOMS/STORAGE BUILDING
4. PROPOSED TENNIS AND/OR HANDBALL COURTS (X10)
5. PHASE I-A STORM WATER TREATMENT IMPROVEMENTS

PHASE I-B

1. STUDENT DROP OFF LANES
2. PARKING LOT A (LARGE SOUTHERN PARKING AREA)
3. NEW NORTH/SOUTH ACCESS ROAD EAST OF PARKING LOT A
4. FIRE ACCESS ROAD
5. LANDSCAPE IMPROVEMENTS ALONG ROSE AVENUE AND COLLINS STREET
6. WATER AND SEWER IMPROVEMENTS
7. UTILITY UNDERGROUNDING AND ELECTRICAL INFRASTRUCTURE
8. PHASE I-B STORM WATER TREATMENT IMPROVEMENTS
9. OFFSITE SEWER, WATER, AND STORM DRAIN IMPROVEMENTS AS REQUIRED BY THE CITY OF OXNARD
10. PUBLIC R.O.W. IMPROVEMENTS IN COLLINS STREET AS REQUIRED BY THE CITY OF OXNARD

PHASE II-A

1. DTPF BUILDING (10,800 SF)
2. FOOD SERVICES BUILDING (6,850 SF)
3. DTPF PARKING AREAS
4. FARMHOUSE RENOVATIONS/CONVERSION TO DISTRICT TRANSPORTATION OFFICES
5. OFFICE PORTABLES (X2) AND RESTROOMS FOR DISTRICT TRANSPORTATION OFFICES
6. BUS DROP OFF AREA/DROP OFF LANE
7. PHASE II-A STORM WATER TREATMENT IMPROVEMENTS

PHASE II-B

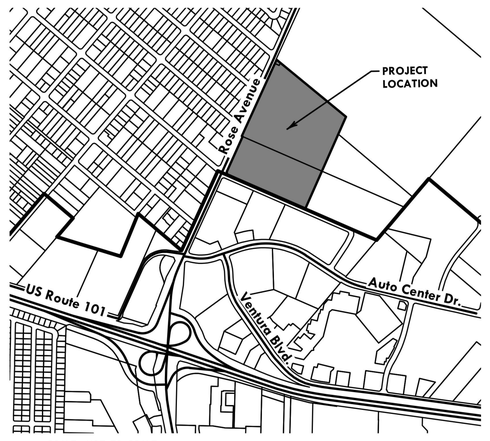
1. 11,600 SF CLASSROOMS (X8)
2. 3,575 SF MULTI-PURPOSE BUILDING
3. 4,000 SF LIBRARY AND MEDIA CENTER
4. PORTABLE PE CLASSROOMS (X2)
5. "FLEX" MULTI-SPORT FIELD
6. BASKETBALL COURTS (X6)
7. SAND VOLLEYBALL COURTS (X4)
8. PHASE II-B STORM WATER TREATMENT IMPROVEMENTS
9. OFF-SITE SEWER, WATER, AND STORM DRAIN IMPROVEMENTS AS REQUIRED BY THE CITY OF OXNARD

ALL IMPROVEMENTS LISTED IN PHASE I-A AND I-B SHALL BE COMPLETED EITHER BEFORE, OR CONCURRENT TO, ANY IMPROVEMENTS LISTED IN PHASE II-A AND II-B. IN NO EVENT SHALL THE PHASE II-A OR II-B IMPROVEMENTS BE COMPLETED BEFORE THE PHASE I IMPROVEMENTS ARE ALSO COMPLETE.

LEGEND

- PHASE I-A
- PHASE I-B
- PHASE II-A
- PHASE II-B
- EXST. CITY OF OXNARD CITY LIMITS
- EXST. CITY OF OXNARD SPHERE OF INFLUENCE

VICINITY MAP



SCALE: NOT TO SCALE

60' 30' 0' 60' 120'

GRAPHIC SCALE: 1"=60'

REVISION	DATE

CLIENT: RIO SCHOOL DISTRICT

ENGINEER & LAND USE PLANNER:

JENSEN DESIGN & SURVEY, INC
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979
www.jdscivil.com

DWG Name: 6207 RDV Master Plan Site Plan.dwg

Rio Del Valle Middle School

Project Phasing I-II

Campus Master Plan

TETRA TECH
5383 Hollister Ave., Suite 130
Santa Barbara, CA 93111

TC NO	DATE	DRAWN BY	MAP NO	FIGURE
	12/22/23			2

SECTION 4 CEQA FRAMEWORK FOR EIR SUPPLEMENT

The California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3) recognize the possibility for a project to be modified after an EIR has been certified and identifies various levels of additional environmental review that may be undertaken to provide appropriate environmental disclosure.

This EIR Supplement (SEIR) was prepared pursuant to Section 15163 (b) of the CEQA Guidelines, as follows:

"(a) The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

1. Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

2. Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation."

(b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

(c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.

(d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.

(e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised."

The conditions set forth in Section 15162, requiring a subsequent or supplement to an EIR, are as follows:

"(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(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 occur 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 of 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;

(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 measure 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.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed."

SECTION 5 COMPARISON OF ORIGINAL AND MODIFIED PROJECT

The District-certified FEIR determined that the proposed project covered by the FEIR would result in significant unavoidable impacts to Agriculture and Forest Resources. This finding has not changed and remains unaffected by the modifications presented in this document which do not add to or increase the severity of the impact. The major differences between the original and modified project are the timing of the project improvements relative to the annexation of properties to the City of Oxnard, and the reduction of properties annexed to the City of Oxnard. Additionally, analysis of 2017 City of Oxnard Thresholds that were not specifically included in the original EIR, has been included for the modified project elements subject to annexation, at the request of the City of Oxnard. In the following sections the modified project is evaluated for its potential to add new or increase the severity of impacts identified relative to each resource area evaluated in the District-certified FEIR.

5.1 AESTHETICS

As documented in the FEIR, the proposed project would have less than significant impacts related to aesthetics, with no mitigation required. This was based on the project features that affect view characteristics and quality. None of the project elements that could potentially affect view characteristics and quality have been altered by the modified project. Nor does the alteration of timing and phasing present any potential to alter likely views of the project area during construction or after project completion.

Therefore, the changes addressed in this SEIR would not affect the character, composition, or prominence within the views associated with the modified project. Therefore, the modified project's impacts on aesthetics would remain less than significant.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.2 AGRICULTURE AND FOREST RESOURCES

The modified project will convert 11.3 acres of important farmland in the southern campus expansion area to non-agricultural use for the RDV Middle School expansion, including facilities such as Parking Lot A, the DTPF, and recreational fields (see Section 3, Figure 1). The entire 11.3-acre southern campus expansion area is designated as Agricultural Land, classified as Prime Farmland or Farmland of Statewide Importance under CEQA Guidelines Section 21060.1, and is subject to the City of Oxnard's Save Our Agricultural Resources (SOAR) Ordinance. This conversion results in a significant and unavoidable impact under CEQA, as identified in the District-certified FEIR. Mitigation Measures AG-1 and AG-3 (per Section 5.2 updates) are provided as partial mitigation for the loss of this important farmland, but the impact remains significant and unavoidable. The northern campus expansion area (10 acres) is not part of the modified project, as stated in Section 1 Introduction, with no associated mitigation measures (see Section 1), therefore AG-2 has been removed. The changes represented in this SEIR, including the annexation of the southern campus expansion area and existing main campus to the City of Oxnard, do not introduce new impacts or increase the severity of the identified significant impact to agricultural resources (see Section 5.11 for land use consistency).

In order to further reduce the impacts associated with farmland conversion of the 11.3 acres of the southern campus expansion area, designated as Prime Farmland or Farmland of Statewide Importance under CEQA Guidelines Section 21060.1 and subject to the City of Oxnard's SOAR Ordinance, Mitigation Measure AG-3 has been added to the SEIR.

AG-3: The District shall pay an agricultural conservation in-lieu fee to the City of Oxnard. The final fee amount shall be determined by the RSD and the City of Oxnard. The funds shall be used for land acquisition (land or structure), refurbishment, and/or construction of farmworker housing units within Oxnard. The use of such funds shall be determined at the discretion of the City Manager, Community Development Director, and Housing Director. The final fee amount shall be determined and the payment of the fee to the City of Oxnard shall be made prior to annexation of the proposed project Site (main campus and southern campus expansion area).

Mitigation Measure AG-3 would involve funding to be used towards the provision of farmworker housing. Farmworkers are needed to support and sustain agricultural production, but as local and regional housing prices increase, farmworkers face a shortage of affordable housing. Therefore, supporting local farmworker housing would also support the viability of agricultural operations in the City of Oxnard and Ventura County.

The modifications to the project that are the focus of this SEIR do not change the area of farmland converted. Conversion of agricultural land at the project level would remain a significant and unavoidable impact. As discussed previously, the northern campus expansion area will remain agricultural as part of the District-certified FEIR. Due to the proposed agricultural uses, the northern campus expansion area will remain within the unincorporated County of Ventura. However, this change in annexation plan will not affect the proposed land uses for any parcel identified in the original EIR. Through the development of the modified project and other development contemplated for this area in the City of Oxnard General Plan, it has been acknowledged that the character of the project area would increasingly change from agricultural to urban. The City of Oxnard 2030 General Plan Program EIR (City of Oxnard 2009) evaluated the potential environmental impacts of buildout of the 2030 General Plan. The 2030 General Plan Program EIR found that the conversion of agricultural land to urban uses is a significant and unavoidable impact. Similarly, the District-certified EIR for the project found that there is an unavoidable significant impact associated with the conversion of the 8.7 acres of the southern campus expansion area actively used for agricultural production to urban (school) uses. The changes represented in this SEIR would not change the findings of the FEIR, specifically, that there is an unavoidable significant impact to agricultural resources. No new or substantially increased impacts would occur as a result of the modifications to the annexation, or timing, or any of the minor adjustments to improvements within the scope of the modified project from what was presented in the original EIR.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. Mitigation Measure AG-3 has been added to further reduce the previously identified unavoidable significant impact to associated with the conversion of agricultural land to urban uses. Significant unavoidable impacts to agriculture resources would still occur.

5.3 AIR QUALITY

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to air quality with implementation of Mitigation Measure AQ-1, to control potential

emissions during construction activities. The changes represented in this SEIR would not affect total emissions, nor would they increase concentrations originating from the modified project. These changes would not introduce new, nor significantly increase emissions related to Air Quality. The air quality analysis incorporates impacts from joint use activities, including youth sports groups such as Oxnard Youth Baseball, Oxnard Youth Soccer, and Rio Area community youth sports groups utilizing Parking Lot A and the RDV Sports Complex. Emissions from vehicle trips and activities associated with these joint uses, accommodated by the 150 parking spaces in Parking Lot A (see Section 3, Figure 1), are included in the operational emissions modeling (see Appendix B, Air Quality Modeling Data). The analysis confirms that these joint use activities do not result in significant air quality impacts, as they are integrated into the project's emissions scenarios evaluated for the modified project (see Section 5.17 for related transportation analysis).

The City of Oxnard has noted that the 2022 CEQA Thresholds used in the FEIR for the air quality analysis, differ from the 2017 City of Oxnard CEQA Guidelines Thresholds related to air quality. However, the City of Oxnard 2017 CEQA Thresholds differ mainly in word arrangement from the 2022 CEQA Thresholds, while the substance of the analysis required by each, is equivalent. The analysis required by the 2022 CEQA Thresholds, as presented in the FEIR, also addresses the substance of the City of Oxnard 2017 Thresholds. Information that addresses each of the 2017 Thresholds can be found in the Air Quality section of the FEIR on pages 3-41 through 3-43. For example, the language of the following 2017 City of Oxnard CEQA Guidelines Threshold differs slightly from the threshold used in the FEIR:

> ***City of Oxnard 2017 CEQA Threshold - Would the project expose sensitive receptors to pollutant concentrations exceeding state or federal standards or in excess of applicable health risk criteria for toxic air contaminants?***
>
> ***2022 CEQA Guidelines Threshold - Would the project expose sensitive receptors to substantial pollutant concentrations?***
>
> While the language of the 2022 CEQA Guidelines Threshold is more general, the analysis in the FEIR directly addresses the content of this threshold on page 3-42. In the FEIR, the 2022 threshold prompted an analysis of the concentrations of *any* potential toxic air pollutants resulting from the project and evaluated them relative to state and federal standards, including VCAPCD and OEHHA standards, and applicable health risk criteria for toxic air contaminants on page 3-42.

As can be seen by the comparison above, while the thresholds were not worded the same, the analysis required by each was equivalent. The table below compares the language of each City of Oxnard 2017 CEQA Threshold to a comparable 2022 CEQA Threshold. In most cases it is apparent how the corresponding 2022 CEQA Threshold addresses the substance of the corresponding 2017 Threshold, and an examination of the analyses presented in the FEIR further supports this conclusion. In one case, there is not a directly comparable equivalent threshold. In this case the analysis that was included in the FEIR that satisfies the content of that 2017 City of Oxnard CEQA Threshold, is discussed below.

2022 CEQA Guidelines Threshold	2017 City of Oxnard CEQA Guidelines Threshold
No comparable Threshold. See discussion below.	*Would the project conflict with population or other growth forecasts contained in the Ventura*

2022 CEQA Guidelines Threshold	2017 City of Oxnard CEQA Guidelines Threshold
	County AQMP or otherwise obstruct implementation of the Ventura County AQMP?
Would the project conflict with or obstruct implementation of the applicable air quality plan?	*Would the project violate any federal or state air quality standard or contribute substantially to an existing or projected air quality standard violation?*
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard?	*Would the project result in a net increase of any criteria air pollutant in excess of quantitative thresholds recommended by the VCAPCD?*
Would the project expose sensitive receptors to substantial pollutant concentrations?	*Would the project expose sensitive receptors to pollutant concentrations exceeding state or federal standards or in excess of applicable health risk criteria for toxic air contaminants?*
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Would the project create objectionable odors affecting a substantial number of people?

The following 2017 City of Oxnard CEQA Guidelines Threshold does not have a directly comparable 2022 CEQA Threshold.

Would the project conflict with population or other growth forecasts contained in the Ventura County AQMP or otherwise obstruct implementation of the Ventura County AQMP?

This threshold was not specifically included in the FEIR, but the content of this threshold was addressed under the following 2022 CEQA Guidelines Threshold as follows:

Would the project conflict with or obstruct implementation of the applicable air quality plan?

The 2022 CEQA Guidelines Threshold used in the FEIR specifically addresses all applicable air quality plans, including the Ventura County Air Pollution Control District (APCD) Air Quality Management Plan AQMP. The FEIR analyzed potential impacts to the VCAQMP, including any growth-related impacts, on page 3-39 as follows:

> *"The proposed project would not induce population growth into the area either directly or indirectly. The student population would be part of the existing and projected growth for the City of Oxnard. In general, K-12 schools accommodate growth as a result of other land use decisions in the City such as the construction of new homes or the creation of a substantial number of new jobs that encourages new people to move into the area. No housing is proposed as a part of the proposed project. The proposed project would generate some new jobs. Additional staff would include teachers, administrative, and support staff. Most or all the additional staff could be hired from the existing qualified applicant pool already residing within or near the District. However, if teachers or other staff are hired outside the District area to fill a specific role(s), it may result in a few new people and their families moving into surrounding neighborhoods,*

> *thus creating a slight increase in the existing local population. The proposed project includes educational facilities that would accommodate existing and projected student enrollment in the District and the requirement for local schools to service the City of Oxnard. The proposed project would not result in population growth above what is forecasted in the 2030 General Plan and the Ventura County General Plan and in turn the 2016 AQMP. However, the proposed project requires a general plan amendment to redesignate some of the property from agriculture to school land use. Therefore, once the proposed project's land use is redesignated from agricultural land to school land use, the proposed project would not be expected to conflict or obstruct implementation of the applicable 2016 AQMP and project impact would be less than significant."*

While language from other 2017 City of Oxnard CEQA Guidelines Thresholds did not match the language used in the FEIR exactly, the content of the analysis was applicable to both the 2022 State CEQA Guidelines Thresholds used in the FEIR and the 2017 City of Oxnard CEQA Guidelines Thresholds.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.4 BIOLOGICAL RESOURCES

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to biological resources with implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3. The changes to the proposed project do not affect any habitat or species beyond the environmental consequences analyzed in the FEIR.

All of the 2017 City of Oxnard CEQA Guidelines Thresholds were addressed in the FEIR through equivalent or verbatim thresholds used by the State 2022 CEQA Guidelines Thresholds or had been eliminated in the Initial Study because they would not cause any potentially significant impacts. The changes represented in this SEIR would not increase the potential impacts associated with the modified project, and existing mitigation can be applied to the SEIR phasing. Therefore, the modified project's impacts on Biological Resources would remain less than significant.

Determination:

No new significant environmental effects, or a substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.5 CULTURAL RESOURCES

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to cultural resources with implementation of Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4. Each of the 2017 City of Oxnard CEQA Guidelines Thresholds for Cultural Resources were addressed in the FEIR. However, some of them were addressed under the Cultural Resources heading, while others were addressed under the Tribal Cultural Resources and/or Geology and Soils sections. The changes to the proposed project would not affect any buildings or structures beyond what was identified in the District-certified FEIR.

Evaluation of potential historic resources could not be carried out prior to certification of the FEIR and purchase of the land. However, this SEIR addresses the significance of potential historic resources (see Appendix D) which were surveyed after District-certification of the FEIR (Post/Hazeltine Associates 2023). Initial design plans identified potential modifications to the two on-site historic era-built environment resources. Final details of the design and mitigation affecting the two residential structures in question have been evaluated according to the significance criteria set forth for historic resources under CEQA Guidelines Section 15064.5, according to Mitigation Measures CUL-1 and CUL-4 (see FEIR Vol. II, pg. 3-62). The historic resources study concluded that the property at 2600 North Rose Avenue does not meet any of the criteria necessary for listing in the California Register of Historic Resources or for listing as a City of Oxnard Landmark or Point of Historic Interest. Therefore, the residential property is not a significant historic resource for the purposes of CEQA review. No new mitigation is necessary and the analysis from the District-certified FEIR is complete. Therefore, no significant impacts to historic resources would occur with implementation of Mitigation Measures CUL-1 and CUL-4.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.6 ENERGY

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to energy, and no mitigation measures were deemed necessary. There are no changes in the modified project that would increase energy consumption beyond what was addressed in the original EIR.

The 2017 City of Oxnard CEQA Guidelines Thresholds do not have an Energy section but include Energy-related thresholds in the Utilities and Service Systems section. Those 2017 Thresholds correspond to the 2022 CEQA Thresholds and analyses used in the Energy section of the FEIR as follows:

2022 CEQA Guidelines	2017 City of Oxnard CEQA Guidelines
Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	*Would the project involve wasteful, inefficient, or unnecessary consumption of energy during project construction, operation, maintenance, and/or removal?*
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	*Would the project preempt future energy development or future energy conservation, or inhibit the future use of renewable energy or energy storage?*
	Would the project be inconsistent with existing energy standards?

Would the project involve wasteful, inefficient, or unnecessary consumption of energy during project construction, operation, maintenance, and/or removal?

No aspects of the proposed facility operations of the modified project have been identified to result in unnecessary use of energy. No unnecessary consumption of energy resources is anticipated during operation of the modified project.

Energy use by the modified project will contribute to energy use by existing and future users (e.g., housing and businesses). Significant cumulative impacts on energy use would result if operation of the modified project and existing and future projects incur inefficient and wasteful uses of energy. As mentioned above, the efficient use and reduction of energy use is closely related to air and GHG reductions. Thus, efforts to curtail air emissions and GHG in many ways contribute to the efficient use and reduction of energy consumption. The modified project is designed to comply with California requirements for energy conservation standards codified in CCR Title 24, Part 6 and is not expected to have significant cumulative impacts resulting in wasteful and inefficient use of energy.

Would the project preempt future energy development or future energy conservation, or inhibit the future use of renewable energy or energy storage?

The modified project would not involve wasteful or inefficient use or overconsumption of energy resources. Nor would the modified project obstruct any planned use of energy resources, including renewable energy sources and energy storage. The modified project is not anticipated to obstruct or inhibit the future planned use of renewable energy or energy storage.

Would the project be inconsistent with existing energy standards?

The modified project design is consistent with the City of Oxnard Energy Action Plan which implements 2023 General Plan goals and strategies. The modified project design is consistent with California energy conservation standards codified in CCR Title 24, Part 6 and also with the City of Oxnard EAP (which implements 2030 General Plan goals and strategies). Thus, the modified project would not be inconsistent with existing energy standards.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No mitigation measures are required.

5.7 GEOLOGY AND SOILS

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to geology and soils, with Mitigation Measures GEO-1, GEO-2, and GEO-3.

As discussed in the FEIR, the DSA ensures the structural safety of public schools through review for compliance with the Field Act. The Field Act establishes stringent requirements for public schools to ensure that school facilities can withstand earthquakes and other hazards. Under the Field Act, licensed design professionals must prepare improvement and construction plans, and all plans must be verified by DSA to ensure compliance with applicable building codes. RDV must hire a DSA-certified inspector to oversee construction activities. Thus, potential issues related to geologic and soils hazards would be addressed through proper engineering design in accordance with local and state regulations.

The Geology and Soils section of the FEIR addressed one of the 2017 City of Oxnard CEQA Guidelines Thresholds that was listed under the Cultural Resources heading within the 2017 City of Oxnard CEQA Guidelines Thresholds. This threshold was as follows:

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

This threshold is the equivalent of the 2017 City of Oxnard CEQA Guidelines Thresholds, as listed in the Cultural Resources section of the 2017 City of Oxnard CEQA Guidelines Thresholds and the analysis and findings related to this threshold can be found in the Final FEIR, Volume II, on pages 3-75 and 3-76.

All other changes to the timing and scheduling of construction and operation during the new phasing represented in this SEIR, would not introduce new or substantially increase the potential for significant impacts beyond what was analyzed in the FEIR. With implementation of Mitigation Measures GEO-1, GEO-2 and GEO-3, potential impacts to geology and soils resulting from the modified project would remain less than significant.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.8 GREENHOUSE GAS EMISSIONS

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to geology and soils, with no mitigation measures required.

The changes represented by the modifications to the land use designation, the clarifications of phasing, and reduced annexation of the modified project parcels would not substantially increase the volume or concentrations of GHG emissions or introduce new impacts associated with GHG emissions.

The following 2017 City of Oxnard CEQA Guidelines Thresholds were not specifically listed in the FEIR:

Would the project contribute or be subject to potential secondary effects of climate change (e.g., sea level rise, increase fire hazard)?

According to the FEIR, the proposed project would not result in significant impacts resulting from GHG emissions. Therefore, the proposed project would not contribute to secondary effects of climate change as a result of emissions. However, this broad threshold also addresses fire hazards to the proposed project, resulting from anticipated climate change. While the exact language from the 2017 City of Oxnard threshold was not included in the FEIR, the Initial Study discussed the increased potential for wildfires that could potentially result from the proposed project. The Wildfire resource area was found not to have the potential for significant impacts, and the proposed project was determined to not increase fire hazards.

Increased heat and prevalence of wildfire could be associated with climate change. Increased heat and occurrence of wildfire would pose an increased fire hazard at the project Site if the proposed project increased the volumes and concentrations of combustible or flammable materials and fuels within the project boundary. However, as discussed in the Wildfire section of the Initial Study, and the Hazards and Hazardous Materials and Public Services sections of the FEIR, the project would not increase fuel availability or create new sources that would contribute to increased fire hazards. The discussion from the Initial Study is provided as follows:

Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. *The project Site is not located in or near a state responsibility area, nor is it within lands classified as very high fire hazard severity zones. SCE will provide electrical service to the proposed expansion area via a new electrical connection(s) and meter(s). SCE has existing overhead power lines located in the Rose Avenue right of way. This existing electrical infrastructure is located on the eastern side of Rose Avenue. It is anticipated that service will be extended from this existing infrastructure, which is located on the same side of the street as RDV, to the southern campus expansion area. The urban infrastructure installation/expansion associated with the proposed project would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. Therefore, a less than significant impact would occur, and this issue will not be discussed further in the EIR.*"

The FEIR also discusses fire services and potential impacts to fire services resulting from the proposed project, on pages 3-164, 3-165, 3-168 and 3-169 and finds that proposed project impacts on fire related services would remain less than significant with no mitigation. The project elements as originally formulated in the FEIR and arranged pursuant to this SEIR would not exacerbate fire risk at the project Site or elevate the risk of fire associated with climate change.

Determination:

The modified project is not anticipated to introduce new significant environmental effects, or substantial increase in the severity of previously identified significant effects. No new mitigation measures are required.

5.9 HAZARDS AND HAZARDOUS MATERIALS

As documented in the FEIR, impacts related to hazards and hazardous materials related to the proposed project covered by the FEIR would remain less than significant with implementation of Mitigation Measures HAZ-1 and HAZ-2.

The language contained in the 2017 City of Oxnard CEQA Guidelines Thresholds for Hazards and Hazardous Materials were added to the FEIR, Volume II, at the request of the City of Oxnard. That analysis can be found on pages 3-92 and 3-93 of the FEIR.

The modified project would be required to comply with the applicable state and local requirements, including, but not limited to, the DTSC, CDE, FAR, Caltrans, County of Ventura Department of Airports (DOA), Ventura County, and the City of Oxnard, and would be required to implement recommendations of the Site-specific PEA Equivalent Report, SSI Report, and associated DTSC approval letters, and existing mitigation can be applied to the SEIR phasing. For these reasons, the modified project's contribution to hazards and hazardous materials continues to be less than significant.

The RSD ensures environmental safety and regulatory compliance for the RDV Middle School Campus Expansion Project, addressing hazardous materials concerns in the 11.3-acre southern campus expansion area (APN 144-0-110-590). This area, part of the 11.1-acre portion under the Environmental Oversight Agreement (EOA, Docket No. HAS-FY21/22-135) with the DTSC, has a minor acreage discrepancy due to updated surveys. Historically and currently used for agriculture, the area has undergone environmental investigations, including a Phase I Environmental Site Assessment (ESA, Tetra

Tech, September 23, 2021), Phase II investigations, and a Supplemental Site Investigation (SSI, Tetra Tech, September 26, 2022).

These investigations, documented in the Preliminary Endangerment Assessment (PEA) Equivalent Report and SSI Report, identified organochlorine pesticides (OCPs) and other recognized environmental conditions (RECs), with DTSC oversight and approval letters issued on October 27, 2022, and June 22, 2023. Additional soil sampling was conducted under DTSC oversight from January 6–10, 2025, further characterizing RECs and residual OCPs, with results expected by August 2025 and incorporated herein. This Final SEIR details historic and current land uses, references the ESA, SSI, and DTSC approvals, and addresses DTSC's June 22, 2022, Notice of Preparation (NOP) comments.

This Final SEIR implements protocols and mitigation measures across project phases (Phases I-B, II-A, and II-B, as outlined in Section 3) to address DTSC's comments. Mitigation Measures HAZ-1, HAZ-2, and HAZ-3 from the FEIR apply, ensuring identification, handling, and remediation of hazardous materials to maintain less-than-significant impacts. The RSD will coordinate these measures with DTSC, providing regular implementation updates and a detailed timeline herein. For imported soil and fill material, the RSD will test all materials for contaminants per DTSC's PEA Guidance Manual and Clean Imported Fill Material Fact Sheet, with sampling based on source and prior land use, the results documented, and submitted to DTSC, addressing DTSC Comments DTSC-3 and DTSC-10 on the Draft SEIR.

If suspected soil or groundwater contamination is encountered during construction, grading, or demolition, work will cease in the affected area, health and safety procedures will be implemented to protect workers and the community, and the RSD will coordinate with DTSC for investigation, sampling, and remediation, as outlined in DTSC Comments DTSC-4 and DTSC-11 on the Draft SEIR. No building demolition is currently planned for the southern campus expansion area. If proposed in future phases, the RSD will conduct hazardous materials surveys for lead-based paints, mercury, asbestos-containing materials, and polychlorinated biphenyl caulk, with these being conducted near current or former building locations per DTSC's PEA Guidance Manual, as per DTSC Comment DTSC-7 on the Draft SEIR. Removal and disposal of these materials will comply with California regulations, with results being submitted to DTSC for review.

The RSD will protect students, staff, and the community by addressing DTSC's comments and upholding rigorous environmental standards. This Final SEIR consolidates the investigation results, mitigation measures, and protocols, documenting DTSC's oversight and the RSD's submission of the final investigation report by August 2025 for DTSC review and approval. This comprehensive approach ensures transparency, safety, and alignment with DTSC guidance across all project phases.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.10 HYDROLOGY AND WATER QUALITY

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to hydrology and water quality, with Mitigation Measures HYDRO-1, HYDRO-2, and HYDRO-3.

The modified project would not alter the City's storm water drainage features associated with the proposed project covered by the FEIR. The 13.1-acre site (southern campus expansion area), which includes 11.3 acres of new development and 1.8 acres of redevelopment, will be 41 percent impervious. For all project construction phases, stormwater runoff will be collected in an onsite storm drain system, which will carry the stormwater to a diversion structure that splits flows between infiltration, detention, and offsite. High flows from the diversion structures and flows released from the detention basin will drain east through the neighboring property in a proposed storm drain. This proposed storm drain will tie into the existing lined channel near the bend in Collins Street, which discharges into the existing City of Oxnard storm drain facilities at Collins Street and Auto Center Drive.

The modified project's storm water management plan aligns with the phasing described in Section 3 (see Figure 2). Phase I-B includes the installation of initial off-site storm drain infrastructure, such as pipes and connections, as required by the City of Oxnard to support the early phases of project development, including Parking Lot A and roadway improvements along Rose Avenue and Collins Street. Specific storm water treatment improvements, such as infiltration basins and bioswales for components like the District Vehicle/Bus Parking area, are scheduled for Phases II-A and II-B to correspond with the construction of the DTPF and other southern campus expansion area facilities. The hydrology and water quality analysis (see Appendix B) accounts for the phased implementation of these improvements, confirming that they mitigate runoff and water quality impacts consistent with City and regional requirements, including the October 2023 Settlement Agreement.

Impacts identified in the FEIR would be mitigated by the project's proposed post-construction features, which are required by the Construction General Permit and the City's MS4 Permit, will follow the TGM (County of Ventura 2011, updated 2015 and 2018), will be defined in the PCSMP, and vetted by the City.

Operation of the modified project would not contribute runoff that exceeds that of the existing condition, resulting in a less-than-significant impact on hydrology and water quality. The project includes stormwater detention facilities designed to mitigate post-development runoff from a portion of the existing main campus that is modified as part of the development application and the entire southern campus expansion area, as detailed in the Preliminary Drainage Study (Jensen Design & Survey 2024b, Appendix B). Per discussions with the City of Oxnard on March 6, 2025 (Chau, 2025), the RSD will provide sufficient detention to reduce 10-, 50-, and 100-year post-development peak runoff to the 10-year pre-development condition, exceeding standard City of Oxnard requirements. This detention addresses the collective impact on Lateral H, including tributary runoff from the drainage area of which the campus park is a part, by mitigating flows to less than pre-development levels, thereby reducing previously allowed impacts to Lateral H not caused by RSD. The Preliminary Drainage Study (Jensen Design & Survey 2024b, Appendix B) analyzes flow conveyance and detention for existing, intended design, and proposed development conditions, ensuring no adverse impact on Lateral H's capacity. The detention facilities prevent downstream flooding of receiving waters, maintaining compliance with City standards and Ventura County Watershed Protection District requirements. The Stormwater Pollution Prevention Plan (SWPPP) and Low Impact Development (LID) measures, implemented during construction and operation, further minimize runoff impacts (Jensen Design & Survey 2024b, Appendix B). Appendix B includes the Preliminary Drainage Study (Jensen Design & Survey 2024b), which analyzes flow conveyance and detention for the tributary draining to Lateral H under existing, intended design, and proposed development conditions, supporting the mitigation of 10-, 50-, and 100-year post-development runoff to the 10-year pre-development condition.

The modified project is not anticipated to impact groundwater quality beyond what was discussed in the FEIR. The underlying Oxnard Forebay may receive some recharge from runoff infiltration in the proposed

retention basin and irrigation infiltration from the educational agricultural fields, landscaping, and sports fields, which would be beneficial to the groundwater basin. Although irrigation and agricultural runoff can contain nitrogen-based products and cause leaching of nitrate into the basin and the Oxnard Forebay has been prone to nitrate MCL exceedances, the net contribution would be lower post-construction due to the transition of the southern campus expansion area from agriculture to educational land use.

The project Site is located outside of the 100-year and 500-year floodplain, is not within a levee or flood risk area, and it not in a seiche, tsunami, or mudflow risk area. The modified project will discharge no more than the existing runoff from a Q10 storm event (Jensen Design & Survey 2024b, Appendix B) to reduce potential flooding impacts downstream. Given the installation of post-construction features described above, the modified project would not increase overall flood potential in the City.

Infiltration will be 18’ below existing grade and thus will require separate detention and infiltration to allow for infiltration to be deeper. Construction will be divided into three phases with each phase handling stormwater conveyance separately. Infiltration for Phases I-B, II-A, and II-B will be combined into one underground infiltration basin within Phase II-A and constructed as part of Phase I-B. Detention for all three phases will be consolidated into a single above-ground detention basin located within Phase II-B, which will also be constructed during Phase I-B. During the construction of Phase II-B, this above-ground basin may be modified to a below-ground storage basin. Combined detention for all three phases is calculated to be 10,800 CF.

New estimated volumes for stormwater are as follows: Phases I-B, II-A, and II-B are combined in a single underground infiltration basin with a total volume of 15,000 CF; Phase I-B detention is 3,900 CF; Phase II-A detention is 5,800 CF; and Phase II-B detention is 1,000 CF.

Operation of the modified project would not substantially deplete groundwater supplies or interfere with groundwater recharge, resulting in a less-than-significant impact on aquifer volume or local groundwater table levels. The Fox Canyon Groundwater Management Agency (FCGMA) adopted a Groundwater Sustainability Plan (GSP) in 2019, advising a reduction in groundwater pumping from the Oxnard Subbasin by 2040, based on the 2005-2014 base period of 53.7238 AFY (Jensen Design & Survey 2024a, Appendix B). The projected water demand for the expanded campus is 25.911 AFY, representing a 52% reduction from the base period (1 - 25.911/53.7238), achieved through irrigation improvements since 2014, conversion of existing ball fields to artificial turf, and discontinuation of crop irrigation on the 11.3-acre southern campus expansion area (Jensen Design & Survey 2024a, Appendix B). This exceeds the City of Oxnard’s requested 45% reduction target, ensuring compliance with the GSP ahead of the 2040 deadline. The RSD proposes to transfer 25.911 AFY of FCGMA allocations to the City of Oxnard to accommodate the increased demand on the City’s water system following annexation of the existing main campus and southern campus expansion area. This transfer would enable the project Site to be served by the City’s domestic water system, maintaining sustainable groundwater management. The City of Oxnard has expressed concern that past conservation and irrigation improvements are irrelevant to the transfer, asserting that the 25.911 AFY would be reduced by an additional 45% by 2040 (to approximately 14.25 AFY), rendering it insufficient without FCGMA verification that the transfer is exempt from future reductions. Per a February 4, 2025, letter from FCGMA (Anselm 2025), no FCGMA requirement supports an additional 45% reduction beyond the 52% achieved, as the GSP allows sustainable basin management through various methods, including allocation transfers, without mandating uniform pumping reductions for all properties. The RSD and the City are engaged in ongoing discussions to determine a justifiable water allocation transfer amount, ensuring compliance with FCGMA and City requirements while meeting the project’s water needs (see Section 5.19 Utilities and Service Systems for water service details).

The District intends to transfer sufficient FCGMA allocations to the City of Oxnard to accommodate the increased demand the District will have on the City system with the proposed campus improvements and annexation. The District will transfer 25.911 AFY to the City of Oxnard to offset this modified project. With this transfer, the entire existing main campus and the southern campus expansion area will then be served by the City of Oxnard via the domestic water system. Additionally, with the transfer, the District will have already accomplished more than the 45% reduction ahead of the year 2040 that is requested by the City of Oxnard (Jensen Design & Survey 2024a, Appendix B).

Determination:

With compliance with existing regulations including implementation of stormwater BMPs that target pollutants of concern in runoff from the modified project Site, the potential for violation of water quality standards or waste discharge requirements and degradation of water quality would be less than significant.

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.11 LAND USE AND PLANNING

As documented in the FEIR, the proposed project covered by the FEIR would have no impact related to land use and planning, and no mitigation measures were necessary.

The 2017 City of Oxnard CEQA Guidelines Thresholds were equivalent to the 2022 CEQA Thresholds used in the analyses presented in the FEIR. The following three 2017 City of Oxnard CEQA Guidelines Thresholds were screened out in the Initial Study phase:

Would the project involve land uses that are not allowed under an applicable airport land use compatibility plan?

Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

Would the project physically divide an established community?

The modified project, as proposed, is not proposing to utilize Government Code section 53094 to overrule zoning, but rather is seeking to address zoning discrepancies by way of identifying the proper zoning designations and potential modifications collaboratively with the City of Oxnard, through the annexation process. If invoked, Government Code § 53094 will only be employed to those circumstances, where allowed by law.

The modified project site is currently located in unincorporated Ventura County, in the El Rio community. The project Site has the following County General Plan and Zoning Designations:

Parcel	County General Plan Designation	County Zoning Designation
144-0-110-445	Very Low Density Residential	RE-20, 20,000 SF

Parcel	County General Plan Designation	County Zoning Designation
Existing Main Campus – Existing RDV Campus		
144-0-110-225 (Portion) Northern Campus Expansion Area – Existing RDV Campus	Agricultural	AE-40 AC Mineral Resource Overlay
144-0-110-590 (Portion) Southern Campus Expansion Area	Agricultural	AE-40 AC Mineral Resource Overlay

The existing main campus of the RDV campus is located within the City's Sphere of Influence and City Urban Restriction Boundary (CURB) and has a City of Oxnard General Plan Designation of 'School'. The northern campus expansion area is not located within the City's Sphere of Influence or CURB and is not part of the modified project, remaining within unincorporated Ventura County (see Section 1 Introduction). The southern campus expansion area is immediately contiguous with the City of Oxnard's City Limit, which runs along the northern edge of Collins Street, but is not within the City's Sphere of Influence or CURB. The modified project proposes annexation of the existing main campus and the southern campus expansion area into the City of Oxnard, consistent with the October 2023 Settlement Agreement, to obtain City water and sewer services and align with City land use policies, including the SOAR Ordinance (see Section 5.2 Agricultural and Forest Resources for agricultural impacts and mitigation).

The modified project site is not subject to any Williamson Land Conservation Act (LCA) contracts. The proposed northern and southern campus expansion areas are located within the Oxnard-Camarillo Greenbelt.

In order to obtain City water and sewer services, the District is proposing annexation of the existing main campus and southern campus expansion area into the City of Oxnard. Pursuant to Calleguas Municipal Water District (CMWD) policy, any areas annexed into the City of Oxnard would also be annexed into CMWD, as CMWD is the wholesale water supplier to the City of Oxnard.

Due to the proposed agricultural uses by the District, the northern campus expansion area is slated to remain within the unincorporated County of Ventura and will not be annexed into the City of Oxnard.

In addition to the annexation request, concurrent entitlements requested from the City of Oxnard include a General Plan Amendment and Zoning/Pre-Zoning Requests, as well as a modification of the Oxnard-Camarillo Greenbelt. It is anticipated that the project Site will obtain a General Plan designation of Public/Semi-Public and a zoning designation of Community Reserve (C-R).

Upon approval of the annexation, General Plan Amendment, and Zoning/Pre-Zoning requests, subsequent entitlements and use permits will be filed with the City of Oxnard as applicable.

The annexation request would be subject to final review and approval by the Ventura Local Agency Formation Committee (LAFCO) in the form of a reorganization request. In addition to the request for annexation into the City of Oxnard, the reorganization request would also include annexation into CMWD, Sphere of Influence Amendments, and a CURB adjustment.

Additionally, it is worth noting that school facilities are *potentially exempt* from a vote of the people as required by the City of Oxnard SOAR ordinance, pursuant to the Oxnard Save Open Space and Agricultural Resources (SOAR) Ordinance. Specifically, Section 3, Subsection 6 (Exemptions) states:

"The provisions of this ordinance otherwise requiring a vote of the people do not apply to nor affect the authority and discretion of the City Council with respect to any roadways designated in Chapter 4, Infrastructure and Services of the 2030 Oxnard General Plan as of adoption and subsequent amendments, construction of public potable water facilities, public schools, public parks or other government facilities, or any development project that has obtained as of the effective date of this initiative a vested right pursuant to state or local law."

The District will be requesting that the City Council consider exercising the authority granted to them in Section 3, Subsection 6 of the Oxnard SOAR ordinance and exempt the modified project from a vote of the people.

Anticipated Permits and Approvals

The SEIR will be used by RSD and responsible and trustee agencies with jurisdiction over portions of the modified project prior to deciding whether to approve or permit project components. A public agency, other than the lead agency, which has discretionary approval power over a project is known as a "responsible agency" as defined by CEQA Guidelines Section 15381. Anticipated permits and approvals for the modified project are identified in the following table. All entitlements and use permits would be processed concurrent with the Annexation, General Plan Amendment, and Zoning request.

Anticipated Permits and Approvals	
Agency	**Permit/Approval**
California Department of Education (CDE)	Approval of construction plans and Expanded Site Plan
California Department of General Services, Division of the State Architect (DSA)	Approval of construction plans and Expanded Site Plan
California Department of Toxic Substances Control (DTSC)	Approval of Preliminary Environmental Assessment (PEA) and Supplemental Site Investigation (SSI) for Southern Campus Expansion Area
Calleguas Municipal Water District (CMWD)	Annexation Request
City of Camarillo	Oxnard-Camarillo Greenbelt Modification
City of Oxnard	Annexation Request; General Plan Amendment (to change the City Urban Restriction Boundary, SOAR land designation, Sphere of Influence, and Land Use Designation); Pre-Zoning;* Tentative Tract Map and/or Lot Line Adjustment; Special Use Permit for the School (pursuant to the C-R Zone requirements);

Anticipated Permits and Approvals	
Agency	**Permit/Approval**
	Special Use Permit or Development Design Review Permit for the proposed District Transportation and Bus Parking facilities (the final permit type will be determined by the requested pre-zoning Zoning Designation); and Oxnard-Camarillo Greenbelt Modification
Los Angeles Regional Water Quality Control Board (RWQCB)	Storm Water Pollution Prevention Plan
Rio School District (RSD)	Approval of Project (Educational Specifications, Design/Construction Funding and Associated Contract Approvals), Adoption and Approval of FEIR and SEIR and MMRP
County of Ventura	Oxnard-Camarillo Greenbelt Modification
Ventura Local Agency Formation Commission (LAFCo)	City of Oxnard Annexation, CMWD Annexation, associated SOI and CURB adjustments

*The RSD may, to the extent applicable, elect to exercise its authority pursuant to Government Code Section 53094 to overrule zoning.

Land use impacts are considered significant if a modified project would physically divide an existing community (a physical change that interrupts the cohesiveness of the neighborhood). The modified project would not result in a physical change to the project as analyzed in the FEIR, which would create a barrier for existing or planned development. The modified project seeks to address zoning discrepancies by way of identifying the proper zoning designations and potential modifications collaboratively with the City of Oxnard, through the annexation process. This would avoid conflict with any land use plans, policies, or regulations adopted to avoid/mitigate an environmental effect. The modified project would remove conflicts with City of Oxnard zoning and would not introduce any new impacts that could affect land use or planning beyond what was discussed in the FEIR.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.12 MINERAL RESOURCES

As documented in the FEIR, potential impacts to mineral resources related to the proposed project covered by the FEIR were found to be less than significant in the FEIR, with no mitigation required.

The California Geologic Survey does not identify any active mines within a two-mile radius of the proposed project Site. Additionally, the modified project would not result in a change in land use patterns and would have no impact on the on-site or off-site availability of mineral resources. Therefore, the modified project would not result in the loss of availability of a locally important mineral resource. The modified project would have no additional impacts on mineral resources.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.13 NOISE

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to noise with implementation of Mitigation Measure N-1.

The City of Oxnard has noted that the 2022 CEQA Thresholds used in the original EIR may not have covered the 2017 City of Oxnard CEQA Guidelines Thresholds. Corresponding thresholds, which differ mainly in word arrangement but address the same content are listed in the table below. The analysis satisfying the content of the 2017 City of Oxnard CEQA Thresholds, are addressed as follows, and can be found in the Noise section of the FEIR Volume II on pages 3-157 through 3-159.

2022 CEQA Guidelines Threshold	2017 City of Oxnard CEQA Guidelines Threshold
Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies?	*Would the project generate a substantial temporary or periodic increase in ambient noise in the project vicinity above levels existing without the project?*
Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	*Would the project expose non-human species to excessive noise?*

The following 2017 City of Oxnard CEQA Guidelines Thresholds were not specifically listed in the FEIR:

Would the project generate a substantial temporary or periodic increase in ambient noise in the project vicinity above levels existing without the project?

The FEIR addressed the potential increase in ambient noise and evaluated the potential for significant impacts related to the metrics of standards established in local plans, ordinances, or applicable standards of relevant agencies in the Noise section of the FEIR Volume II on pages 3-157 through 3-159. In that analysis the FEIR specifically states:

> *"The City of Oxnard General Plan Noise Element identifies land use compatibility standard for noise-sensitive land uses as a CNEL of 55 dBA to 70 dBA as conditionally acceptable."*

The evaluation of what is a "substantial increase" in ambient noise in the project vicinity is necessarily dependent on the levels set within the plans, ordinances, and standards of the community in which the project is being developed. Without these metrics there could be no evaluation of what a "substantial increase" could be, and no evaluation of the potential significance of an increase. Therefore, the FEIR addressed the content of the 2017 City of Oxnard CEQA Guidelines Thresholds. The noise levels generated by the modified project will comply with the City of Oxnard's General Plan and Code of

Ordinances. Therefore, impact due to ambient noise levels in the vicinity of the modified project is less than significant.

Would the project expose non-human species to excessive noise?

Implementation of the modified project would not generate noise, or ground borne noise in excess of what was analyzed in the FEIR with respect to the use and movement of construction equipment during construction activities. The modified project would not result in an increase in operational noise above levels analyzed in the FEIR. Noise generated by construction activities would be intermittent and temporary. The project limits construction activities to between the hours of 7:00 a.m. and 5:00 p.m. Mitigation Measure N-1 requires that construction equipment be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds.

Habitat for “non-human” species were evaluated in the Biological Resources Section of the FEIR, along with any potential significant effects that would conflict with any local plans, policies or ordinances established for the protection of biological resources. The modified project was not found to violate any protections of biological or “non-human” species based on noise levels identified in the City of Oxnard General Plan Background Report.

There are no changes represented in the modified project that would change the noise analysis conducted in the FEIR. The operational noise analysis includes impacts from joint use activities at the RDV Sports Complex, including youth sports groups such as Oxnard Youth Baseball, Oxnard Youth Soccer, and Rio Area community youth sports groups, as well as other community events. These activities, which may generate crowd noise or occasional amplified sound (e.g., from public address systems during games), are scheduled primarily after 6:00 p.m. on weekdays and on weekends, as specified in the Joint Use Agreement (see Appendix E), minimizing overlap with peak school hours and reducing impacts on nearby sensitive receptors. The noise analysis accounts for these activities, confirming that their noise levels will remain within City of Oxnard noise standards and are mitigated by the project’s design features, such as setback distances and existing vegetation (see Section 5.17 for related transportation analysis).

No substantial changes have occurred that would increase the scope or severity of the noise impacts previously evaluated in the FEIR.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.14 POPULATION AND HOUSING

As documented in the FEIR, potential impacts to population and housing related to the proposed project covered by the FEIR were found not to be significant in the FEIR. The modified project would not affect population growth in the area, either directly or indirectly, and impacts on population or housing would not be altered by any of the changes or modifications to the modified project represented in this SEIR.

The following 2017 City of Oxnard CEQA Guidelines Thresholds were not specifically listed in the FEIR:

Would the project involve a General Plan amendment that could result in an increase in population beyond that projected in the 2030 General Plan that may result in one or more significant physical environmental effects?

In general, educational facilities are growth accommodating, not growth inducing. Increased demand for school services is generally linked to changes in surrounding local land use patterns such as the construction of new dwelling units and the generation of new jobs that encourages new people to move into the area. No housing is proposed as a part of the modified project. The adjustment of jurisdictional lines to incorporate a school that already serves the City's residents would not be growth inducing. The District-certified project related population growth was considered less than significant with no mitigation necessary. The modified project poses no changes that would change the determination made in the FEIR.

Would the project result in a substantial (15 single-family or 25 multi-family dwelling units - about one-half block) net loss of housing units through demolition, conversion, or other means that may necessitate the development of replacement housing?

The modified project does not involve demolition or conversion of housing, and it is likely this 2017 City of Oxnard CEQA Guidelines Threshold would have been screened out in the Initial Study. No housing is proposed as a part of the modified project.

Would the project cause an increase in enrollment at local public schools that would exceed capacity and necessitate the construction of new or expanded facilities?

In general, educational facilities are growth accommodating, not growth inducing. Increased demand for school services is generally linked to changes in local land use patterns such as the construction of new dwelling units and the generation of new jobs that encourages new people to move into the area. This 2017 City of Oxnard CEQA Guidelines Threshold would likely have been screened out in the Initial Study.

Would the project directly or indirect interfere with the operation of an existing or planned school?

The District-certified project is a proposed middle school expansion that would accommodate the higher function of an existing middle school. The modified project would remove challenges from the operation of an existing middle school. This 2017 City of Oxnard CEQA Guidelines Threshold would likely have been screened out in the Initial Study.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.15 PUBLIC SERVICES

As documented in the FEIR, potential impacts to public services related to the proposed project covered by the FEIR was found to be less than significant in the FEIR. The modified project would not introduce project elements that would affect public services in the area, either directly or indirectly, and impacts on public services would remain less than significant. As discussed in the FEIR, although the proposed project covered by the FEIR would be provided with fire protection, police protection, emergency services, and other public services as necessary, the project demand would not result in a substantial impact on

current level-of-service ratios or response times, and no new or physically altered governmental facilities are required for the modified project. Therefore, impacts would remain less than significant.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.16 RECREATION

As documented in the FEIR, potential impacts to recreation related to the proposed project covered by the FEIR were found not to be significant in the Initial Study phase and was discussed only in Appendix A of the FEIR.

The modified project does not introduce any new on-campus recreational facilities, beyond what was discussed in the FEIR. There are proposed recreational facilities on the existing main campus and the southern campus expansion area. Proposed recreational facilities on the southern campus expansion area include a proposed "flex" multi-sport playfield, six basketball courts, four sand volleyball courts and other recreational opportunities. It is not expected that any increased use of City-owned recreational facilities that could result from implementation of the modified project would result in physical deterioration of said facilities. Therefore, the modified project would not result in an increased demand or impact to recreational facilities, and impacts would remain less than significant.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.17 TRANSPORTATION

As documented in the FEIR, the proposed project covered by the FEIR would have no impact related to transportation/traffic, with incorporation of mitigation measures TRAF-1, TRAF-2, and TRAF-3.

The following two 2017 City of Oxnard CEQA Guidelines Thresholds were not specifically listed in the FEIR:

Would the project 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?

The modified project is not in the vicinity of an airport that could be impacted. Therefore, the modified project would not result in a change in air traffic patterns. The modified project would not introduce any new or substantially increase the significance of any impacts to transportation.

Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Under current conditions, the RDV student population arrives at school on a bus or via a self-transport mode (as a pedestrian, on a bicycle, or dropped off from a vehicle). The same will be true after the modified project is completed and the expanded RDV facility commence operations. There is no reason to project that the percentage of each mode will change after the modified project is completed. The

District seeks to improve the efficiency of ingress and egress for students that will benefit existing alternative modes of transportation such as the bicycles and buses that bring students to campus. As described in the FEIR Transportation Section and Project Description, the new DTPF that will be co-located with the expanded RDV facility, will create a separate entrance on Collins Street for bus traffic, both to access Parking Lot A and the school bus drop-off/pickup lanes. (Stantec 2024a). This will improve the efficiency of the drop-off and pick-up processes for both bus traffic and vehicle traffic. Improved efficiency in these processes translates directly into a smaller amount of fuel used per student per day under proposed conditions. In addition, because the new bus facility will be co-located with RDV, efficiency in the total length of bus trips will be realized for the six daily morning and six daily afternoon bus trips for students of RDV because of a 1.5 mile per trip reduction in the distance traveled. The remaining 418 bus trips serving the rest of the RSD will save a combined, net, three miles per day due to the new proposed co-location of the new DTPF. Therefore, the projected energy use per student, is expected to decrease with the expanded RDV facility. The modified project would not cause a permanent increase in traffic or vehicle miles traveled (VMT) in the area; remove or change the location of any sidewalk, bicycle lane, trail, or public transportation facility; or conflict with adopted policies, plans or programs related to alternative transportation.

The modified project increases the student enrollment capacity of RDV. As indicated in the updated VMT Analysis (Stantec 2024b), without the enrollment capacity increase a student may need to attend the Rio Vista Middle School, located approximately 1.3 miles from the project Site and 4 to 5 miles from the furthest point of the attendance boundary. The modified project would be considered to reduce VMT (reducing tour-based trips) by adding student capacity in a central location of the District.

As discussed in the FEIR, short-term increases in traffic volume associated with construction workers and equipment on the local road network would occur during construction activities, and this increased traffic could interfere with emergency response times. However, temporary traffic control would be required in accordance with state requirements and must adhere to the procedures, methods, and guidance given in the current edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD).

Additionally, the modified project does not include any components that would permanently increase the potential for hazards due to a design feature or incompatible uses. Because no permanent impacts to the circulation system would occur, and safety measures would be employed to safeguard travel by the general public and emergency response vehicles during construction, transportation/traffic impacts would be less than significant.

Updated Traffic and Circulation Study

An updated Traffic and Circulation Study was prepared by Stantec for the modified project (Stantec 2024a). The updated Traffic and Circulation Study is included in Appendix C of this SEIR. The following is a brief summary of the traffic analysis for the various traffic analysis scenarios. The updated Traffic and Circulation Study (Appendix C) evaluates the impacts of joint use activities at the RDV Sports Complex, including youth sports by groups like Oxnard Youth Baseball, Oxnard Youth Soccer, and Rio Area community youth sports, primarily utilizing Parking Lot A. The study confirms that the proposed 150 parking spaces (Figure 1) adequately accommodate parking demand, traffic flow, and circulation during peak usage, such as youth sports events, without significant transportation impacts. These activities, scheduled outside school hours (typically after 6:00 p.m. on weekdays and on weekends per the Joint Use Agreement, Appendix E), minimize conflicts with school operations. The analysis, based on observed usage patterns and event schedules, integrates existing and projected traffic and parking

scenarios, ensuring sufficient capacity for both school and community uses without notable impacts during peak school-related traffic periods.

Existing Roadway and Intersection Operations

Table 2 of the updated Traffic and Circulation Study indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue operates in the LOS A range under existing conditions. Table 3 indicates that the nine study-area intersections operate in the LOS A-C range except the Auto Center Drive/Collins Street intersection, which operates below the City of Oxnard LOS C standard (Stantec 2024a). The Stantec Updated Traffic and Circulation Study (2024, Appendix C) analyzes traffic impacts based on counts from two roadway segments and nine intersections, including two serving the school's ingress/egress driveways. These counts capture all trips from the existing school site, including school activities and community joint use (e.g., Community Clinic, Sheriff's Department, and youth sports groups using the gym and fields).

The modified project includes Phase I-B enhancements at the signalized intersections of Rose Avenue/Walnut Drive and Rose Avenue/Collins Street to improve traffic flow and safety (Figure 2). To meet City of Oxnard requirements, the RSD ensures signal timing adheres to City standards and the California Manual on Uniform Traffic Control Devices (CAMUTCD), incorporating minimum green times for bicycles, Walk/Don't Walk intervals, and yellow intervals. Signal calculation worksheets have been submitted to City staff for review (Stantec 2024, Appendix C). RSD will fund these improvements at its sole cost, with details to be finalized through the City's Development Application Conditions (DAC) process, separate from CEQA mitigation (Stantec 2024, Appendix C).

Additionally, the modified project addresses the City's request to enhance the Auto Center Drive/Collins Street (Via Estrada) intersection for school buses and peak-hour traffic. The study indicates this intersection operates at LOS D under cumulative conditions without the project and does not meet CAMUTCD signal warrant criteria (e.g., Warrant 7 – Crash Experience with fewer than 5 crashes in 12 months, or volume-based warrants with 76 PM peak-hour trips). Stopping sight distance (300 feet at 40 mph) is satisfied, and collision data does not justify signalization. Per the City's recommendation (February 23, 2024), Phase I-B includes southbound left-turn restrictions via a raised median and signage, diverting up to 54 PM peak-hour trips to the Rose Avenue/Collins Street intersection, which operates acceptably with a restriped westbound approach (Stantec 2024, Table 12).

These improvements ensure compliance with City standards and applicable transportation policies, maintaining a less-than-significant transportation impact, as the project does not conflict with plans, policies, or safety standards, or degrade intersection performance (Stantec 2024, Appendix C).

Cumulative Roadway and Intersection Operations

Table 4 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under cumulative conditions. Table 5 indicates that the nine study-area intersections would operate in the LOS A-C range under cumulative conditions, except the Auto Center Drive/Collins Street intersection, which would operate below the City of Oxnard LOS C standard (Stantec 2024a).

Cumulative plus Project Roadway and Intersection Operations

Table 8 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under cumulative plus project conditions. Table 9 indicates

that the nine study-area intersections would operate in the LOS A-C range under cumulative plus project conditions, except the Auto Center Drive/Collins Street intersection, which would operate below the City of Oxnard LOS C standard (Stantec 2024a).

To meet the City of Oxnard's requirements for the modified project, the RSD will address conflicts between power lines and traffic signal equipment at the Rose Avenue/Walnut Drive, Rose Avenue/Collins Street, and Auto Center Drive/Collins Street intersections. RSD will coordinate with Southern California Edison (SCE) to underground power lines and communication cables along the school boundary, including crossing lines, in Phase I-B (Figure 2). This enables the installation of safety lights on signal poles and eliminates wires that could obscure traffic signal indicators, aligning with City standards. These improvements, categorized as DAC, will be detailed in RSD's response to the City's DAC comments, separate from CEQA mitigation requirements.

Additionally, RSD will enhance pedestrian crossings at the signalized intersections of Rose Avenue/Walnut Drive and Rose Avenue/Collins Street, incorporating the City's standard crosswalk design with ADA-compliant curb ramps, high-visibility striping, and countdown pedestrian signal heads, as shown in the Project Site Plan (Figure 1) and implemented in Phase I-B (Figure 2). Signal calculation worksheets submitted to City staff confirm compliance with City of Oxnard standards and the CAMUTCD (Appendix C).

The Updated Traffic and Circulation Study (Appendix C) verifies that these enhancements maintain a less-than-significant transportation impact, as the modified project complies with applicable transportation plans, policies, and safety standards without degrading intersection performance.

Year 2030 plus Project Roadway and Intersection Operations

Table 10 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under Year 2030 plus project conditions. Table 11 indicates that most of the nine study-area intersections would continue to operate at LOS C or better under Year 2030 plus project conditions. The intersections of Rose Avenue with Stroube Street and with Auto Center Drive, and the Auto Center Drive/Collins Street intersection, are expected to operate below the LOS C standard (Stantec 2024a).

Improvement Measures

Cumulative plus Project Improvements

Auto Center Drive/Collins Street intersection. The cumulative plus project analysis indicated that the modified project would contribute to the delays experienced the Auto Center Drive/Collins Street intersection, which would operate below the LOS C standard in the PM peak hour. Review of collision data provided by the City (included in the Technical Appendix of the updated Traffic and Circulation Study) indicates that the collision history does not satisfy the *CAMUTCD Traffic Signal Warrant 7 – Crash Experience Warrant* of 5 or more crashes reported in a 12-month period that are susceptible to correction by a traffic signal. In addition, the low side street volumes (76 peak hour trips in the PM peak hour) and delays would not satisfy any other of the CAMUTCD traffic signal warrants.

City staff have indicated a safety concern at this intersection due to the crossing length for southbound left-turn traffic onto eastbound Auto Center Drive, and corner sight distance constraints to vehicles approaching from the east on Auto Center Drive. Review indicates that corner sight distance requirements for 40 mph speeds are not satisfied. Per City direction, at a minimum southbound left-turn

restrictions should be implemented by installing a raised median and appropriate signage. With this restriction, the intersection would operate at LOS B or better (Table 12).

The turning restriction may result in the diversion of southbound left-turn traffic (maximum 50 AM PHT and 54 PM PHT) to the Rose Avenue/Collins Street intersection (westbound left-turn movement). With the restripe of the westbound approach to a separate left-turn lane and a shared through/right-turn lane, as shown in Exhibit 2, no adverse impacts to level of service or queue lengths will occur. The final cross section of Collins Street shall be consistent with *City of Oxnard Standard Plate No. 100; Minor Residential Street*, with a roadway width of 36 feet.

Rose Avenue/Walnut Drive intersection. The Stantec Updated Traffic and Circulation Study (Stantec 2024, Appendix C) evaluated traffic impacts at the Rose Avenue/Walnut Drive intersection, finding no significant impacts based on CEQA criteria (XVII. Transportation a. through d.). Several general countermeasures have been identified by the County for this intersection, including installation of retroreflective backplates, a yellow-change and all-red clearance interval update, and painting directional arrows on the eastbound approach (Walnut Drive). Additional traffic signal improvements may include provision of a protected left-turn signal head for the northbound left-turn movement and replacing the green ball of the signal face for the No.1 southbound through lane with a green directional arrow to emphasize the through-only movement. Additional improvements may include realignment of the crosswalk on the north side of the intersection to provide for shorter crossing times, including ADA improvements and installation of a pedestrian push button post on the northeast corner. The City of Oxnard noted that Exhibit 3 (page 7) of the updated traffic study incorrectly depicts the southbound approach at Rose Avenue/Walnut Drive as having three lanes, including a separate right-turn lane, when the existing configuration includes only two lanes with a shared through/right-turn lane. This graphical error in Exhibit 3 does not affect the study's analysis or operational findings, which correctly assume the two-lane southbound configuration. The analysis confirms that the modified project does not degrade the intersection's level of service or conflict with applicable transportation plans, policies, or safety standards, resulting in a less-than-significant impact. Exhibit 3 will be corrected in the Final SEIR to accurately reflect the two-lane southbound configuration (Stantec 2024, Appendix C)

School TMP. It is recommended that the District develop a school traffic management plan (TMP) to document and implement measures to promote travel mode shifts, optimize on-site circulation and provide safety for students, parents and staff (education, traffic control, physical measures such as speed humps). The modified project, located within the southern campus expansion area, includes a bus turnaround, drop-off area, and Parking Lot A, designed to optimize on-site traffic flow and minimize impacts on adjacent public streets, such as Rose Avenue and Collins Street (Figure 1). To address the City of Oxnard's concerns, the RSD incorporated a school bus turning analysis using AutoTURN software into the site plan design, verifying that the turnaround accommodates standard school bus turning radii for safe and efficient on-site maneuvering without affecting public streets (Stantec 2024, Appendix C).

To enhance traffic operation and storage, RSD modified the drop-off area and Parking Lot A ingress design as follows: (1) reducing the drop-off ingress to one lane from two; (2) prohibiting entry to Parking Lot A from the drop-off ingress; (3) designating a third lane to guide drivers to Parking Lot A; and (4) restricting Parking Lot A traffic to southbound flow. These changes, reflected in the Project Site Plan (Figure 1), improve vehicle circulation, increase storage capacity, and reduce ingress congestion. Additionally, a raised median along Rose Avenue, implemented in Phase I-B (Figure 2), prevents southbound entry into the drop-off ingress, directing traffic to designated entry points and enhancing safety and flow, as analyzed in the Stantec Updated Traffic and Circulation Study (Appendix C).

RSD commits to managing the drop-off area along Rose Avenue during all operational times to ensure safe and efficient traffic flow for students, parents, and staff, as part of Phase I-B (Figure 2). This aligns with the school's Traffic Management Plan (TMP) recommended in the Stantec study, which includes measures like speed humps, traffic control, education, and travel mode shift promotion to optimize circulation and safety (Appendix C).

For pedestrian safety, RSD will enhance crossings at the north leg of Rose Avenue/Walnut Drive and Rose Avenue/Collins Street intersections, designing them perpendicular to the curb to minimize crossing distance and lead directly to the student walkway, as shown in the conceptual plan (Figure 1) and implemented in Phase I-B (Figure 2). Additionally, a sidewalk along the westerly side of Rose Avenue between Auto Center Drive and Collins Street, meeting City standards for major arterials, will be integrated with Rose Avenue and complement off-site improvements like curb, gutter, sidewalk, and bike lane enhancements along Rose Avenue and Collins Street (Figures 1 and 2).

These improvements, categorized as DAC by the City, will be detailed in RSD's response to the City's DAC comments, separate from CEQA mitigation requirements. The Stantec Updated Traffic and Circulation Study (Appendix C) confirms that the bus turnaround, drop-off enhancements, pedestrian crossings, sidewalk, and related measures maintain a less-than-significant transportation impact, as the modified project complies with applicable transportation plans, policies, and safety standards without degrading on-site or adjacent street operations, pedestrian access, or intersection performance.

Year 2030 plus Project Improvements Rose Avenue/Stroube Street intersection. The Year 2030 analysis indicated that the modified project would contribute to the delays experienced at this unsignalized intersection, which would operate below the LOS C standard in the AM peak hour with and without project traffic. Stroube Street is a minor residential street with a right-of-way of 62 feet. The existing 24-foot-wide pavement section can be widened to the ultimate width of 36 feet to provide separate eastbound left-turn and right-turn lanes. Alternatively, eastbound left-turn restrictions could be implemented. This would affect 13 left-turn vehicles in the AM peak hour and 6 left-turn vehicles in the PM peak hour.

Rose Avenue/Auto Center Drive intersection. The Year 2030 analysis indicated that the modified project would contribute to the delays experienced at this unsignalized intersection, which would operate below the LOS C standard in the AM and PM peak hours without and with project traffic. The eastbound approach (Ventura Boulevard) could be widened to install a second through lane to provide for acceptable operations during the AM peak hour, however the intersection would continue to operate in the LOS E range during the PM peak hour (Table 13, Stantec 2024a). Additional widening of the westbound approach (Auto Center Drive) to either provide dual left-turn/shared left-through/through/right-turn (E/W split-phased) configuration or provide a triple left-turn/through/right-turn (E/W protected left-turns) configuration would result in LOS D operations (51 sec. delay and 46 sec. delay, respectively. Some widening on the west side will also be required to either provide two receiving westbound lanes or to align with a new separate through lane.

Auto Center Drive/Collins Street intersection. The Year 2030 analysis indicated that the Auto Center Drive/Collins Street intersection would operate below the LOS C standard without and with project traffic. Similarly to cumulative plus project conditions, southbound left-turn restrictions would result in LOS B or better (Table 13, Stantec 2024a).

Updated VMT Analysis

An updated VMT analysis was prepared by Stantec for the modified project (Stantec 2024b). The updated VMT analysis is included in Appendix C of this SEIR. Appendix C includes the Stantec Updated Traffic and Circulation Study (Stantec 2024), which incorporates signal calculation worksheets for Rose Avenue/Walnut Drive and Rose Avenue/Collins Street, supporting signal timing, necessary intersection enhancements, and pedestrian crossing designs, using the City of Oxnard's signal timing basic parameters and CAMUTCD standards, analysis of the Auto Center Drive/Collins Street intersection, including median restriction impacts, turning restrictions for the drop-off ingress along Rose Avenue, a recommended school TMP to optimize circulation and safety, and analysis of traffic calming measures such as speed humps near the drop-off area.

The school portion of the modified project is the dominant use and meets the locally serving screening criteria; therefore, the modified project is presumed to have a less than significant impact at the project level. Furthermore, the DTPF portion of the modified project would also be less than significant on a stand-alone basis based on both the small project screening criteria and the locally serving screening criteria. Since the modified project would have a less than significant impact at the project level, the modified project would have a less than significant impact at the cumulative level per OPR's Technical Advisory. The modified project was also determined to be consistent with regional plans and to not impact active transportation or transit use.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.18 TRIBAL CULTURAL RESOURCES

As documented in the FEIR, the proposed project covered by the FEIR would have less than significant impacts related to tribal cultural resources with implementation of Mitigation Measures CULT-2 and CULT-3. The modified project does not include any additional ground disturbance or alterations to structures that could affect tribal cultural resources beyond what was evaluated in the FEIR. As discussed in the FEIR, based on the Cultural Resources Study (Tetra Tech 2022) and tribal consultation, no tribal cultural resources have been identified within the project Site or within the immediate vicinity.

Mitigation Measures CULT-2 and CULT-3 were included in the FEIR to reduce potentially significant impacts to unknown tribal cultural resources that could be encountered during construction of the modified project. Implementation of these two mitigation measures and existing state laws regarding human remains would reduce the modified project's incremental potential impacts to tribal cultural resources to less than significant. The modified project would not result in any new or increased significant impacts to tribal cultural resources.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.19 UTILITIES AND SERVICE SYSTEMS

As documented in the FEIR, the proposed project covered by the FEIR would be less than significant related to Utilities and Service Systems with implementation of Mitigation Measures UTIL-1 and HYDRO-2.

The following 2017 City of Oxnard CEQA Guidelines Thresholds for Utilities and Energy were not specifically listed in the FEIR, but the content of the following thresholds were addressed in the FEIR in the Utilities and Service Systems section.

Would the project require additional energy facilities, the provision of which may have a significant effect on the environment?

The corresponding 2022 CEQA Guidelines Threshold appears in the FEIR as follows:

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The FEIR Volume II evaluated potential effects to the environment resulting from project energy facilities on pages 3-205 through 3-207. The modified project is designed to include energy saving features such as ultra-high efficiency rooftop packaged units, demand control ventilation, solar panels, and an energy management system that will provide scheduled times of operation as well as temperature-setback when the classroom is unoccupied. The electrical systems will include energy-efficient LED lighting fixtures in the interior and exterior of the buildings with low voltage controls to include dimming, daylight sensors and automatic occupancy sensing devices. The project Site parking lots and pathway pole-mounted lighting and sports field lighting will have energy-efficient LED lamps and drivers with low voltage controls. The electrical power transformer specified for the modified project will be an energy-efficient type complying with the most recent California energy code.

The project will connect to the existing 8-inch Southern California Gas main line currently serving the existing main campus. Natural gas will be used to power various assets including appliances, such as stoves and ovens, and equipment such as water heaters, boilers, and classroom heaters (furnaces). The modified project is planned to connect to existing utility lines and local telecommunication providers and is not anticipated to require the construction or relocation of electric power, natural gas, or telecommunication facilities. The project Site area is adjacent to existing service infrastructure and will make any required upgrades to connect to existing utility lines and providers. Utility providers within the City were included on the distribution list for the environmental documents pertaining to the proposed project (including the Initial Study). Therefore, project impacts resulting from the modified project energy facilities would be less than significant.

The District is proposing the annexation of the southern campus expansion area and existing main campus into the City of Oxnard, in order to obtain municipal services (water and sewer) for the modified project. The project was not accounted for in the City's Master Plan, which will affect the City's Urban Water Master Plan and increase the operational requirements. Three revised water resources system technical reports for the proposed improvements that were modified by this SEIR can be found in Appendix B. The existing water wells within the southern campus expansion area and the existing main campus will be abandoned/destroyed. Future water service to RDV will be 100% from the City of Oxnard (no longer from United Water and on-site well). New water connection to the southern campus expansion

area will be made in Collins Street. Water service for the existing main campus will be made to the existing 8” line on the existing main campus that currently serves the on-site fire hydrants.

The existing main campus and southern campus expansion area require annexation to the Metropolitan Water District of Southern California (Metropolitan (MET)) and Calleguas Municipal Water District (Calleguas), with the approval of LAFCO, to obtain potable water service from the City of Oxnard. This Final SEIR documents the annexation process, which includes compliance with Metropolitan’s water standby charges and conditions under Administrative Code Sections 3100, 3104(b), and 4509. The RSD will coordinate with Metropolitan to facilitate annexation, ensuring sufficient water supply for the project’s operational needs, including joint use activities at the RDV Sports Complex and community facilities (see Section 3). The Water Demand Technical Memorandum (See Appendix B) confirms adequate capacity in the City of Oxnard’s water system to serve the project, with no significant impacts on water supply infrastructure.

The existing main campus is connected to the City of Oxnard’s sewer system via a sewer main in Rose Avenue. New buildings in the southern campus expansion area will be served through a new sewer connection in Collins Street. City standards consider an 8” pipe at capacity when half full (50% capacity). The Sewer Analysis (Jensen Design & Survey 2024c, Appendix B) modeled the proposed connection, assuming full buildout of vacant downstream land per City of Oxnard Public Works requirements and found the pipe would be 14% full with the additional sewage from the RDV campus expansion. This indicates sufficient capacity in the immediate public sanitary sewer system, resulting in a less-than-significant impact on the City’s sewer system. To address potential impacts on the downstream trunk line and ensure no reduction in capacity reserved for other developable lands within city limits discharging to the same trunk, a Downstream Sewer Analysis Report (Jensen Design & Survey, December 1, 2023, Appendix B) was submitted to the City, evaluating downstream flows and capacity. Additionally, the RSD is obtaining an encroachment permit to install monitoring equipment in Rice Avenue, as outlined in a May 30, 2024, letter from Tai Chau (City of Oxnard Public Works). Sewer monitoring, scheduled to begin May 6, 2025, and run for two weeks, will collect data on downstream flows at locations specified in the monitoring plan (Jensen Design & Survey 2024c, Appendix B), supplemented by previously submitted sewer buildout calculations and an exhibit. These results will be submitted to the City to determine any future impacts and necessary improvements. The RSD will implement downstream improvements as directed by the City Engineer, based on the Public Works Sewer Modeling, the 2023 Downstream Sewer Analysis Report, and monitoring results, to maintain system performance and accommodate existing and planned development (Jensen Design & Survey 2024c, Appendix B).

A new water connection to the southern campus expansion area will be made in Collins Street. Water service for the existing main campus will be made to the existing 8” line on the existing main campus that currently serves the on-site fire hydrants. This includes the new restrooms on the southern campus expansion area. The new 1,900 SF Athletic Restrooms/Storage Building that is part of the sports fields on the existing main campus will be connected to the existing lateral at that location. Formerly this lateral served the old existing baseball field structures including the Snack Shack and restrooms that have been previously demolished in preparation for the new 1,900 SF Athletic Restrooms/Storage Building that will be constructed during Phase I-A. The proposed water system will meet the minimum fire flow and pressure requirements for the proposed fire hydrants related to the campus expansion. The proposed and relocated fire hydrants will provide the minimum of 1,500 gpm at 20 psi for a duration of 2 hours while the development continues to function at the peak hourly demand. As currently laid out, the 8" fire main loop throughout the RDV campus expansion, can accommodate a fire flow demand as high as 2,841

gpm at 20 psi. All pipes have been adequately sized to provide adequate system pressures and to prevent a velocity exceeding 10 fps, even during a fire flow event (Jensen Design & Survey 2024a, Appendix B).

The RDV Middle School Campus Expansion Project incorporates water conservation measures to minimize water demand, including water-efficient fixtures (e.g., low-flow faucets, toilets, and urinals), drought-tolerant landscaping along Rose Avenue and Collins Street frontages, and the use of reclaimed water where feasible for irrigation of recreational fields and landscaping. These measures align with the City of Oxnard's water conservation standards and Metropolitan's recommendations. This Final SEIR evaluates additional opportunities for reclaimed water integration, such as connecting to the City of Oxnard's reclaimed water system for non-potable uses, and other strategies, including smart irrigation controllers and native plantings, to offset increased water demand from the project's expanded facilities and joint use activities (e.g., RDV Sports Complex). The Water Demand Technical Memorandum (Jensen Design & Survey 2024a, Appendix B) confirms that these conservation measures, combined with the City's water supply capacity, result in a less-than-significant impact on water resources.

The modified project includes construction of an existing RDV campus, utilized for educational purposes; no significant increase in utilization of utilities and services beyond what was addressed in the FEIR is proposed. The utilities analysis accounts for demands from joint use activities, including youth sports groups such as Oxnard Youth Baseball, Oxnard Youth Soccer, and Rio Area community youth sports groups utilizing Parking Lot A and the RDV Sports Complex. Water, wastewater, and energy demands associated with these activities, supported by the 150 parking spaces in Parking Lot A (Figure 1), are included in the modified project's utility projections. The analysis confirms that these joint use activities do not result in significant utility impacts, as their demands are integrated into the modified project's utility requirements and infrastructure planning. As such, the modified project would not result in the need for new or expanded water, natural gas, or telecommunications facilities. In addition, improvements to the existing buildings would not require significant relocation of water, electric power, natural gas, or telecommunications facilities.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.20 WILDFIRE

As documented in the FEIR, impacts related to wildfire for the proposed project covered by the FEIR were found not to be significant in the Initial Study phase and only discussed in Appendix A of the FEIR.

The modified project does not include any development or improvements that would increase the long-term risk of wildland fires or expose people or structures to wildland fires. The modified project would not require installation of infrastructure that could exacerbate fire hazards (e.g., power lines in vegetated areas), would not construct public roads or otherwise intrude into natural spaces in a manner that would increase wildlife hazards in the long term, and would not require construction of fuel breaks that may result in temporary on-going impacts to the environment.

Further, the modified project does not have any components that would expose people to significant post-fire risks such as flooding and landslides. The modified project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area.

Determination:

No new significant environmental effects, or substantial increase in the severity of previously identified significant effects, would occur. No new mitigation measures are required.

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

As documented in the District-certified FEIR, design features incorporated into the proposed project covered by the FEIR would avoid or reduce certain potential environmental impacts, as would compliance with existing regulations. Notwithstanding mitigation, significant and unavoidable impacts would occur to Agriculture.

Other remaining impacts would be reduced to levels that are less than significant through implementation of the mitigation measures identified in the FEIR.

The previously adopted mitigation measures presented in the FEIR extend to the modified project presented herein and are included as conditions of the SEIR approval, and the District is responsible for ensuring specific implementation. In order to further reduce the impacts associated with farmland conversion of the 11.3 acres of the southern campus expansion area actively used for agricultural production, Mitigation Measure AG-3 has been added to the SEIR. The northern campus expansion area (10 acres) is not part of the modified project, as stated in Section 1 Introduction, with no associated mitigation measures (see Section 1), therefore AG-2 has been removed.

Therefore, the modified project would not increase the potential for significant impacts on the environment beyond what was presented and set forth in the District-certified FEIR.

SECTION 6 DETERMINATION

Based on substantial evidence documented in the FEIR and this SEIR, the District, as lead agency, has determined that the proposed modifications would not change the conclusions in the District-certified FEIR. The modified project would meet the same objectives stated in the certified FEIR:

1. Address significant community health, safety, and welfare issues including congested traffic and parking conditions;
2. Streamline District student transportation to improve safety and reduce VMT;
3. Accommodate existing and projected future student enrollment within the District;
4. Locate school facilities within close proximity to students' residences;
5. Provide new facilities and sports fields that meet the District's educational program specifications and community needs;
6. Consolidated facilities that reflect the need and efficient use of limited land resources; and
7. Ensure cost-effective use of state and local public resources funding sources.

No substantial changes are proposed, no new potentially significant impacts would occur, and the modified project would not increase the severity of previously identified potentially significant impacts. None of the conditions described in Section 15163 of the CEQA Guidelines apply to the project as amended, and the proposed revisions to the proposed project necessitate only minor technical changes or additions to the previously District-certified FEIR to make it sufficient to address the modified project. Therefore, preparation of a SEIR to the previously District-certified FEIR provides an appropriate level of additional environmental review.

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Appendix A – Final Environmental Impact Report – Rio Del Valle Middle School Existing Campus Expansion Master Plan

Rio del Valle Middle School Existing Campus Expansion Master Plan

Appendix B – Updated Water Resources System Reports

Water Demand Technical Memorandum

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August 28,2024

City of Oxnard
Tai Chau
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Subject: Water Demand and Allocations
Rio del Valle School Expansion

The Rio del Valle Middle School Expansion Project includes expanding the campus to the south. The Rio School District (RSD) has acquired 11.3 acres to the south of the existing Rio del Valle Campus. The expansion area will include additional buildings, landscaping, and bus parking. This letter presents the analysis of projected water demand for the project and required water allocations.

Existing Usage

The existing Rio del Valle (RDV) campus is served by three different sources of water: the on-site well, United Water, and the City of Oxnard. The City of Oxnard supplies water for the gymnasium, United Water supplies for the existing campus buildings, and the on-site RDV well supplies irrigation water for landscaping and water of play fields.

With this project, the existing campus water usage would be served by the City of Oxnard. The existing usage not already served by the City of Oxnard is noted in Table 1 below.

Table 1: Existing Campus Water Usage Not Already Served by City

	Ac	Average Annual Demand (AFY)	Demand/AC (AFY/Ac)	Source
Existing Campus Buildings	1.58	1.134	0.718	United Water 2017-2018
Existing Irrigation	10.97	21.62	1.971	On-site well 2012-2017
Total		**22.754**		

Proposed Usage

The southern campus expansion will increase the number of classrooms and other campus buildings. Expected water demand for these buildings has been calculated based on the usage for the existing buildings and is identified in Table 2 below. Expected demand for irrigation was calculated in a similar manner (based on existing usage per irrigated acre).

Additionally, there are two areas on the existing campus that will no longer be irrigated and can be removed from the total projected usage. These are the ball field improvements that will be concrete and artificial turf and the parking area at the northeast edge of campus that replaced a grass field. Thus, the projected demand for the improvements on the existing and expanded campus will be as shown in Table 2 below.

Table 2: Projected Demand for Campus Improvements

	Ac	Demand/AC (AFY/Ac)	Projected Demand (AFY)
Proposed Bldgs	0.95	0.718	0.682
Proposed Irrigation	5.99	1.971	11.798
Reduced Irrigation	(4.73)	1.971	(9.323)
		Total Change in Demand with Development	**3.157**

Table 2 above shows that the conversion of existing campus irrigated areas to non-irrigated areas results in a very small increase of water usage even with the expanded campus property. Thus, the proposed water demand with the annexation of the existing campus and the expansion to the south is as noted in Table 3 below.

Table 3: Proposed Additional Water Demand from City of Oxnard

Existing Usage (AFY) from Table 1	22.754
Additional Usage (AFY) from Table 2	3.157
Calculated Add'l Water Demand from City	**25.911**

Oxnard Basin Groundwater Sustainability Plan

Fox Canyon Groundwater Management Agency (FCGMA) adopted a Groundwater Sustainability Plan in 2019 that requires the reduction of groundwater pumping from the Oxnard Basin. The target is to reduce the groundwater pumping by 45% from the established base period of 2005-2014. First the pumping during the base period must be established and then the 45% required reduction can be identified. The intent is to show how the proposed campus improvements and expansion comply with the 45% reduction for the year 2040.

The groundwater pumping for the existing school property during the 2005-2014 base period was identified by well data from the existing on campus well and shows an average AFY of 27.3342. See well data attached. The 11.3 acres to the south which will be part of the school expansion was in row crops and hoophouses during that time frame. Since the 11.3 acres was part of a larger property, the pumping records for the wells serving the property do not delineate this 11.3 acres specifically. However, when the school district purchased the property, a water usage of 2.235 AFY/ac. (25.2555 AFY total) was allocated to the school district. This is also a conservative number as groundwater pumping had already been reduced by FCGMA requirements prior to the recent land purchase. And last, United Water provides water service to

the existing campus buildings. The data available for United Water usage is from years 2017-2018 – so not during the base period. However, this is also conservative since the campus had already started to make some improvements on campus that would reduce water usage. See the table below for the base period usage for the existing campus and the 11.3 acres to the south. The existing gymnasium is excluded since it is already served by City of Oxnard water.

Table 4: 2005-2014 Base Period Usage

	AFY
RDV onsite well	27.3342
Southerly 11.3 acres	25.2555
United Water**	1.1341
Total Base Period Usage	**53.7238**

**2017-2018

To comply with FCGMA's 45% reduction requirement, the existing campus and southerly 11.3 acres would need to use 29.5481 AFY or less by the year 2040 (55% of 53.7238). Projected demand for the expanded campus is 25.911 AFY (Table 3) which is already a 52% reduction from the 2005-2014 base period (1- 25.911/53.7238). Therefore, by the irrigation improvements RSD has already made since 2014, the conversion of the existing ball fields to artificial turf this year, and the discontinuation of the crop irrigation on the southerly 11.3 acres, RSD has already accomplished the required 45% reduction and even exceeded it.

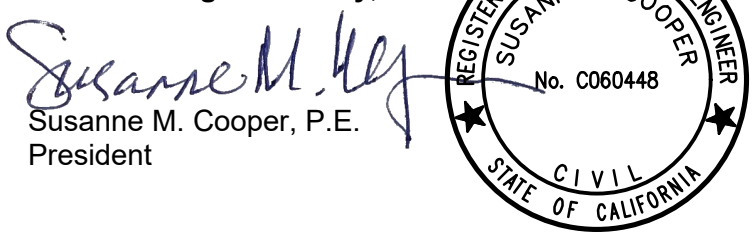
Water Transfer

The Rio School District will transfer **25.911 AFY** (Table 3) to the City of Oxnard to offset this project. With this transfer, the entire existing campus and the southerly expansion area will then be served by the City of Oxnard via the domestic water system.

Conclusion

This letter lays out a path for water use and allocations for the Rio School District and the Rio del Valle Campus expansion. The school district intends to transfer sufficient Fox Canyon Groundwater Aquifer allocations to the City of Oxnard to accommodate the increased demand the District will have on the City system with the proposed campus improvements and annexation. Additionally, with the transfer, the District will have already accomplished more than the 45% reduction ahead of the year 2040 that is required by FCGMA. Please contact us if you have any questions.

Sincerely,
Jensen Design & Survey, Inc.



Susanne M. Cooper, P.E.
President

Enclosures:
Well 02N22W26C03S Pumping Data for 2005-2014
United Water Usage 2017-2018

Pumping Data for Existing Well on RDV campus - Currently Being Used for Irrigation

Well Number	DWR Basin	Usage Code	Year Code (BI-ANNUAL)	Extraction (in AF)
02N22W26C03	OXN	M & I	2005-1	15.462
02N22W26C03	OXN	M & I	2005-2	14.746
02N22W26C03	OXN	M & I	2006-1	12.311
02N22W26C03	OXN	M & I	2006-2	10.314
02N22W26C03	OXN	M & I	2007-1	18.518
02N22W26C03	OXN	M & I	2007-2	16.928
02N22W26C03	OXN	M & I	2008-1	12.36
02N22W26C03	OXN	M & I	2008-2	12.36
02N22W26C03	OXN	M & I	2009-1	12.36
02N22W26C03	OXN	M & I	2009-2	12.36
02N22W26C03	OXN	M & I	2010-1	8.329
02N22W26C03	OXN	M & I	2010-2	16.77
02N22W26C03	OXN	M & I	2011-1	12.473
02N22W26C03	OXN	M & I	2011-2	21.602
02N22W26C03	OXN	M & I	2012-1	2.516
02N22W26C03	OXN	M & I	2012-2	5.814
02N22W26C03	OXN	M & I	2013-1	20.452
02N22W26C03	OXN	M & I	2013-2	17.273
02N22W26C03	OXN	M & I	2014-1	18.103
02N22W26C03	OXN	M & I	2014-2	12.291

27.3342 Average AFY

United Water - Rio Del Valle Water Usage (Existing Campus; excluding the gym and landscaping)

Bill Start	Bill End	HCF	acre-feet	Twelve Month Average		
7/1/2017	7/31/2017	21	0.0482			
7/31/2017	8/30/2017	35	0.0803			
8/30/2017	9/29/2017	60	0.1377			
9/29/2017	10/29/2017	57	0.1309			
10/29/2017	11/30/2017	32	0.0735			
11/30/2017	12/31/2017	31	0.0712	1.077		
12/31/2017	1/31/2018	31	0.0712		1.074	
1/31/2018	3/3/2018	31	0.0712			1.251
3/3/2018	3/31/2018	48	0.1102			
3/31/2018	4/30/2018	52	0.1194			
4/30/2018	5/31/2018	48	0.1102			
5/31/2018	6/30/2018	23	0.0528			
6/30/2018	7/31/2018	20	0.0459			
7/31/2018	8/31/2018	112	0.2571			

Average Annual:		1.1341	AFY

Preliminary Hydrology Report

JENSEN
DESIGN & SURVEY, INC.
Delivering excellence through experience

1672 Donlon Street
Ventura, CA 93003
Local 805 654-6977
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www.jdscivil.com

RIO01.6207
September 13, 2024

City of Oxnard
Tai Chau
214 S C St.
Oxnard, CA 93030

Subject: Rio Del Valle Middle School Expansion—Preliminary Hydrology

Dear Tai,

Rio School District (RSD) plans to expand Rio Del Valle Middle School by 11.3 acres to the south of the existing 30.2-acre campus and reconfigure 2.9 acres of parking lot in three phases of construction. The expansion will provide additional onsite parking, new classrooms, a lunch play field, four sand volleyball courts, a food service building, and a vehicle maintenance building. The site is currently developed with hoop houses and one residence. RSD plans to demo all of the existing structures. These improvements will occur on 34% of the combined total campus area after expansion. This letter addresses MS4 stormwater compliance as well as onsite detention requirements.

Drainage Patterns

The existing 30.2-acre campus (north campus) currently drains east towards the existing farmland at APN 144-0-110-055. The expansion site (south campus) slopes in a southeasterly direction. Runoff discharges from the site via surface flow towards an agricultural ditch along the southern property line. The ditch drains east through the neighboring agricultural property and discharges directly into a gunite lined channel bordering Team Nissan, as reflected in City of Oxnard Drawing Number 86-94A. The channel drains south towards Auto Center Drive and transitions to an underground 36” Reinforced Concrete Pipe (RCP) between the Infiniti and Nissan dealerships. Runoff tributary to the RCP spills into the 6’x3.5’ City of Oxnard reinforced concrete box in Auto Center Drive, approximately 0.25 mile from the project site. The storm drain system within Auto Center Drive was constructed as part of Tracts 4169 and 4162. This area is part of the Rose/Santa Clara Corridor Project and subject to the standards established in the City of Oxnard Ordinance No. 2085. Runoff from the site is eventually tributary to Calleguas Creek and the Pacific Ocean.

In the developed condition, the north campus will continue to drain east towards the existing farmland, so the runoff from the existing north campus was not included in our treatment and detention calculations. The 14-acre site (south campus), which includes 11.3 acres of new development and 2.9 acres of redevelopment, will be 41 percent impervious. Construction will be divided into three phases, with each phase handling stormwater conveyance separately. Infiltration for Phases 1, 2, and 3 will be combined into one underground basin within Phase 2 and constructed as part of Phase 1. Detention for all three phases will be consolidated into a single above-ground detention basin located within Phase 3, which will also be constructed

during Phase 1. During the construction of Phase 3, this above-ground basin may be modified to a below-ground storage basin to meet the detention requirements for all phases. Within each phase, stormwater runoff will be collected in an onsite storm drain system, which will carry it to a diversion structure that splits flows between infiltration, detention, and offsite. High flows from the diversion structures and flows released from the detention basin will drain east through the neighboring property in a proposed storm drain. This proposed storm drain will tie into the existing lined channel near the bend in Collins Street, which discharges into the existing City of Oxnard storm drain facilities at Collins Street and Auto Center Drive.

Stormwater Flows

Flows for the 10- and 50-year storm events were omitted in the preliminary design due to the 100-year event having the largest peak runoff which will result in the largest detention requirements.

Stormwater flows for the 100-year developed condition were calculated using VCRat. Times of concentration were calculated using the Ventura County Tc Calculator. VCRat results were used to create hydrographs for the site and determine the volume of runoff to analyze the detention system. Detention was designed using the Hydraflow Hydrographs Program. Cook's method was not used because we wanted the hydrograph output from VCRat, which was found to be more conservative.

Post-construction, undetained peak flowrates from the project are shown in Table 1 below.

	Phase 1	Phase 2	Phase 3
Q100 (CFS)	8.1	12.4	5.9

Table 1: Pre-Detention Peak Flow

MS4 Requirements

This project is subject to compliance with the 2021 Ventura County MS4 Permit (Order R4-2021-0105). Infiltration testing completed by Tetra Tech and documented in their October 12, 2023 report indicate that the infiltration rates of the lower alluvium 10-15' below ground surface (BGS) are favorable. Rates and testing locations can be referenced in the attached excerpt from the report. Due to the favorable infiltration rates, infiltration is being proposed at 18' BGS, in the form of a combined underground basin.

Low flows must be pre-treated prior to flowing into the basin. For preliminary design purposes, it is assumed a hydrodynamic separator (such as the Downstream Defender manufactured by Hydro International) will be used. The hydrodynamic separator will remove a minimum of 80% of particles up to 50 microns, as required by the County's MS4 permit.

The preliminary SQDV for the site was calculated using the BMP Sizing Worksheet "Method 3: 0.75-Inch Design Storm Approach" defined in the Ventura County Technical Guidance Manual (TGM). To size the basin to accommodate the preliminary SQDV, the Ventura County Design Worksheet INF-1: Infiltration Basin was used (found in Appendix E of the TGM). Preliminary SQDV calculations are attached for reference. The calculated required infiltration surface area is 2,411 square feet, and we are proposing 2,500 square feet of surface area. In the event that during final design it is determined that additional area is required, there is room to expand the infiltration basin.

Trash Capture

The proposed project will drain out to the Pacific Ocean and will be required to comply with the trash discharge provision of the Water Quality Control Plan Ocean Waters of California 2015. The project will include ADS Connector Pipe Screens, or an alternative approved full trash capture system, within diversion structure inlets of Phases 1, 2 & 3. The screens will be sized to capture all trash larger than 5 mm in storms up to the 1-year event and allow peak flows to spill over the top during large storm events. The screens will capture trash prior to diverting flows between the infiltration structures, detention structures, and outlet to the City's storm drain.

Detention Requirements

This project is tributary to the storm drain constructed as part of Tracts 4169 and 4162. Runoff from this site and the surrounding agricultural areas was accounted for in the design of the storm drain of these Tracts. Attached excerpts from the 1987 Hydrology Report indicate that the project site was included within the 57 acres tributary to Lateral "H". The storm drain system for the Tracts and surrounding areas was sized for the 10-year storm, and Lateral "H" was designed with a peak runoff of 44.4 cfs. Using this 10-year peak runoff, a unit peak runoff was determined for the 10-year storm event. The 100-year storm event was then calculated using the peak runoff ratio of 2:1 as indicated within the City of Oxnard's Cook's method. These unit runoffs were applied to the project area to determine the allowable post-detention peak runoffs.

Based on the 0.77 cfs/ac unit runoff of the 1987 Boyer Hydrology Report and a 10- to 100-year ratio of 2:1, the 100-year unit runoff for the campus is 1.54 cfs/ac. Runoff beyond the allowed release flow will be detained on site until after the peak of the storm passes and then allowed to drain. Detention for Phases 1, 2, and 3 will be combined into a single detention system. Before Phase 3 is constructed, detention will be managed by an above-ground basin. In the final condition, this basin may be replaced by an underground CMP detention system located below the sports fields, or an equivalent system. Both detention methods are illustrated in the attached Preliminary Hydrology Exhibit. The allowed discharge for each phase is detailed in Table 2 below.

	Phase 1	Phase 2	Phase 3
Area (AC)	3.3	6.5	3.3
Q100 Allowed Discharge (CFS)	5.0	10.0	5.1

Table 2: Allowed Peak Runoff

Diversion structures will be installed to allow intermediate flows to bypass the basins and directly discharge from the site, while the first flush is infiltrated and high flows are detained in the basin. Once the peak of the storm passes the detained flows will be allowed to release from the detention basin through a flap gate structure.

Hydraflow Hydrographs was used to model the diversion structure and outlets and calculate the resulting outflows. Table 3 on the following page compares allowable post-construction runoff to the proposed peak flowrates, and routing calculations are attached for reference.

	Phase 1	Phase 2	Phase 3
Q100 Allowed (CFS)	5.0	10.0	5.1
Q100 Proposed (CFS)	5.0	9.9	5.0

Table 3: Allowable vs. Proposed Site Runoff

Hydraflow Hydrographs also analyzes the required storage volumes in the proposed basin given the inflow hydrograph and defined outflow structure. To show that the basin is sufficiently sized, Table 4 compares the required storage volume calculated for a 100-year storm to those provided.

	Phase 1	Phase 2	Phase 3	Combined
Required (CF)	14,643	15,643	3,179	33,465
Proposed (CF)	-	-	-	37,000

Table 4: Required vs. Proposed Detention Basin Storage

Q100 Pad Protection

There is no flood hazard associated with the site. In the event of a 100-year storm, stormwater will sheet flow away from the buildings with overflow routes directed south into Collins Road. Stormwater will be conveyed within the street of Collins Road as in the existing condition, directed east and then south, eventually spilling into the 6'x3.5' City of Oxnard reinforced concrete box in Auto Center Drive. This ensures that stormwater is effectively managed and directed away from the development, maintaining the integrity and safety of the site.

Conclusion

This preliminary analysis for proposed improvements indicates that the development can meet Ventura County MS4 and City of Oxnard detention requirements. Finished floor elevations will be protected against the Q100 water surface elevation, and overflow points will be provided onsite.

Sincerely,
Jensen Design & Survey, Inc.



Robert Harvey, P.E.

Enclosures:
Preliminary Hydrology Exhibit
Tetra Tech Infiltration Testing
SQDV Calculations
Trash Capture Devices
Aerial Image Exhibit
Excerpts from 1987 Boyer Engineering Hydrology Report
Ventura County Tc Calculator Calculations
VCRat Calculations
Hydraflow Routed Hydrographs—Q100
Contech CMP Detention System

ROSE AVENUE

COUNTY OF VENTURA
(OXNARD SPHERE OF INFLUENCE)

2,500 SF UNDERGROUND INFILTRATION

DIVERSION STRUCTURE & TRASH CAPTURE

HYDRODYNAMIC SEPARATOR

37,000 CF UNDERGROUND DETENTION SYSTEM (FINAL CONDITION)

37,000 CF DETENTION BASIN (INTERIM CONDITION)

P2
6.5

P3
3.3

P1
3.3

EXISTING RIO DEL VALLE CAMPUS

HYDRODYNAMIC SEPARATOR

DIVERSION STRUCTURE & TRASH CAPTURE

DIVERSION STRUCTURE & TRASH CAPTURE

PROPOSED SD TO CONNECT TO LINED CHANNEL

CITY OF OXNARD

COLLINS STREET

LEGEND

- PHASE LIMITS
- P# / # — PHASE / ACRES
- BASIN LIMITS
- STORM DRAIN LINES
- UNDERGROUND DETENTION SYSTEM

75' 0' 150'

SCALE: 1"=150'

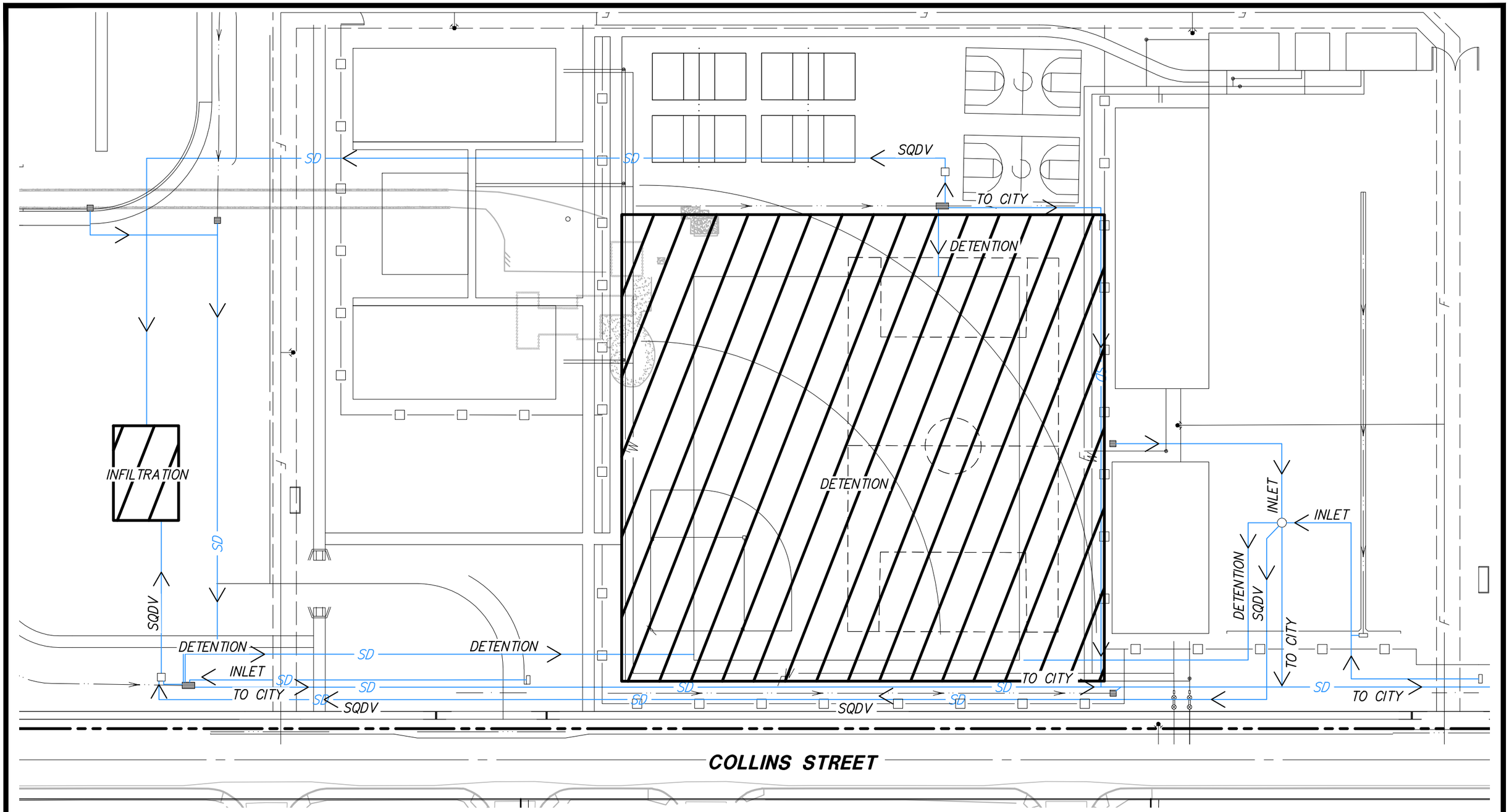
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WEB WWW.jdscivil.com

PRELIMINARY HYDROLOGY EXHIBIT

RIO DEL VALLE EXPANSION

SHEET 1 OF 2

Nov 11, 2024



30' 0' 60'

SCALE: 1"=60'

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PRELIMINARY HYDROLOGY EXHIBIT

RIO DEL VALLE EXPANSION

SHEET 2 OF 2

Nov 11, 2024

Table 2
Results of Borehole Infiltration Testing

Infiltration Test No.	Depth to Bottom of Borehole (ft)	Approximate Initial Infiltration Test Head (feet)	Visual Soil Classification (ASTM D2488)	Corrected Field Infiltration Rate [1] (inches/hour)
IT-1	18	3.0	Poorly graded sand with silt (SP-SM)	4.69
IT-2	19	5.3	Silty sand (SM)	1.50
IT-3	14	3.0	Silty sand (SM)	1.25

Note: [1] Reported infiltration rates are the average of the last three test intervals at each location (Appendix C) with no Safety Factors applied.

6. RECOMMENDED INFILTRATION SAFETY FACTORS

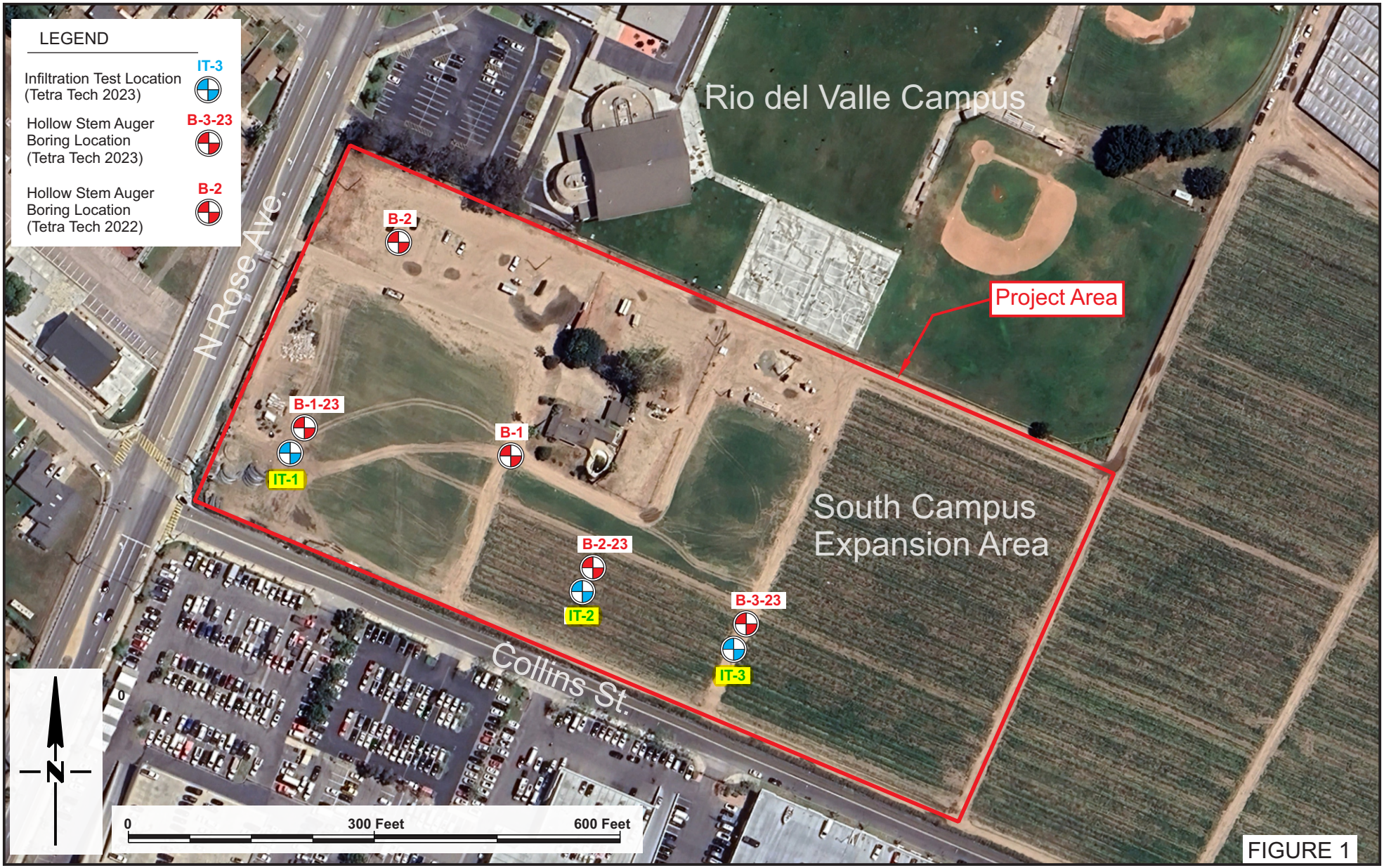
Per recommendations by the County of Ventura Technical Guidance Manual, the measured field infiltration rates are subject to a Suitability Assessment Factor S_A and a Design Safety Factor S_B for determination of design infiltration rates. The Design Safety Factor S_B is to be determined by the project Civil Engineer based on Table 6-3 of the County of Ventura Technical Guidance Manual. The determination of the Suitability Assessment Factor S_A is based on Table 6-2 of the Guidance Manual and is presented in Table 3 below.

Table 3
County of Ventura Suitability Assessment Safety Factor (S_A)

Consideration	Recommended Factor Value (Fv)	Assigned Weight (Aw)	Product of Fv and Aw
Soil Assessment Methods	2	0.25	0.50
Predominant Soil Texture [1]	1		0.25
Site Soil Variability	2		0.50
Depth to Groundwater [2]	2		0.50
Recommended Suitability Assessment Safety Factor, S_A			**1.75**

Notes: [1] Ventura Hydrology Manual (2017) soil number (measured infiltration rate). Value reflects the field infiltration average of the prevailing sandy soils.
[2] Groundwater depths between 33 and 133 feet below grade were reported by Tetra Tech (2022) during the period from 1972 through 2016. For this study, we have assumed a groundwater surface at a depth between 10 and 30 feet below the invert of the infiltration basins.

The combined Safety Factor used to obtain the design infiltration rate should be calculated as the product of Safety Factors S_A and S_B. The minimum combined Safety Factor should not be less than 2 but no greater than 9.



TETRA TECH 21700 Copley Drive, Suite 200, Diamond Bar, CA 91765 TEL 909.860.7777 www.tetratech.com	Rio del Valle Middle School Infiltration Testing - Oxnard, CA BORING AND INFILTRATION TEST LOCATION MAP	JOB NO. TET 23-259E DATE OCT 2023 DRAWN BY MKM CHECKED BY YL

SQDV Calculations

Designer:	Jensen Design & Survey, Inc
Project Proponent:	Rio School District
Date:	8/27/2024
Project:	RIO 6207 - Rio Del Valle Middle School Expansion
Location:	Oxnard (Entire Site)

Type of Vegetation: (Check type used or describe "Other"		Native Grass
		Irrigated Turf Grass
	X	Other

Step 1: Determine Water Quality Design Volume

1-1	Enter Project Area	$A_{project}$=	13.06	ac
1-2	Enter the maximum allowable percent of the Project area that may be effective impervious area (%)(refer to permit), ranges from 5-30% allowable	$\%_{allowable}$=	0	%
1-3	Determine the maximum allowable effective impervious area (ac), $EIA_{allowable} = (A_{project})*(\%allowable)$	$EIA_{allowable}$=	0.00	ac
1-4	Enter Project Impervious fraction, IMP	IMP =	0.41	
1-5	Determine the Project Total Impervious Area (ac) TIA = $A_{project}$*IMP	TIA =	5.35	ac
1-6	Determine the total area from which runoff must be retained (ac), A_{retain}=TIA-$EIA_{allowable}$	A_{retain} =	5.35	ac
1-7	Determine pervious runoff coefficient using Table E-1, C_p	C_p =	0.050	
1-8	Calculate runoff coefficient C=0.95*IMP + Cp(1-imp)	C =	0.419	
1-9	Enter design rainfall depth of the storm (in), P_i	P_i =	0.75	in
1-10	Calculate rainfall depth (ft), P = P_i/12	P =	0.0625	ft
1-11	Calculate Water Quality Design Volume (CF) SQDV = 43560*C*P*Aproject	SQDV =	14897.90	cf

Table 6.4 - Infiltration Facility Safety Factor Determination Worksheet

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w*v
A	Suitability Assessment	Soil Assessment Method	0.25	2	0.5
		Predominant Soil texture	0.25	1	0.25
		Soil Variability	0.25	2	0.5
		Depth to groundwater / impervious layer	0.25	2	0.5
		Suitability Assessment Safety Factor S_A =			**1.75**
B	Design	Tributary Area Size	0.25	3	0.75
		Level of pre-treatment / expected sediment loads	0.25	2	0.5
		Redundancy	0.25	3	0.75
		Compaction during construction	0.25	2	0.5
		Design Safety Factor S_B =			**2.5**

Combined Safety Factor = S_A * S_B = 4.375

INF-1 - Infiltration Basin

Designer:	Jensen Design & Survey, Inc
Project Proponent:	Rio School District
Date:	8/27/2024
Project:	RIO 6207 - Rio Del Valle Middle School Expansion
Location:	Oxnard (Entire Site)

Type of Vegetation: (Check type used or describe "Other"

_____ Native Grass
_____ Irrigated Turf Grass
_____ Other

Step 2: Determine the design percolation rate

2-1	Enter measured soil percolation rate (in/hr) 0.5 in/hr minimum. $P_{measured}$	$P_{measured}$=	4.69	in/hr
2-2	Determine percolation rate correction factor, S_A based on suitability assessment (see Section 6 INF-1, Table 6-2)	S_A =	1.75	
2-3	Determine percolation rate correction factor, S_B based on design (see Section 6 INF-1)	S_B =	2.5	
2-4	Calculate Combine safety factor, $S = S_A * S_B$	S =	4.375	
2-5	Calculate the design percolation rate (in/hr) $P_{design} = P_{measured}/S$	P_{design} =	1.072	in/hr

Step 3: Calculate the surface area

3-1	Enter required drain time (hours, 72 hours max, t	t =	72	hr
3-2	Calculate max. depth of runoff that can be infiltrated within the t (ft), d_{max} = P_{design}*t/12	d_{max} =	6.432	ft
3-3	For Basins, Select ponding depth dp such that $d_p <= d_{max}$	d_p =	6	ft
3-6	Enter the time to fill infiltration basin with water (use 2 hours for most designs), T	T =	2	hrs
3-7	Calculate Infiltrating surface area for infiltration basin $A_b = SQDV/(TP_{design}/12+d_p)$	A_b =	2411.2	sf

Trash Capture Devices

FlexStorm® Connector Pipe Screen

FlexStorm Connector Pipe Screen (CPS) is the perfect tool to help you meet your total maximum daily load. Whether for a retrofit or a new construction, there is a CPS that will fit your catch basin. A CPS retains large volumes of trash and sediment inside the catch basin, where it can be regularly removed by a vacuum truck, instead of conveying debris through the stormwater system.

Features

- Constructed from 14GA perforated stainless steel, reinforced with 12GA U-channels around entire perimeter
- Trash accumulates in catch basin instead of downstream
- Keeps all particles larger than 0.197" (5 mm) inside catch basin
- 50% open area for high flow; designed to match basin hydraulics

Benefits

- Good for retrofits, new applications or city-wide installs
- Comes in multiple shapes, depending on the catch basin
- Rolled panels provide increased strength compared to flat screens
- Quick and easy installation; ships sized to the catch basin so assembly is not required

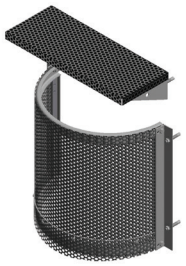




ADS™

FlexStorm Connector Pipe Screen (CPS) Specifications

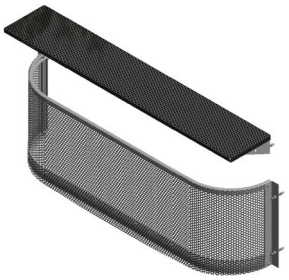
Product Selection



In general, a Connector Pipe Screen (CPS) must be sized appropriately to pass a one-year rain event through the perforated screen material and pass a 10-year rain event through the bypass area if a deflector lid is required. The shape of the screen depends on location of the outlet pipe. ADS will assist in the selection of the appropriate CPS design given the following information:

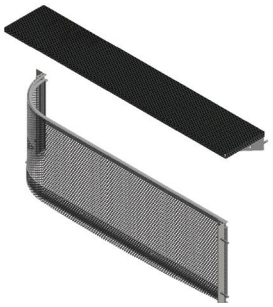
1. Catch basin length and depth
2. Location of the outlet pipe
3. A completed CPS dimensional form

Materials



Each CPS is comprised entirely of 304 stainless steel and brought to the field pre-configured for easy installation. All models are supplied with vertical upright mounting brackets which accept four ⅜" x 3" (9 x 76 mm) stainless anchor bolts. All bypass lids require two ⅜" x 3" (9 x 76 mm) stainless anchor bolts. Mounting brackets are equipped with slotted holes to allow for varied contours on walls and sloped floors.

Installation



1. Lower the CPS through the manhole opening
2. Position the CPS evenly spaced around the connector pipe ensuring a minimum of 4" (100 mm) spacing away from the corners.
3. Loosen the bolts in the slotted holes which connect the screen to the upright mounting brackets until the bottom is flush with the floor
4. Tighten the bolts and mark the hole locations on the wall for the stainless anchor bolts
5. Drill holes, hammer the bolts in place and secure the connector pipe screen using provided stainless nuts
6. If the bottom of the base exposes more than a 0.197" (5 mm) gap, then an additional base face strip may be fastened to the base channel using stainless tek screws or rivets

Maintenance

ADS advises that catch basins be cleaned out at least two (2) times per year and/or if debris has filled above a 40% level inside of the catch basin. Sites with large amounts of foliage, high sediment loads or smalled CPS devices might need to be cleaned more frequently.

Maintenance Conditions and Maintenance Standards: The following are deficiencies in maintenance conditions and their corresponding maintenance standards which shall apply to the CPS. The clean out of each catch basin shall meet the maintenance standards listed as follows:

1. Clear trash and debris located immediately in front of curb opening or side opening of catch basin and on top or between metal grates of grated catch basin
2. Remove vegetation growing across and/or blocking the basin opening
3. Remove all trash, debris and vegetation from inside the catch basin
4. Remove trash and debris in the connector pipe opening, upstream or downstream
5. Knock off/remove debris that covers the perforated openings of the CPS
6. Ensure there is no standing water inside of catch basin (indicates the device is not draining properly).

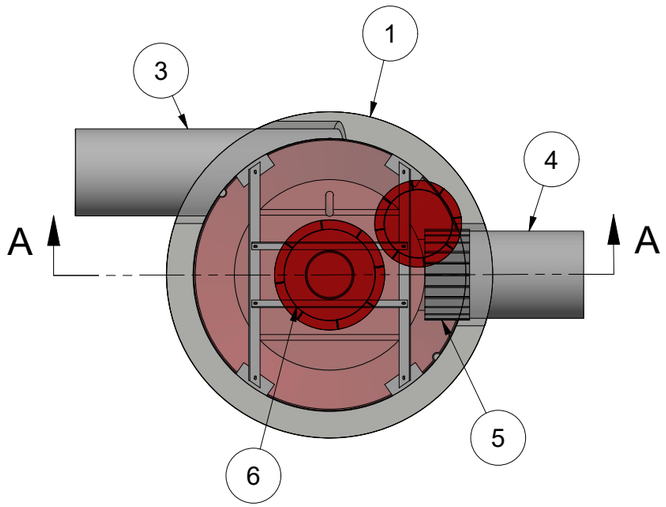
Build America, Buy America (BABA)

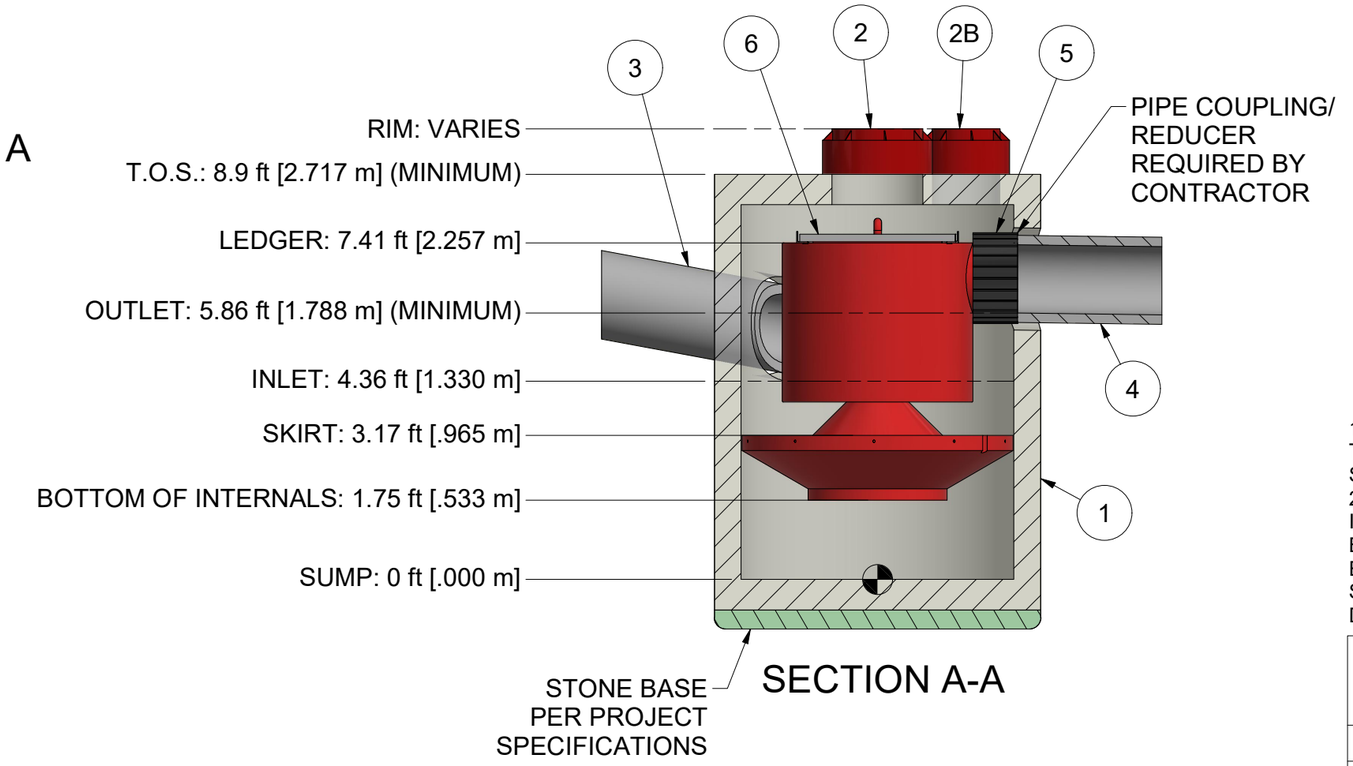
For any questions related to Build America, Buy America (BABA) Act compliance contact an ADS representative or email flexstorm@adspipe.com.

adspipe.com
800-821-6710

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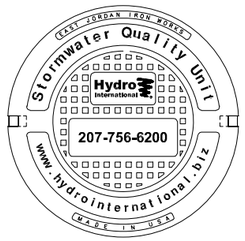
OUTLET STUB ID: 18" (450 mm)
OUTLET STUB OD: 18.7" (475 mm)





SECTION A-A

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.



HYDRO FRAME AND COVER (INLCUDED)
GRADE RINGS BY OTHERS AS REQUIRED

NOTE: NOT FOR CONSTRUCTION. CONTACT HYDRO FOR SITE SPECIFIC DETAIL

EQUIPMENT PERFORMANCE

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 8.0 cfs (227 l/s)
3. Sediment Storage Capacity: 2.10 cu. yd. (1.59 cu. m)
4. Continuous Oil Storage Capacity: 216 gal. (818 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reintrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit https://hydro-int.com/en/products/downstream-defender

PARTS LIST

ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	72	1800	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	3	24	600	FRAME AND COVER
2B	1	18	450	FRAME AND COVER
3	1	18 (MAX)	450 (MAX)	MAX INLET PIPE (BY OTHERS)
4	1	18 (MAX)	450 (MAX)	MAX OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INTALLED)

PROJECTION

IF IN DOUBT ASK

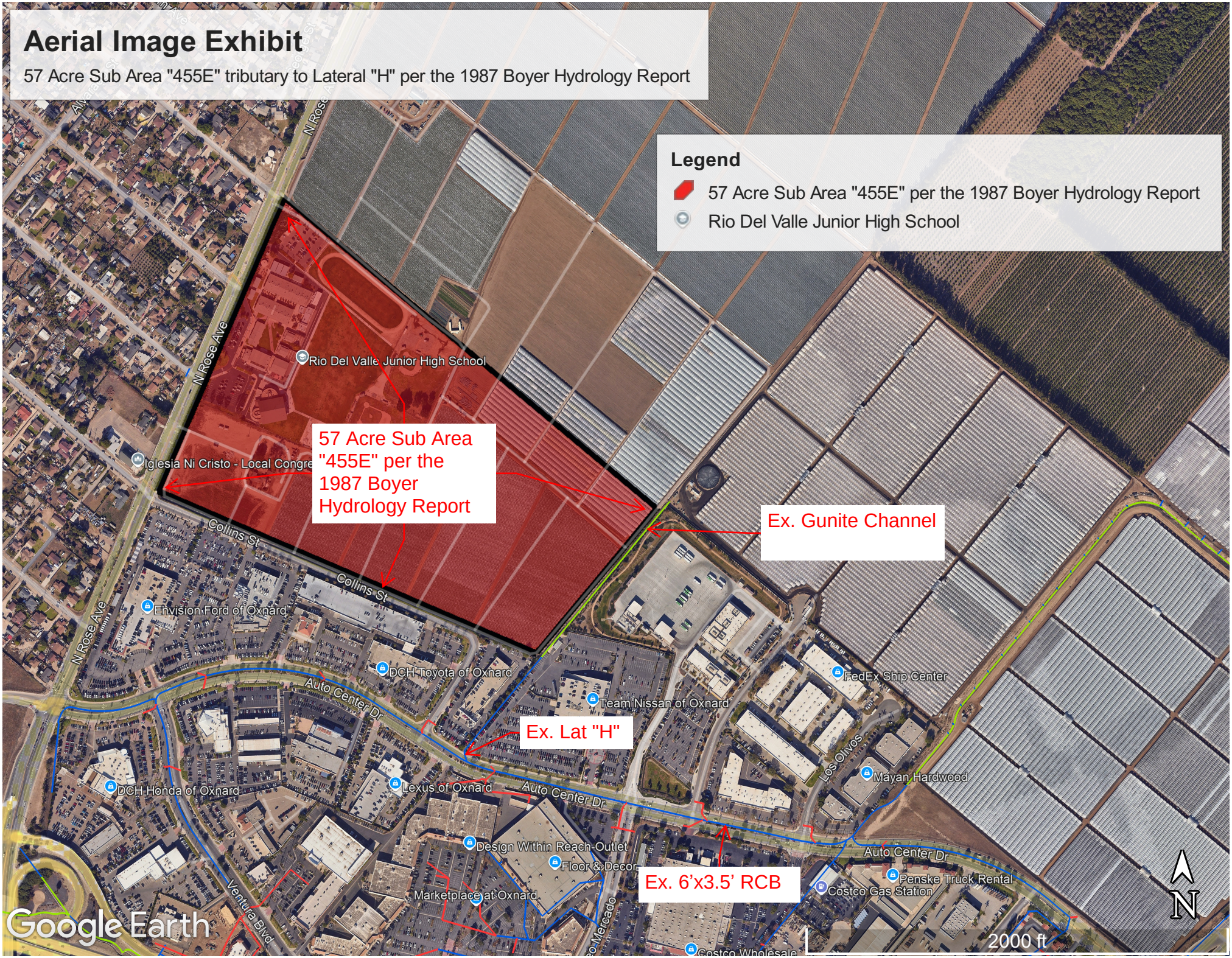
DATE: 10/8/2019	SCALE: 1 / 50	
DRAWN BY: ER	CHECKED BY: MRJ	APPROVED BY

Title: 6ft-DIAMETER

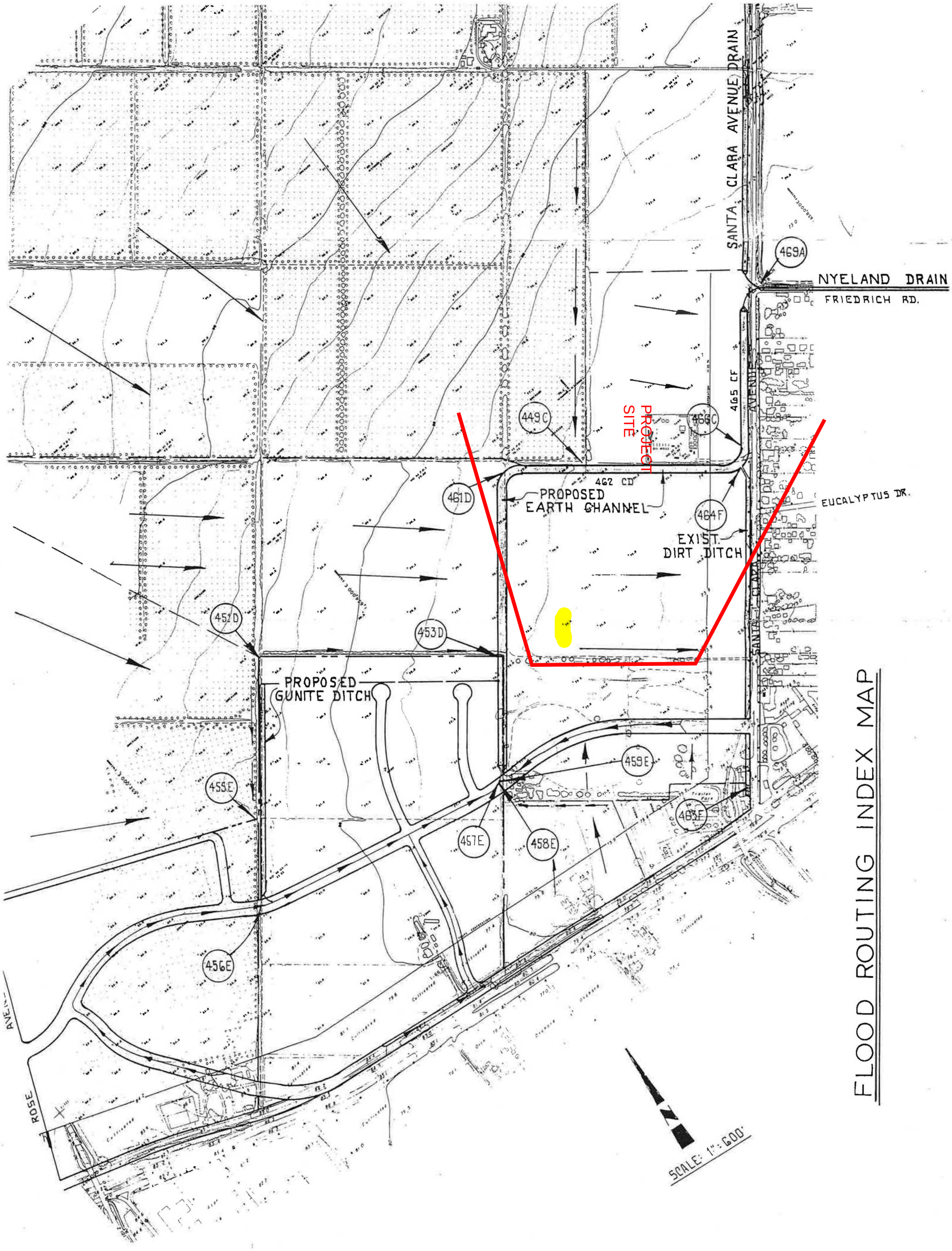
GENERAL ARRANGEMENT

Hydro International
A CRH COMPANY
hydro-int.com
HYDRO INTERNATIONAL

WEIGHT: N/A	MATERIAL:	
STOCK NUMBER: NEXT ASSY		
DRAWING NO.: DD GA-10		
SHEET SIZE: B	SHEET: 1 OF 1	Rev: A


Aerial Image Exhibit
57 Acre Sub Area "455E" tributary to Lateral "H" per the 1987 Boyer Hydrology Report
Legend
57 Acre Sub Area "455E" per the 1987 Boyer Hydrology Report
Rio Del Valle Junior High School
57 Acre Sub Area "455E" per the 1987 Boyer Hydrology Report
Ex. Gunite Channel
Ex. Lat "H"
Ex. 6'x3.5' RCB
N Rose Ave
Collins St
Auto Center Dr
Ventura Blvd
Los Olivos
Rio Del Valle Junior High School
Iglesia Ni Cristo - Local Congre
Envision Ford of Oxnard
DCH Toyota of Oxnard
Team Nissan of Oxnard
FedEx Ship Center
DCH Honda of Oxnard
Lexus of Oxnard
Mayan Hardwood
Design Within Reach-Outlet
Floor & Decor
Marketplace at Oxnard
Penske Truck Rental
Costco Gas Station
Costco Wholesale
Google Earth
2000 ft
N

FLOOD ROUTING INDEX MAP



VENTURA COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

NYELAND DRN,DESIGN CONDITIONS + STA.CLARA AREA JCTD;Q50 DT 6/86

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	STORM DAY 4 RAIN ZONE	PCT IMPV
4779	423A	0.	0.	5210.	3822.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	424B	129.	192.	129.	192.	4	1290.	0.00500	5.00	0.00	0.	40	23	T 1	0.15
4779	425B	39.	75.	168.	257.	4	1675.	0.00200	6.75	0.00	0.	30	17	T 1	0.15
4779	426B	48.	83.	217.	317.	0	0.	0.00000	0.00	0.00	0.	30	21	T 1	0.15

* CONFLUENCE Q'S *

* 4779 427A TA 1187 QA 3822. QAB 3886. QB 64. 4779 427B TB 1165 QB 317. QBA 2906. QA 2589. *

* 4779 427AB TAB 1186 QAB 3888. QA 3815. QB 72. *

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV
4779	427AB	217.	317.	5427.	3888.	5	1370.	0.00310	21.00	0.00	0.	30	0	T 1	0.00
4779	428A	0.	0.	5427.	3879.	5	1300.	0.00150	24.00	0.00	0.	30	99	T 1	0.00
4779	429A	51.	66.	5478.	3875.	5	1300.	0.00200	23.00	0.00	0.	30	29	T 1	0.00
4779	430A	0.	0.	5478.	3866.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	431C	68.	85.	68.	85.	5	2720.	0.00240	3.00	1.50	0.	50	25	T 1	0.05
4779	432C	82.	97.	150.	139.	5	1300.	0.00320	3.00	1.50	0.	30	33	T 1	0.00
4779	433C	0.	0.	150.	134.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	434C	49.	71.	199.	173.	5	1570.	0.00510	2.00	2.00	0.	30	25	T 1	0.05
4779	435C	0.	0.	199.	170.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	436C	47.	68.	246.	213.	0	0.	0.00000	0.00	0.00	0.	30	26	T 1	0.10

* CONFLUENCE Q'S *

* 4779 437A TA 1192 QA 3866. QAC 4011. QC 144. 4779 437C TC 1173 QC 213. QCA 3350. QA 3137. *

* 4779 437AC TAC 1191 QAC 4011. QA 3864. QC 147. *

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV
4779	437AC	246.	213.	5724.	4011.	5	1450.	0.00150	25.00	0.00	0.	30	0	T 1	0.00
4779	438A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	439A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	440A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	441A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	442B	59.	87.	59.	87.	5	1650.	0.00360	2.00	1.50	0.	30	24	T 1	0.00
4779	443B	56.	71.	115.	145.	0	0.	0.00000	0.00	0.00	0.	30	30	T 1	0.00
4779	444B	0.	0.	115.	145.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	445C	101.	109.	101.	109.	5	1330.	0.00450	3.00	1.50	0.	50	29	T 1	0.00
4779	446C	101.	109.	202.	205.	5	1330.	0.00300	3.00	1.50	0.	50	29	T 1	0.00
4779	447C	90.	112.	292.	284.	5	2210.	0.00500	3.00	1.50	0.	40	27	T 1	0.00
4779	448C	0.	0.	292.	266.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	449C	60.	81.	352.	311.	5	1100.	0.00200	3.00	1.50	0.	30	27	T 1	0.00
4779	450C	32.	55.	384.	303.	0	0.	0.00000	0.00	0.00	0.	30	20	T 1	0.07
4779	451D	97.	120.	97.	120.	4	2150.	0.00420	4.50	0.00	0.	40	28	T 1	0.05
4779	452D	0.	0.	97.	117.	0	0.	0.00000	0.00	0.00	0.	40	99	T 1	0.00
4779	453D	43.	90.	140.	187.	5	850.	0.00180	3.00	2.00	0.	30	15	T 1	0.23
4779	454D	0.	0.	140.	179.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	455E	57.	95.	57.	95.	0	0.	0.00000	0.00	0.00	0.	30	21	T 1	0.10
4779	456E	65.	100.	122.	195.	4	1640.	0.00360	5.50	0.00	0.	50	22	T 1	0.30
4779	457E	0.	0.	122.	189.	0	0.	0.00000	0.00	0.00	0.	50	99	T 1	0.00
4779	458E	0.	0.	122.	189.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00

EXISTING CONDITIONS, Q_{50}

FORM: WIDS - 06/22/88

CITY OF OXNARD HYDROLOGY "COOK'S METHOD"
INTRODUCTION

CALCULATIONS FOR STORMWATER RUNOFF IN THE CITY OF OXNARD ARE TO BE IN ACCORDANCE WITH THE COOK'S METHOD FOR COMPUTING PEAK FLOW RATES.

THIS METHOD CONSIDERS WATERSHED DRAINAGE AREA, RELIEF AND SURFACE STORAGE OF THE AREA, TYPE OF SOIL, EXTENT AND TYPE OF SOIL COVER, SHAPE OF THE WATERSHED, AND RAINFALL INTENSITY TO BE EXPECTED FOR THE SELECTED FREQUENCY OF OCCURRENCE.

A STUDY WAS CONDUCTED BY THE PRC TOUPS CORPORATION IN WHICH DETAILED HYDROLOGIC CALCULATIONS WERE COMPLETED OVER SEVERAL WATERSHEDS THROUGHOUT THE CITY. THESE CALCULATIONS RESULTED IN A NARROW RANGE OF VALUES FOR RUNOFF FROM THE DIFFERENT LAND USES PRESENT IN THE CITY. AN AVERAGE DISCHARGE PER ACRE WAS DETERMINED FOR EACH LAND USE AND IS GIVEN IN THE CITY OF OXNARD MASTER PLAN OF DRAINAGE.

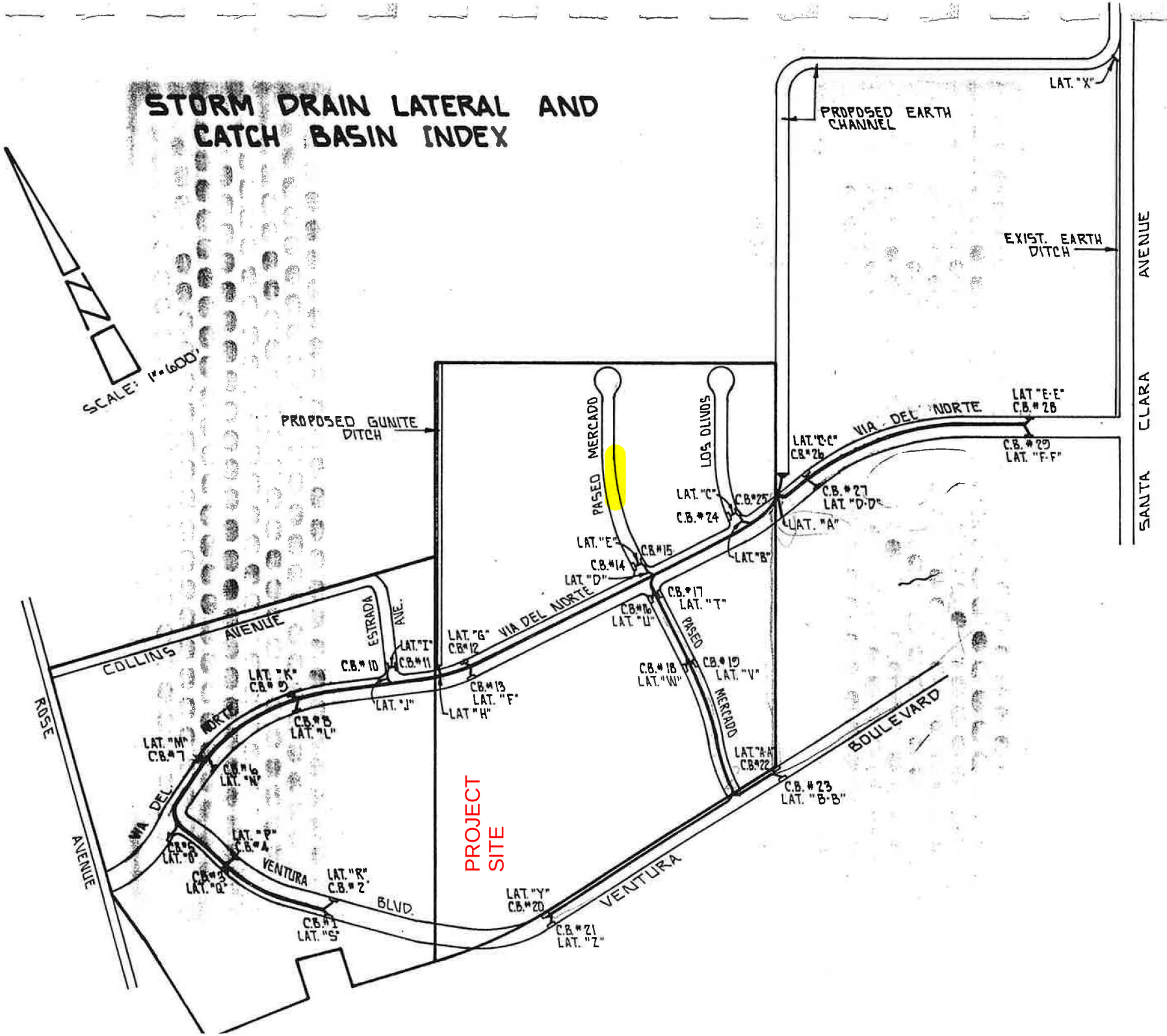
THE AVERAGE DISCHARGE PER ACRE FOR A 10-YEAR STORM IS AS FOLLOWS:

PARKS AND OPEN AREAS.....0.4cfs/Ac
RESIDENTIAL AND PUBLIC LANDS.....0.8cfs/Ac
HIGH DENSITY RESIDENTIAL, COMMERCIAL, & INDUSTRIAL.....1.1cfs/Ac

THE FOLLOWING FREQUENCY FACTORS ARE TO BE USED TO OBTAIN THE DISCHARGE FOR STORMS OTHER THAN A 10-YEAR FREQUENCY:

FREQUENCY	FREQUENCY FACTOR
5-YEAR	0.65x10-YEAR
10-YEAR	1.00x10-YEAR
25-YEAR	1.35x10-YEAR
50-YEAR	1.70x10-YEAR
100-YEAR	2.00x10-YEAR

STORM DRAIN LATERAL AND CATCH BASIN INDEX



HYDRAULIC GRADE LINE CALCULATION SHEET

Sht ___ of ___

PROJECT ___

LINE LATERALS

CALCULATED BY J.R.B.

*Conduit unseals when D is less than d

DATE 4-24-87

	STA.	ELEV. INV.	D*	ELEV. H.G.L.	SECTION	d	A	Q	V	$\frac{v^2}{2g}$	K	S_f	Av. S_f	L	h_f	h_b	h_j	h_l	ELEV. E.G.L.
"G"	D+06.85	74.17	3.20	77.37	24" RCP	2.00	3.142	7.7	2.292	.082	226.2	.001							77.45
	0+40.68	74.68	2.72	77.40	24" RCP	2.00	3.142	7.7	2.292	.082	226.2	.001	.001	33.83	.03				77.48
						H.G.L. IN	C.B. =	1.2(.082)	+77.40	= 77.50									
"H"	D+07.45	74.31	3.49	77.80	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044							78.41
	0+34.61	74.45	3.47	77.92	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	27.16	.12				78.53
	0+58.17	74.56	3.56	78.12	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	23.56	.10	.10			78.73
	1+74.84	75.63	UNSEALS	78.63	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	116.67	.51				79.24
	6+03.81	79.56	2.17	81.73	36" RCP	3.00	4.498	44.4	9.871	1.513	419.5	.0112							83.24
"I"	D+00.00	77.64	1.18	78.82	18" RCP	1.50	1.491	3.5	2.347	.086	100.9								78.91
	0+46.50	78.17	.71	78.88	18" RCP	1.50	.839	3.5	4.172	.271	49.3								79.15
						H.G.L. IN	C.B. =	1.2(.271)	+79.67	= 80.00									
"J"	D+03.54	75.21	2.86	78.07	18" RCP	1.50	1.767	8.2	4.640	.334	105	.0061							78.40
	D+07.02	75.25	2.84	78.09	" "	" "	" "	" "	" "	" "	" "	" "	.0061	3.48	.02				78.42
	D+24.69	75.40	2.85	78.25	" "	" "	" "	" "	" "	" "	" "	" "	.0061	17.67	.11	.05			78.58
	D+69.65	76.00	2.52	78.52	18" RCP	1.50	1.767	8.2	4.64	.334	105	.0061	.0061	44.96	.27				78.85
						H.G.L. IN	C.B. =	1.2(.334)	+78.52	= 78.92									
"K"	D+03.55	76.08	3.31	79.39	24" RCP	2.00	3.142	10.7	3.406	.180	226.2	.0022							79.57
	D+42.39	76.16	3.32	79.48	24" RCP	2.00	3.142	10.7	3.406	.180	226.2	.0022	.0022	38.82	.09				79.66
						H.G.L. IN	C.B. =	1.2 (.18)	+79.48	= 79.70									
"L"	D+02.53	76.33	3.06	79.39	24" RCP	2.00	3.142	7.7	2.451	.093	226.2	.0017							79.48
	D+64.77	76.55	2.91	79.46	24" RCP	2.00	3.142	7.7	2.451	.093	226.2	.0017	.0017	62.24	.07				79.55
						H.G.L. IN	C.B. =	1.2(.093)	+79.46	= 79.57									

Ventura County Tc Calculator Calculations

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 1

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	3.3 / 3	10.156 / 10

♠

Watershed Name: Phase 1

Sub-Area Name: Longest Route
Tc: 10.156 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 10.156 min. = 10 min.

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 3.3
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 79

SUB AREA OUTPUT

Intensity (in/hr): 2.940
C Total: 0.831
Sum Q Segments (cfs): 8.07
Q Total (cfs): 8.07
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 609.34
Time of Concentration (min): 10.156

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 95
Bottom Elevation (ft): 93.8
Contributing Area (acres): 0.2
Percent of Sub-Area (%): 6.1
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0060
Effective Slope: 0.0060
Q for Flow Path (cfs): 0.49
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Channelized Flow
FLOW PATH TRAVEL TIME (min): 6.0299
Flow Type: Natural Channel
Length (ft): 870
Top Elevation (ft): 93.8
Bottom Elevation (ft): 87.1
Contributing Area (acres): 2.9
Percent of Sub-Area (%): 87.9
Overland Type: Valley
Map Slope: 0.0077
Effective Slope: 0.0077
Q for Flow Path (cfs): 7.09
Q Top (cfs): 0.49
Q Bottom (cfs): 7.58
Velocity Top (ft/s): 1.16
Velocity Bottom (ft/s): 2.05
Avg Velocity (ft/s): 1.60
Wave Velocity (ft/s): 2.40

DATA FOR FLOW PATH 3

Flow Path Name: PIPE
FLOW PATH TRAVEL TIME (min): 0.7925
Flow Type: Pipe
Length (ft): 333
Top Elevation (ft): 87.1
Bottom Elevation (ft): 85
Contributing Area (acres): 0.2
Percent of Sub-Area (%): 6.1
Initial Pipe Diameter (in): 18
Calculated Pipe Diameter (in): 18
Used Pipe Diameter (in): 18
Manning's N: 0.012
Map Slope: 0.0063
Q for Flow Path (cfs): 0.49
Q Top (cfs): 7.58
Q Bottom (cfs): 8.07
Avg Velocity (ft/s): 5.75
Wave Velocity (ft/s): 7.00

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 2

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	6.5 / 7	8.878 / 9

↟

Watershed Name: Phase 2

Sub-Area Name: Longest Route
Tc: 8.878 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 8.878 min. = 9 min.

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 6.5
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 41
SUB AREA OUTPUT

Intensity (in/hr): 3.073
C Total: 0.619
Sum Q Segments (cfs): 12.37
Q Total (cfs): 12.37
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 532.70
Time of Concentration (min): 8.878

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 1.4167
Flow Type: Overland
Length (ft): 85
Top Elevation (ft): 99.8
Bottom Elevation (ft): 98.5
Contributing Area (acres): 0.1
Percent of Sub-Area (%): 1.5
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0153
Effective Slope: 0.0153
Q for Flow Path (cfs): 0.19
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: SWALE
FLOW PATH TRAVEL TIME (min): 6.8093
Flow Type: Natural Channel
Length (ft): 1016
Top Elevation (ft): 98.5
Bottom Elevation (ft): 89.5
Contributing Area (acres): 4.2
Percent of Sub-Area (%): 64.6
Overland Type: Valley
Map Slope: 0.0089
Effective Slope: 0.0089
Q for Flow Path (cfs): 7.99
Q Top (cfs): 0.19
Q Bottom (cfs): 8.18
Velocity Top (ft/s): 1.08
Velocity Bottom (ft/s): 2.24
Avg Velocity (ft/s): 1.66
Wave Velocity (ft/s): 2.49

DATA FOR FLOW PATH 3

Flow Path Name: PIPE
FLOW PATH TRAVEL TIME (min): 0.6524
Flow Type: Pipe
Length (ft): 280
Top Elevation (ft): 89.5
Bottom Elevation (ft): 88
Contributing Area (acres): 2.2
Percent of Sub-Area (%): 33.8
Initial Pipe Diameter (in): 21
Calculated Pipe Diameter (in): 21
Used Pipe Diameter (in): 21
Manning's N: 0.012
Map Slope: 0.0054
Q for Flow Path (cfs): 4.19
Q Top (cfs): 8.18
Q Bottom (cfs): 12.37
Avg Velocity (ft/s): 5.84
Wave Velocity (ft/s): 7.15

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 3

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	3.3 / 3	TC ERROR

ASSUMED 5 MINUTES

♠

Watershed Name: Phase 3

Sub-Area Name: Longest Route
Tc: 4.445 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 4.445 min. = 4 min. ** TC ERROR **

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 3.3
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 27

SUB AREA OUTPUT

Intensity (in/hr): 4.110
C Total: 0.557
Sum Q Segments (cfs): 7.56
Q Total (cfs): 7.56
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 266.71
Time of Concentration (min): 4.445

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 94.6
Bottom Elevation (ft): 90.7
Contributing Area (acres): 0.4
Percent of Sub-Area (%): 12.1
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0195
Effective Slope: 0.0195
Q for Flow Path (cfs): 0.92
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Channelized Flow
FLOW PATH TRAVEL TIME (min): 1.0833
Flow Type: Overland
Length (ft): 65
Top Elevation (ft): 90.7
Bottom Elevation (ft): 90.4
Contributing Area (acres): 0.5
Percent of Sub-Area (%): 15.2
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0046
Effective Slope: 0.0046
Q for Flow Path (cfs): 1.15
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 3

Flow Path Name: Pipe
FLOW PATH TRAVEL TIME (min): 0.0285
Flow Type: Pipe
Length (ft): 14
Top Elevation (ft): 90.4
Bottom Elevation (ft): 85
Contributing Area (acres): 2.4
Percent of Sub-Area (%): 72.7
Initial Pipe Diameter (in): 18
Calculated Pipe Diameter (in): 9
Used Pipe Diameter (in): 18
Manning's N: 0.012
Map Slope: 0.3857
Q for Flow Path (cfs): 5.50
Q Top (cfs): 2.06
Q Bottom (cfs): 7.56
Avg Velocity (ft/s): 6.06
Wave Velocity (ft/s): 8.20

VCRat Calculations

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 1 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 1 - Q100

Model Results

NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	ACCUMULATED DATA AREA (AC)	ACCUMULATED DATA FLOW (CFS)	ACCUMULATED DATA TIME (MIN)	ROUTING AFTER ACCUMULATION CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	10	79	33	81	33	81	1154	-------	----	-------	---	----	-----	-----	--	--

****
* INCOMING HYDROGRAPH PEAK (cfs): 80.67 VOLUME (acre-ft): 11.73 *
* NO HYDROGRAPH ADJUSTMENT *
* RUNOFF FACTOR(in): 3.34 TOTAL RAIN(in): 6.30 SCS Curve: 73 *
* FATTENED HYDROGRAPH PEAK (cfs): 80.67 VOLUME (acre-ft): 9.20 *
****

2A	---	---	--	--	---	---	33	81	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	81	1154	-------	----	-------	---	----	-----	-----	--	--

AREA MULTIPLIED BY 10 TO FIT WITHIN PARAMETERS

FATTENING EXCLUDED

DIVIDE BY 10

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
Warning	Err1260	FATTENING	2A	Fattening reduced the volume of the hydrograph. It is recommended to remove fattening from the model.

HYDROGRAPH FATTENED AT 2A

INCOMING HYDROGRAPH PEAK (cfs):	80.67	VOLUME (acre-ft):	11.73
NO HYDROGRAPH ADJUSTMENT			
RUNOFF FACTOR(in): 3.34	TOTAL RAIN(in): 6.30	SCS Curve: 73	
FATTENED HYDROGRAPH PEAK (cfs):	80.67	VOLUME (acre-ft):	9.20

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.79	2.79	2.75
200	2.79	2.79	2.68	300	2.79	2.79	2.66
400	2.79	2.79	2.62	500	2.79	2.79	2.58
600	3.26	3.26	2.97	700	4.73	4.73	4.33
800	4.73	4.73	4.14	900	6.14	6.14	5.19
1000	8.59	8.59	6.79	1050	11.24	11.24	8.53
1100	14.42	14.42	9.83	1110	20.48	20.48	15.69
1120	24.82	24.82	19.66	1130	25.91	25.91	19.95
1131	26.13	26.13	20.10	1132	26.53	26.53	20.44
1133	26.76	26.76	20.59	1134	27.16	27.16	20.92
1135	27.38	27.38	21.07	1136	27.78	27.78	21.40
1137	28.01	28.01	21.54	1138	28.23	28.23	21.67
1139	28.63	28.63	22.00	1140	28.86	28.86	22.13
1141	29.38	29.38	22.60	1142	29.73	29.73	22.86
1143	30.08	30.08	23.13	1144	30.42	30.42	23.39
1145	32.33	32.33	25.43	1146	34.22	34.22	27.46
1147	36.28	36.28	29.69	1148	38.18	38.18	31.74
1149	46.64	46.64	41.37	1150	55.07	55.07	51.03
1151	62.92	62.92	60.06	1152	70.98	70.98	69.39
1153	79.14	79.14	78.88	1154	80.67	80.67	80.67
1155	79.14	79.14	78.88	1156	77.27	77.27	76.71
1157	75.23	75.23	74.35	1158	73.53	73.53	72.40
1159	64.59	64.59	62.09	1160	55.91	55.91	52.13
1161	47.14	47.14	42.13	1162	38.18	38.18	31.94
1163	29.38	29.38	22.00	1164	26.95	26.95	19.36
1165	25.18	25.18	17.49	1166	23.56	23.56	15.78
1167	22.11	22.11	14.27	1168	20.48	20.48	12.57
1169	19.47	19.47	11.57	1170	18.43	18.43	10.53
1171	17.54	17.54	9.66	1172	16.65	16.65	8.80
1173	15.61	15.61	7.76	1174	14.72	14.72	6.89
1175	14.72	14.72	7.02	1176	14.72	14.72	7.15
1177	14.42	14.42	6.94	1178	14.12	14.12	6.73

1179	13.82	13.82	6.52	1180	13.68	13.68	6.47
1181	13.38	13.38	6.25	1182	12.93	12.93	5.87
1183	12.64	12.64	5.65	1184	12.34	12.34	5.43
1185	12.04	12.04	5.20	1186	11.74	11.74	4.98
1187	11.74	11.74	5.08	1188	11.74	11.74	5.18
1189	11.45	11.45	4.95	1190	11.00	11.00	4.55
1191	10.70	10.70	4.32	1192	10.55	10.55	4.25
1193	10.26	10.26	4.01	1194	9.96	9.96	3.78
1195	9.51	9.51	3.38	1196	9.22	9.22	3.14
1197	8.92	8.92	2.90	1198	8.62	8.62	2.66

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1199	8.47	8.47	2.58	1200	8.62	8.62	2.82
1201	8.62	8.62	2.90	1202	8.62	8.62	2.97
1203	8.62	8.62	3.04	1204	8.47	8.47	2.96
1205	8.62	8.62	3.19	1206	8.62	8.62	3.26
1207	8.62	8.62	3.32	1208	8.62	8.62	3.39
1209	8.62	8.62	3.45	1210	8.62	8.62	3.52
1211	8.62	8.62	3.58	1212	8.62	8.62	3.64
1213	8.62	8.62	3.70	1214	8.62	8.62	3.76
1215	8.62	8.62	3.82	1216	8.62	8.62	3.88
1217	8.62	8.62	3.93	1218	8.47	8.47	3.83
1219	8.62	8.62	4.04	1220	8.62	8.62	4.09
1221	8.62	8.62	4.15	1222	8.62	8.62	4.20
1223	8.47	8.47	4.09	1224	8.62	8.62	4.30
1225	8.18	8.18	3.87	1226	7.88	7.88	3.60
1227	7.43	7.43	3.18	1228	7.14	7.14	2.91
1229	6.69	6.69	2.49	1230	6.24	6.24	2.06
1231	5.80	5.80	1.64	1232	5.50	5.50	1.37
1233	5.20	5.20	1.10	1234	4.76	4.76	0.67
1235	4.76	4.76	0.71	1236	4.61	4.61	0.60
1237	4.76	4.76	0.80	1238	4.76	4.76	0.84
1239	4.76	4.76	0.88	1240	4.76	4.76	0.92
1241	4.76	4.76	0.95	1242	4.61	4.61	0.84
1243	4.76	4.76	1.03	1244	4.76	4.76	1.07
1245	4.76	4.76	1.10	1246	4.76	4.76	1.14
1247	4.61	4.61	1.02	1248	4.76	4.76	1.21
1249	4.76	4.76	1.24	1250	4.76	4.76	1.28
1251	4.76	4.76	1.31	1252	4.76	4.76	1.34
1253	4.76	4.76	1.38	1254	4.76	4.76	1.41
1255	4.76	4.76	1.44	1256	4.76	4.76	1.47
1257	4.76	4.76	1.50	1258	4.61	4.61	1.37
1259	4.76	4.76	1.56	1260	4.76	4.76	1.59

1261	4.76	4.76	1.62	1262	4.76	4.76	1.64
1263	4.61	4.61	1.52	1264	4.76	4.76	1.70
1265	4.76	4.76	1.73	1266	4.76	4.76	1.75
1267	4.76	4.76	1.78	1268	4.76	4.76	1.81
1269	4.61	4.61	1.68	1270	4.76	4.76	1.86
1271	4.76	4.76	1.88	1272	4.76	4.76	1.91
1273	4.76	4.76	1.93	1274	4.61	4.61	1.80
1275	4.76	4.76	1.98	1276	4.76	4.76	2.00
1277	4.76	4.76	2.02	1278	4.76	4.76	2.05
1279	4.76	4.76	2.07	1280	4.61	4.61	1.94
1281	4.76	4.76	2.11	1282	4.76	4.76	2.13
1283	4.76	4.76	2.15	1284	4.76	4.76	2.18
1285	4.61	4.61	2.04	1286	4.76	4.76	2.22
1287	4.76	4.76	2.24	1288	4.76	4.76	2.26
1289	4.76	4.76	2.28	1290	4.76	4.76	2.30
1291	4.61	4.61	2.16	1292	4.76	4.76	2.33
1293	4.76	4.76	2.35	1294	4.76	4.76	2.37
1295	4.76	4.76	2.39	1296	4.61	4.61	2.25
1297	4.46	4.46	2.12	1298	4.31	4.31	1.98
1299	4.16	4.16	1.85	1300	4.01	4.01	1.71
1310	2.82	2.82	0.65	1320	2.68	2.68	0.64
1330	2.82	2.82	0.93	1340	2.82	2.82	1.05
1350	2.82	2.82	1.15	1360	2.82	2.82	1.25
1370	2.68	2.68	1.19	1380	2.82	2.82	1.42
1390	2.82	2.82	1.49	1400	2.82	2.82	1.56
1420	2.75	2.75	1.60	1440	2.82	2.82	1.78
1460	0.00	0.00	0.00	1500	0.00	0.00	0.00

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 81 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 9.20 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	2.75	200	2.68	300	2.66	400	2.62
500	2.58	600	2.97	700	4.33	800	4.14	900	5.19
1000	6.79	1050	8.53	1100	9.83	1110	15.69	1120	19.66
1130	19.95	1131	20.10	1132	20.44	1133	20.59	1134	20.92

1135	21.07	1136	21.40	1137	21.54	1138	21.67	1139	22.00
1140	22.13	1141	22.60	1142	22.86	1143	23.13	1144	23.39
1145	25.43	1146	27.46	1147	29.69	1148	31.74	1149	41.37
1150	51.03	1151	60.06	1152	69.39	1153	78.88	1154	80.67
1155	78.88	1156	76.71	1157	74.35	1158	72.40	1159	62.09
1160	52.13	1161	42.13	1162	31.94	1163	22.00	1164	19.36
1165	17.49	1166	15.78	1167	14.27	1168	12.57	1169	11.57
1170	10.53	1171	9.66	1172	8.80	1173	7.76	1174	6.89
1175	7.02	1176	7.15	1177	6.94	1178	6.73	1179	6.52
1180	6.47	1181	6.25	1182	5.87	1183	5.65	1184	5.43
1185	5.20	1186	4.98	1187	5.08	1188	5.18	1189	4.95
1190	4.55	1191	4.32	1192	4.25	1193	4.01	1194	3.78
1195	3.38	1196	3.14	1197	2.90	1198	2.66	1199	2.58
1200	2.82	1201	2.90	1202	2.97	1203	3.04	1204	2.96
1205	3.19	1206	3.26	1207	3.32	1208	3.39	1209	3.45
1210	3.52	1211	3.58	1212	3.64	1213	3.70	1214	3.76
1215	3.82	1216	3.88	1217	3.93	1218	3.83	1219	4.04
1220	4.09	1221	4.15	1222	4.20	1223	4.09	1224	4.30
1225	3.87	1226	3.60	1227	3.18	1228	2.91	1229	2.49
1230	2.06	1231	1.64	1232	1.37	1233	1.10	1234	0.67
1235	0.71	1236	0.60	1237	0.80	1238	0.84	1239	0.88
1240	0.92	1241	0.95	1242	0.84	1243	1.03	1244	1.07
1245	1.10	1246	1.14	1247	1.02	1248	1.21	1249	1.24
1250	1.28	1251	1.31	1252	1.34	1253	1.38	1254	1.41
1255	1.44	1256	1.47	1257	1.50	1258	1.37	1259	1.56
1260	1.59	1261	1.62	1262	1.64	1263	1.52	1264	1.70
1265	1.73	1266	1.75	1267	1.78	1268	1.81	1269	1.68
1270	1.86	1271	1.88	1272	1.91	1273	1.93	1274	1.80
1275	1.98	1276	2.00	1277	2.02	1278	2.05	1279	2.07
1280	1.94	1281	2.11	1282	2.13	1283	2.15	1284	2.18
1285	2.04	1286	2.22	1287	2.24	1288	2.26	1289	2.28
1290	2.30	1291	2.16	1292	2.33	1293	2.35	1294	2.37
1295	2.39	1296	2.25	1297	2.12	1298	1.98	1299	1.85
1300	1.71	1310	0.65	1320	0.64	1330	0.93	1340	1.05
1350	1.15	1360	1.25	1370	1.19	1380	1.42	1390	1.49
1400	1.56	1420	1.60	1440	1.78	1460	0.00	1500	0.00

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
```

```
006     1  002A 050079003310A97                          1
110
111            1.00000    3.34
110
006     1  003A 010      099A97                          1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 2 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 2 - Q100
Page: 2

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	9	41	65	124	65	124	1154	-------	----	-------	---	----	-----	-----	--	--
	**********																	
	* INCOMING HYDROGRAPH PEAK (cfs): 123.80 VOLUME (acre-ft): 12.82 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 4.16 TOTAL RAIN(in): 6.30 SCS Curve: 81 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 123.80 VOLUME (acre-ft): 22.53 *																	
	**********																	
2A	---	---	--	--	---	---	65	124	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	65	124	1154	-------	----	-------	---	----	-----	-----	--	--

AREA MULTIPLIED BY 10 TO FIT WITHIN PARAMETERS

FATTENING INCLUDED

DIVIDE BY 10

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
NO ISSUES OR WARNINGS DETECTED				

HYDROGRAPH FATTENED AT 2

```
*****************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):    123.80         VOLUME (acre-ft):     12.82      *
*      NO HYDROGRAPH ADJUSTMENT                                                            *
*      RUNOFF FACTOR(in):   4.16      TOTAL RAIN(in):   6.30      SCS Curve: 81            *
*      FATTENED HYDROGRAPH  PEAK (cfs):    123.80         VOLUME (acre-ft):     22.53      *
*****************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.86	2.86	3.04
200	2.86	2.86	3.30	300	2.86	2.86	3.40
400	2.86	2.86	3.53	500	2.86	2.86	3.72
600	3.33	3.33	4.47	700	4.84	4.84	6.40
800	4.84	4.84	7.15	900	6.29	6.29	10.02
1000	8.80	8.80	15.79	1050	11.51	11.51	21.92
1100	14.76	14.76	31.91	1110	21.50	21.50	39.69
1120	29.43	29.43	48.54	1130	31.40	31.40	52.87
1131	31.82	31.82	53.50	1132	32.56	32.56	54.38
1133	32.98	32.98	55.01	1134	33.73	33.73	55.90
1135	34.15	34.15	56.54	1136	34.89	34.89	57.42
1137	35.31	35.31	58.07	1138	35.73	35.73	58.72
1139	36.48	36.48	59.61	1140	36.48	36.48	59.96
1141	37.12	37.12	60.79	1142	38.09	38.09	61.85
1143	38.42	38.42	62.45	1144	39.39	39.39	63.52
1145	42.57	42.57	66.15	1146	46.32	46.32	69.17
1147	50.08	50.08	72.16	1148	53.18	53.18	74.67
1149	68.15	68.15	85.36	1150	81.77	81.77	94.97
1151	95.02	95.02	104.20	1152	109.50	109.50	114.14
1153	123.51	123.51	123.61	1154	123.80	123.80	123.80
1155	120.88	120.88	121.85	1156	117.60	117.60	119.61
1157	114.30	114.30	117.34	1158	99.31	99.31	107.03
1159	84.59	84.59	96.75	1160	69.61	69.61	86.17
1161	54.07	54.07	75.06	1162	37.77	37.77	63.29
1163	33.56	33.56	59.93	1164	32.27	32.27	58.63
1165	29.10	29.10	55.97	1166	26.16	26.16	53.47
1167	22.86	22.86	50.69	1168	20.66	20.66	48.69
1169	19.45	19.45	47.40	1170	18.26	18.26	46.14
1171	17.25	17.25	45.00	1172	16.06	16.06	43.74
1173	15.05	15.05	42.60	1174	15.05	15.05	42.22
1175	15.05	15.05	41.85	1176	15.05	15.05	41.49
1177	14.71	14.71	40.88	1178	14.37	14.37	40.27
1179	14.20	14.20	39.79	1180	13.87	13.87	39.20

1181	13.53	13.53	38.60	1182	13.02	13.02	37.88
1183	12.68	12.68	37.30	1184	12.34	12.34	36.72
1185	12.01	12.01	36.14	1186	12.01	12.01	35.84
1187	12.01	12.01	35.53	1188	12.01	12.01	35.24
1189	11.67	11.67	34.68	1190	11.16	11.16	33.99
1191	10.99	10.99	33.58	1192	10.65	10.65	33.03
1193	10.32	10.32	32.48	1194	9.98	9.98	31.94
1195	9.47	9.47	31.27	1196	9.13	9.13	30.73
1197	8.79	8.79	30.20	1198	8.79	8.79	29.95
1199	8.79	8.79	29.70	1200	8.79	8.79	29.46

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	8.79	8.79	29.22	1202	8.79	8.79	28.98
1203	8.79	8.79	28.75	1204	8.79	8.79	28.53
1205	8.79	8.79	28.30	1206	8.79	8.79	28.08
1207	8.79	8.79	27.87	1208	8.96	8.96	27.80
1209	8.79	8.79	27.45	1210	8.79	8.79	27.24
1211	8.79	8.79	27.04	1212	8.79	8.79	26.84
1213	8.96	8.96	26.79	1214	8.79	8.79	26.45
1215	8.79	8.79	26.27	1216	8.79	8.79	26.08
1217	8.79	8.79	25.90	1218	8.79	8.79	25.72
1219	8.79	8.79	25.54	1220	8.79	8.79	25.37
1221	8.79	8.79	25.20	1222	8.79	8.79	25.03
1223	8.79	8.79	24.86	1224	8.79	8.79	24.70
1225	8.29	8.29	24.10	1226	7.95	7.95	23.65
1227	7.61	7.61	23.20	1228	7.10	7.10	22.60
1229	6.60	6.60	22.01	1230	6.09	6.09	21.42
1231	5.58	5.58	20.82	1232	5.41	5.41	20.53
1233	4.90	4.90	19.94	1234	4.90	4.90	19.79
1235	4.73	4.73	19.50	1236	4.73	4.73	19.36
1237	4.90	4.90	19.37	1238	4.90	4.90	19.23
1239	4.90	4.90	19.10	1240	4.90	4.90	18.97
1241	4.73	4.73	18.69	1242	4.73	4.73	18.56
1243	4.90	4.90	18.58	1244	4.90	4.90	18.46
1245	4.90	4.90	18.33	1246	4.73	4.73	18.06
1247	4.73	4.73	17.94	1248	4.90	4.90	17.97
1249	4.90	4.90	17.86	1250	4.90	4.90	17.74
1251	4.90	4.90	17.63	1252	4.73	4.73	17.36
1253	4.90	4.90	17.40	1254	4.90	4.90	17.30
1255	4.90	4.90	17.19	1256	4.90	4.90	17.08
1257	4.73	4.73	16.83	1258	4.73	4.73	16.72
1259	4.90	4.90	16.77	1260	4.90	4.90	16.67
1261	4.90	4.90	16.57	1262	4.73	4.73	16.32

1263	4.73	4.73	16.23	1264	4.90	4.90	16.28
1265	4.90	4.90	16.19	1266	4.90	4.90	16.10
1267	4.90	4.90	16.00	1268	4.73	4.73	15.76
1269	4.73	4.73	15.67	1270	4.90	4.90	15.74
1271	4.90	4.90	15.65	1272	4.90	4.90	15.56
1273	4.73	4.73	15.32	1274	4.73	4.73	15.24
1275	4.90	4.90	15.31	1276	4.90	4.90	15.23
1277	4.90	4.90	15.15	1278	4.90	4.90	15.07
1279	4.73	4.73	14.84	1280	4.73	4.73	14.76
1281	4.90	4.90	14.84	1282	4.90	4.90	14.76
1283	4.90	4.90	14.68	1284	4.73	4.73	14.46
1285	4.73	4.73	14.38	1286	4.90	4.90	14.46
1287	4.90	4.90	14.39	1288	4.90	4.90	14.32
1289	4.90	4.90	14.25	1290	4.73	4.73	14.03
1291	4.73	4.73	13.96	1292	4.90	4.90	14.05
1293	4.90	4.90	13.98	1294	4.90	4.90	13.91
1295	4.73	4.73	13.69	1296	4.73	4.73	13.63
1297	4.57	4.57	13.41	1298	4.40	4.40	13.19
1299	4.23	4.23	12.97	1300	4.06	4.06	12.75
1310	2.89	2.89	11.08	1320	2.74	2.74	10.41
1330	2.89	2.89	10.07	1340	2.89	2.89	9.64
1350	2.89	2.89	9.25	1360	2.89	2.89	8.89
1370	2.74	2.74	8.42	1380	2.89	2.89	8.27
1390	2.89	2.89	8.00	1400	2.89	2.89	7.75
1420	2.82	2.82	7.23	1440	2.89	2.89	6.92
1460	0.00	0.00	3.78	1500	0.00	0.00	3.23

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 65 acres
HYDROGRAPH PEAK: 124 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 22.53 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	3.04	200	3.30	300	3.40	400	3.53
500	3.72	600	4.47	700	6.40	800	7.15	900	10.02
1000	15.79	1050	21.92	1100	31.91	1110	39.69	1120	48.54
1130	52.87	1131	53.50	1132	54.38	1133	55.01	1134	55.90
1135	56.54	1136	57.42	1137	58.07	1138	58.72	1139	59.61

1140	59.96	1141	60.79	1142	61.85	1143	62.45	1144	63.52
1145	66.15	1146	69.17	1147	72.16	1148	74.67	1149	85.36
1150	94.97	1151	104.20	1152	114.14	1153	123.61	1154	123.80
1155	121.85	1156	119.61	1157	117.34	1158	107.03	1159	96.75
1160	86.17	1161	75.06	1162	63.29	1163	59.93	1164	58.63
1165	55.97	1166	53.47	1167	50.69	1168	48.69	1169	47.40
1170	46.14	1171	45.00	1172	43.74	1173	42.60	1174	42.22
1175	41.85	1176	41.49	1177	40.88	1178	40.27	1179	39.79
1180	39.20	1181	38.60	1182	37.88	1183	37.30	1184	36.72
1185	36.14	1186	35.84	1187	35.53	1188	35.24	1189	34.68
1190	33.99	1191	33.58	1192	33.03	1193	32.48	1194	31.94
1195	31.27	1196	30.73	1197	30.20	1198	29.95	1199	29.70
1200	29.46	1201	29.22	1202	28.98	1203	28.75	1204	28.53
1205	28.30	1206	28.08	1207	27.87	1208	27.80	1209	27.45
1210	27.24	1211	27.04	1212	26.84	1213	26.79	1214	26.45
1215	26.27	1216	26.08	1217	25.90	1218	25.72	1219	25.54
1220	25.37	1221	25.20	1222	25.03	1223	24.86	1224	24.70
1225	24.10	1226	23.65	1227	23.20	1228	22.60	1229	22.01
1230	21.42	1231	20.82	1232	20.53	1233	19.94	1234	19.79
1235	19.50	1236	19.36	1237	19.37	1238	19.23	1239	19.10
1240	18.97	1241	18.69	1242	18.56	1243	18.58	1244	18.46
1245	18.33	1246	18.06	1247	17.94	1248	17.97	1249	17.86
1250	17.74	1251	17.63	1252	17.36	1253	17.40	1254	17.30
1255	17.19	1256	17.08	1257	16.83	1258	16.72	1259	16.77
1260	16.67	1261	16.57	1262	16.32	1263	16.23	1264	16.28
1265	16.19	1266	16.10	1267	16.00	1268	15.76	1269	15.67
1270	15.74	1271	15.65	1272	15.56	1273	15.32	1274	15.24
1275	15.31	1276	15.23	1277	15.15	1278	15.07	1279	14.84
1280	14.76	1281	14.84	1282	14.76	1283	14.68	1284	14.46
1285	14.38	1286	14.46	1287	14.39	1288	14.32	1289	14.25
1290	14.03	1291	13.96	1292	14.05	1293	13.98	1294	13.91
1295	13.69	1296	13.63	1297	13.41	1298	13.19	1299	12.97
1300	12.75	1310	11.08	1320	10.41	1330	10.07	1340	9.64
1350	9.25	1360	8.89	1370	8.42	1380	8.27	1390	8.00
1400	7.75	1420	7.23	1440	6.92	1460	3.78	1500	3.23

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050041006509A97                            1
```

```
110
111            1.00000    4.16
110
006     1  003A 010      099A97                            1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 3 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 3 - Q100
Page: 2

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION							
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	5	4	33	59	33	59	1153	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 58.75 VOLUME (acre-ft): 1.43 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 1.61 TOTAL RAIN(in): 6.30 SCS Curve: 54 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 58.75 VOLUME (acre-ft): 4.43 *																	
2A	---	---	--	--	---	---	33	59	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	59	1153	-------	----	-------	---	----	-----	-----	--	--

AREA MULTIPLIED BY 10 TO FIT WITHIN PARAMETERS

FATTENING INCLUDED

DIVIDE BY 10

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH FATTENED AT 2

```
**********************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):     58.75         VOLUME (acre-ft):      1.43      *
*      NO HYDROGRAPH ADJUSTMENT                                                             *
*      RUNOFF FACTOR(in):   1.61      TOTAL RAIN(in):   6.30      SCS Curve: 54            *
*      FATTENED HYDROGRAPH  PEAK (cfs):     58.75         VOLUME (acre-ft):      4.43      *
**********************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	0.15	0.15	0.20
200	0.15	0.15	0.27	300	0.15	0.15	0.30
400	0.15	0.15	0.33	500	0.15	0.15	0.39
600	0.17	0.17	0.49	700	0.25	0.25	0.69
800	0.25	0.25	0.91	900	0.32	0.32	1.40
1000	0.45	0.45	2.54	1050	0.59	0.59	3.79
1100	0.75	0.75	6.26	1110	1.60	1.60	7.78
1120	5.32	5.32	11.94	1130	6.24	6.24	13.76
1131	6.56	6.56	14.15	1132	7.12	7.12	14.75
1133	7.44	7.44	15.14	1134	8.00	8.00	15.74
1135	8.32	8.32	16.13	1136	8.56	8.56	16.46
1137	8.32	8.32	16.38	1138	8.32	8.32	16.51
1139	8.32	8.32	16.64	1140	8.32	8.32	16.77
1141	8.81	8.81	17.32	1142	9.55	9.55	18.07
1143	10.04	10.04	18.61	1144	10.51	10.51	19.15
1145	13.03	13.03	21.36	1146	15.09	15.09	23.18
1147	16.91	16.91	24.79	1148	18.73	18.73	26.40
1149	27.99	27.99	33.99	1150	35.61	35.61	40.20
1151	43.41	43.41	46.50	1152	51.12	51.12	52.69
1153	58.75	58.75	58.75	1154	51.12	51.12	52.69
1155	41.63	41.63	45.09	1156	31.47	31.47	36.90
1157	21.90	21.90	29.11	1158	11.66	11.66	20.71
1159	8.32	8.32	17.86	1160	7.34	7.34	16.91
1161	6.60	6.60	16.16	1162	6.09	6.09	15.59
1163	5.47	5.47	14.93	1164	5.47	5.47	14.78
1165	3.62	3.62	13.10	1166	1.76	1.76	11.41
1167	0.98	0.98	10.61	1168	0.87	0.87	10.38
1169	0.78	0.78	10.16	1170	0.76	0.76	10.00
1171	0.76	0.76	9.87	1172	0.76	0.76	9.73
1173	0.76	0.76	9.60	1174	0.76	0.76	9.47
1175	0.78	0.78	9.36	1176	0.78	0.78	9.24
1177	0.75	0.75	9.09	1178	0.71	0.71	8.95
1179	0.68	0.68	8.81	1180	0.65	0.65	8.67

1181	0.62	0.62	8.53	1182	0.61	0.61	8.41
1183	0.61	0.61	8.31	1184	0.61	0.61	8.20
1185	0.61	0.61	8.10	1186	0.61	0.61	8.00
1187	0.62	0.62	7.92	1188	0.62	0.62	7.82
1189	0.59	0.59	7.70	1190	0.54	0.54	7.57
1191	0.51	0.51	7.45	1192	0.48	0.48	7.34
1193	0.45	0.45	7.22	1194	0.45	0.45	7.14
1195	0.45	0.45	7.05	1196	0.45	0.45	6.97
1197	0.45	0.45	6.89	1198	0.45	0.45	6.81
1199	0.43	0.43	6.72	1200	0.45	0.45	6.66

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	0.45	0.45	6.59	1202	0.45	0.45	6.51
1203	0.45	0.45	6.44	1204	0.45	0.45	6.37
1205	0.45	0.45	6.30	1206	0.45	0.45	6.23
1207	0.45	0.45	6.17	1208	0.45	0.45	6.10
1209	0.45	0.45	6.04	1210	0.45	0.45	5.97
1211	0.45	0.45	5.91	1212	0.45	0.45	5.85
1213	0.45	0.45	5.79	1214	0.45	0.45	5.73
1215	0.45	0.45	5.67	1216	0.45	0.45	5.62
1217	0.45	0.45	5.56	1218	0.43	0.43	5.49
1219	0.45	0.45	5.45	1220	0.45	0.45	5.40
1221	0.45	0.45	5.34	1222	0.45	0.45	5.29
1223	0.45	0.45	5.24	1224	0.45	0.45	5.19
1225	0.40	0.40	5.10	1226	0.37	0.37	5.02
1227	0.33	0.33	4.93	1228	0.29	0.29	4.86
1229	0.25	0.25	4.77	1230	0.25	0.25	4.72
1231	0.23	0.23	4.66	1232	0.25	0.25	4.63
1233	0.25	0.25	4.59	1234	0.25	0.25	4.55
1235	0.25	0.25	4.50	1236	0.25	0.25	4.46
1237	0.25	0.25	4.42	1238	0.25	0.25	4.38
1239	0.25	0.25	4.34	1240	0.25	0.25	4.30
1241	0.25	0.25	4.26	1242	0.23	0.23	4.21
1243	0.25	0.25	4.19	1244	0.25	0.25	4.15
1245	0.25	0.25	4.12	1246	0.25	0.25	4.08
1247	0.25	0.25	4.05	1248	0.25	0.25	4.01
1249	0.25	0.25	3.98	1250	0.25	0.25	3.94
1251	0.25	0.25	3.91	1252	0.25	0.25	3.88
1253	0.25	0.25	3.84	1254	0.25	0.25	3.81
1255	0.25	0.25	3.78	1256	0.25	0.25	3.75
1257	0.25	0.25	3.72	1258	0.23	0.23	3.67
1259	0.25	0.25	3.66	1260	0.25	0.25	3.63
1261	0.25	0.25	3.60	1262	0.25	0.25	3.57

1263	0.25	0.25	3.54	1264	0.25	0.25	3.52
1265	0.25	0.25	3.49	1266	0.25	0.25	3.46
1267	0.25	0.25	3.44	1268	0.25	0.25	3.41
1269	0.23	0.23	3.37	1270	0.25	0.25	3.36
1271	0.25	0.25	3.33	1272	0.25	0.25	3.31
1273	0.25	0.25	3.28	1274	0.25	0.25	3.26
1275	0.25	0.25	3.23	1276	0.25	0.25	3.21
1277	0.25	0.25	3.19	1278	0.25	0.25	3.16
1279	0.25	0.25	3.14	1280	0.23	0.23	3.10
1281	0.25	0.25	3.10	1282	0.25	0.25	3.07
1283	0.25	0.25	3.05	1284	0.25	0.25	3.03
1285	0.25	0.25	3.01	1286	0.25	0.25	2.99
1287	0.25	0.25	2.97	1288	0.25	0.25	2.95
1289	0.25	0.25	2.93	1290	0.25	0.25	2.91
1291	0.23	0.23	2.87	1292	0.25	0.25	2.87
1293	0.25	0.25	2.85	1294	0.25	0.25	2.83
1295	0.25	0.25	2.81	1296	0.25	0.25	2.79
1297	0.22	0.22	2.74	1298	0.20	0.20	2.71
1299	0.19	0.19	2.68	1300	0.17	0.17	2.64
1310	0.15	0.15	2.45	1320	0.14	0.14	2.30
1330	0.15	0.15	2.17	1340	0.15	0.15	2.05
1350	0.15	0.15	1.93	1360	0.15	0.15	1.83
1370	0.14	0.14	1.73	1380	0.15	0.15	1.66
1390	0.15	0.15	1.58	1400	0.15	0.15	1.51
1420	0.14	0.14	1.38	1440	0.15	0.15	1.28
1460	0.00	0.00	1.04	1500	0.00	0.00	0.89

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 59 cfs
TIME OF PEAK: 1153 minutes
HYDROGRAPH VOLUME: 4.44 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	0.20	200	0.27	300	0.30	400	0.33
500	0.39	600	0.49	700	0.69	800	0.91	900	1.40
1000	2.54	1050	3.79	1100	6.26	1110	7.78	1120	11.94
1130	13.76	1131	14.15	1132	14.75	1133	15.14	1134	15.74
1135	16.13	1136	16.46	1137	16.38	1138	16.51	1139	16.64

1140	16.77	1141	17.32	1142	18.07	1143	18.61	1144	19.15
1145	21.36	1146	23.18	1147	24.79	1148	26.40	1149	33.99
1150	40.20	1151	46.50	1152	52.69	1153	58.75	1154	52.69
1155	45.09	1156	36.90	1157	29.11	1158	20.71	1159	17.86
1160	16.91	1161	16.16	1162	15.59	1163	14.93	1164	14.78
1165	13.10	1166	11.41	1167	10.61	1168	10.38	1169	10.16
1170	10.00	1171	9.87	1172	9.73	1173	9.60	1174	9.47
1175	9.36	1176	9.24	1177	9.09	1178	8.95	1179	8.81
1180	8.67	1181	8.53	1182	8.41	1183	8.31	1184	8.20
1185	8.10	1186	8.00	1187	7.92	1188	7.82	1189	7.70
1190	7.57	1191	7.45	1192	7.34	1193	7.22	1194	7.14
1195	7.05	1196	6.97	1197	6.89	1198	6.81	1199	6.72
1200	6.66	1201	6.59	1202	6.51	1203	6.44	1204	6.37
1205	6.30	1206	6.23	1207	6.17	1208	6.10	1209	6.04
1210	5.97	1211	5.91	1212	5.85	1213	5.79	1214	5.73
1215	5.67	1216	5.62	1217	5.56	1218	5.49	1219	5.45
1220	5.40	1221	5.34	1222	5.29	1223	5.24	1224	5.19
1225	5.10	1226	5.02	1227	4.93	1228	4.86	1229	4.77
1230	4.72	1231	4.66	1232	4.63	1233	4.59	1234	4.55
1235	4.50	1236	4.46	1237	4.42	1238	4.38	1239	4.34
1240	4.30	1241	4.26	1242	4.21	1243	4.19	1244	4.15
1245	4.12	1246	4.08	1247	4.05	1248	4.01	1249	3.98
1250	3.94	1251	3.91	1252	3.88	1253	3.84	1254	3.81
1255	3.78	1256	3.75	1257	3.72	1258	3.67	1259	3.66
1260	3.63	1261	3.60	1262	3.57	1263	3.54	1264	3.52
1265	3.49	1266	3.46	1267	3.44	1268	3.41	1269	3.37
1270	3.36	1271	3.33	1272	3.31	1273	3.28	1274	3.26
1275	3.23	1276	3.21	1277	3.19	1278	3.16	1279	3.14
1280	3.10	1281	3.10	1282	3.07	1283	3.05	1284	3.03
1285	3.01	1286	2.99	1287	2.97	1288	2.95	1289	2.93
1290	2.91	1291	2.87	1292	2.87	1293	2.85	1294	2.83
1295	2.81	1296	2.79	1297	2.74	1298	2.71	1299	2.68
1300	2.64	1310	2.45	1320	2.30	1330	2.17	1340	2.05
1350	1.93	1360	1.83	1370	1.73	1380	1.66	1390	1.58
1400	1.51	1420	1.38	1440	1.28	1460	1.04	1500	0.89

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050004003305A97                            1
```

```
110
111            1.00000    1.61
110
006     1  003A 010      099A97                            1  2
999
```

Hydraflow Routed Hydrographs—Q100

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6207 Subarea A, B & C Q Adjusted.gpw

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Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.23

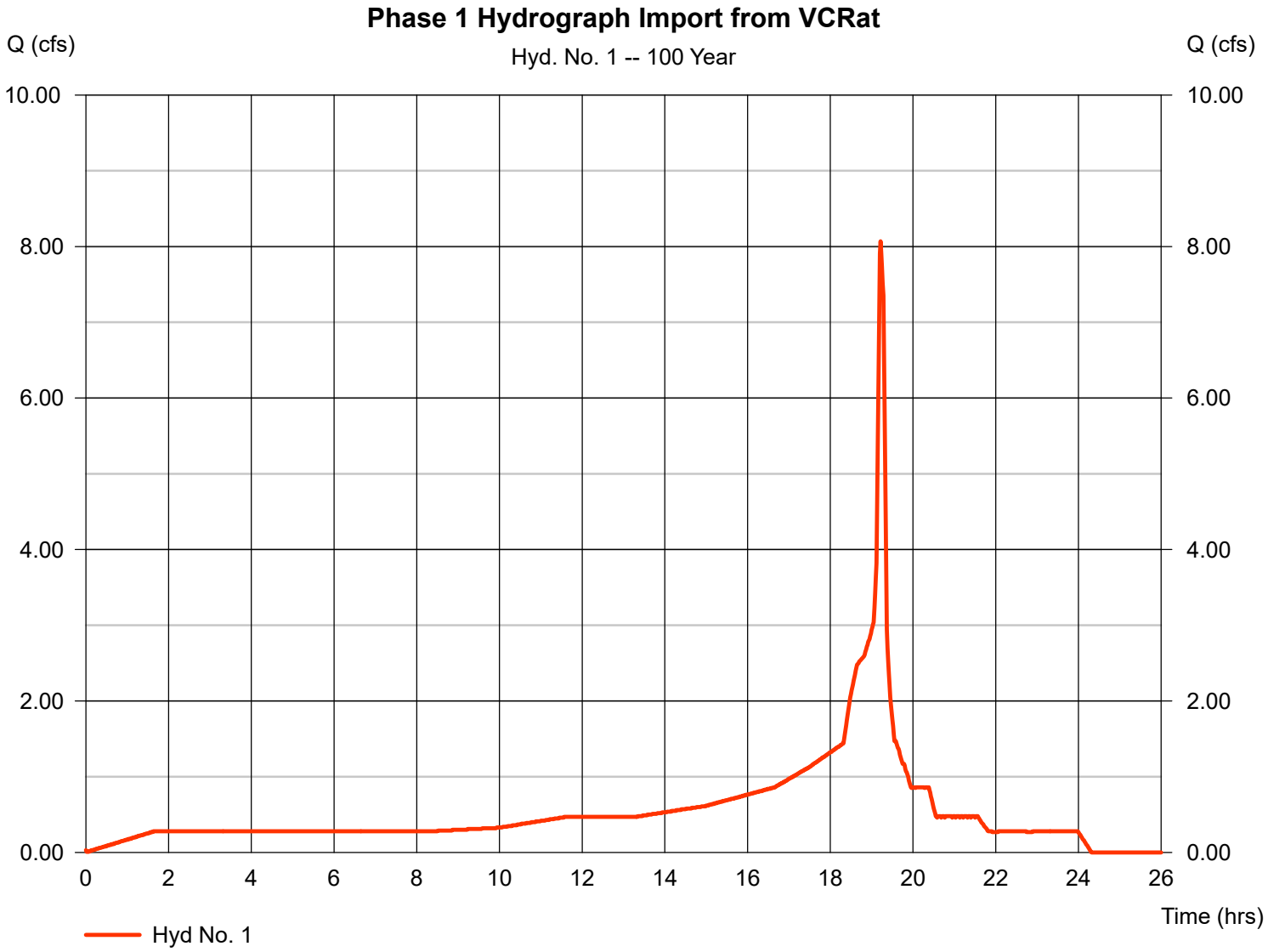
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	8.070	1	1153	51,117	----	------	------	Phase 1 Hydrograph Import from VC
2	Diversion1	0.280	1	98	6,747	1	------	------	First Flush to infiltration
3	Diversion2	8.070	1	1153	44,370	1	------	------	Remaining Flow
4	Reservoir	8.073	1	1153	44,359	3	87.57	47.4	Diversion Routing
5	Diversion1	4.971	1	1153	29,716	4	------	------	Released Flow
6	Diversion2	3.102	1	1153	14,643	4	------	------	Flow to Basin
8	Manual	12.38	1	1153	98,180	----	------	------	Phase 2 Hydrograph Import from VC
9	Diversion1	0.330	1	178	3,032	8	------	------	First Flush to infiltration
10	Diversion2	12.38	1	1153	95,147	8	------	------	Remaining Flow
11	Reservoir	12.45	1	1153	95,132	10	87.58	63.2	Diversion Routing
12	Diversion1	9.928	1	1153	79,489	11	------	------	Released Flow
13	Diversion2	2.518	1	1153	15,643	11	------	------	Flow to Basin
15	Manual	5.880	1	1152	19,358	----	------	------	Phase 3 Hydrograph Import from VC
16	Diversion1	0.040	1	424	781	15	------	------	First Flush to infiltration
17	Diversion2	5.880	1	1152	18,577	15	------	------	Remaining Flow
18	Reservoir	5.835	1	1152	18,578	17	86.89	20.9	Diversion Routing
19	Diversion1	5.044	1	1152	15,399	18	------	------	Released Flow
20	Diversion2	0.791	1	1152	3,179	18	------	------	Flow to Basin

Hydrograph Report

Hyd. No. 1

Phase 1 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 8.070 cfs
Storm frequency	= 100 yrs	Time to peak	= 19.22 hrs
Time interval	= 1 min	Hyd. volume	= 51,117 cuft

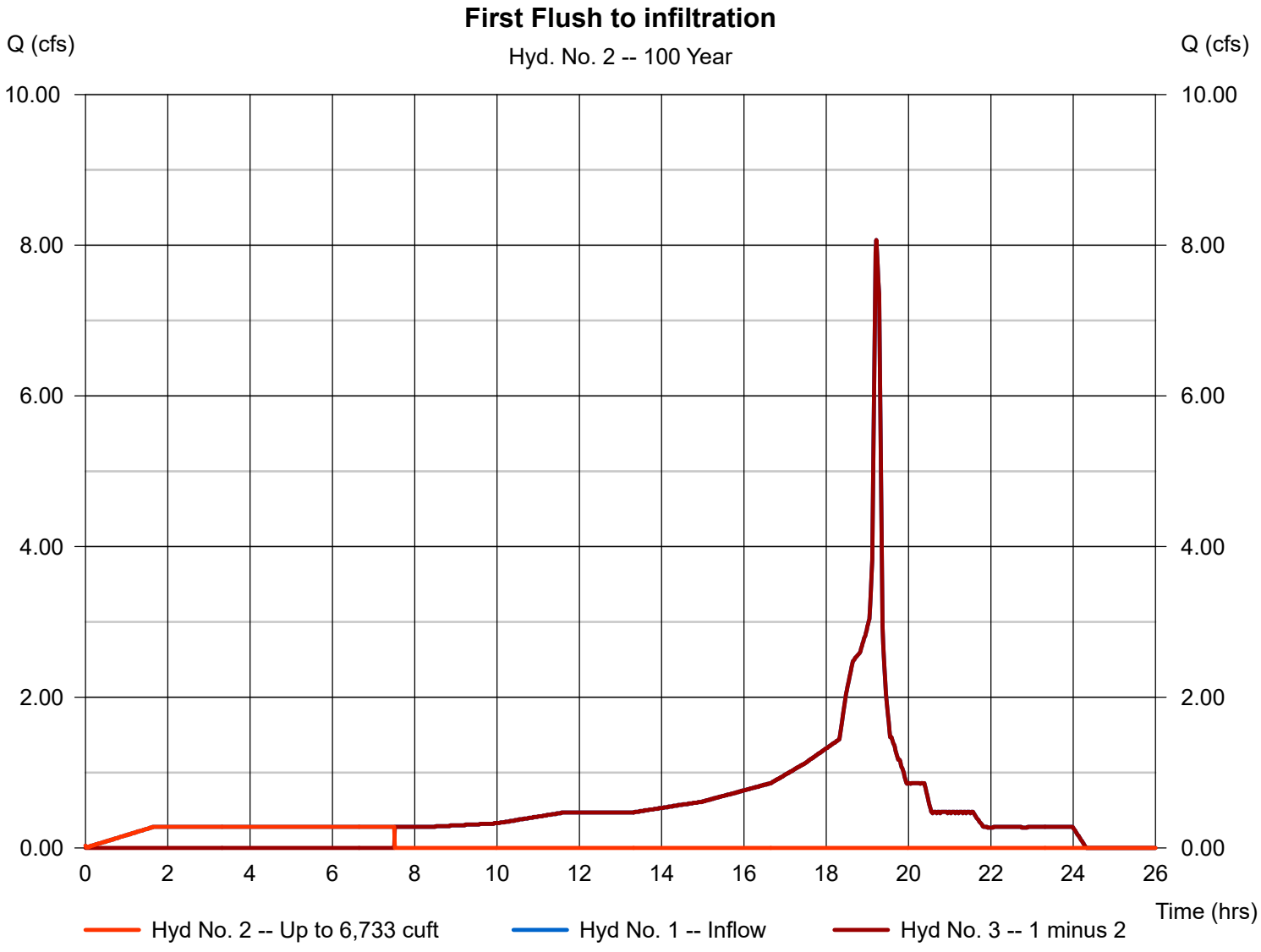


Hydrograph Report

Hyd. No. 2

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.280 cfs
Storm frequency	=	100 yrs	Time to peak	=	1.63 hrs
Time interval	=	1 min	Hyd. volume	=	6,747 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	and diverted hyd.	=	3
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

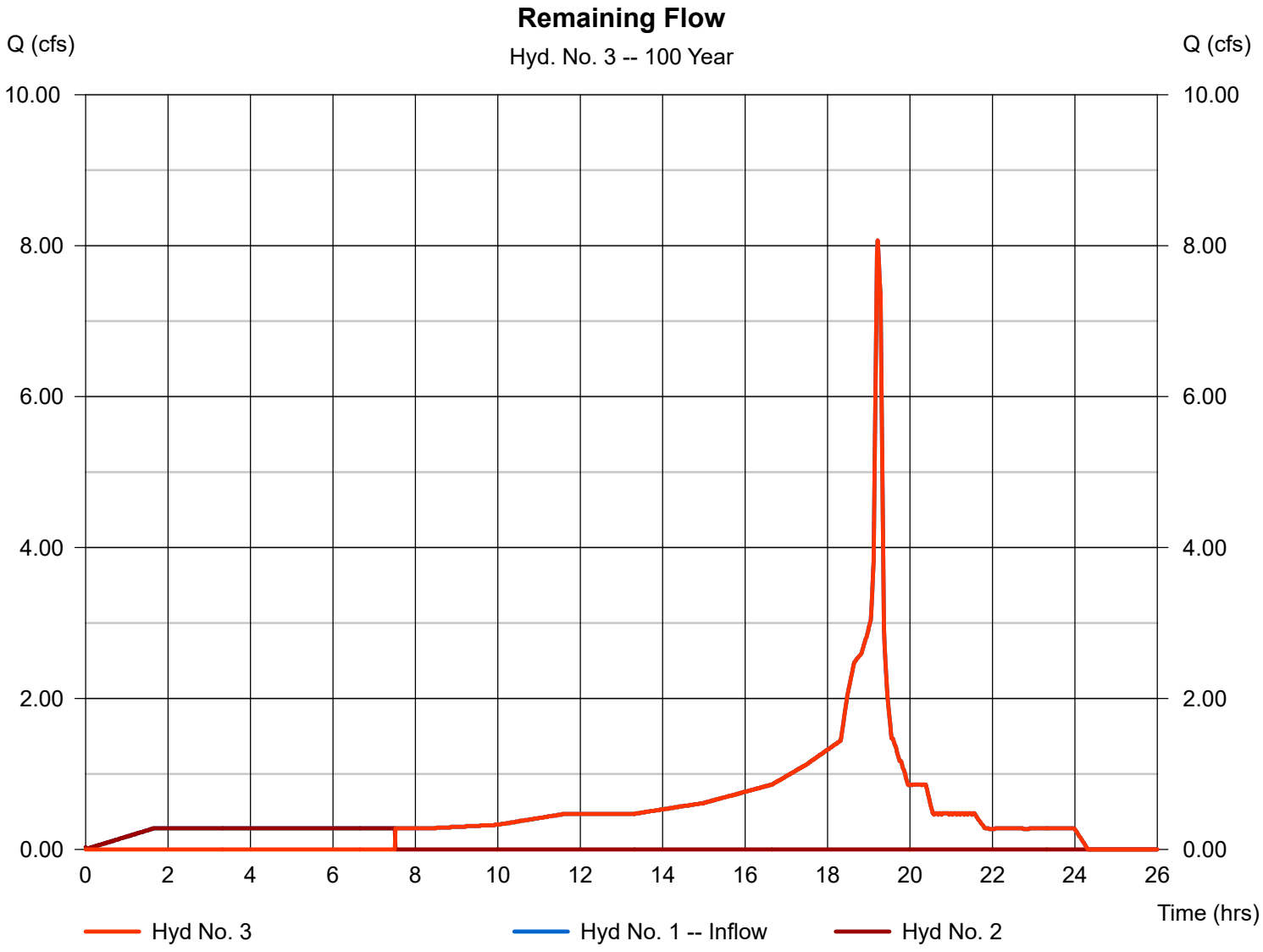


Hydrograph Report

Hyd. No. 3

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	8.070 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	44,370 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	2
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft



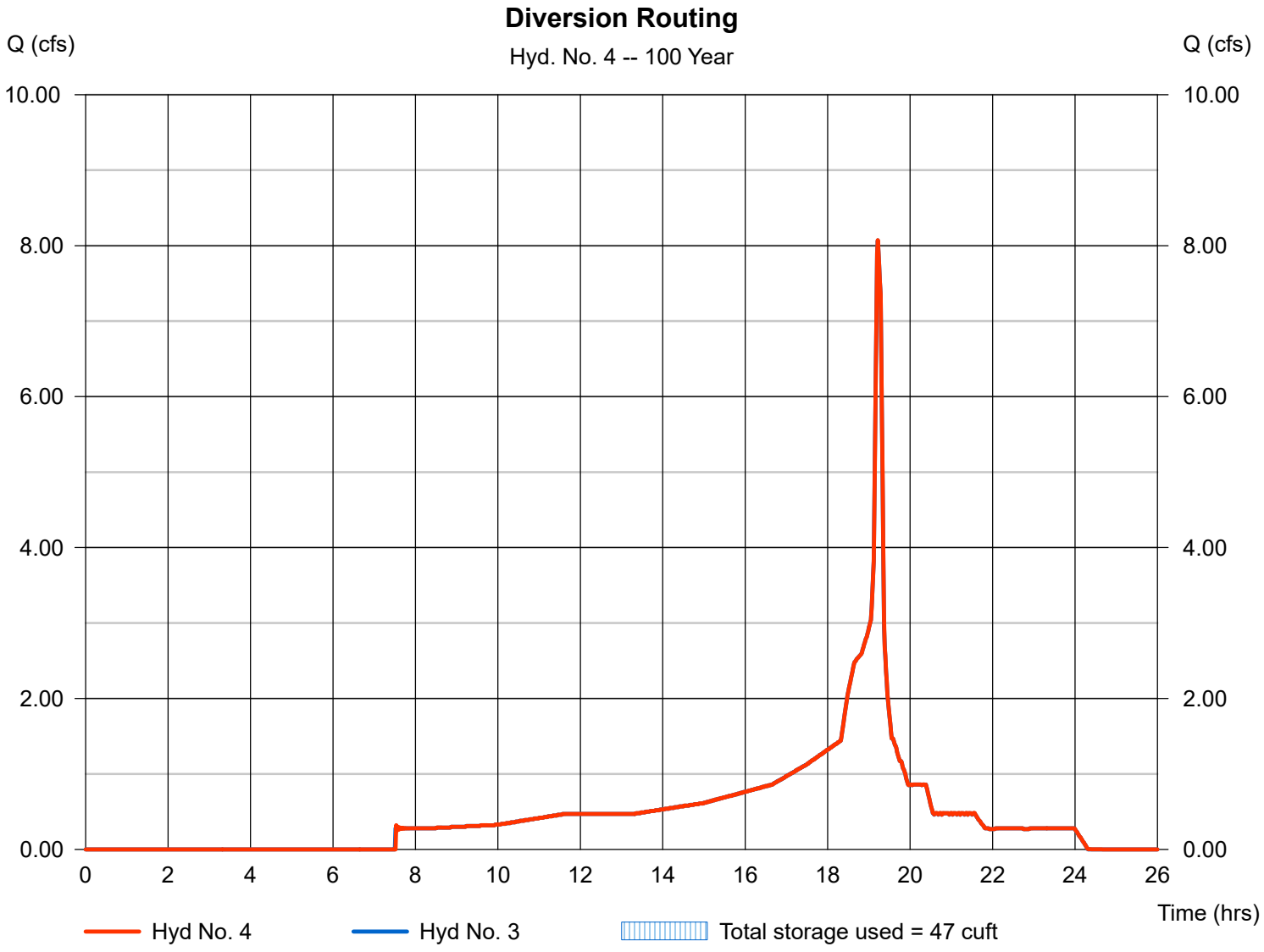
Hydrograph Report

Hyd. No. 4

Diversion Routing

Hydrograph type	=	Reservoir	Peak discharge	=	8.073 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	44,359 cuft
Inflow hyd. No.	=	3 - Remaining Flow	Max. Elevation	=	87.57 ft
Reservoir name	=	Diversion Structure A	Max. Storage	=	47 cuft

Storage Indication method used.



Pond No. 1 - Diversion Structure A

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	84.60	n/a	0	0
3.00	87.60	n/a	48	48

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 4.00	12.00	0.00	0.00
Span (in)	= 4.00	12.00	0.00	0.00
No. Barrels	= 2	1	0	0
Invert El. (ft)	= 85.00	85.33	0.00	0.00
Length (ft)	= 10.00	10.00	0.00	0.00
Slope (%)	= 2.00	2.00	0.00	n/a
N-Value	= .012	.012	.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)	= 87.30	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) = 85.50

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

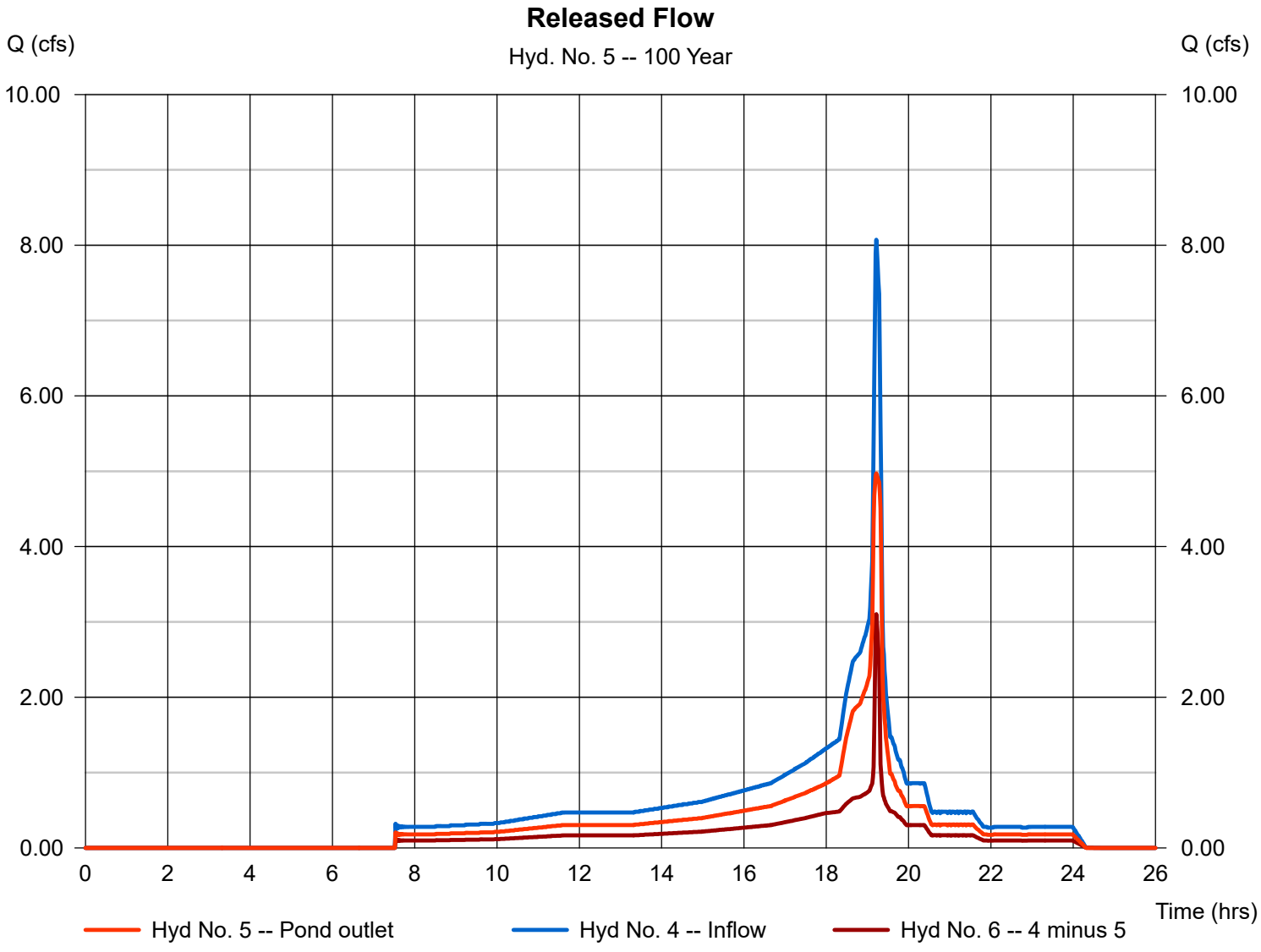
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	84.60	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.30	5	84.90	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.60	10	85.20	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.90	14	85.50	0.00 ic	0.00 oc	---	---	0.00	---	---	---	---	---	0.004
1.20	19	85.80	0.46 ic	0.85 ic	---	---	0.00	---	---	---	---	---	1.307
1.50	24	86.10	0.65 ic	1.79 oc	---	---	0.00	---	---	---	---	---	2.436
1.80	29	86.40	0.80 ic	2.47 oc	---	---	0.00	---	---	---	---	---	3.263
2.10	34	86.70	0.92 ic	3.53 ic	---	---	0.00	---	---	---	---	---	4.447
2.40	38	87.00	1.03 ic	4.09 ic	---	---	0.00	---	---	---	---	---	5.119
2.70	43	87.30	1.13 ic	4.58 ic	---	---	0.00	---	---	---	---	---	5.712
3.00	48	87.60	1.22 ic	5.03 ic	---	---	2.19	---	---	---	---	---	8.437

Hydrograph Report

Hyd. No. 5

Released Flow

Hydrograph type	=	Diversion1	Peak discharge	=	4.971 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	29,716 cuft
Inflow hydrograph	=	4 - Diversion Routing	2nd diverted hyd.	=	6
Diversion method	=	Pond - Diversion Structure A	Pond structure	=	Culv/Orf B

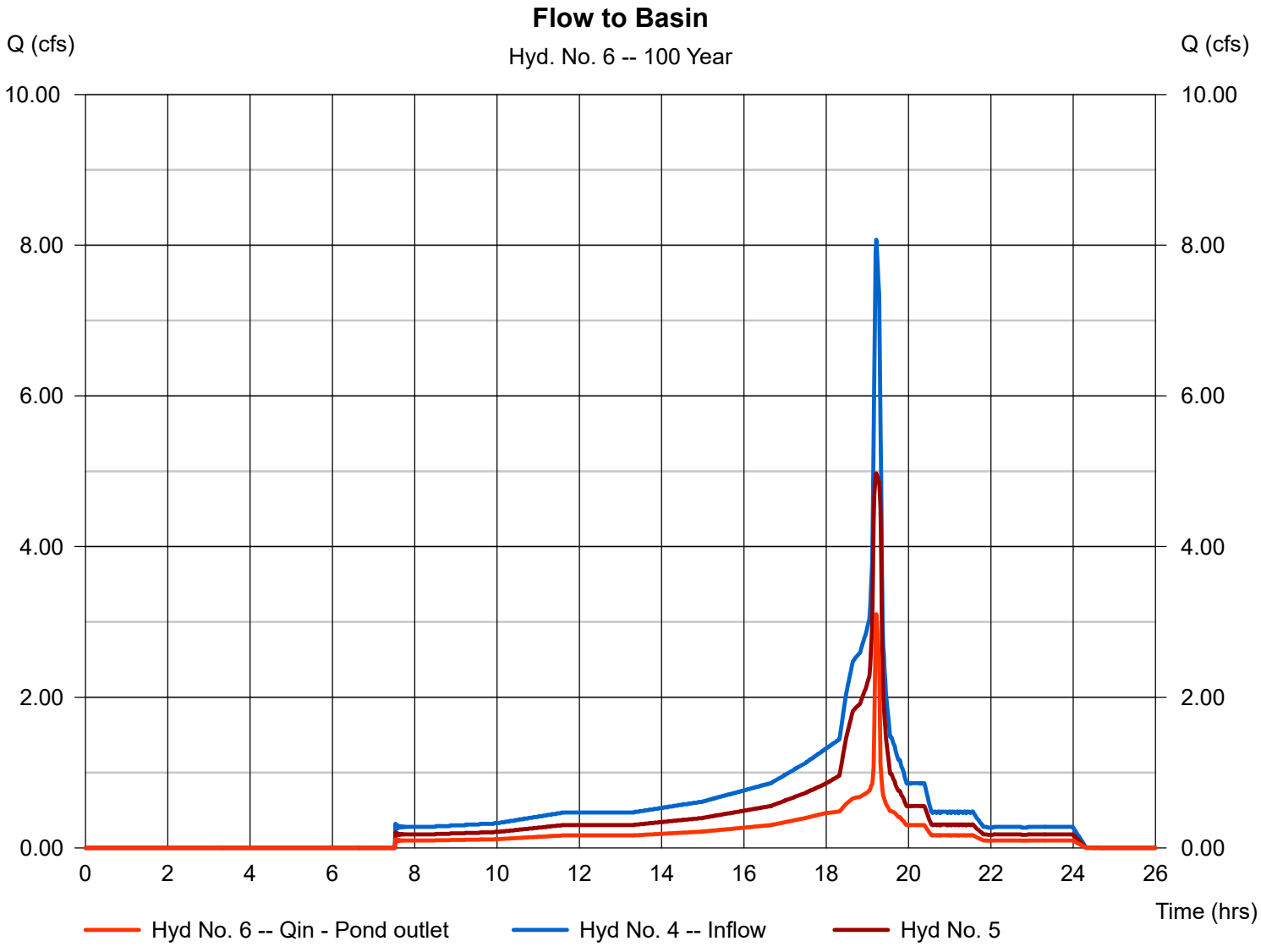


Hydrograph Report

Hyd. No. 6

Flow to Basin

Hydrograph type	=	Diversion2	Peak discharge	=	3.102 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	14,643 cuft
Inflow hydrograph	=	4 - Diversion Routing	2nd diverted hyd.	=	5
Diversion method	=	Pond - Diversion Structure A	Pond structure	=	Culv/Orf B

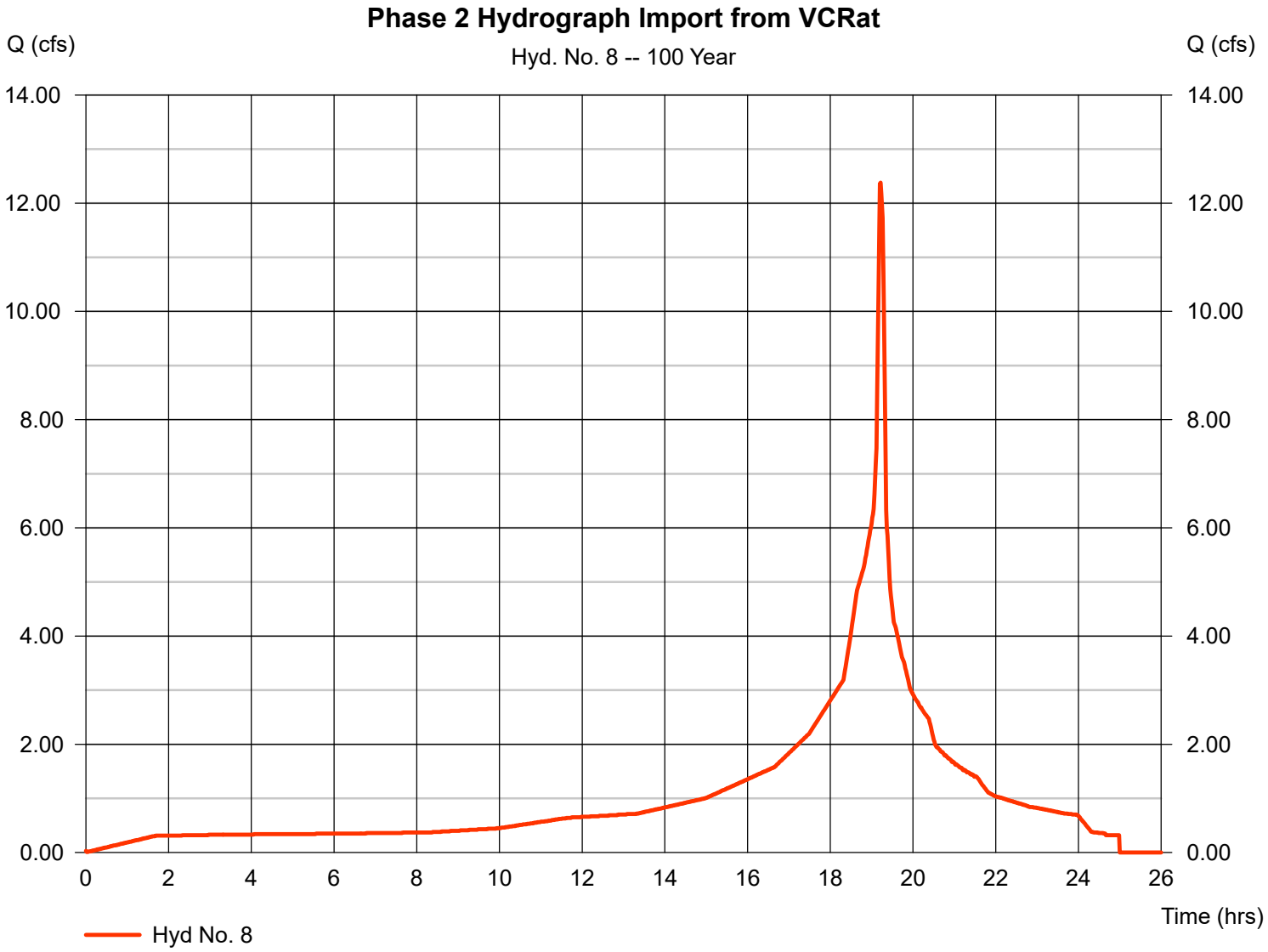


Hydrograph Report

Hyd. No. 8

Phase 2 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 12.38 cfs
Storm frequency	= 100 yrs	Time to peak	= 19.22 hrs
Time interval	= 1 min	Hyd. volume	= 98,180 cuft

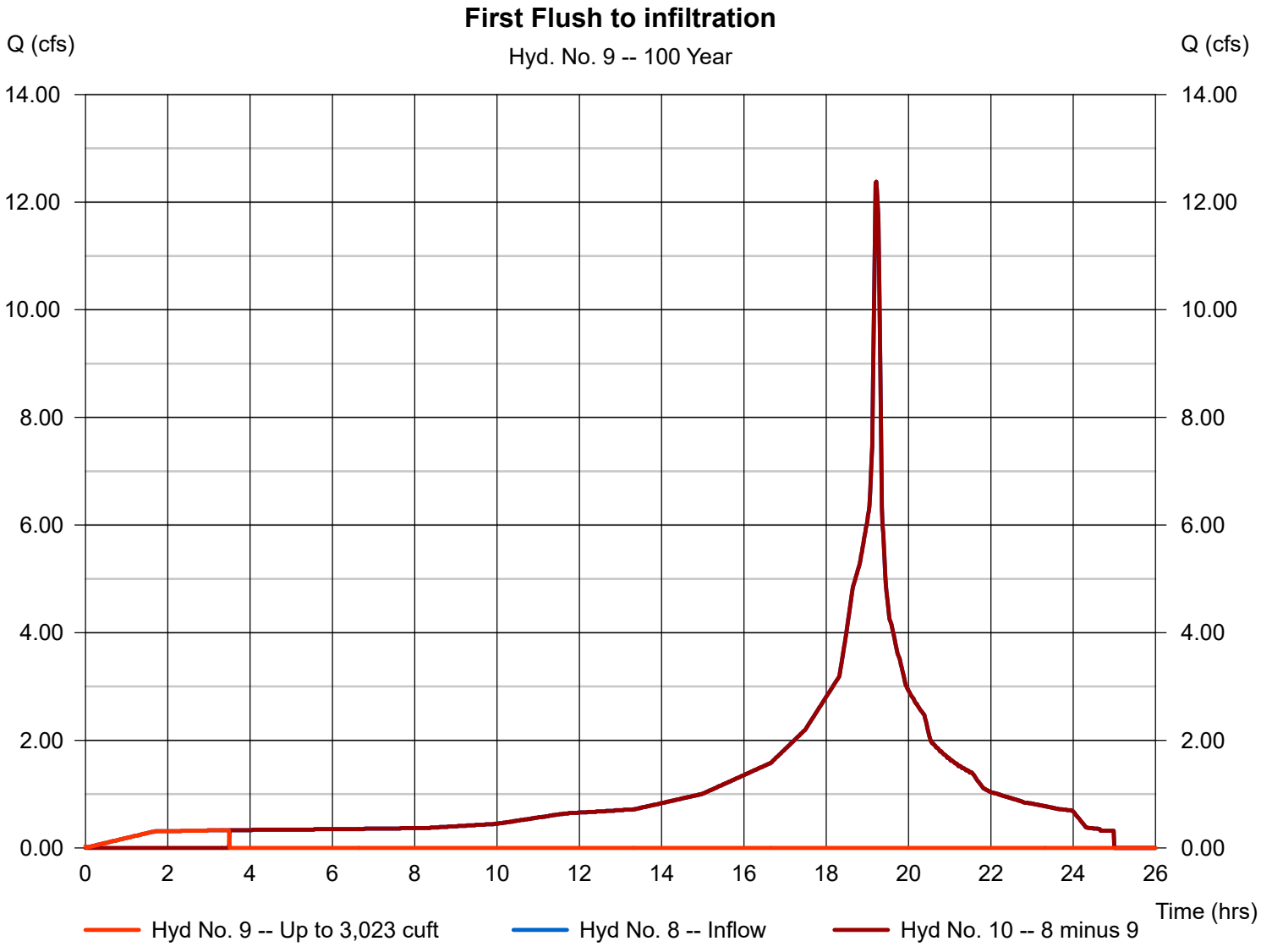


Hydrograph Report

Hyd. No. 9

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.330 cfs
Storm frequency	=	100 yrs	Time to peak	=	2.97 hrs
Time interval	=	1 min	Hyd. volume	=	3,032 cuft
Inflow hydrograph	=	8 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	10
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

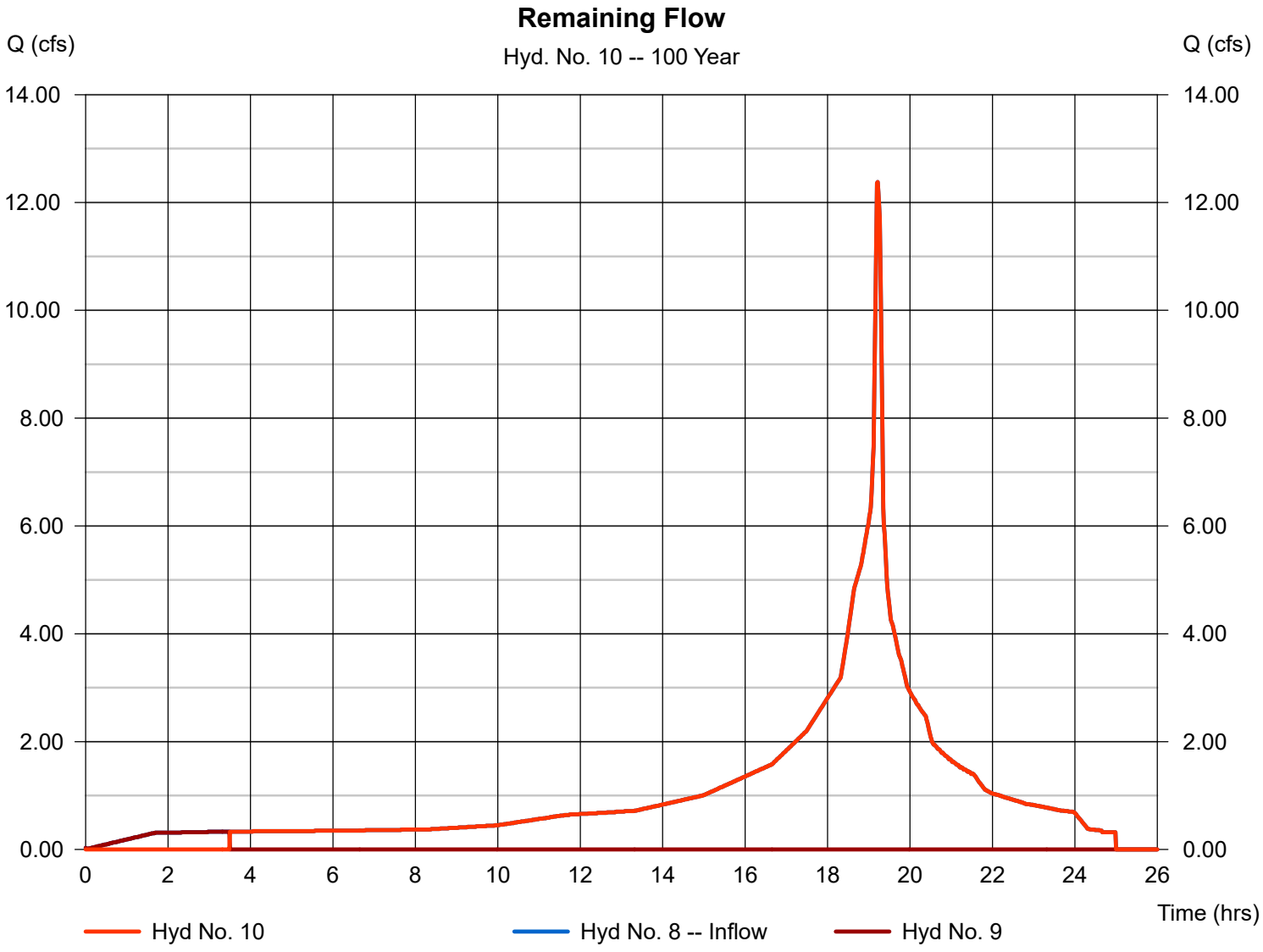


Hydrograph Report

Hyd. No. 10

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	12.38 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	95,147 cuft
Inflow hydrograph	=	8 - Phase 2 Hydrograph Import from VCR	2nd diverted hyd.	=	9
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft



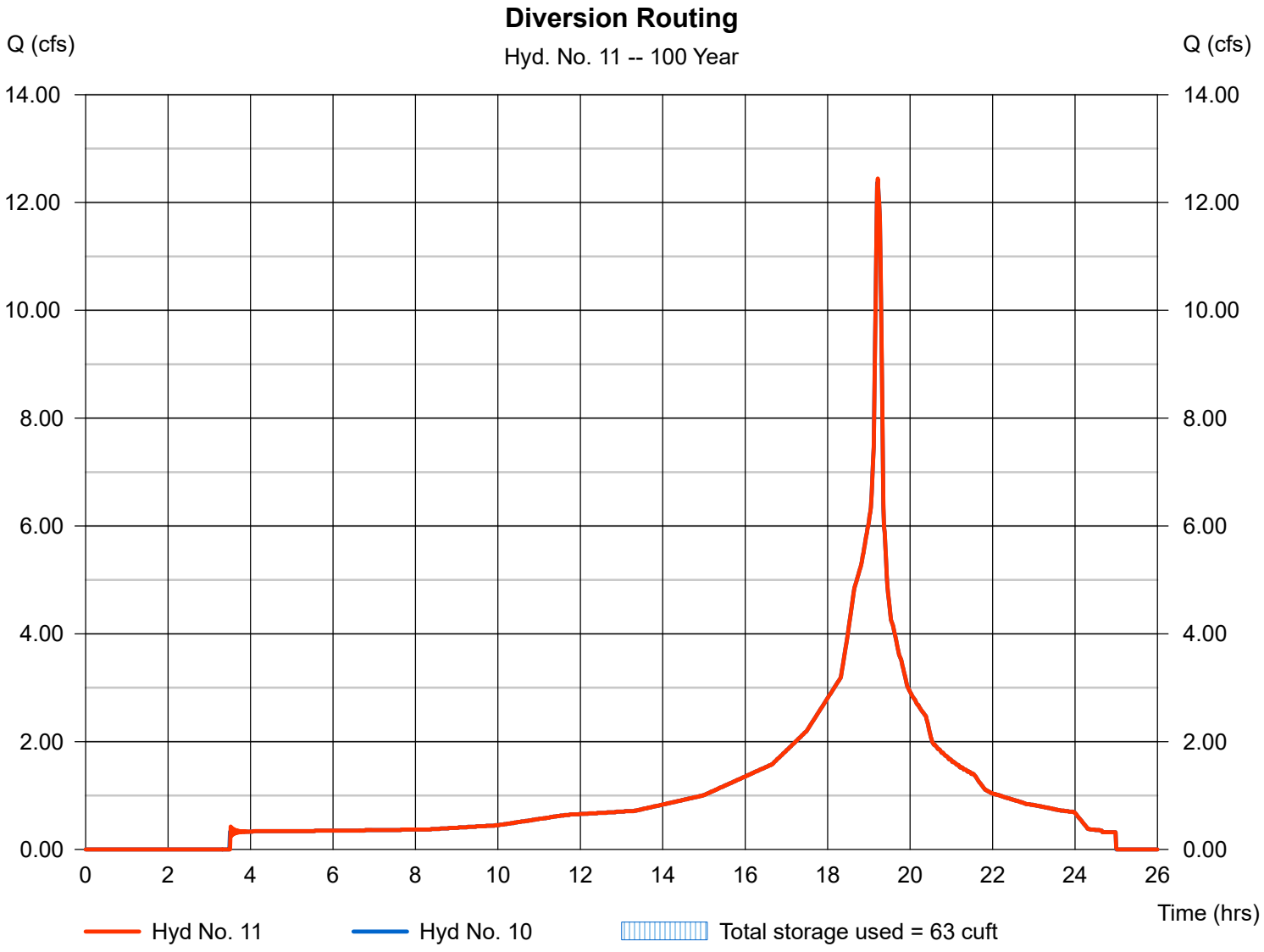
Hydrograph Report

Hyd. No. 11

Diversion Routing

Hydrograph type	=	Reservoir	Peak discharge	=	12.45 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	95,132 cuft
Inflow hyd. No.	=	10 - Remaining Flow	Max. Elevation	=	87.58 ft
Reservoir name	=	Diversion Structure B	Max. Storage	=	63 cuft

Storage Indication method used.



Pond No. 2 - Diversion Structure B

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	83.50	n/a	0	0
5.00	89.00	n/a	80	80

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 4.00	15.00	0.00	0.00
Span (in)	= 4.00	15.00	0.00	0.00
No. Barrels	= 2	1	0	0
Invert El. (ft)	= 83.50	84.00	0.00	0.00
Length (ft)	= 10.00	10.00	0.00	0.00
Slope (%)	= 2.00	2.00	0.00	n/a
N-Value	= .012	.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)	= 87.30	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) = 84.50

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

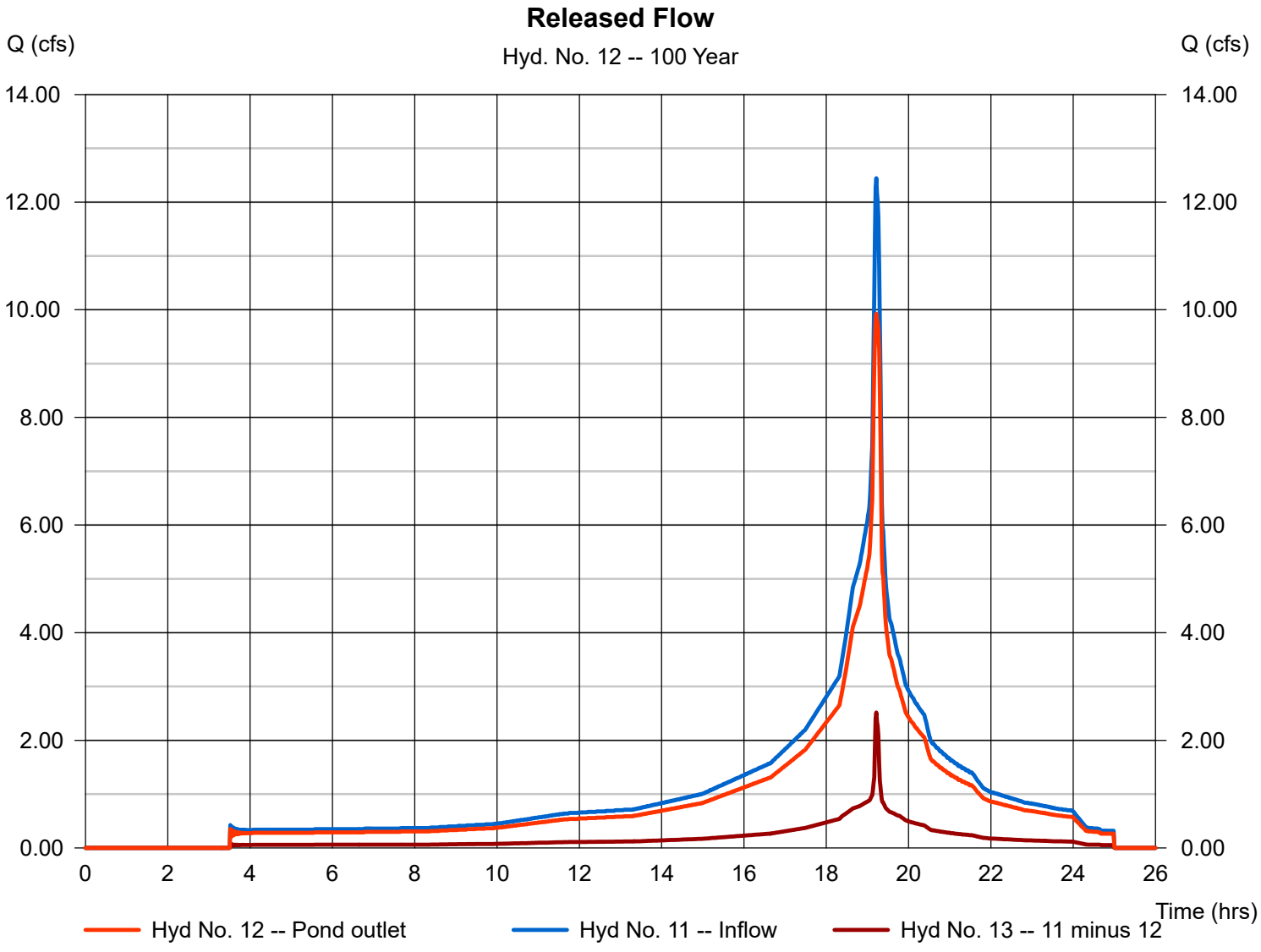
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	83.50	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.50	8	84.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
1.00	16	84.50	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
1.50	24	85.00	0.59 ic	2.92 oc	---	---	0.00	---	---	---	---	---	3.511
2.00	32	85.50	0.84 ic	5.02 oc	---	---	0.00	---	---	---	---	---	5.862
2.50	40	86.00	1.03 ic	6.93 ic	---	---	0.00	---	---	---	---	---	7.957
3.00	48	86.50	1.19 ic	8.09 ic	---	---	0.00	---	---	---	---	---	9.278
3.50	56	87.00	1.33 ic	9.11 ic	---	---	0.00	---	---	---	---	---	10.43
4.00	64	87.50	1.46 ic	10.02 ic	---	---	1.19	---	---	---	---	---	12.66
4.50	72	88.00	1.57 ic	10.85 ic	---	---	7.80	---	---	---	---	---	20.23
5.00	80	89.00	1.78 ic	12.36 ic	---	---	29.52	---	---	---	---	---	43.66

Hydrograph Report

Hyd. No. 12

Released Flow

Hydrograph type	=	Diversion1	Peak discharge	=	9.928 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	79,489 cuft
Inflow hydrograph	=	11 - Diversion Routing	2nd diverted hyd.	=	13
Diversion method	=	Pond - Diversion Structure B	Pond structure	=	Culv/Orf B

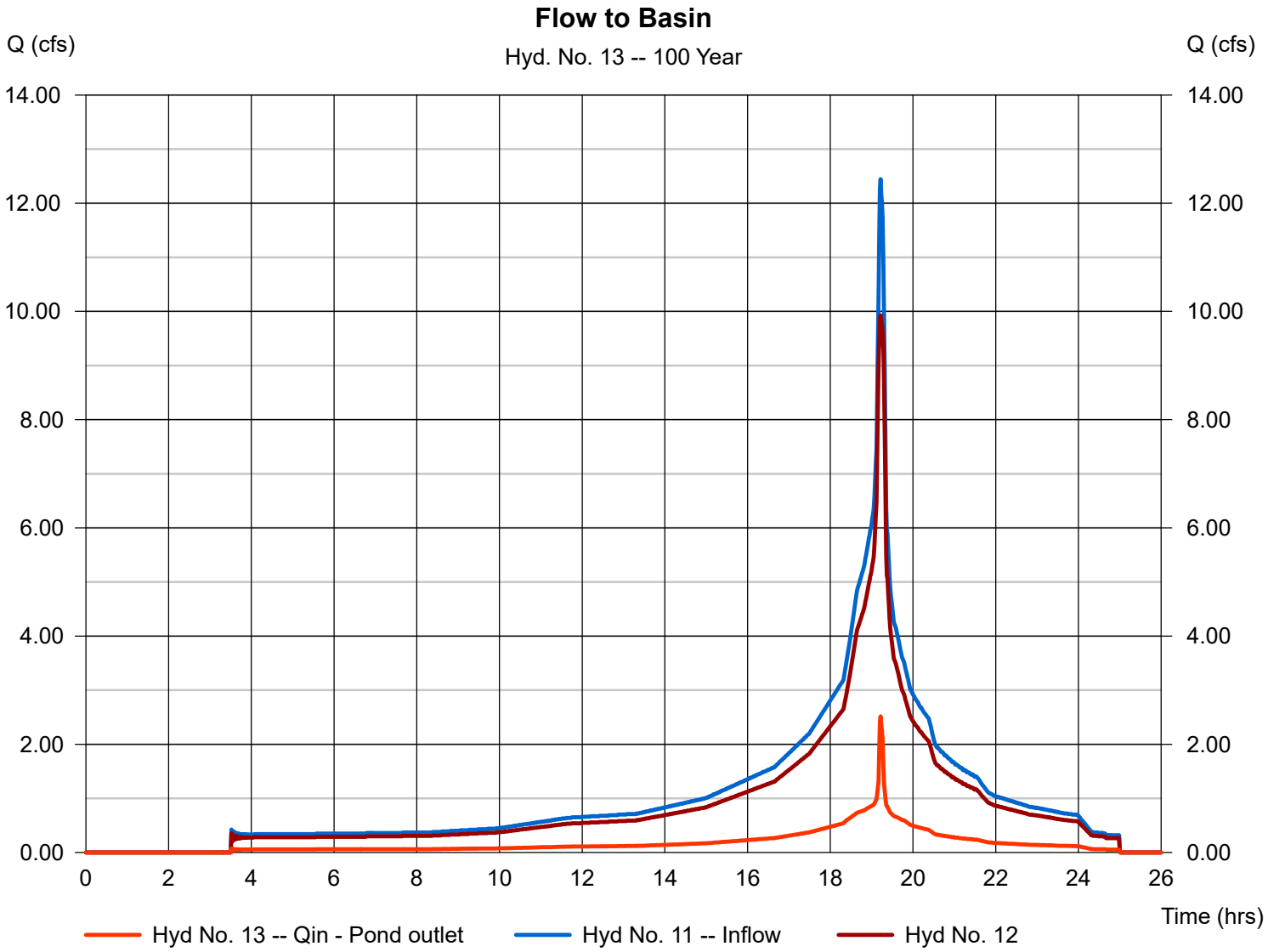


Hydrograph Report

Hyd. No. 13

Flow to Basin

Hydrograph type	=	Diversion2	Peak discharge	=	2.518 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.22 hrs
Time interval	=	1 min	Hyd. volume	=	15,643 cuft
Inflow hydrograph	=	11 - Diversion Routing	2nd diverted hyd.	=	12
Diversion method	=	Pond - Diversion Structure B	Pond structure	=	Culv/Orf B

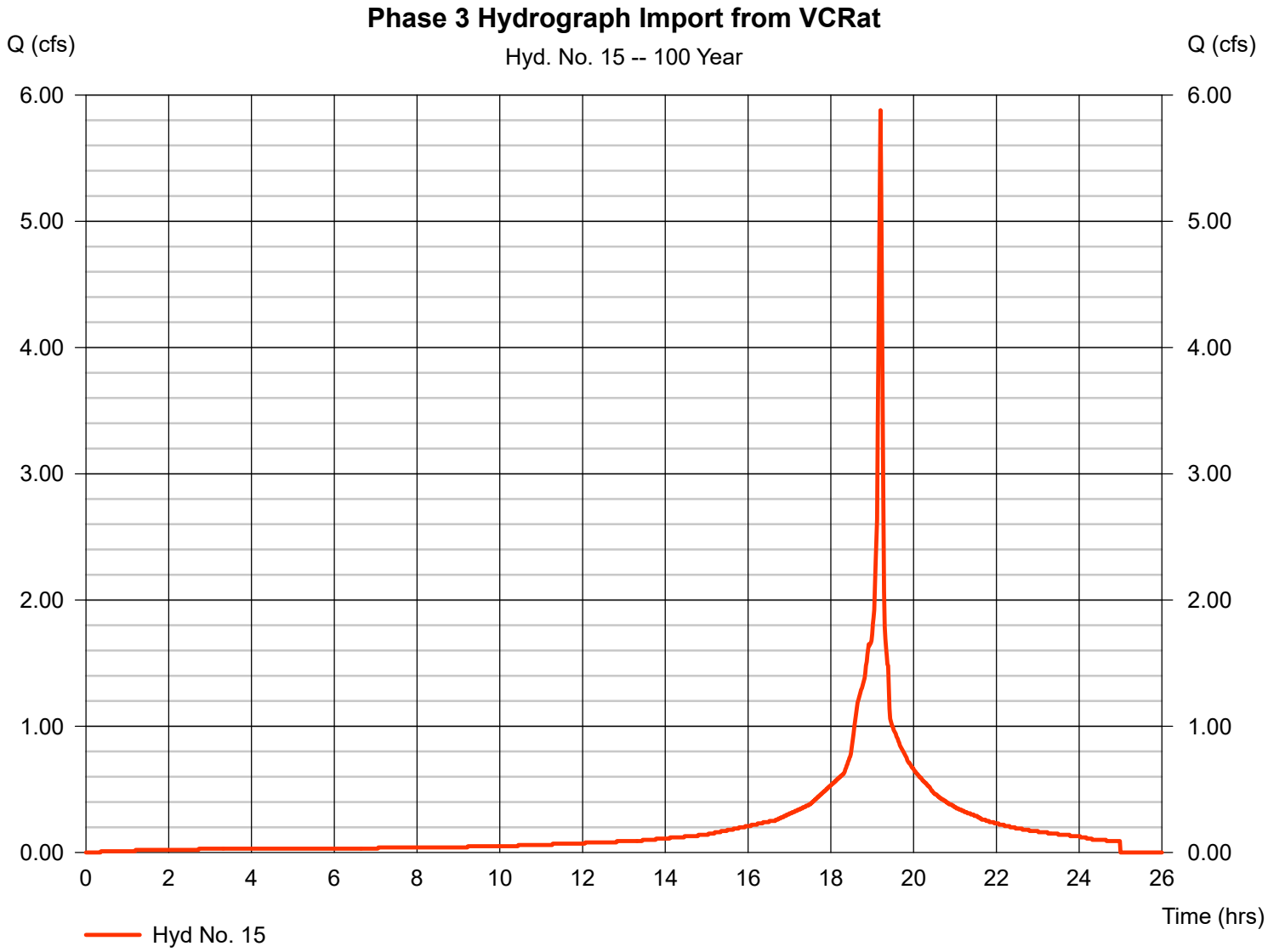


Hydrograph Report

Hyd. No. 15

Phase 3 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 5.880 cfs
Storm frequency	= 100 yrs	Time to peak	= 19.20 hrs
Time interval	= 1 min	Hyd. volume	= 19,358 cuft

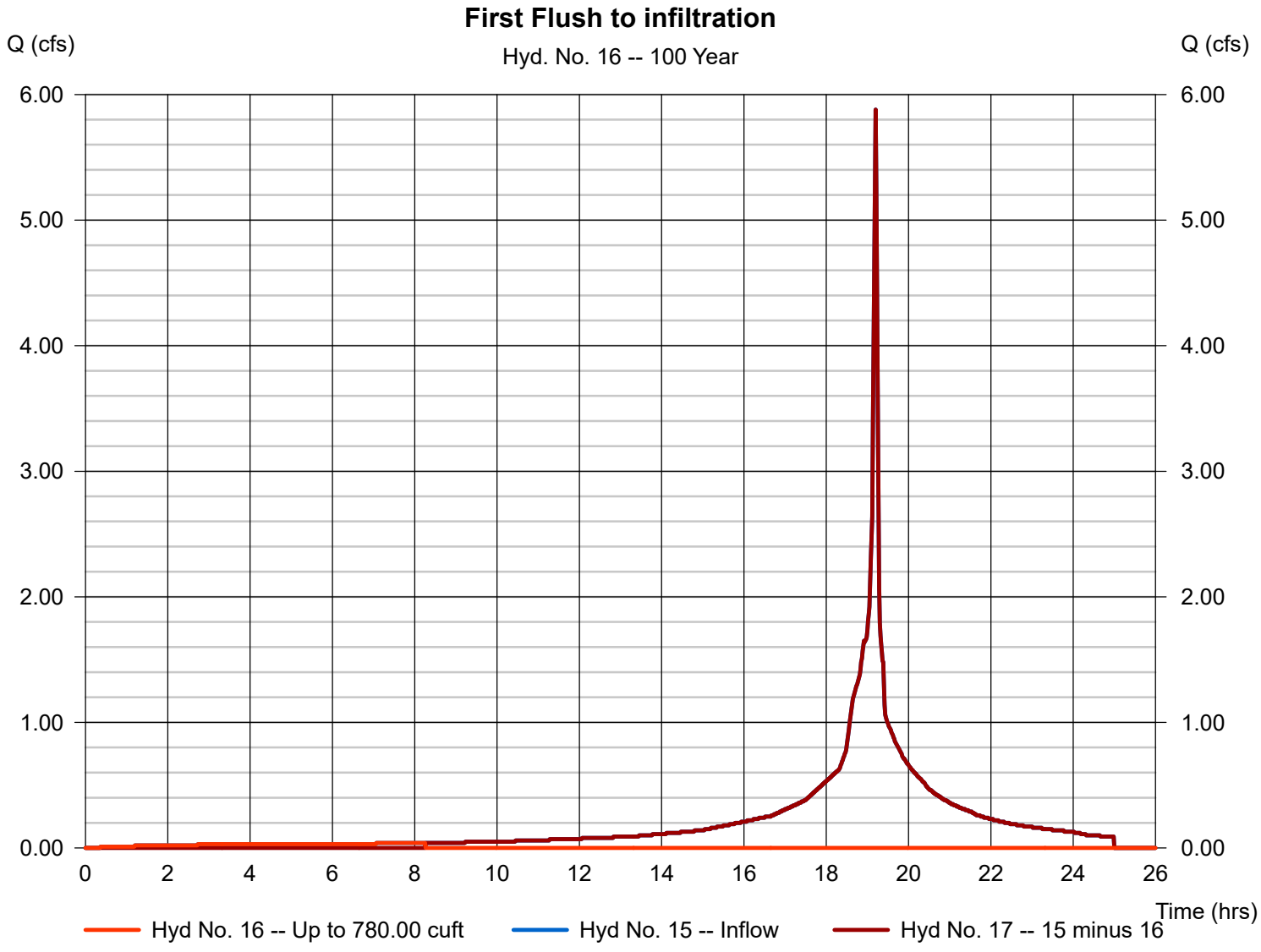


Hydrograph Report

Hyd. No. 16

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.040 cfs
Storm frequency	=	100 yrs	Time to peak	=	7.07 hrs
Time interval	=	1 min	Hyd. volume	=	781 cuft
Inflow hydrograph	=	15 - Phase 3 Hydrograph Import from VCP2	Total diverted hyd.	=	17
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

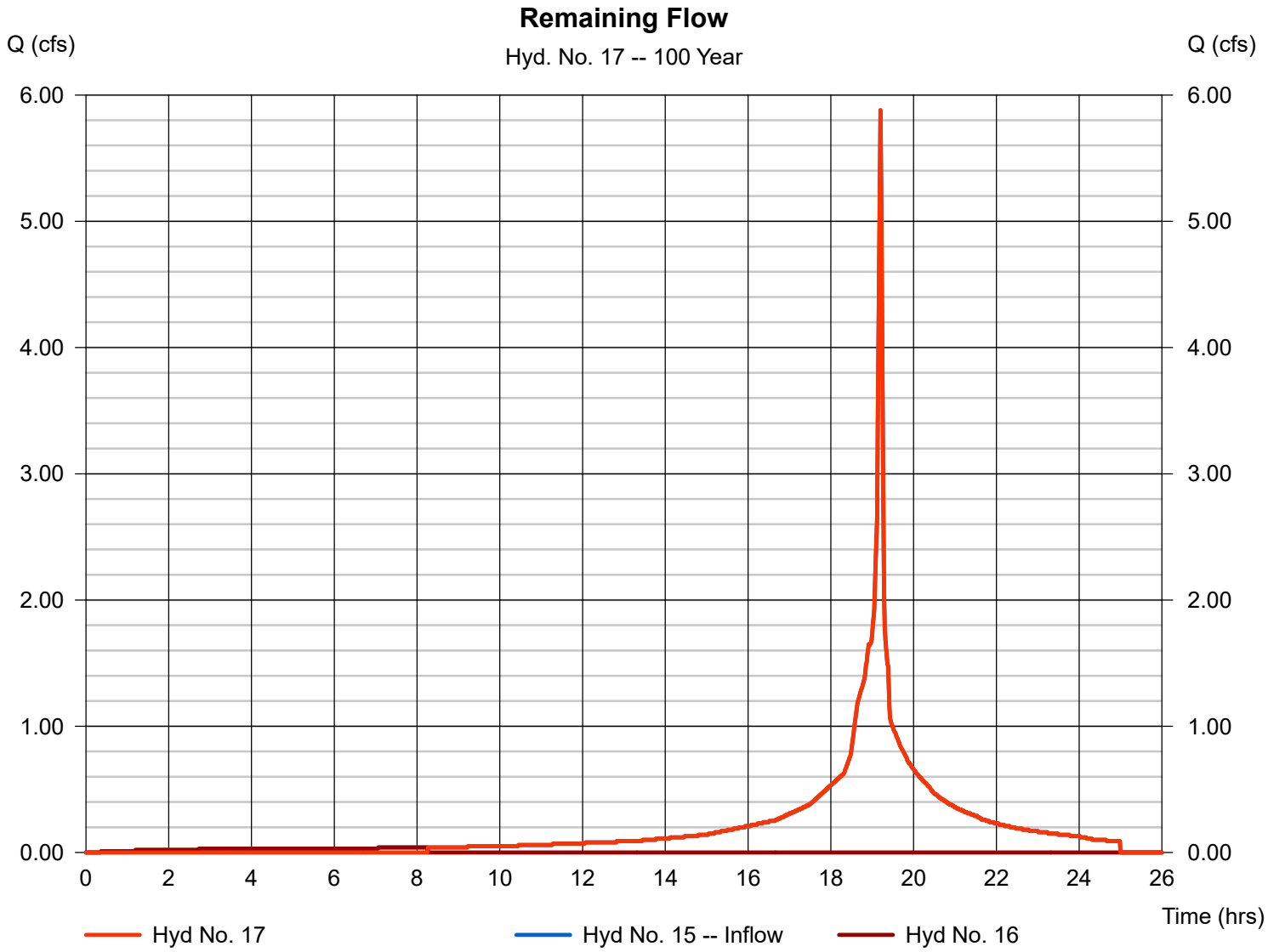


Hydrograph Report

Hyd. No. 17

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	5.880 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.20 hrs
Time interval	=	1 min	Hyd. volume	=	18,577 cuft
Inflow hydrograph	=	15 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	16
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft



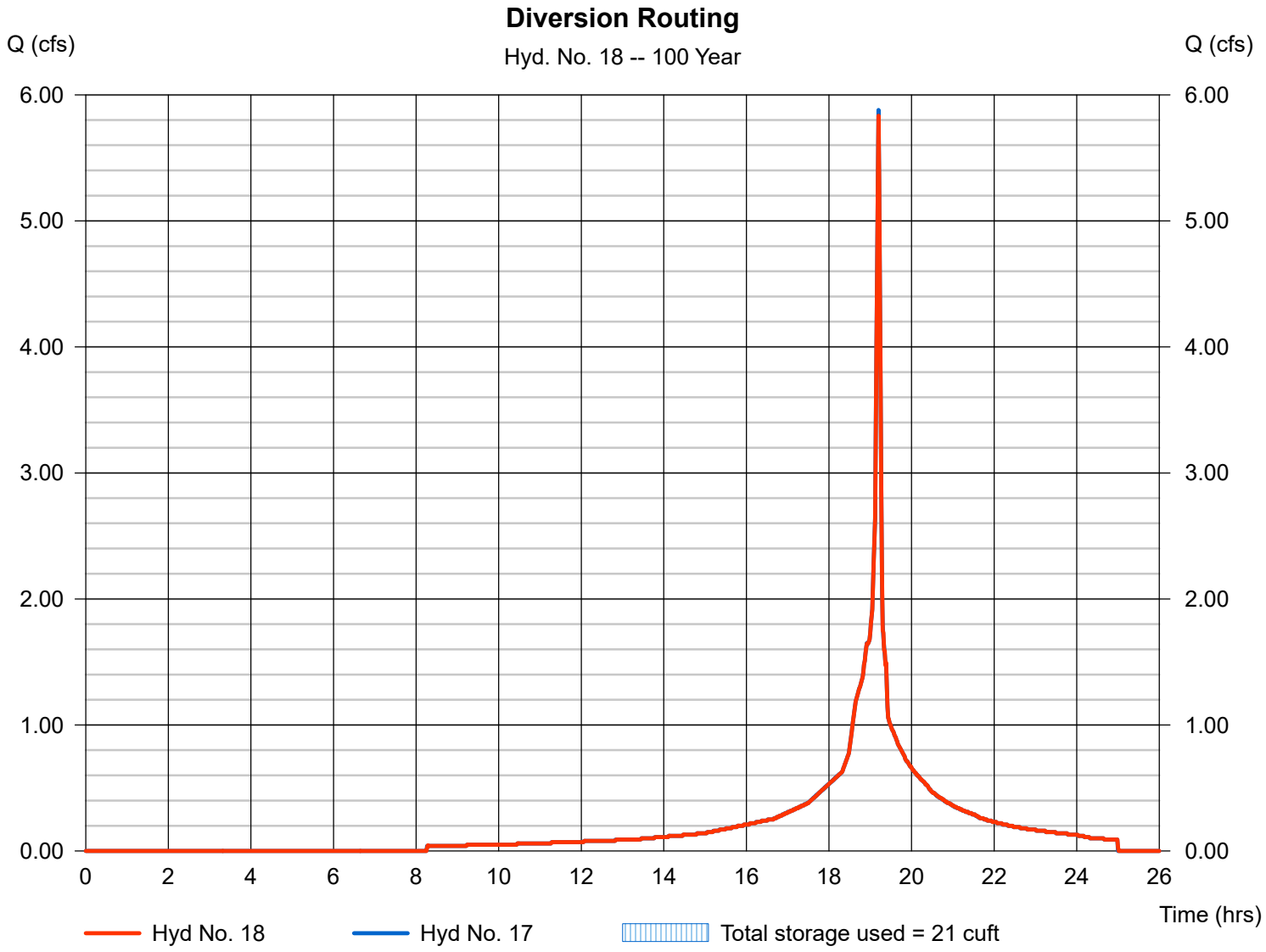
Hydrograph Report

Hyd. No. 18

Diversion Routing

Hydrograph type	=	Reservoir	Peak discharge	=	5.835 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.20 hrs
Time interval	=	1 min	Hyd. volume	=	18,578 cuft
Inflow hyd. No.	=	17 - Remaining Flow	Max. Elevation	=	86.89 ft
Reservoir name	=	Diversion Structure C	Max. Storage	=	21 cuft

Storage Indication method used.



Pond No. 3 - Diversion Structure C

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	85.50	n/a	0	0
4.00	89.50	n/a	64	64

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 2.00	12.00	0.00	0.00
Span (in)	= 2.00	12.00	0.00	0.00
No. Barrels	= 2	2	0	0
Invert El. (ft)	= 85.50	85.70	0.00	0.00
Length (ft)	= 10.00	10.00	0.00	0.00
Slope (%)	= 2.00	2.00	0.00	n/a
N-Value	= .012	.012	.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)	= 86.80	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

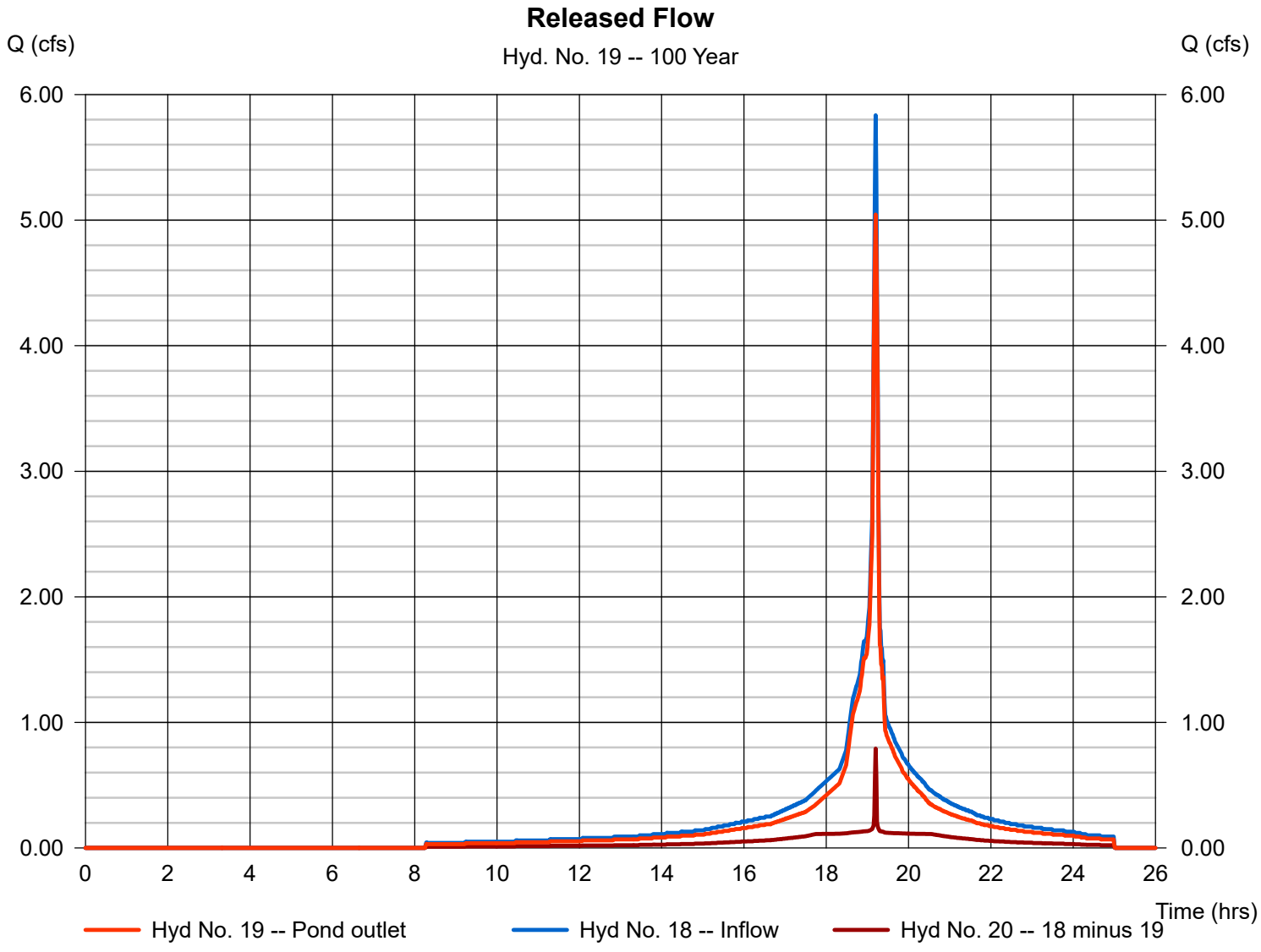
Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	85.50	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.40	6	85.90	0.11 oc	0.34 ic	---	---	0.00	---	---	---	---	---	0.452
0.80	13	86.30	0.15 oc	2.60 ic	---	---	0.00	---	---	---	---	---	2.752
1.20	19	86.70	0.19 oc	4.24 oc	---	---	0.00	---	---	---	---	---	4.430
1.60	26	87.10	0.21 oc	7.17 ic	---	---	2.19	---	---	---	---	---	9.577
2.00	32	87.50	0.24 oc	8.62 ic	---	---	7.80	---	---	---	---	---	16.66
2.40	38	87.90	0.26 oc	9.86 ic	---	---	15.37	---	---	---	---	---	25.49
2.80	45	88.30	0.28 oc	10.96 ic	---	---	24.47	---	---	---	---	---	35.71
3.20	51	88.70	0.30 oc	11.96 ic	---	---	34.88	---	---	---	---	---	47.14
3.60	58	89.10	0.32 oc	12.88 ic	---	---	46.46	---	---	---	---	---	59.66
4.00	64	89.50	0.34 oc	13.74 ic	---	---	59.09	---	---	---	---	---	73.17

Hydrograph Report

Hyd. No. 19

Released Flow

Hydrograph type	=	Diversion1	Peak discharge	=	5.044 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.20 hrs
Time interval	=	1 min	Hyd. volume	=	15,399 cuft
Inflow hydrograph	=	18 - Diversion Routing	2nd diverted hyd.	=	20
Diversion method	=	Pond - Diversion Structure C	Pond structure	=	Culv/Orf B

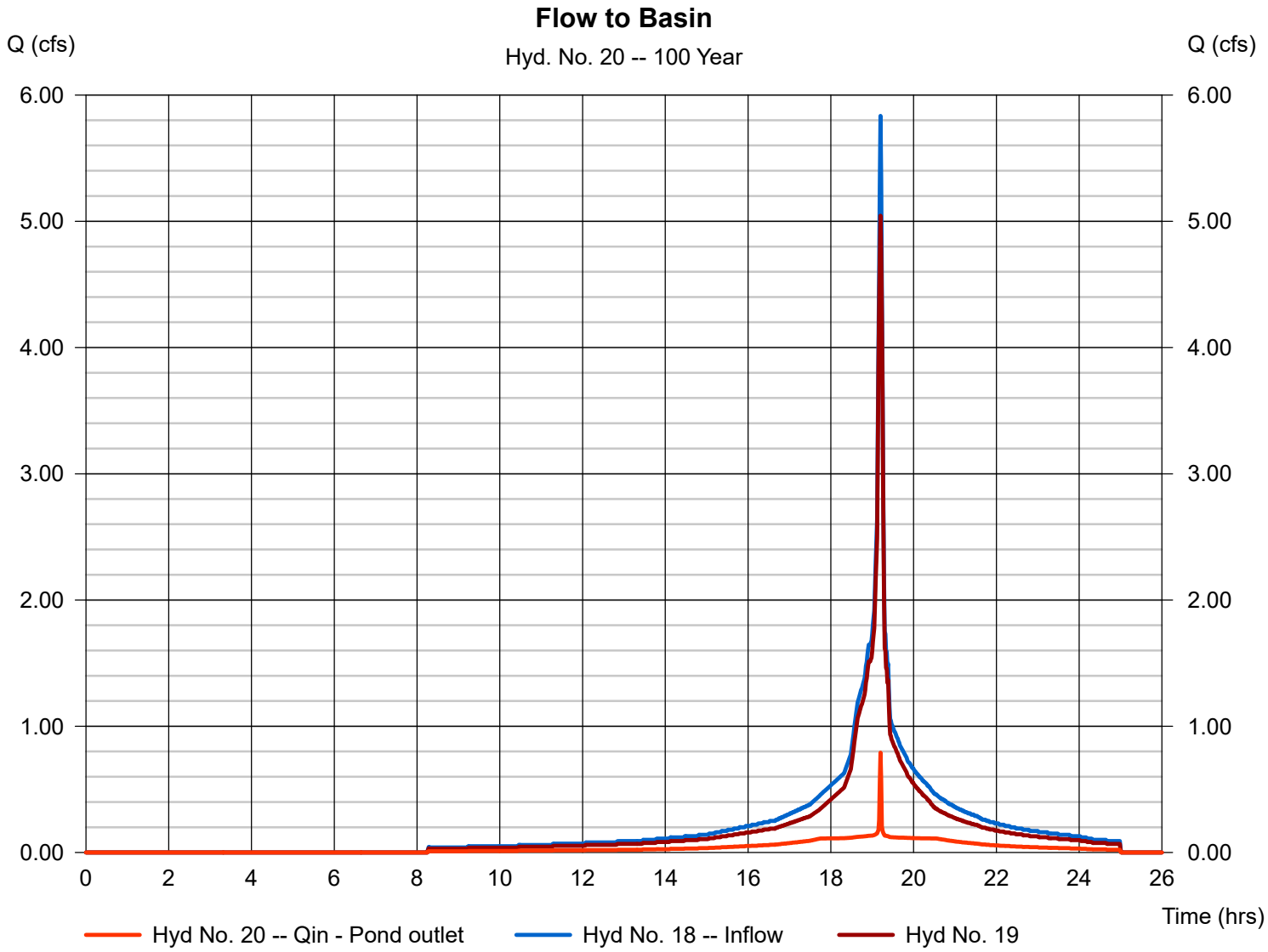


Hydrograph Report

Hyd. No. 20

Flow to Basin

Hydrograph type	=	Diversion2	Peak discharge	=	0.791 cfs
Storm frequency	=	100 yrs	Time to peak	=	19.20 hrs
Time interval	=	1 min	Hyd. volume	=	3,179 cuft
Inflow hydrograph	=	18 - Diversion Routing	2nd diverted hyd.	=	19
Diversion method	=	Pond - Diversion Structure C	Pond structure	=	Culv/Orf B



Contech CMP Detention System

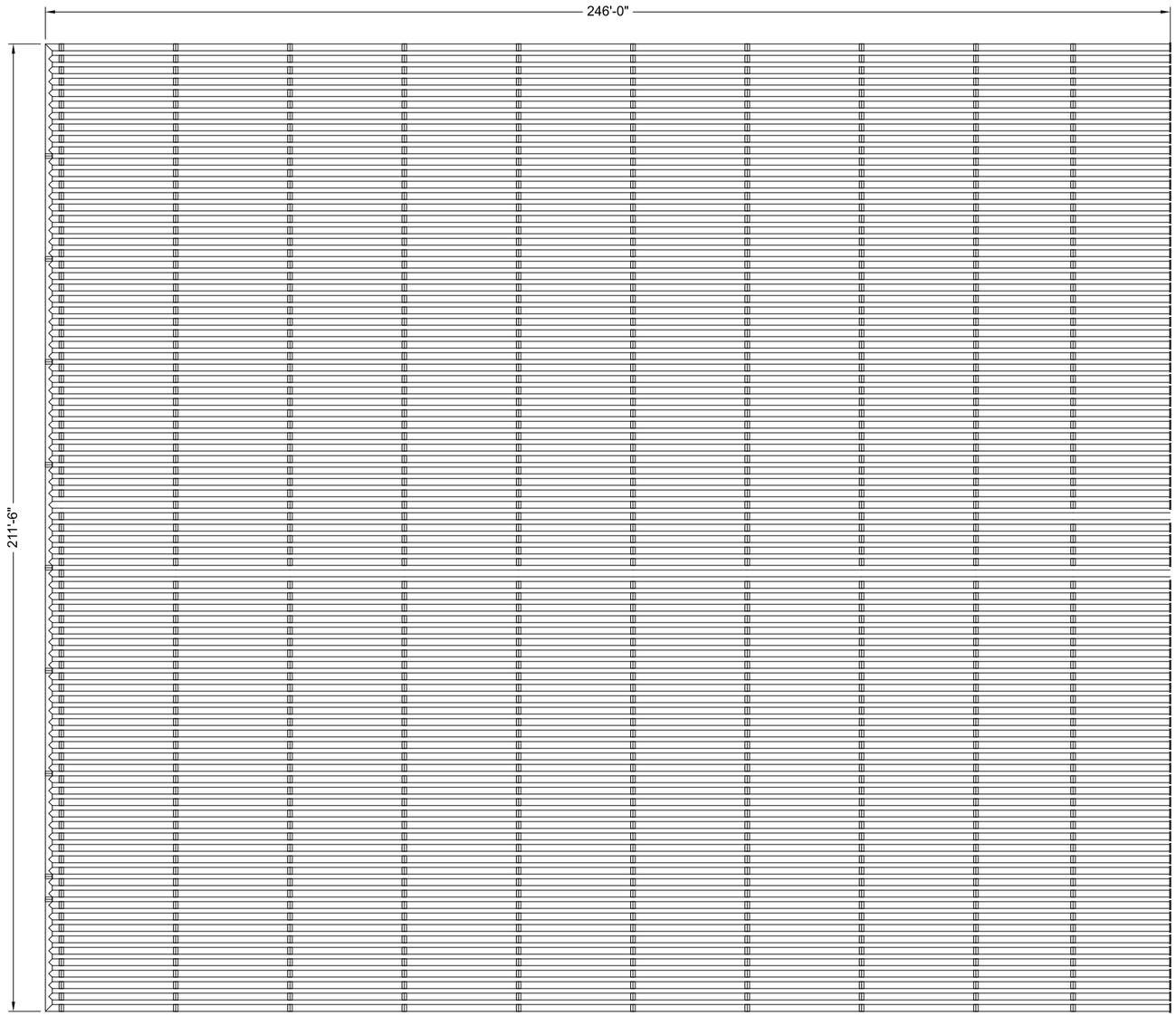
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 20,994 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 37,000 CF
- PIPE STORAGE VOLUME = 37,099 CF
- BACKFILL STORAGE VOLUME = 0 CF
- TOTAL STORAGE PROVIDED = 37,099 CF

PIPE DETAILS
- DIAMETER = 18"
- CORRUGATION = 2 2/3x1/2
- GAGE = 16
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 12"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"



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" = 30'

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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

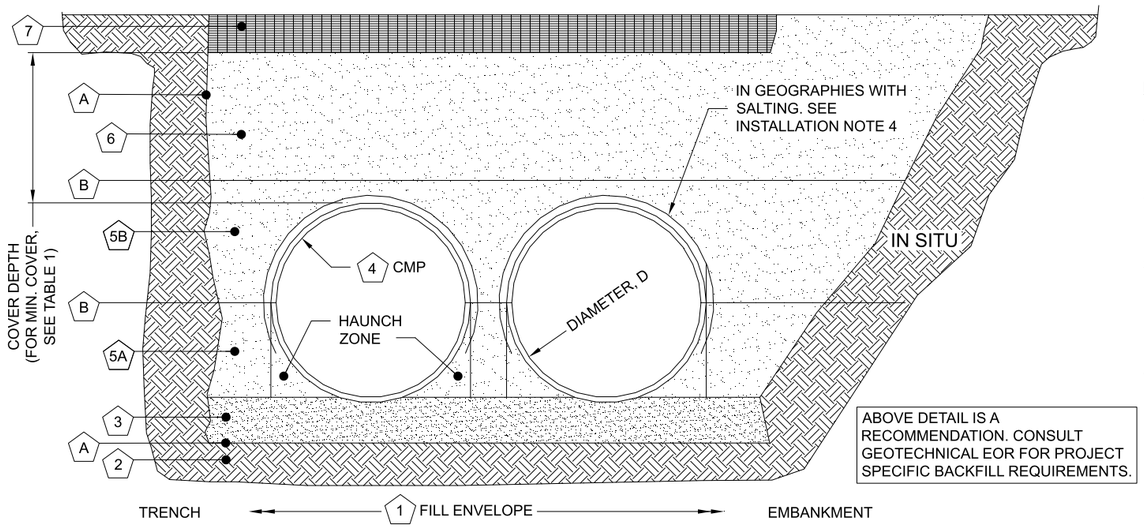
DYO58778 RDV Middle School
Combined Detention System
Oxnard, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
41480	58778	9/5/2024
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

TABLE 1:

DIAMETER, D	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
>48"-96"	12"	3" x 1", 5" x 1"
>96"	D/8	3" x 1", 5" x 1"

- STRUCTURAL BACKFILL MUST EXTEND TO LIMITS OF THE TABLE
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT
- ULTRAFLO ALSO AVAILABLE FOR SIZES 18" - 120" WITH 3/4"x 3/4"x 7 1/2" CORRUGATION



MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT

INSTALLATION NOTES

1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES.
2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.
3. BACKFILL USING CONTROLLED LOW-STRENGTH MATERIAL (CLSM, "FLASH FILL" OR "FLOWABLE FILL") MAY BE USED WHEN THE SPACING BETWEEN THE PIPES WILL NOT ALLOW FOR PLACEMENT AND ADEQUATE COMPACTION OF THE BACKFILL. CONTACT CONTECH FOR FURTHER EVALUATION.
4. IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED OVER THE UPPER HALF OF THE PIPE. THE GEOMEMBRANE 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.

TABLE 2: SOLID STANDARD

CMP DETENTION AND CMP DRAINAGE STANDARD BACKFILL SPECIFICATIONS

	MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION	
1	FILL ENVELOPE WIDTH	PER ENGINEER OF RECORD	MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH, OR EOR RECOMMENDATION: PIPE ≤ 12": D + 16" PIPE > 12": 1.5D + 12"	MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE: PIPE < 24": 3.0D PIPE 24" - 144": D + 4'0" PIPE > 144": D + 10'0"
2	FOUNDATION	**AASHTO 26.5.2** OR PER ENGINEER OF RECORD	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 FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.	
3	BEDDING	**AASHTO M 43: 3, 357, 4, 467, 5, 56, 57** (APPROVED REGIONAL EQUIVALENTS INCLUDE CA-7)	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE FOUNDATION SOILS CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1	
4	CORRUGATED METAL PIPE			
5A	CRITICAL BACKFILL	**AASHTO M 145: A-1, A-2, A-3** *	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 8" +/- LOOSE LIFTS AND COMPACTED TO 90% STANDARD PROCTOR PER AASHTO T 99. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A THREE LIFT (24") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING. WELL GRADED GRANULAR MATERIAL WHICH MAY CONTAIN SMALL AMOUNTS OF SILT OR CLAY AND MAXIMUM PARTICLE SIZE OF 3" (PER AASHTO 26.3.8.1 AND 12.4-1.3).	
5B	BACKFILL	**AASHTO M 145: A-1, A-2, A-3**		
6	COVER MATERIAL	UP TO MIN. COVER - SEE 5A AND 5B ABOVE ABOVE MIN. COVER - PER ENGINEER OF RECORD	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROAD BASE MATERIAL WITHIN MIN COVER LIMITS	
7	RIGID OR FLEXIBLE PAVEMENT (IF APPLICABLE)	PER ENGINEER OF RECORD	FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD.	
A	OPTIONAL SIDE GEOTEXTILE	NONE	GEOTEXTILE LAYER IS RECOMMENDED ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION.	
B	OPTIONAL GEOTEXTILE BETWEEN LAYERS	NONE	IF SOIL TYPES DIFFER AT ANY POINT ABOVE PIPE INVERT, A GEOTEXTILE LAYER IS RECOMMENDED TO BE PLACED BETWEEN THE LAYERS TO PREVENT SOIL MIGRATION.	

NOTES:
- FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER /2 BUT NO LESS THAN 12" FOR DIAMETERS <72". FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 36". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING.

* APPROVED REGIONAL EQUIVALENTS FOR SECTION 5A INCLUDE CA-7, CODOT #67, MIDOT 2G, 34G, OR 21AA STONE OR GRAVEL; #8; #57; MIDOT 6A, 2G, 3G, 34G.

MANUFACTURER RECOMMENDED BACKFILL

NOT TO SCALE

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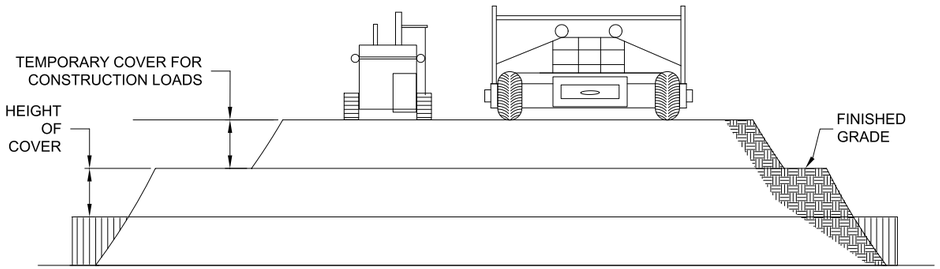
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CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO58778 RDV Middle School
Combined Detention System
Oxnard, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
41480	58778	9/5/2024
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CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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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 REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE 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

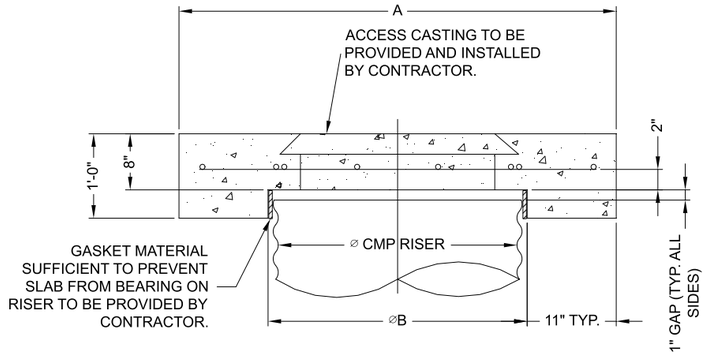
APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE
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.
REQUIREMENTS
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.

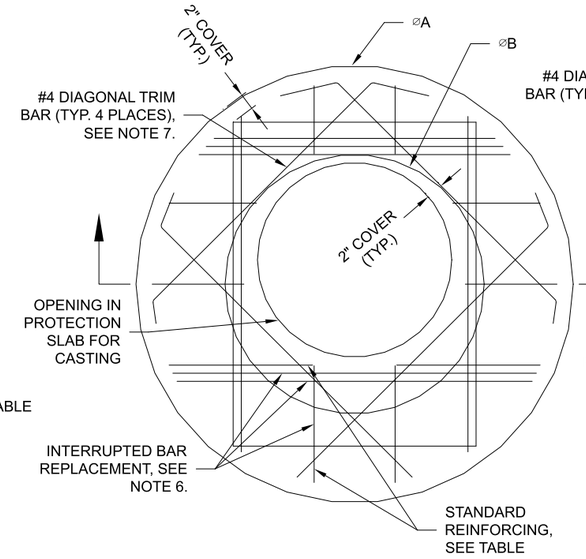
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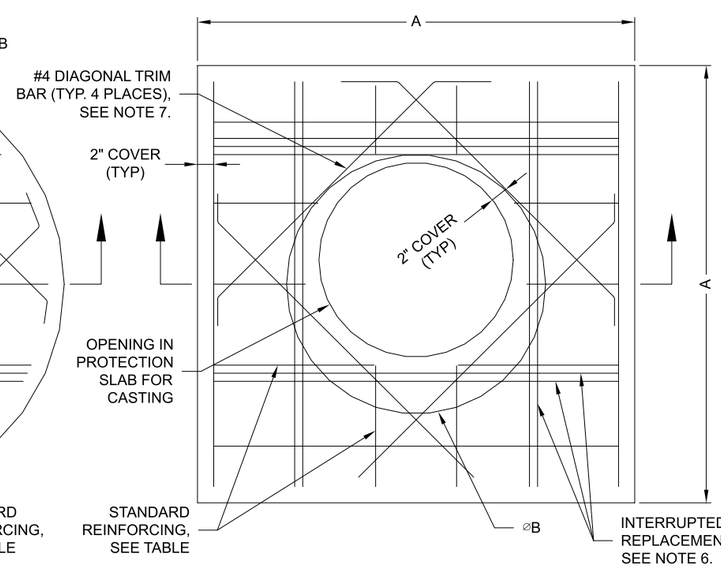
SECTION VIEW

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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800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH **DYODS** DRAWING

DYO58778 RDV Middle School
Combined Detention System
Oxnard, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
41480	58778	9/5/2024
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

C:\USERS\JEREMY.JOHNSON\DOCUMENTS\DYO\CMP_V10.DWG 10/18/2019 10:02 AM

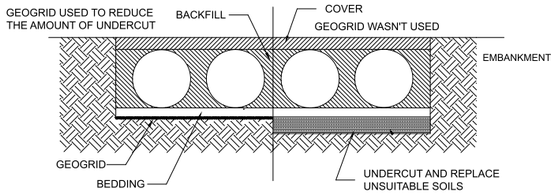
CMP DETENTION INSTALLATION GUIDE

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.

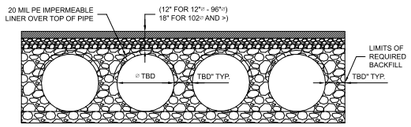


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING 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.

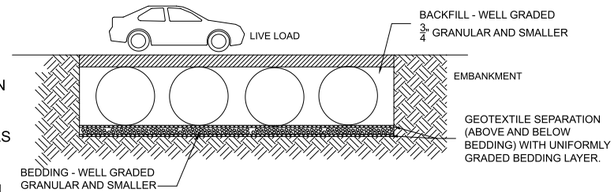
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

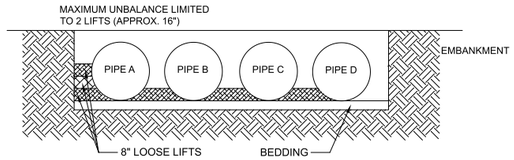
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION 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.



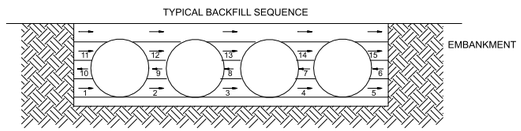
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

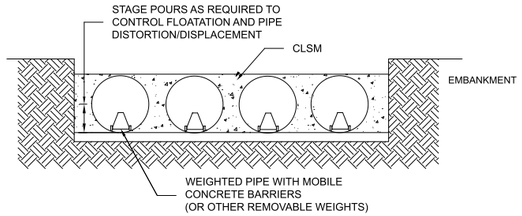


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE 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.

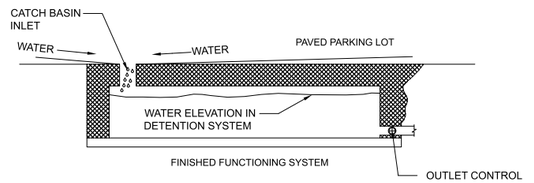


CONSTRUCTION LOADING

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

DYO58778 RDV Middle School Combined Detention System Oxnard, CA DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
41480	58778	9/5/2024
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Sewer Preliminary Investigation

JENSEN DESIGN & SURVEY, INC.
Delivering excellence through experience

1672 Donlon Street
Ventura, CA 93003
Local 805 654-6977
Fax 805 654-6979
www.jdscivil.com

RIO01.6207
September 13, 2024

City of Oxnard
Tai Chau
214 South C Street
Oxnard, CA 93030

Subject: Sewer Flow Generation
Rio del Valle School Expansion

Rio School District (RSD) plans to expand Rio Del Valle Middle School by 11.3 acres to the south of the existing 30.2-acre campus and reconfigure 2.9 acres of parking lot in three phases of construction. The expansion will provide additional onsite parking, new classrooms, a lunch play field, four sand volleyball courts, a food service building, and a vehicle maintenance building. This letter serves to quantify the wastewater generation by the proposed project and analyze the impact to the existing sewer line within Collins Drive.

The property is currently in agriculture use and has an existing residence served by a septic system. RSD plans to demo the existing residence and septic system. Collins Street delineates the northerly boundary of the City's service areas (see enclosed City of Oxnard Jurisdictional Boundary Map), making the existing expansion property outside the City of Oxnard's Sphere of Influence. As part of the project, the expansion area would be annexed into the City of Oxnard and be served by the existing City of Oxnard sewer infrastructure.

Existing and Proposed Sewer System Layout

The existing Rio del Valle (RDV) campus is served by City of Oxnard sewer with connection made in 2000. The existing residence on the expansion site is served by a septic system. There is an existing 8" VCP city sewer line in Collins Street fronting the project site in which the school currently discharges through a lateral that extends up Rose Avenue. This line runs east in Collins Street and south in Via Estrada before discharging to a 15-inch VCP that is part of the city's Eastern Trunk Line in Auto Center Drive (see City of Oxnard Sewer Atlas Sheet R-14 attached). As-Builts for the Collins Street sewer line show laterals to the Mercedes and Toyota dealerships, but there are also laterals along Auto Center Drive which are closer to the buildings, so it is assumed these properties discharge to Auto Center Drive. Based off available information, the only dischargers into the 8" line are the school and Infiniti Dealership.

Sewer for the project site will be served by the City of Oxnard. A new connection is proposed to the 8-inch main in Collins Street as shown on the attached Preliminary Grading Plan.

RDV Wastewater Production

Proposed average sewer generation is estimated as a factor of the site's water demand. Per the City's Wastewater Rate Sheet effective September 1, 2021 (Appendix 5.3), schools are charged assuming an 85 percent rate of water return. Therefore, we estimate that wastewater flows generated by domestic metered project site areas will be 85 percent of their water demands.

Water demand for the existing campus was based on the water billing reports as outlined in the August 28, 2024 Water Demand Allocation Report for this project. Table 1 below outlines the existing and proposed domestic water usage and resulting wastewater production.

Table 1: Wastewater Production

	Area (AC)	Water Average Annual Demand (AFY)	Rate of Return (%)	Wastewater Production (AFY)	Wastewater Production (GPD)
Existing Campus Buildings (Including Gym)	1.99	1.342[(1)]	85%	1.141	1,018
New Campus Buildings	0.95	0.682[(2)]	85%	0.580	518
Full Build-Out Buildings	2.94	2.024	85%	1.720	1,536

(1) Based on combined United Water and City of Oxnard Water usage for existing campus and gym
(2) Based on 0.718 AFY/AC for existing campus buildings in 2017-2018 United Water billing

Existing 8" VCP Capacity Analysis

The proposed sewer generation was combined with the existing school and Infiniti Dealership to verify the 8" sewer line in Via Estrada has adequate capacity for the added wastewater. The wastewater generation for the full build-out is shown in Table 1 above. The generation for the Infiniti Dealership was based on lot coverage and water usage provided by the City of Oxnard in the 2015 Public Works Integrated Master Plan, Memorandum 2.2, Table 5 (attached for reference). Wastewater generation for the Infiniti dealership is summarized in Table 2 below. A peak flow rate was calculated using the City of Oxnard's design criteria on Plate 42 and then the peak flow was converted to CFS. Peak flow rates for each of the contributing sites, as well as the combined flow within the pipe is shown in Table 3 below.

Table 2: Infiniti Dealership Wastewater Generation

	Area (AC)	Water Average Demand (GPD/AC)	Water Usage (GPD)	Rate of Return (%)	Wastewater Production (GPD)
Infiniti Building	0.69	2,000	1,377	85%	1,171

Table 3: Collins Sewer Peak Flow

	Wastewater Production (GPD)	Sewer Flow Rate (CFS)	Peak Flow (CFS)
Existing Campus Buildings (Including Gym)	1,018	0.0016	0.011
New Campus Buildings	518	0.0008	0.006
Infiniti Building	1,171	0.0018	0.011
Combined	2,707	0.0042	0.028

Using FlowMaster the pipe was modelled as open channel flow to determine how full it was. Attached FlowMaster calculations show the pipe will only be 14% full with the added sewage at

full build-out. City standards consider an 8” pipe to be at capacity when it is half full. Thus 14% is well below the limit.

This information is provided to the City for use in evaluating the project’s impact to the City’s sewer system. If you have any questions, please feel free to contact us at 805-654-6977.

Sincerely,
Jensen Design & Survey, Inc.



Robert Harvey, P.E.

Enclosures
City of Oxnard Jurisdictional Boundaries Map
Sewer Atlas R-14
City of Oxnard Wastewater Rate Table
City of Oxnard in the 2015 Public Works Integrated Master Plan, Memorandum 2.2, Table 5
Rio del Valley Middle School Expansion Site Plan
FlowMaster Results

City Of Oxnard Jurisdictional Boundaries Map

CITY OF OXNARD CALIFORNIA

Coastal Zone Boundary

CURB

Sphere of Influence

PROJECT SITE

Airport Sphere

Oxnard City Limits

Planning Area Boundary

COUNTY OF VENTURA

City of San Buenaventura

Oxnard-Ventura Greenbelt

Oxnard-Camarillo Greenbelt

City of Camarillo

OXNARD

OXNARD AIRPORT

U.S. Naval Base Ventura County Port Hueneme

Point Mugu Naval Air Station Naval Base Ventura County

Pacific Ocean

North

W Vineyard Av
Vineyard Av
Rose Av
Central Av
Santa Clara Av
101 Fwy
W Gonzales Rd
N Ventura Rd
E Go
N Oxnard Bl
N Rice Av
N Del Norte Bl
N Harbor Bl
Sturgis Rd
E Fifth St
W Wooley Rd
Ventura Rd
E Wooley Rd
Saviers Rd
S Oxnard Bl
S Rice Av
W Channel Islands Bl
E Pleasant Valley Rd
Hwy One
W Hueneme Rd
E Hueneme Rd
Revelon Slough
Ormond Beach Wetland

Jurisdictional Boundaries

Formal planning and jurisdiction boundaries described below define geographic aspects of the 2030 General Plan.

Oxnard Planning Area/Oxnard Area of Interest
Established by the City of Oxnard, the Planning Area includes unincorporated areas surrounding the City that have a relation to the City's existing and future development. It is the same area as used in the 2020 General Plan and the same as the Area of Interest, with the addition of the Point Mugu Naval Air Station area.

Area of Interest
Areas of Interest were adopted by the Ventura County Local Agency Formation Commission (LAFCO) to define major geographic areas where only one incorporated city is permitted. Significant development proposals in the unincorporated areas of the Oxnard Area of Interest are referred by Ventura County to the City of Oxnard for review.

Oxnard Sphere of Influence
The Oxnard Sphere of Influence (SOI) was determined by the Ventura LAFCO on June 8, 1983 (amended June 2000) as the probable future physical boundaries and service areas of the City. The SOI is 29.9 square miles. The SOI may be amended with the approval of LAFCO.

City Urban Restriction Boundary (CURB) and City Buffer Boundary (CBB)
In 1998, the voters of the City of Oxnard adopted the SOAR (Save Open Space and Agricultural Resources) initiative establishing the City Urban Restriction Boundary (CURB) and re-designating as "Agriculture (AG)" all land previously designated "Agricultural Planning Reserve (AG/PR)." CURB defines the urban development boundary for the City of Oxnard until December 31, 2020. The SOAR initiative also established a City Buffer Boundary (CBB) which lies outside of the CURB line and is coterminous with the Oxnard Area of Interest. Change to the CURB line or an agricultural land use designation within the CBB generally requires majority approval of Oxnard voters, with certain exceptions, including but not limited to an exception to allow up to 20 acres per year to be brought into the CURB for affordable housing needed to meet the City's Regional Housing Needs Assessment (RHNA) target production.

N

CITY OF OXNARD CALIFORNIA

Miles
0 1/2 1 2

Boundaries

- Oxnard Planning Area
- Sphere Of Influence
- City Urban Restriction Boundary (1998 CURB)
- City Limits
- Coastal Zone
- Oxnard Airport Sphere of Influence

Map for illustrative purposes only. The City does not warrant the accuracy of these maps, and no decision involving a risk of injury or economic loss should be made in reliance thereon.

CREATED BY: SALVADOR MANCHA
MAP REVISED: 04.14.2014

RIO DEL VALLE

ELEMENTARY

SCHOOL

VERIFIED EXISTING SEWER
EXTENDING TO RDV CAMPUS

N ROSE AV

N ROSE AV

SANTA CLARA WASTE WATER CO.

F.M.

60-71 B
SHT # 9

10" CIP

15'

BUA15
FL1=81.16'
C=7.24'

8" VCP

330'

COLLINS ST

200'

15 '

350'

BUA14
FL1=79.76'
C=6.84'

8" VCP

350'

86-94 A
SHT # 42

BUA13
FL1=78.36'
C=8.24'

8" VCP

15 '

350'

BUA12
FL2=76.77' (NW)
FL1=76.57' (SE)
C=9.23'

8" VCP

306'

86-94 A
SHT # 41

BUA11
FL2=73.36' (NW)
FL1=75.16' (SW)
C=8.84'

8" VCP

90'

184'

86-94 A
SHT #40

BUA10
FL2=74.55' (NE)
FL1=74.35'
C=7.85'

VIA ESTRADA

15 '

347'

60'

15" VCP

197'

AUTO CENTER DR

CASING

265'

12" VCP

160'

BU+26
FL1=75.03'
FL2=75.13' (NE)
C=6.27'

BU+27
FL1=73.56'
C=7.89'

12" VCP

300'

CASING

12" VCP

100'

BU+28
FL1=74.16'
C=6.87'

12" VCP

240'

BU+29
FL1=74.75'
C=8.18'

33 '

86-94 A
SHT # 33

12" VCP

177'

BU+30
FL1=75.23'
C=7.37'

10" VCP

CASING

8" VCP

273'

BU+32
FL1=76.57'
C=9.11'

33 '

BU+31
FL1=75.67'
FL2=75.77' (S)
C=7.48'

86-94 A
SHT # 34

AUTO CENTER DR

60-71 B
SHT # 9

F.M.

VENTURA BL

8" VCP

220'

BUA16
FL1=76.65'

1907196.52 N

6211875.47 E

SEE MAP Q-14

SEE MAP S-14

SEE MAP R-15

R-14	City of Oxnard	0 160 320 FEET	SEWER ATLAS	DATUM NOTE: ALL ELEVATIONS ARE ON CITY OF OXNARD DATUM UNLESS OTHERWISE SHOWN. AN ASTERISK (*) INDICATES N.G.V. DATUM.	October 2009		R-14

CITY OF OXNARD WATER AND WASTEWATER RATES

Effective September 1, 2021, respective utility rates have been reduced to reflect the temporaty removal of the Infrastructure Use Fee from rates, as approved by Council

FOR UTILITY BILLING CALL 805-385-7816

WATER RATES AND CHARGES - EFFECTIVE SEPTEMBER 1, 2021

(monthly bill consists of monthly fixed charge + volume charge)

MONTHLY FIXED CHARGE

(includes .50 Water Resource Fee + 1.24 Security & Contamination Prevention Fee)

METER SIZE	3/4"	1"	1.5"	2.0"	3.0"	4.0"	6.0"	8.0"	10.0"
Single Family	$20.60	$32.14	$60.76	$95.25	$204.56	$348.18	$721.80	$1,037.83	$1,670.07
Multi-Family	$18.87	$29.26	$55.02	$86.05	$184.44	$313.69	$649.95	$934.38	$1,503.40
Commercial	$15.42	$23.50	$43.54	$67.68	$144.20	$244.73	$506.26	$727.49	$1,170.06
Industrial	$15.42	$23.50	$43.54	$67.68	$144.20	$244.73	$506.26	$727.49	$1,170.06
Irrigation	$15.42	$23.50	$43.54	$67.68	$144.20	$244.73	$506.26	$727.49	$1,170.06
Oceanview Commercial	$20.60	$32.14	$60.76	$95.25					
Oceanview Agricultural					$144.20	$244.73	$506.26	$727.49	$1,170.06
Fireline	$3.66	$4.95	$8.13	$11.96	$24.10	$40.07	$81.59	$116.71	$186.98
Construction (metered) (1)	$23.50				$144.20				
Construction (non-metered)	$37.85	$68.28	$155.29	$290.93					
Deposits	*$44.00*	*$65.00*	*$120.00*	*$185.00*	*(2)*	*(2)*	*(2)*	*(2)*	*(2)*

VOLUME CHARGE PER 100 CUBIC FEET (HCF) = 748.05 GALLONS

CUSTOMER CLASS						
Single Family	0-9	$3.31	>9-15	$5.08	>15	$6.05
Multi-Family - per unit	0-8	$3.53	>8	$5.67		
Commercial & Industrial (2" meter or smaller)	0-62	$3.22	>62	$5.68		
Commercial & Industrial (3" meter or larger)	Uniform Rate of $4.47 per HCF					
Irrigation (2" meter or smaller)	0-24	$3.32	>24	$5.91		
Irrigation (3" meter or larger)	Uniform Rate of $5.08 per HCF					
Oceanview Commercial	0-9	$3.31	>9-15	$5.08	>15	$6.05
Oceanview Agricultural	Uniform Rate of $1.16 per HCF					
Construction (metered) (1)	Uniform Rate of $4.47 per HCF					

(1) Metered Construction (Fire Hydrant) Fees: Installation $100, Deposit 1 or 3" Meter $850, Fire Hydrant Meter Move $65

(2) Deposit for meter >2.0" is an amount approximately one-month minimum bill but not less than $205

***Miscellaneous Charges**: Meter Install Fee $120, Turn Off Fee $80 (+$65 After Hours Turn On), Turn Off Notice Fee $13, Broken Lock Fee $12, Returned Check Fee $20*

RECYCLED WATER

In-Lieu Irrigation	Uniform Rate of $3.40 per HCF	***Note:** Not available for residential use*
In-Lieu Commercial/Industrial	Uniform Rate of $3.23 per HCF	

WASTEWATER RATES AND CHARGES - EFFECTIVE SEPTEMBER 1, 2021

(monthly bill consists of base rate charge + volume rate of return charge)

MONTHLY BASE RATE

Single Family	$35.79	
Multi-Family	Each of 1st 6 Units = $26.19	7+ Units = $13.06
Outside City-Residential	$92.54	
Outside City-Multi-Family	$64.59	
Non-Metered	$61.42	

VOLUME CHARGE PER HCF (RATE OF WATER RETURN %)

Single Family (80%)	0-9	$2.35	>9-18	$2.62	>18	$3.63
Single Family Large Lots (60%)	0-16	$2.35	>16-25	$2.62	>25	$3.63
Multi-Family - per unit (90%)	0-6	$1.91	>6-12	$2.13	>12	$2.97
Commercial (85%)	Minimum Monthly Fee $23.77 *OR* whichever is greater					
	0-50	$4.19	>50-930	$5.23	>930	10.43
School (85%)	Minimum Monthly Fee $83.42 *OR* whichever is greater					
	0-50	$4.19	>50-930	$5.23	>930	$10.43
Restaurant (80%)	Minimum Monthly Fee $22.07 *OR* whichever is greater					
	0-20	$4.19	>20-160	$5.23	>160	$10.43
Laundry (90%)	Minimum Monthly Fee 109.35 *OR* whichever is greater					
	0-105	$4.19	>105-525	$4.63	>525	$5.77
Las Posas Commercial	0-50	$7.60	>50-930	$9.47	>930	$18.91

MONTHLY RATES FOR USER CHARGE FORMULA

Wastewater Discharge/Millions of Gallons: p= $3,655.42

Biological Oxygen Demand (BOD) Discharge/Thousands of lbs: q= $832.95

Suspended Solids (SS) Discharge/Thousands of lbs: r= $658.75

WATER LEAKS OR OTHER SERVICE ISSUES CALL 805-385-8136 ~ WASTEWATER ODOR OR OTHER SERVICE ISSUES CALL 805-385-3517

3.1 Residential Population-Based Forecast

Residential demand forecasting utilized population projections to project future water use. An average per capita water use expressed in gpcd was developed by examining historical demands and planning documents. The target gpcd of 132.4 from the 2010 Urban Water Management Plan (UWMP) was used to provide a consistent and conservative planning basis. The per capita water use was then combined with population projections from the population forecast to project the City's future water demand.

3.2 Commercial and Industrial Land-Use Based Forecast

The land use based method was utilized to estimate the commercial and industrial future demands of developments. This method requires the use of water demand factors (WDF) and land use plans, integrated into geographic information software (GIS).

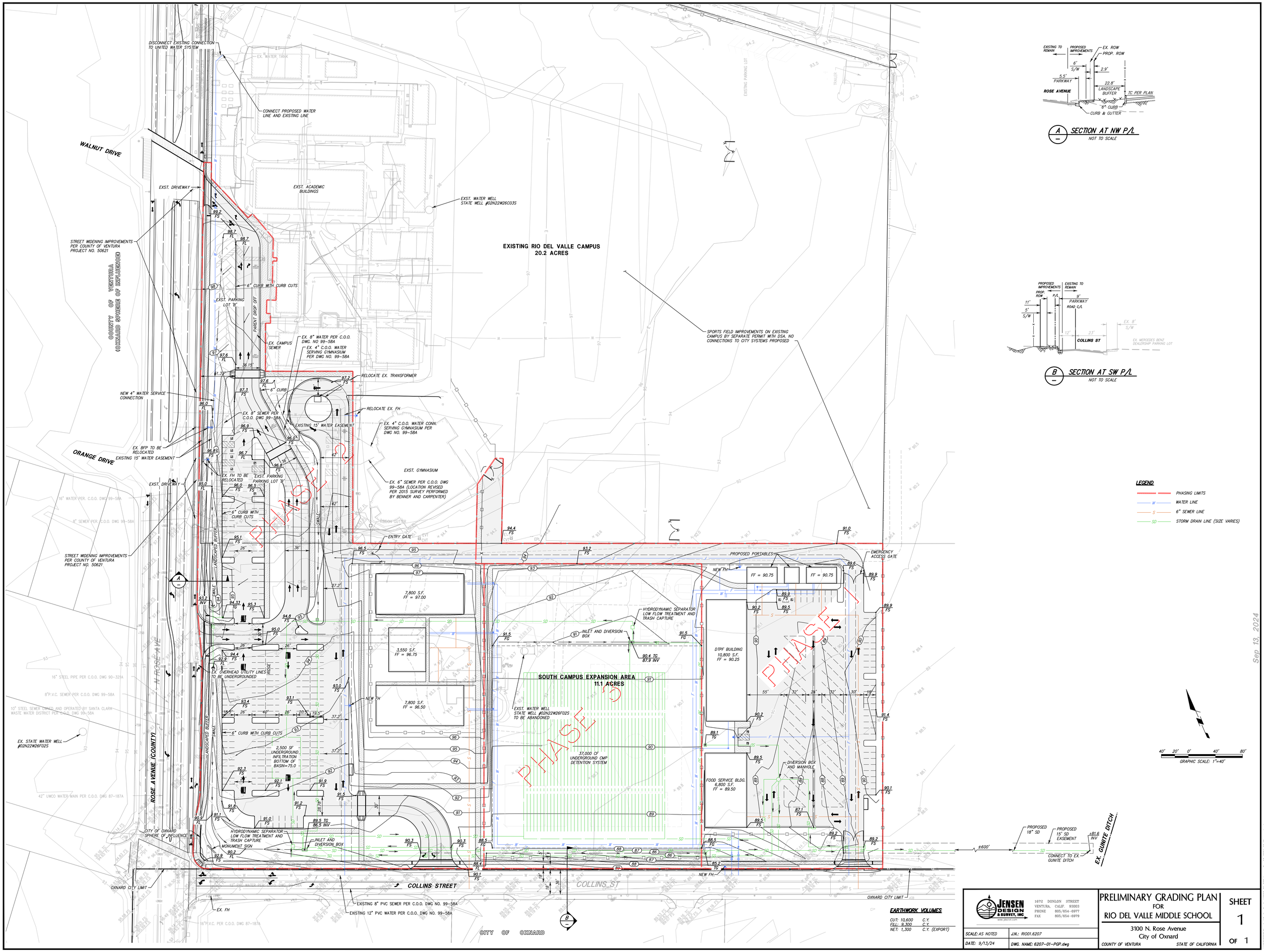
A WDF is defined as the estimated amount of water usage per area for a certain land use type. WDFs are typically expressed in gallons per day per acre (gpd/ac). These factors are used to estimate the average day demand (ADD) for existing and potential development areas by multiplying the WDF with the total number of acres of each land use category. WDFs were developed as part of this Public Works Integrated Master Plan (PWIMP) to project demands for planned industrial and commercial development where land use details are known at this time (see Section 5.0).

WDFs are typically determined from a combination of geocoded billing records and land use information using spatial GIS routines. WDFs can also be verified against other agencies with similar land use and climate conditions.

Water demand factors for the existing system were derived from a total system average by using the geocoded billing records. The City's billing records from calendar year 2012 were geocoded to calculate WDFs by dividing the total system demand by land use category by the total area of each land use category. These WDFs for the existing system are presented in Table 5.

Table 5 Water Demand Factors
Public Works Integrated Master Plan
City of Oxnard

PWIMP Land Use	2030 General Plan Land Use Designation[1]	Calculated WDF (gpd/ac)	Recommended Demand Forecast WDF (gpd/ac)
Agriculture	AG	444	500
Open Space	OS, PRK, PR, REC, RP	503	750[2]
Industrial	CIA, IH, ILT, ILM, ICD, PUE	3,026	3,500
Commercial	AC, BRP, CBD, SG, SN, COF, CCM, CCV, CR, PSP, VSC	1,910	2,000
School	SCH	1,271	1,500



EARTHWORK VOLUMES

CUT: 10,600 C.Y.
FILL: 9,300 C.Y.
NET: 1,300 C.Y. (EXPORT)

JENSEN DESIGN & SURVEY, INC
1672 DONLON STREET
VENTURA, CALIF. 93003
PHONE 805/654-6977
FAX 805/654-6979

PRELIMINARY GRADING PLAN
FOR
RIO DEL VALLE MIDDLE SCHOOL
3100 N. Rose Avenue
City of Oxnard
COUNTY OF VENTURA STATE OF CALIFORNIA

SCALE: AS NOTED | J.N.: RIO01.6207
DATE: 9/13/24 | DWG. NAME: 6207-01-PGP.dwg

SHEET 1 OF 1

Existing 8" VCP

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.014	
Channel Slope	0.00330	ft/ft
Diameter	0.67	ft
Discharge	0.03	ft³/s

Results

Normal Depth	0.09	ft
Flow Area	0.03	ft²
Wetted Perimeter	0.52	ft
Hydraulic Radius	0.06	ft
Top Width	0.47	ft
Critical Depth	0.08	ft
Percent Full	14.2	%
Critical Slope	0.00862	ft/ft
Velocity	0.92	ft/s
Velocity Head	0.01	ft
Specific Energy	0.11	ft
Froude Number	0.64	
Maximum Discharge	0.69	ft³/s
Discharge Full	0.65	ft³/s
Slope Full	0.00001	ft/ft
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	14.18	%
Downstream Velocity	Infinity	ft/s

Preliminary Drainage Report

JENSEN
DESIGN & SURVEY, INC.
Delivering excellence through experience

1672 Donlon Street
Ventura, CA 93003
Local 805 654-6977
Fax 805 654-6979
www.jdscivil.com

RIO01.6207
March 10, 2025

City of Oxnard
Tai Chau
214 S C St.
Oxnard, CA 93030

Subject: Rio Del Valle Middle School Expansion—Preliminary Hydrology

Dear Tai,

Rio School District (RSD) plans to expand Rio Del Valle Middle School by 11.3 acres to the south of the existing 30.2-acre campus and reconfigure 1.8 acres of parking lot in three phases of construction. The expansion will provide additional onsite parking, new classrooms, a lunch play field, four sand volleyball courts, a food service building, and a vehicle maintenance building. The site is currently developed with hoop houses and one residence. RSD plans to demo all of the existing structures. These improvements will occur on 34% of the combined total campus area after expansion. This letter addresses MS4 stormwater compliance as well as onsite detention requirements.

Drainage Patterns

The existing 30.2-acre campus (north campus) currently drains east towards the existing farmland at APN 144-0-110-055. The expansion site (south campus) slopes in a southeasterly direction. Runoff discharges from the site via surface flow towards an agricultural ditch along the southern property line. The ditch drains east through the neighboring agricultural property and discharges directly into a gunite lined channel bordering Team Nissan. The channel drains south towards Auto Center Drive and transitions to an underground 36" Reinforced Concrete Pipe (RCP) between the Infiniti and Nissan dealerships. Runoff tributary to the RCP spills into the 6'x3.5' City of Oxnard reinforced concrete box in Auto Center Drive, approximately 0.25 mile from the project site. The gunite channel, 36" RCP and storm drain system within Auto Center Drive were constructed as part of Tracts 4169 and 4162, as reflected in City of Oxnard Drawing Number 86-94A. Runoff from the site is eventually tributary to Calleguas Creek and the Pacific Ocean.

In the developed condition, the north campus will continue to drain east towards the existing farmland and is not included in our treatment and detention calculations. The 13.1-acre site (south campus), which includes 11.3 acres of new development and 1.8 acres of redevelopment, will be 41 percent impervious. Construction will be divided into three phases, with each phase handling stormwater conveyance separately. Infiltration for Phases 1, 2, and 3 will be combined into one underground basin within Phase 2 and constructed as part of Phase 1. Detention for all three phases will be consolidated into a single above-ground detention basin located within Phase 3, which will also be constructed during Phase 1. During the construction of Phase 3, this above-ground basin may be modified to a below-ground storage basin to meet

the detention requirements for all phases. Within each phase, stormwater runoff will be collected in an onsite storm drain system, which will carry it to a diversion structure that splits flows between infiltration, detention, and offsite. High flows from the diversion structures and flows released from the detention basin will drain east through the neighboring property in a proposed storm drain. This proposed storm drain will tie into the existing lined channel near the bend in Collins Street, which discharges into the existing City of Oxnard storm drain facilities at Collins Street and Auto Center Drive.

Stormwater Flows

Stormwater flows for the developed condition were calculated using VCRat. Times of concentration were calculated using the Ventura County Tc Calculator. VCRat results were used to create hydrographs for the site and determine the volume of runoff to analyze the detention system. Detention was designed using the Hydraflow Hydrographs Program. Cook's method was not used because we wanted the hydrograph output from VCRat, which was found to be more conservative.

Post-construction, undetained peak flowrates from the project are shown in Table 1 below.

	Phase 1	Phase 2	Phase 3
Q10 (CFS)	4.3	6.8	2.5
Q50 (CFS)	7.3	11.0	5.2
Q100 (CFS)	8.1	12.4	5.9

Table 1: Pre-Detention Peak Flow

MS4 Requirements

This project is subject to compliance with the 2021 Ventura County MS4 Permit (Order R4-2021-0105). Infiltration testing completed by Tetra Tech and documented in their October 12, 2023 report indicate that the infiltration rates of the lower alluvium 10-15' below ground surface (BGS) are favorable. Rates and testing locations can be referenced in the attached excerpt from the report. Due to the favorable infiltration rates, infiltration is being proposed at 18' BGS, in the form of a combined underground basin.

Low flows must be pre-treated prior to flowing into the basin. For preliminary design purposes, it is assumed a hydrodynamic separator (such as the Downstream Defender manufactured by Hydro International) will be used. The hydrodynamic separator will remove a minimum of 80% of particles up to 50 microns, as required by the County's MS4 permit.

The preliminary SQDV for the site was calculated using the BMP Sizing Worksheet "Method 3: 0.75-Inch Design Storm Approach" defined in the Ventura County Technical Guidance Manual (TGM). To size the basin to accommodate the preliminary SQDV, the Ventura County Design Worksheet INF-1: Infiltration Basin was used (found in Appendix E of the TGM). Preliminary SQDV calculations are attached for reference. The calculated required infiltration surface area is 2,411 square feet, and we are proposing 2,500 square feet of surface area. In the event that during final design it is determined that additional area is required, there is room to expand the infiltration basin.

Trash Capture

The proposed project will drain out to the Pacific Ocean and will be required to comply with the trash discharge provision of the Water Quality Control Plan Ocean Waters of California 2015. The project will include ADS Connector Pipe Screens, or an alternative approved full trash capture system, within diversion structure inlets of Phases 1, 2 & 3. The screens will be sized to capture all trash larger than 5 mm in storms up to the 1-year event and allow peak flows to spill over the top during large storm events. The screens will capture trash prior to diverting flows between the infiltration structures, detention structures, and outlet to the City's storm drain.

Detention Requirements

This project is tributary to the storm drain constructed as part of Tracts 4169 and 4162. Attached excerpts from the 1987 Boyer Hydrology Report indicate that the project site was included within the 57 acres tributary to Lateral "H". The storm drain system for the Tracts and surrounding areas was sized for the 10-year storm, and Lateral "H" was designed with a peak runoff of 44.4 cfs. Since the 1987 analysis and construction of Lateral H, additional flows have been directed towards the gunite channel and have significantly increased the tributary area. These added tributary flows have added to the peak runoff beyond the design capacity of Lateral H. Although the school was originally incorporated into the capacity of Lateral H, the drainage developments of other properties have caused the increased peak runoff to the City's system. Although the increase in existing flows are not related to the campus, the District is proposing to mitigate the impact of them as part of this project. The proposed project will reduce peak runoff of the larger storm events beyond the standard requirements by mitigating the post-development peak runoff of the 10-, 50-, and 100-year storms back down to the 10-year undeveloped peak runoff. The 10-year peak runoff will be calculated using a unit peak runoff based on the tributary area of 57 acres and a 10-year peak runoff of 44.4 cfs, as defined in the Boyer Report. This 13.1-acre project will limit the peak runoff of all storm events up to the 100-year event to 10.2 cfs. Runoff beyond the 10.2 cfs will be detained on site until after the peak of the storm passes and then allowed to drain offsite.

Detention for Phases 1, 2, and 3 will be combined into a single detention system. Before Phase 3 is constructed, detention will be managed by an above-ground basin. In the final condition, this basin may be replaced by an underground CMP detention system located below the sports fields, or an equivalent. Both detention methods are illustrated in the attached Preliminary Hydrology Exhibit. The allowed discharge for each phase is detailed in Table 2 below.

	Phase 1	Phase 2	Phase 3	Combined
Area (AC)	3.3	6.5	3.3	13.1
Q100 Allowed Discharge (CFS)	2.5	5.0	2.6	10.2

Table 2: Allowed Peak Runoff

Diversion structures will be installed to allow intermediate flows to bypass the basins and directly discharge from the site, while the first flush is infiltrated and high flows are detained in the basin. Once the peak of the storm passes the detained flows will be allowed to release from the detention basin through a flap gate structure.

Hydraflow Hydrographs was used to model the diversion structure. Table 3 on the following page compares allowable post-construction runoff to the proposed peak flowrates. Pre-detained values can be referenced in Table 1 and routing calculations are attached for reference.

	Q10 (cfs)	Q50 (cfs)	Q100 (cfs)	Allowed (cfs)
Phase 1	2.5	2.5	2.5	2.5
Phase 2	5.0	5.0	5.0	5.0
Phase 3	2.5	2.6	2.6	2.6
Combined	10.1	10.2	10.2	10.2

Table 3: Allowable vs. Proposed Site Runoff

Hydraflow Hydrographs also analyzes the required storage volumes in the proposed basin given the inflow hydrograph and defined outflow structure. To show that the basin is sufficiently sized, Table 4 compares the required storage volume calculated for each storm event to those provided.

	Phase 1	Phase 2	Phase 3	Combined
10-Year Required (CF)	817	696	-	1,513
50-Year Required (CF)	3,033	3,948	691	7,672
100-Year Required (CF)	3,920	5,839	974	10,733
Proposed (CF)	-	-	-	15,062

Table 4: Required vs. Proposed Detention Basin Storage

Q100 Pad Protection

The project site is not in a Special Flood Hazard Zone. In the event of a 100-year storm, stormwater will sheet flow away from the buildings with overflow routes directed south into Collins Road. Stormwater will be conveyed within the street of Collins Road as in the existing condition, directed east and then south, eventually spilling into the 6'x3.5' City of Oxnard reinforced concrete box in Auto Center Drive. This ensures that stormwater is effectively managed and directed away from the development, maintaining the integrity and safety of the site.

Conclusion

This preliminary analysis for proposed improvements indicates that the development can meet Ventura County MS4 and City of Oxnard detention requirements. Finished floor elevations will be protected against the Q100 water surface elevation, and overflow points will be provided onsite.

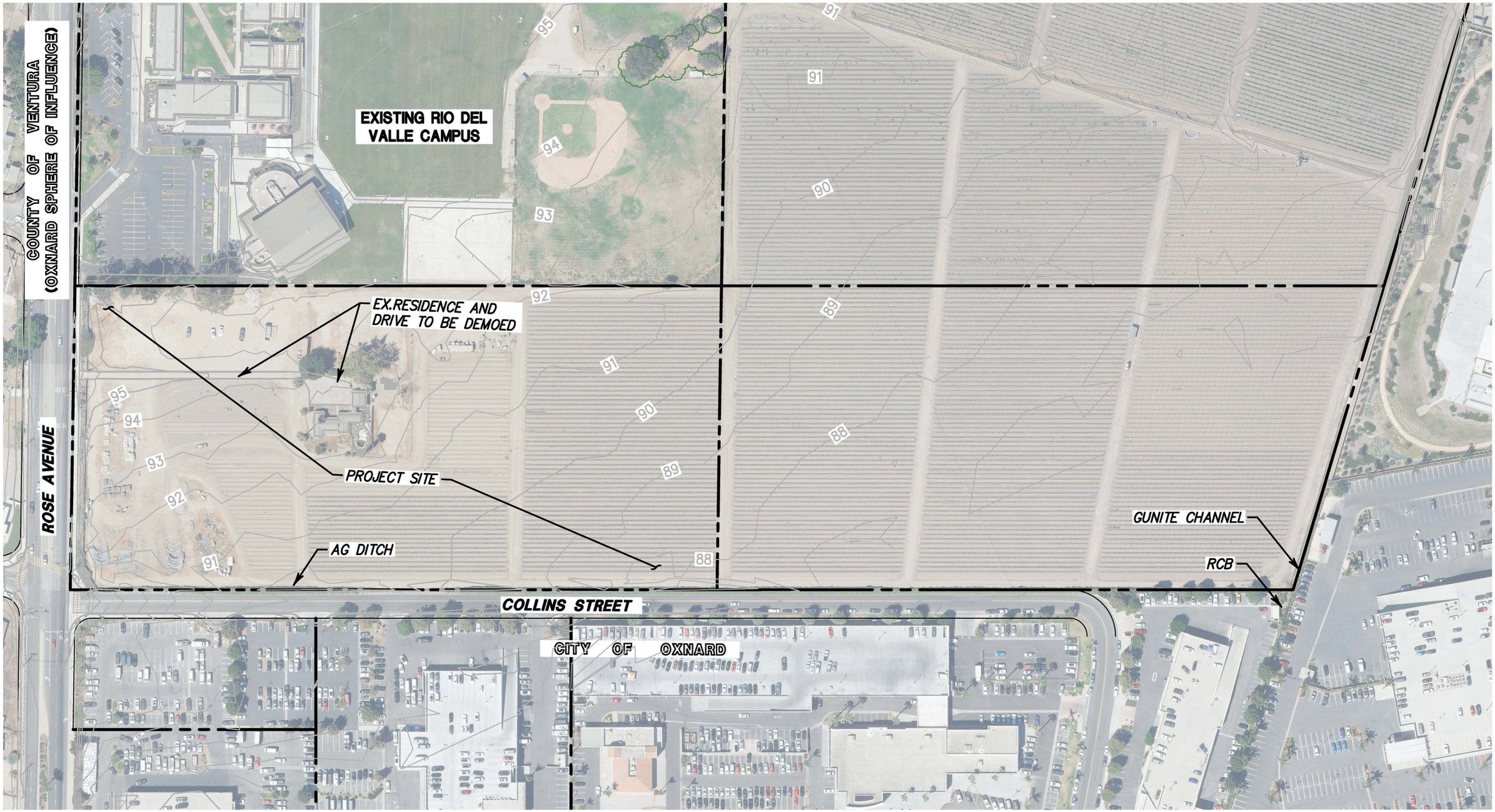
Sincerely,
Jensen Design & Survey, Inc.

Robert Harvey, P.E.



Enclosures:
Preliminary Hydrology Exhibit
Tetra Tech Infiltration Testing
SQDV Calculations
Trash Capture Devices
Aerial Image Exhibit
Excerpts from 1987 Boyer Engineering Hydrology Report
Ventura County Tc Calculator Calculations
VCRat Calculations
Hydraflow Routed Hydrographs
Contech CMP Detention System

PRELIMINARY HYDROLOGY EXHIBIT



75' 0' 150'

SCALE: 1"=150'

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a sanbell company
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VENTURA, CALIF. 93003
PHONE 805/654-6977
WEB WWW.jdscivil.com

EXISTING HYDROLOGY EXHIBIT

RIO DEL VALLE EXPANSION

SHEET 1 OF 3

Mar 19, 2025

ROSE AVENUE

COUNTY OF VENTURA
(OXNARD SPHERE OF INFLUENCE)

2,500 SF UNDERGROUND INFILTRATION

DIVERSION STRUCTURE & TRASH CAPTURE

HYDRODYNAMIC SEPARATOR

15,000 CF UNDERGROUND DETENTION SYSTEM (FINAL CONDITION)

15,000 CF DETENTION BASIN (INTERIM CONDITION)

P2
6.5

P3
3.3

P1
3.3

EXISTING RIO DEL VALLE CAMPUS

HYDRODYNAMIC SEPARATOR

DIVERSION STRUCTURE & TRASH CAPTURE

DIVERSION STRUCTURE & TRASH CAPTURE

PROPOSED SD TO CONNECT TO LINED CHANNEL

CITY OF OXNARD

COLLINS STREET

LEGEND

- PHASE LIMITS
- P# / # — PHASE / ACRES
- BASIN LIMITS
- STORM DRAIN LINES
- UNDERGROUND DETENTION SYSTEM

75' 0' 150'

SCALE: 1"=150'

JENSEN DESIGN & SURVEY, INC
a sinbol company

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PHONE 805/654-6977
WEB WWW.jdscivil.com

PRELIMINARY HYDROLOGY EXHIBIT

RIO DEL VALLE EXPANSION

SHEET 2 OF 3

Mar 19, 2025

SD
SD
SQDV
TO CITY
DETENTION
SD
DETENTION
INFILTRATION
SD
SQDV
DETENTION
INLET
TO CITY
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SQDV
TO CITY
SD
TO CITY
COLLINS STREET

30' 0' 60'

SCALE: 1"=60'

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PRELIMINARY HYDROLOGY EXHIBIT

RIO DEL VALLE EXPANSION

SHEET 3 OF 3

Mar 19, 2025

TETRA TECH INFILTRATION TESTING

Table 2
Results of Borehole Infiltration Testing

Infiltration Test No.	Depth to Bottom of Borehole (ft)	Approximate Initial Infiltration Test Head (feet)	Visual Soil Classification (ASTM D2488)	Corrected Field Infiltration Rate [1] (inches/hour)
IT-1	18	3.0	Poorly graded sand with silt (SP-SM)	4.69
IT-2	19	5.3	Silty sand (SM)	1.50
IT-3	14	3.0	Silty sand (SM)	1.25

Note: [1] Reported infiltration rates are the average of the last three test intervals at each location (Appendix C) with no Safety Factors applied.

6. RECOMMENDED INFILTRATION SAFETY FACTORS

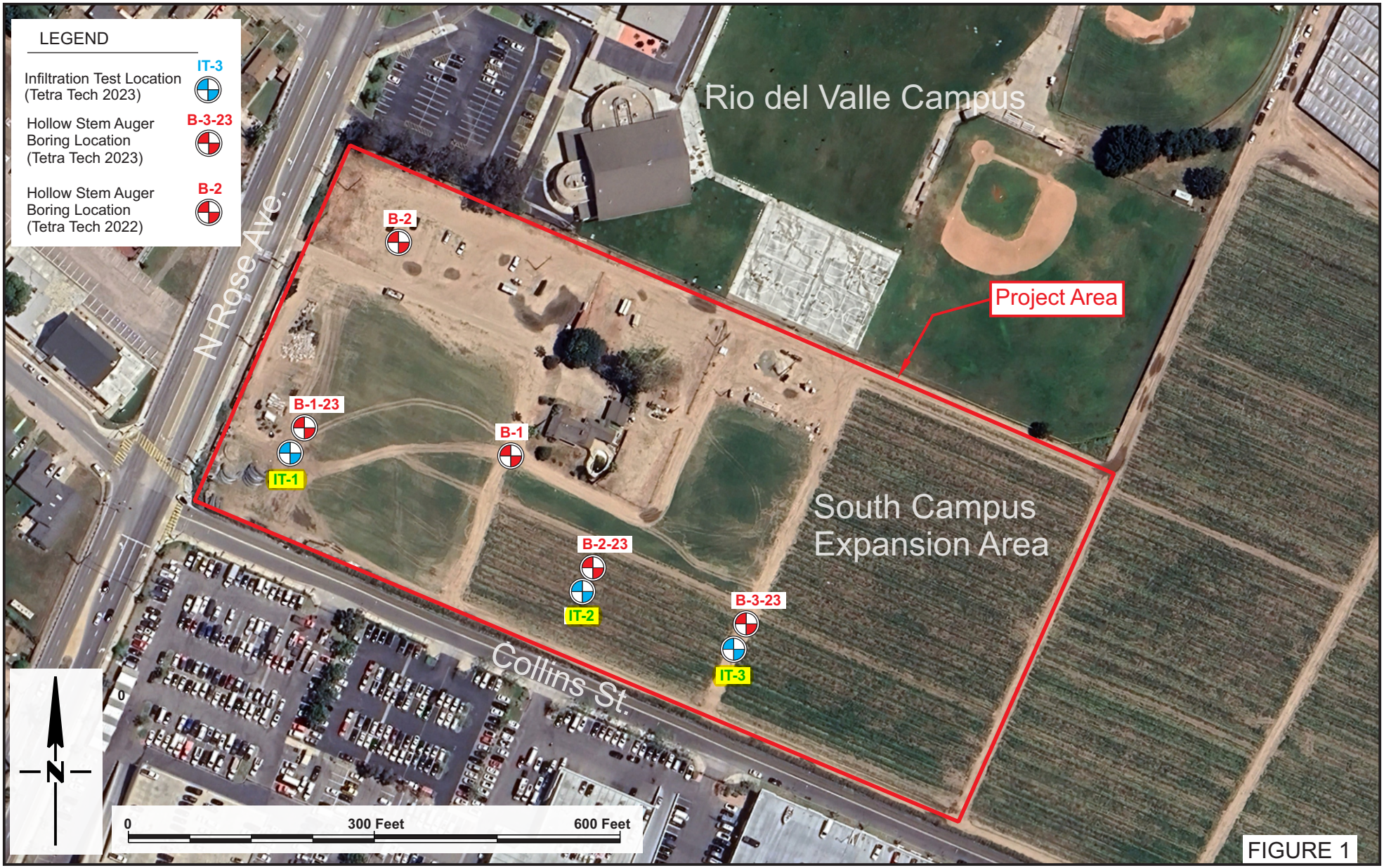
Per recommendations by the County of Ventura Technical Guidance Manual, the measured field infiltration rates are subject to a Suitability Assessment Factor S_A and a Design Safety Factor S_B for determination of design infiltration rates. The Design Safety Factor S_B is to be determined by the project Civil Engineer based on Table 6-3 of the County of Ventura Technical Guidance Manual. The determination of the Suitability Assessment Factor S_A is based on Table 6-2 of the Guidance Manual and is presented in Table 3 below.

Table 3
County of Ventura Suitability Assessment Safety Factor (S_A)

Consideration	Recommended Factor Value (Fv)	Assigned Weight (Aw)	Product of Fv and Aw
Soil Assessment Methods	2	0.25	0.50
Predominant Soil Texture [1]	1		0.25
Site Soil Variability	2		0.50
Depth to Groundwater [2]	2		0.50
Recommended Suitability Assessment Safety Factor, S_A			**1.75**

Notes: [1] Ventura Hydrology Manual (2017) soil number (measured infiltration rate). Value reflects the field infiltration average of the prevailing sandy soils.
[2] Groundwater depths between 33 and 133 feet below grade were reported by Tetra Tech (2022) during the period from 1972 through 2016. For this study, we have assumed a groundwater surface at a depth between 10 and 30 feet below the invert of the infiltration basins.

The combined Safety Factor used to obtain the design infiltration rate should be calculated as the product of Safety Factors S_A and S_B. The minimum combined Safety Factor should not be less than 2 but no greater than 9.



TETRA TECH

21700 Copley Drive, Suite 200, Diamond Bar, CA 91765
TEL 909.860.7777 www.tetratech.com

Rio del Valle Middle School Infiltration Testing - Oxnard, CA

BORING AND INFILTRATION TEST LOCATION MAP

JOB NO.	TET 23-259E
DATE	OCT 2023
DRAWN BY	MKM
CHECKED BY	YL

SQDV CALCULATIONS

SQDV Calculations

Designer:	Jensen Design & Survey, Inc
Project Proponent:	Rio School District
Date:	8/27/2024
Project:	RIO 6207 - Rio Del Valle Middle School Expansion
Location:	Oxnard (Entire Site)

Type of Vegetation: (Check type used or describe "Other"		Native Grass
		Irrigated Turf Grass
	X	Other

Step 1: Determine Water Quality Design Volume

1-1	Enter Project Area	$A_{project}$=	13.06	ac
1-2	Enter the maximum allowable percent of the Project area that may be effective impervious area (%)(refer to permit), ranges from 5-30% allowable	$\%_{allowable}$=	0	%
1-3	Determine the maximum allowable effective impervious area (ac), $EIA_{allowable} = (A_{project})*(\%allowable)$	$EIA_{allowable}$=	0.00	ac
1-4	Enter Project Impervious fraction, IMP	IMP =	0.41	
1-5	Determine the Project Total Impervious Area (ac) TIA = $A_{project}$*IMP	TIA =	5.35	ac
1-6	Determine the total area from which runoff must be retained (ac), A_{retain}=TIA-$EIA_{allowable}$	A_{retain} =	5.35	ac
1-7	Determine pervious runoff coefficient using Table E-1, C_p	C_p =	0.050	
1-8	Calculate runoff coefficient C=0.95*IMP + Cp(1-imp)	C =	0.419	
1-9	Enter design rainfall depth of the storm (in), P_i	P_i =	0.75	in
1-10	Calculate rainfall depth (ft), P = P_i/12	P =	0.0625	ft
1-11	Calculate Water Quality Design Volume (CF) SQDV = 43560*C*P*Aproject	SQDV =	14897.90	cf

Table 6.4 - Infiltration Facility Safety Factor Determination Worksheet

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w*v
A	Suitability Assessment	Soil Assessment Method	0.25	2	0.5
		Predominant Soil texture	0.25	1	0.25
		Soil Variability	0.25	2	0.5
		Depth to groundwater / impervious layer	0.25	2	0.5
		Suitability Assessment Safety Factor S_A =			**1.75**
B	Design	Tributary Area Size	0.25	3	0.75
		Level of pre-treatment / expected sediment loads	0.25	2	0.5
		Redundancy	0.25	3	0.75
		Compaction during construction	0.25	2	0.5
		Design Safety Factor S_B =			**2.5**

Combined Safety Factor = S_A * S_B = 4.375

INF-1 - Infiltration Basin

Designer:	Jensen Design & Survey, Inc
Project Proponent:	Rio School District
Date:	8/27/2024
Project:	RIO 6207 - Rio Del Valle Middle School Expansion
Location:	Oxnard (Entire Site)

Type of Vegetation: (Check type used or describe "Other"

_____ Native Grass
_____ Irrigated Turf Grass
_____ Other

Step 2: Determine the design percolation rate

2-1	Enter measured soil percolation rate (in/hr) 0.5 in/hr minimum. $P_{measured}$	$P_{measured}$=	4.69	in/hr
2-2	Determine percolation rate correction factor, S_A based on suitability assessment (see Section 6 INF-1, Table 6-2)	S_A =	1.75	
2-3	Determine percolation rate correction factor, S_B based on design (see Section 6 INF-1)	S_B =	2.5	
2-4	Calculate Combine safety factor, $S = S_A * S_B$	S =	4.375	
2-5	Calculate the design percolation rate (in/hr) $P_{design} = P_{measured}/S$	P_{design} =	1.072	in/hr

Step 3: Calculate the surface area

3-1	Enter required drain time (hours, 72 hours max, t	t =	72	hr
3-2	Calculate max. depth of runoff that can be infiltrated within the t (ft), d_{max} = P_{design}*t/12	d_{max} =	6.432	ft
3-3	For Basins, Select ponding depth dp such that $d_p <= d_{max}$	d_p =	6	ft
3-6	Enter the time to fill infiltration basin with water (use 2 hours for most designs), T	T =	2	hrs
3-7	Calculate Infiltrating surface area for infiltration basin $A_b = SQDV/(TP_{design}/12+d_p)$	A_b =	2411.2	sf

TRASH CAPTURE DEVICES

Trash Capture Devices

FlexStorm® Connector Pipe Screen

FlexStorm Connector Pipe Screen (CPS) is the perfect tool to help you meet your total maximum daily load. Whether for a retrofit or a new construction, there is a CPS that will fit your catch basin. A CPS retains large volumes of trash and sediment inside the catch basin, where it can be regularly removed by a vacuum truck, instead of conveying debris through the stormwater system.

Features

- Constructed from 14GA perforated stainless steel, reinforced with 12GA U-channels around entire perimeter
- Trash accumulates in catch basin instead of downstream
- Keeps all particles larger than 0.197" (5 mm) inside catch basin
- 50% open area for high flow; designed to match basin hydraulics

Benefits

- Good for retrofits, new applications or city-wide installs
- Comes in multiple shapes, depending on the catch basin
- Rolled panels provide increased strength compared to flat screens
- Quick and easy installation; ships sized to the catch basin so assembly is not required

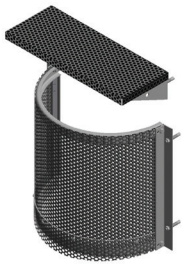




ADS™

FlexStorm Connector Pipe Screen (CPS) Specifications

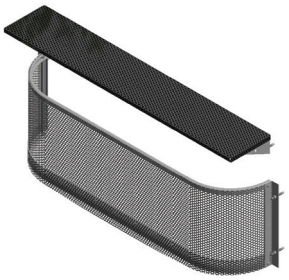
Product Selection



In general, a Connector Pipe Screen (CPS) must be sized appropriately to pass a one-year rain event through the perforated screen material and pass a 10-year rain event through the bypass area if a deflector lid is required. The shape of the screen depends on location of the outlet pipe. ADS will assist in the selection of the appropriate CPS design given the following information:

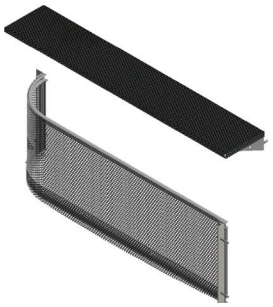
1. Catch basin length and depth
2. Location of the outlet pipe
3. A completed CPS dimensional form

Materials



Each CPS is comprised entirely of 304 stainless steel and brought to the field pre-configured for easy installation. All models are supplied with vertical upright mounting brackets which accept four ⅜" x 3" (9 x 76 mm) stainless anchor bolts. All bypass lids require two ⅜" x 3" (9 x 76 mm) stainless anchor bolts. Mounting brackets are equipped with slotted holes to allow for varied contours on walls and sloped floors.

Installation



1. Lower the CPS through the manhole opening
2. Position the CPS evenly spaced around the connector pipe ensuring a minimum of 4" (100 mm) spacing away from the corners.
3. Loosen the bolts in the slotted holes which connect the screen to the upright mounting brackets until the bottom is flush with the floor
4. Tighten the bolts and mark the hole locations on the wall for the stainless anchor bolts
5. Drill holes, hammer the bolts in place and secure the connector pipe screen using provided stainless nuts
6. If the bottom of the base exposes more than a 0.197" (5 mm) gap, then an additional base face strip may be fastened to the base channel using stainless tek screws or rivets

Maintenance

ADS advises that catch basins be cleaned out at least two (2) times per year and/or if debris has filled above a 40% level inside of the catch basin. Sites with large amounts of foliage, high sediment loads or smalled CPS devices might need to be cleaned more frequently.

Maintenance Conditions and Maintenance Standards: The following are deficiencies in maintenance conditions and their corresponding maintenance standards which shall apply to the CPS. The clean out of each catch basin shall meet the maintenance standards listed as follows:

1. Clear trash and debris located immediately in front of curb opening or side opening of catch basin and on top or between metal grates of grated catch basin
2. Remove vegetation growing across and/or blocking the basin opening
3. Remove all trash, debris and vegetation from inside the catch basin
4. Remove trash and debris in the connector pipe opening, upstream or downstream
5. Knock off/remove debris that covers the perforated openings of the CPS
6. Ensure there is no standing water inside of catch basin (indicates the device is not draining properly).

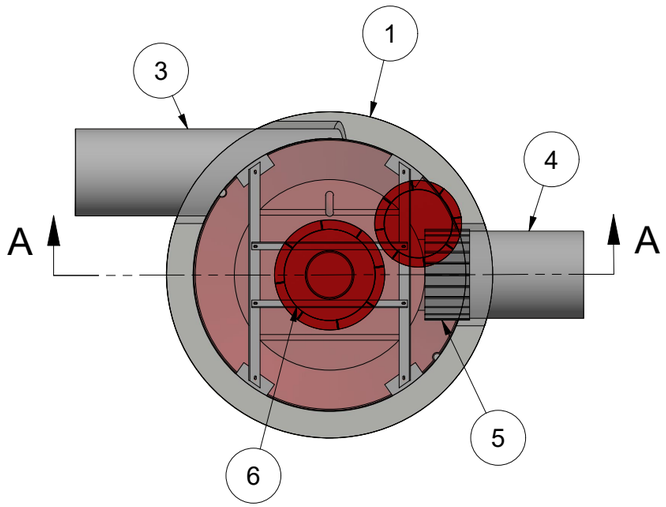
Build America, Buy America (BABA)

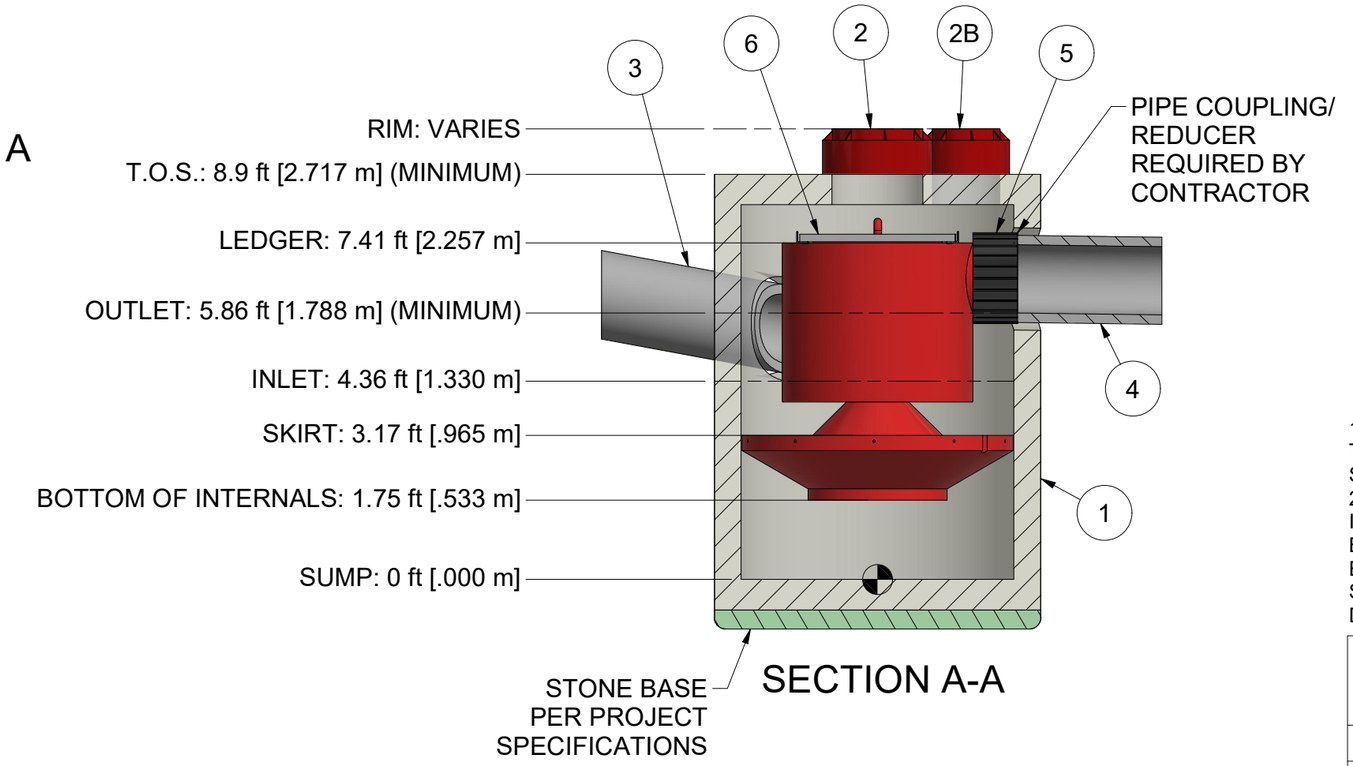
For any questions related to Build America, Buy America (BABA) Act compliance contact an ADS representative or email flexstorm@adspipe.com.

adspipe.com
800-821-6710

ADS "Terms and Conditions of Sale" are available on the ADS website, www.adspipe.com.
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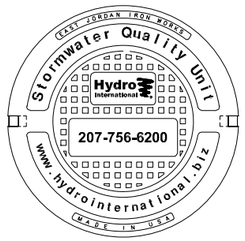
OUTLET STUB ID: 18" (450 mm)
OUTLET STUB OD: 18.7" (475 mm)





SECTION A-A

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING DOWNSTREAM DEFENDER MANHOLE.



HYDRO FRAME AND COVER (INLCUDED)

GRADE RINGS BY OTHERS AS REQUIRED

NOTE: NOT FOR CONSTRUCTION. CONTACT HYDRO FOR SITE SPECIFIC DETAIL

EQUIPMENT PERFORMANCE

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 8.0 cfs (227 l/s)
3. Sediment Storage Capacity: 2.10 cu. yd. (1.59 cu. m)
4. Continuous Oil Storage Capacity: 216 gal. (818 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reintrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit https://hydro-int.com/en/products/downstream-defender

PARTS LIST

ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	72	1800	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	3	24	600	FRAME AND COVER
2B	1	18	450	FRAME AND COVER
3	1	18 (MAX)	450 (MAX)	MAX INLET PIPE (BY OTHERS)
4	1	18 (MAX)	450 (MAX)	MAX OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PRE-INTALLED)

PROJECTION

IF IN DOUBT ASK

DATE: 10/8/2019	SCALE: 1 / 50	
DRAWN BY: ER	CHECKED BY: MRJ	APPROVED BY

Title: 6ft-DIAMETER

GENERAL ARRANGEMENT

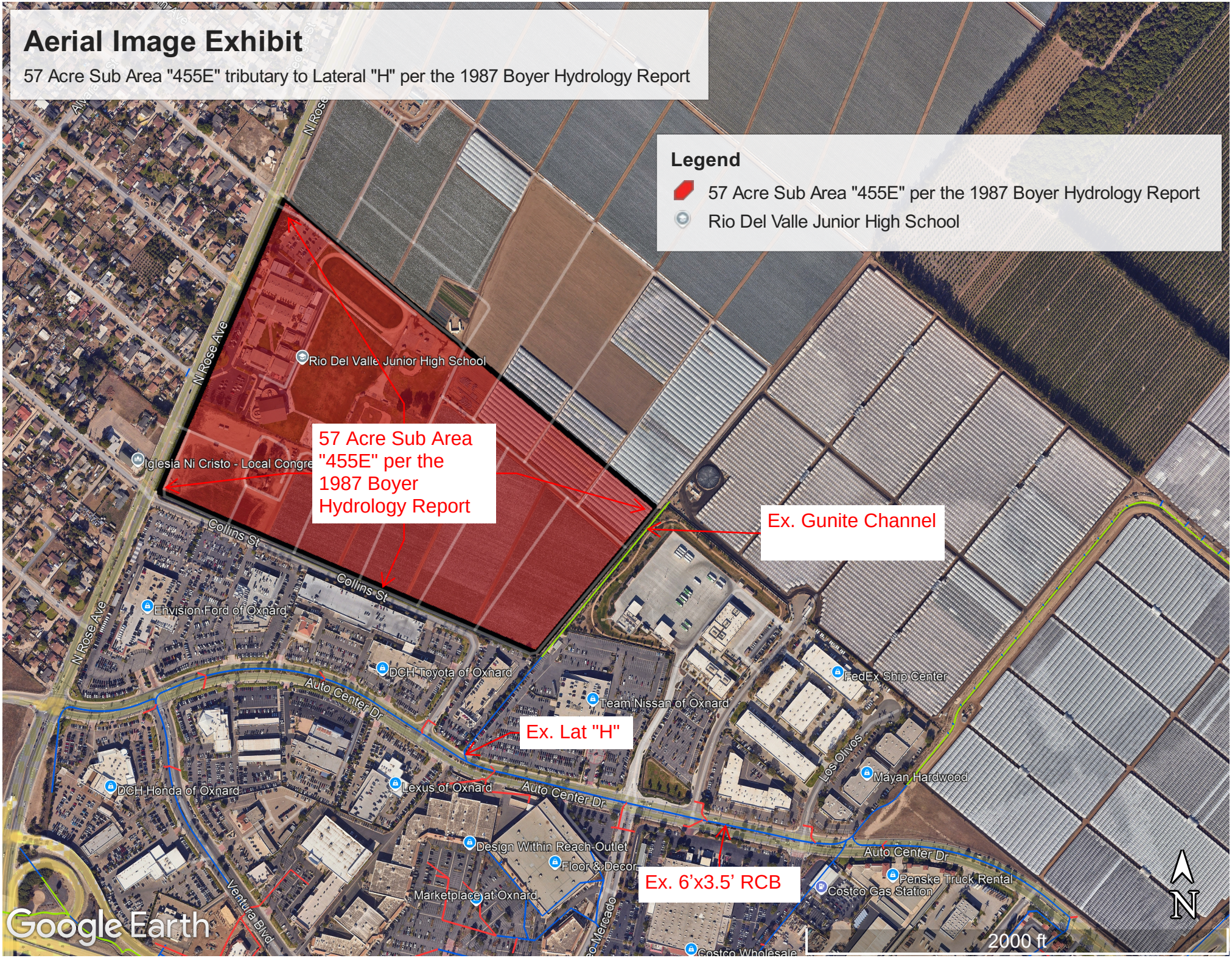
Hydro International
A CRH COMPANY
hydro-int.com
HYDRO INTERNATIONAL

WEIGHT: N/A	MATERIAL:	
STOCK NUMBER: NEXT ASSY		
DRAWING NO.: DD GA-10		
SHEET SIZE: B	SHEET: 1 OF 1	Rev: A

AERIAL IMAGE EXHIBIT

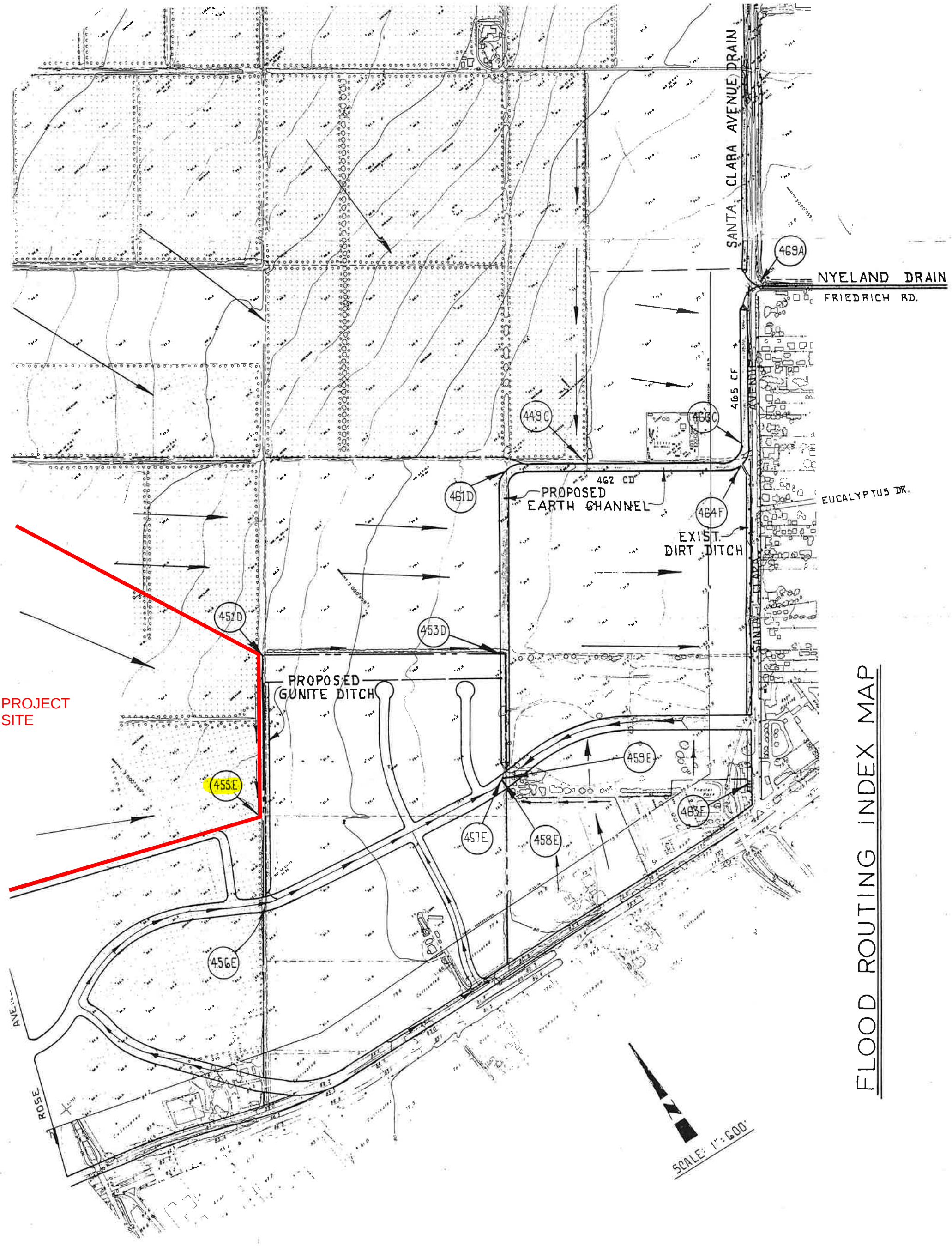
Aerial Image Exhibit

57 Acre Sub Area "455E" tributary to Lateral "H" per the 1987 Boyer Hydrology Report



EXCERPTS FROM THE 1987 BOYER ENGINEERING HYDROLOGY REPORT

Excerpts from 1987 Boyer Engineering Hydrology Report



VENTURA COUNTY FLOOD CONTROL DISTRICT
MODIFIED RATIONAL METHOD HYDROLOGY

NYELAND DRN,DESIGN CONDITIONS + STA CLARA AREA JCTD;Q50 DT 6/86

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	STORM DAY 4 RAIN ZONE	PCT IMPV
4779	423A	0.	0.	5210.	3822.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	424B	129.	192.	129.	192.	4	1290.	0.00500	5.00	0.00	0.	40	23	T 1	0.15
4779	425B	39.	75.	168.	257.	4	1675.	0.00200	6.75	0.00	0.	30	17	T 1	0.15
4779	426B	48.	83.	217.	317.	0	0.	0.00000	0.00	0.00	0.	30	21	T 1	0.15

* CONFLUENCE Q'S *

* 4779 427A TA 1187 QA 3822. QAB 3886. QB 64. 4779 427B TB 1165 QB 317. QBA 2906. QA 2589. *

* 4779 427AB TAB 1186 QAB 3888. QA 3815. QB 72. *

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV
4779	427AB	217.	317.	5427.	3888.	5	1370.	0.00310	21.00	0.00	0.	30	0	T 1	0.00
4779	428A	0.	0.	5427.	3879.	5	1300.	0.00150	24.00	0.00	0.	30	99	T 1	0.00
4779	429A	51.	66.	5478.	3875.	5	1300.	0.00200	23.00	0.00	0.	30	29	T 1	0.00
4779	430A	0.	0.	5478.	3866.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	431C	68.	85.	68.	85.	5	2720.	0.00240	3.00	1.50	0.	50	25	T 1	0.05
4779	432C	82.	97.	150.	139.	5	1300.	0.00320	3.00	1.50	0.	30	33	T 1	0.00
4779	433C	0.	0.	150.	134.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	434C	49.	71.	199.	173.	5	1570.	0.00510	2.00	2.00	0.	30	25	T 1	0.05
4779	435C	0.	0.	199.	170.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	436C	47.	68.	246.	213.	0	0.	0.00000	0.00	0.00	0.	30	26	T 1	0.10

* CONFLUENCE Q'S *

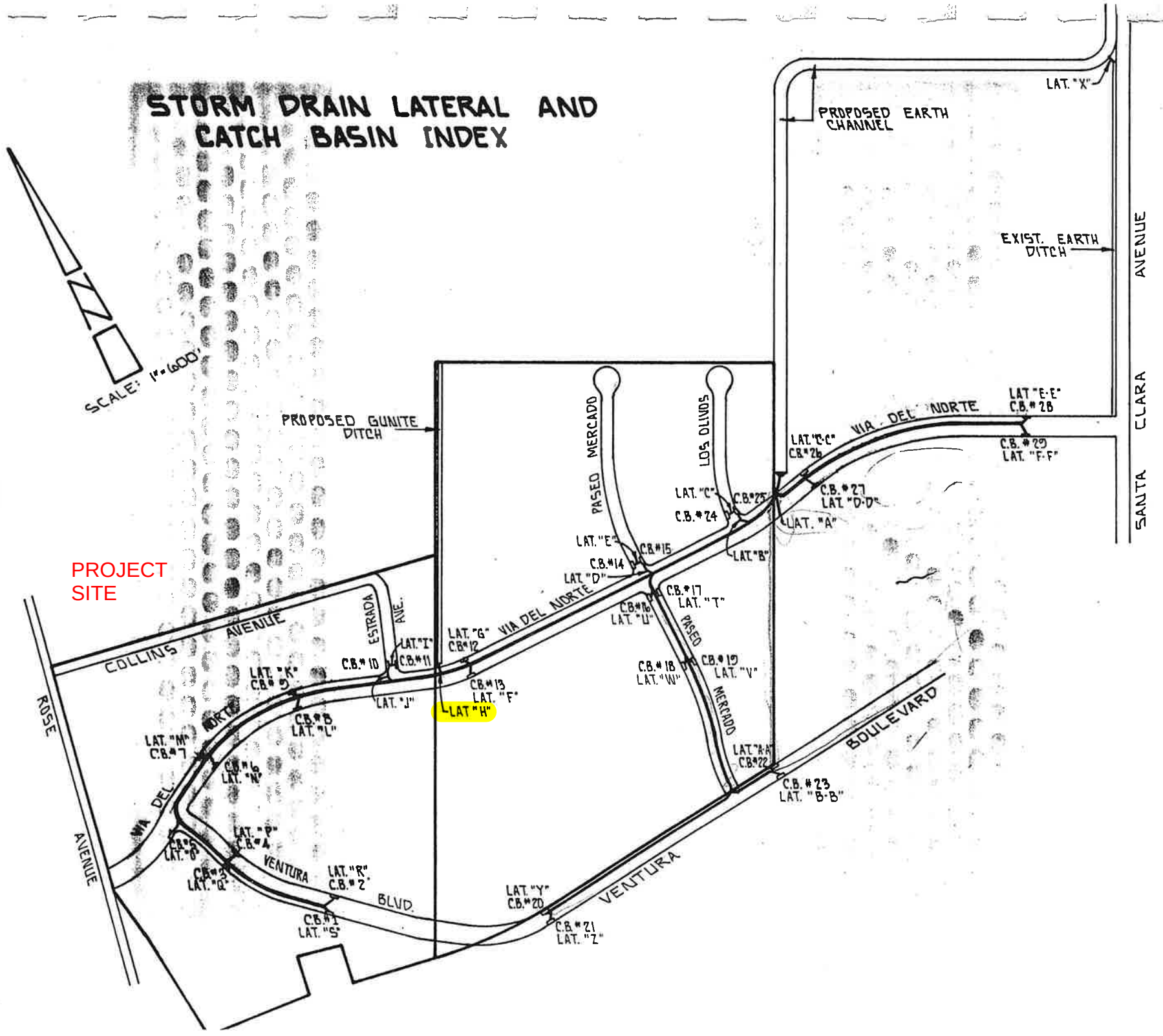
* 4779 437A TA 1192 QA 3866. QAC 4011. QC 144. 4779 437C TC 1173 QC 213. QCA 3350. QA 3137. *

* 4779 437AC TAC 1191 QAC 4011. QA 3864. QC 147. *

LOCATION		SUBAREA AREA	SUBAREA Q	TOTAL AREA	TOTAL Q	CONV TYPE	CONV LNGTH	CONV SLOPE	CONV SIZE	CONV Z	CONTROL Q	SOIL NAME	TC	RAIN ZONE	PCT IMPV
4779	437AC	246.	213.	5724.	4011.	5	1450.	0.00150	25.00	0.00	0.	30	0	T 1	0.00
4779	438A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	439A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	440A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	441A	0.	0.	5724.	4003.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	442B	59.	87.	59.	87.	5	1650.	0.00360	2.00	1.50	0.	30	24	T 1	0.00
4779	443B	56.	71.	115.	145.	0	0.	0.00000	0.00	0.00	0.	30	30	T 1	0.00
4779	444B	0.	0.	115.	145.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	445C	101.	109.	101.	109.	5	1330.	0.00450	3.00	1.50	0.	50	29	T 1	0.00
4779	446C	101.	109.	202.	205.	5	1330.	0.00300	3.00	1.50	0.	50	29	T 1	0.00
4779	447C	90.	112.	292.	284.	5	2210.	0.00500	3.00	1.50	0.	40	27	T 1	0.00
4779	448C	0.	0.	292.	266.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	449C	60.	81.	352.	311.	5	1100.	0.00200	3.00	1.50	0.	30	27	T 1	0.00
4779	450C	32.	55.	384.	303.	0	0.	0.00000	0.00	0.00	0.	30	20	T 1	0.07
4779	451D	97.	120.	97.	120.	4	2150.	0.00420	4.50	0.00	0.	40	28	T 1	0.05
4779	452D	0.	0.	97.	117.	0	0.	0.00000	0.00	0.00	0.	40	99	T 1	0.00
4779	453D	43.	90.	140.	187.	5	850.	0.00180	3.00	2.00	0.	30	15	T 1	0.23
4779	454D	0.	0.	140.	179.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00
4779	455E	57.	95.	57.	95.	0	0.	0.00000	0.00	0.00	0.	30	21	T 1	0.10
4779	456E	65.	100.	122.	195.	4	1640.	0.00360	5.50	0.00	0.	50	22	T 1	0.30
4779	457E	0.	0.	122.	189.	0	0.	0.00000	0.00	0.00	0.	50	99	T 1	0.00
4779	458E	0.	0.	122.	189.	0	0.	0.00000	0.00	0.00	0.	30	99	T 1	0.00

EXISTING CONDITIONS, Q_{50}

FORM: WIDE - 08/22/86


STORM DRAIN LATERAL AND CATCH BASIN INDEX
SCALE: 1"=600'
PROPOSED GUNITE DITCH
PROPOSED EARTH CHANNEL
EXIST. EARTH DITCH
SANTA CLARA AVENUE
PROJECT SITE
COLLINS AVENUE
ROSE AVENUE
VIA DEL NORTE
ESTRADA AVE.
PASEO MERCADO
LOS OLIVOS
VENTURA BLVD.
BOULEVARD
LAT. "X"
LAT. "E-E" C.B.#28
C.B.#29 LAT. "F-F"
LAT. "C-C" C.B.#26
C.B.#27 LAT. "D-D"
LAT. "A"
LAT. "B"
LAT. "C"
C.B.#24
C.B.#25
LAT. "E"
C.B.#15
C.B.#14
LAT. "D"
C.B.#17 LAT. "T"
C.B.#16 LAT. "U"
C.B.#18 LAT. "W"
C.B.#19 LAT. "V"
LAT. "A-A" C.B.#22
C.B.#23 LAT. "B-B"
LAT. "G" C.B.#12
C.B.#13 LAT. "F"
LAT. "H"
LAT. "I" C.B.#11
C.B.#10
LAT. "J"
LAT. "K" C.B.#9
C.B.#8 LAT. "L"
LAT. "M" C.B.#7
C.B.#6 LAT. "N"
C.B.#5 LAT. "O"
LAT. "P" C.B.#4
C.B.#3 LAT. "Q"
LAT. "R" C.B.#2
C.B.#1 LAT. "S"
LAT. "Y" C.B.#20
C.B.#21 LAT. "Z"

HYDRAULIC GRADE LINE CALCULATION SHEET

Sht ___ of ___

PROJECT ___

LINE LATERALS

CALCULATED BY J.R.B.

*Conduit unseals when D is less than d

DATE 4-24-87

	STA.	ELEV. INV.	D*	ELEV. H.G.L.	SECTION	d	A	Q	V	$\frac{v^2}{2g}$	K	S_f	Av. S_f	L	h_f	h_b	h_j	h_l	ELEV. E.G.L.
"G"	D+06.85	74.17	3.20	77.37	24" RCP	2.00	3.142	7.7	2.292	.082	226.2	.001							77.45
	0+40.68	74.68	2.72	77.40	24" RCP	2.00	3.142	7.7	2.292	.082	226.2	.001	.001	33.83	.03				77.48
						H.G.L. IN	C.B. =	1.2(.082)	+77.40	=77.50									
"H"	D+07.45	74.31	3.49	77.80	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044							78.41
	D+34.61	74.45	3.47	77.92	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	27.16	.12				78.53
	D+58.17	74.56	3.56	78.12	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	23.56	.10	.10			78.73
	1+74.84	75.63	UNSEALS	78.63	36" RCP	3.00	7.069	44.4	6.281	.613	666.9	.0044	.0044	116.67	.51				79.24
	6+03.81	79.56	2.17	81.73	36" RCP	3.00	4.498	44.4	9.871	1.513	419.5	.0112							83.24
"I"	D+00.00	77.64	1.18	78.82	18" RCP	1.50	1.491	3.5	2.347	.086	100.9								78.91
	D+46.50	78.17	.71	78.88	18" RCP	1.50	.839	3.5	4.172	.271	49.3								79.15
						H.G.L. IN	C.B. =	1.2(.271)	+79.67	=80.00									
"J"	D+03.54	75.21	2.86	78.07	18" RCP	1.50	1.767	8.2	4.640	.334	105	.0061							78.40
	D+07.02	75.25	2.84	78.09	" "	" "	" "	" "	" "	" "	" "	" "	.0061	3.48	.02				78.42
	D+24.69	75.40	2.85	78.25	" "	" "	" "	" "	" "	" "	" "	" "	.0061	17.67	.11	.05			78.58
	D+69.65	76.00	2.52	78.52	18" RCP	1.50	1.767	8.2	4.64	.334	105	.0061	.0061	44.96	.27				78.85
						H.G.L. IN	C.B. =	1.2(.334)	+78.52	=78.92									
"K"	D+03.55	76.08	3.31	79.39	24" RCP	2.00	3.142	10.7	3.406	.180	226.2	.0022							79.57
	D+42.39	76.16	3.32	79.48	24" RCP	2.00	3.142	10.7	3.406	.180	226.2	.0022	.0022	38.82	.09				79.66
						H.G.L. IN	C.B. =	1.2 (.18)	+79.48	=79.70									
"L"	D+02.53	76.33	3.06	79.39	24" RCP	2.00	3.142	7.7	2.451	.093	226.2	.0012							79.48
	D+64.77	76.55	2.91	79.46	24" RCP	2.00	3.142	7.7	2.451	.093	226.2	.0012	.0012	62.24	.07				79.55
						H.G.L. IN	C.B. =	1.2(.093)	+79.46	=79.57									

VENTURA COUNTY TC
CALCULATOR CALCULATIONS

Ventura County Tc Calculator Calculations

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 1

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	3.3 / 3	10.156 / 10

♠

Watershed Name: Phase 1

Sub-Area Name: Longest Route
Tc: 10.156 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 10.156 min. = 10 min.

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 3.3
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 79

SUB AREA OUTPUT

Intensity (in/hr): 2.940
C Total: 0.831
Sum Q Segments (cfs): 8.07
Q Total (cfs): 8.07
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 609.34
Time of Concentration (min): 10.156

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 95
Bottom Elevation (ft): 93.8
Contributing Area (acres): 0.2
Percent of Sub-Area (%): 6.1
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0060
Effective Slope: 0.0060
Q for Flow Path (cfs): 0.49
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Channelized Flow
FLOW PATH TRAVEL TIME (min): 6.0299
Flow Type: Natural Channel
Length (ft): 870
Top Elevation (ft): 93.8
Bottom Elevation (ft): 87.1
Contributing Area (acres): 2.9
Percent of Sub-Area (%): 87.9
Overland Type: Valley
Map Slope: 0.0077
Effective Slope: 0.0077
Q for Flow Path (cfs): 7.09
Q Top (cfs): 0.49
Q Bottom (cfs): 7.58
Velocity Top (ft/s): 1.16
Velocity Bottom (ft/s): 2.05
Avg Velocity (ft/s): 1.60
Wave Velocity (ft/s): 2.40

DATA FOR FLOW PATH 3

Flow Path Name: PIPE
FLOW PATH TRAVEL TIME (min): 0.7925
Flow Type: Pipe
Length (ft): 333
Top Elevation (ft): 87.1
Bottom Elevation (ft): 85
Contributing Area (acres): 0.2
Percent of Sub-Area (%): 6.1
Initial Pipe Diameter (in): 18
Calculated Pipe Diameter (in): 18
Used Pipe Diameter (in): 18
Manning's N: 0.012
Map Slope: 0.0063
Q for Flow Path (cfs): 0.49
Q Top (cfs): 7.58
Q Bottom (cfs): 8.07
Avg Velocity (ft/s): 5.75
Wave Velocity (ft/s): 7.00

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 2

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	6.5 / 7	8.878 / 9

↟

Watershed Name: Phase 2

Sub-Area Name: Longest Route
Tc: 8.878 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 8.878 min. = 9 min.

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 6.5
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 41

SUB AREA OUTPUT

Intensity (in/hr): 3.073
C Total: 0.619
Sum Q Segments (cfs): 12.37
Q Total (cfs): 12.37
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 532.70
Time of Concentration (min): 8.878

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 1.4167
Flow Type: Overland
Length (ft): 85
Top Elevation (ft): 99.8
Bottom Elevation (ft): 98.5
Contributing Area (acres): 0.1
Percent of Sub-Area (%): 1.5
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0153
Effective Slope: 0.0153
Q for Flow Path (cfs): 0.19
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: SWALE
FLOW PATH TRAVEL TIME (min): 6.8093
Flow Type: Natural Channel
Length (ft): 1016
Top Elevation (ft): 98.5
Bottom Elevation (ft): 89.5
Contributing Area (acres): 4.2
Percent of Sub-Area (%): 64.6
Overland Type: Valley
Map Slope: 0.0089
Effective Slope: 0.0089
Q for Flow Path (cfs): 7.99
Q Top (cfs): 0.19
Q Bottom (cfs): 8.18
Velocity Top (ft/s): 1.08
Velocity Bottom (ft/s): 2.24
Avg Velocity (ft/s): 1.66
Wave Velocity (ft/s): 2.49

DATA FOR FLOW PATH 3

Flow Path Name: PIPE
FLOW PATH TRAVEL TIME (min): 0.6524
Flow Type: Pipe
Length (ft): 280
Top Elevation (ft): 89.5
Bottom Elevation (ft): 88
Contributing Area (acres): 2.2
Percent of Sub-Area (%): 33.8
Initial Pipe Diameter (in): 21
Calculated Pipe Diameter (in): 21
Used Pipe Diameter (in): 21
Manning's N: 0.012
Map Slope: 0.0054
Q for Flow Path (cfs): 4.19
Q Top (cfs): 8.18
Q Bottom (cfs): 12.37
Avg Velocity (ft/s): 5.84
Wave Velocity (ft/s): 7.15

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION
TC Program Version: 2.64.0.37
Project: RIO 6207
Date: 12:00:00 AM
Engineer: RRH
Consultant: JDS

S U M M A R Y O F C O M P U T A T I O N S

Watershed Name: Phase 3

Name	Zone	Storm	Soil	Area (acres)	TC (min)
Longest Route	REV2	100	5.00	3.3 / 3	TC ERROR

ASSUMED 5 MINUTES

♠

Watershed Name: Phase 3

Sub-Area Name: Longest Route
Tc: 4.445 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 4.445 min. = 4 min. ** TC ERROR **

SUB AREA INPUT DATA

Sub Area Name: Longest Route
Total Area (ac): 3.3
Flood Zone: 3
Rainfall Zone: REV2
Storm Frequency (years): 100
Development Type: Undeveloped
Soil Type: 5.00
Percent Impervious: 27
SUB AREA OUTPUT

Intensity (in/hr): 4.110
C Total: 0.557
Sum Q Segments (cfs): 7.56
Q Total (cfs): 7.56
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 266.71
Time of Concentration (min): 4.445

DATA FOR FLOW PATH 1

Flow Path Name: FlowPath
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 94.6
Bottom Elevation (ft): 90.7
Contributing Area (acres): 0.4
Percent of Sub-Area (%): 12.1
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0195
Effective Slope: 0.0195
Q for Flow Path (cfs): 0.92
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Channelized Flow
FLOW PATH TRAVEL TIME (min): 1.0833
Flow Type: Overland
Length (ft): 65
Top Elevation (ft): 90.7
Bottom Elevation (ft): 90.4
Contributing Area (acres): 0.5
Percent of Sub-Area (%): 15.2
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0046
Effective Slope: 0.0046
Q for Flow Path (cfs): 1.15
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 3

Flow Path Name: Pipe
FLOW PATH TRAVEL TIME (min): 0.0285
Flow Type: Pipe
Length (ft): 14
Top Elevation (ft): 90.4
Bottom Elevation (ft): 85
Contributing Area (acres): 2.4
Percent of Sub-Area (%): 72.7
Initial Pipe Diameter (in): 18
Calculated Pipe Diameter (in): 9
Used Pipe Diameter (in): 18
Manning's N: 0.012
Map Slope: 0.3857
Q for Flow Path (cfs): 5.50
Q Top (cfs): 2.06
Q Bottom (cfs): 7.56
Avg Velocity (ft/s): 6.06
Wave Velocity (ft/s): 8.20

VCRAT CALCULATIONS

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Subarea A Q10

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Subarea A Q10

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A10	15	79	33	43	33	43	1155	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 43.26 VOLUME (acre-ft): 7.84 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 1.53 TOTAL RAIN(in): 4.30 SCS Curve: 70 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 43.26 VOLUME (acre-ft): 4.21 *																	
2A	---	---	--	--	---	---	33	43	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	43	1155	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
Warning	Err1260	FATTENING	2A	Fattening reduced the volume of the hydrograph. It is recommended to remove fattening from the model.

HYDROGRAPH FATTENED AT 2A

INCOMING HYDROGRAPH PEAK (cfs):	43.26		VOLUME (acre-ft):	7.84			
NO HYDROGRAPH ADJUSTMENT							
RUNOFF FACTOR(in):	1.53	TOTAL RAIN(in):	4.30	SCS Curve: 70			
FATTENED HYDROGRAPH PEAK (cfs):	43.26		VOLUME (acre-ft):	4.21			

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	1.83	1.83	1.75
200	1.81	1.81	1.63	300	1.83	1.83	1.60
400	1.83	1.83	1.55	500	1.81	1.81	1.45
600	2.14	2.14	1.66	700	3.17	3.17	2.51
800	3.15	3.15	2.18	900	4.13	4.13	2.56
1000	5.84	5.84	2.87	1050	7.70	7.70	3.24
1100	9.90	9.90	2.26	1110	12.52	12.52	4.35
1120	15.41	15.41	6.72	1130	16.50	16.50	6.54
1131	16.71	16.71	6.64	1132	16.92	16.92	6.74
1133	17.03	17.03	6.69	1134	17.23	17.23	6.78
1135	17.34	17.34	6.73	1136	17.52	17.52	6.77
1137	17.60	17.60	6.67	1138	17.78	17.78	6.70
1139	17.86	17.86	6.59	1140	18.04	18.04	6.62
1141	18.31	18.31	6.78	1142	18.59	18.59	6.95
1143	18.87	18.87	7.11	1144	19.15	19.15	7.26
1145	20.06	20.06	8.38	1146	20.91	20.91	9.39
1147	21.75	21.75	10.42	1148	22.71	22.71	11.65
1149	26.66	26.66	17.51	1150	30.71	30.71	23.63
1151	34.51	34.51	29.45	1152	38.41	38.41	35.54
1153	42.25	42.25	41.63	1154	43.15	43.15	43.08
1155	43.26	43.26	43.26	1156	43.03	43.03	42.89
1157	42.92	42.92	42.72	1158	42.70	42.70	42.36
1159	42.36	42.36	41.84	1160	41.34	41.34	40.26
1161	40.33	40.33	38.70	1162	39.32	39.32	37.18
1163	38.29	38.29	35.65	1164	34.28	34.28	29.61
1165	29.67	29.67	22.75	1166	25.12	25.12	16.09
1167	20.30	20.30	9.09	1168	16.25	16.25	3.33
1169	14.96	14.96	1.69	1170	14.27	14.27	0.94
1171	13.77	13.77	0.48	1172	13.18	13.18	0.00
1173	12.59	12.59	0.00	1174	12.19	12.19	0.00
1175	11.79	11.79	0.00	1176	11.40	11.40	0.00
1177	10.80	10.80	0.00	1178	10.31	10.31	0.00

1179	9.71	9.71	0.00	1180	9.61	9.61	0.00
1181	9.41	9.41	0.00	1182	9.32	9.32	0.00
1183	9.22	9.22	0.00	1184	9.02	9.02	0.00
1185	8.92	8.92	0.00	1186	8.72	8.72	0.00
1187	8.52	8.52	0.00	1188	8.52	8.52	0.00
1189	8.23	8.23	0.00	1190	7.93	7.93	0.00
1191	7.63	7.63	0.00	1192	7.53	7.53	0.00
1193	7.23	7.23	0.00	1194	7.14	7.14	0.00
1195	6.94	6.94	0.00	1196	6.84	6.84	0.00
1197	6.74	6.74	0.00	1198	6.54	6.54	0.00

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1199	6.44	6.44	0.00	1200	6.24	6.24	0.00
1201	6.14	6.14	0.00	1202	6.05	6.05	0.00
1203	5.85	5.85	0.00	1204	5.85	5.85	0.00
1205	5.85	5.85	0.00	1206	5.85	5.85	0.00
1207	5.85	5.85	0.00	1208	5.85	5.85	0.00
1209	5.85	5.85	0.00	1210	5.85	5.85	0.00
1211	5.85	5.85	0.00	1212	5.85	5.85	0.00
1213	5.85	5.85	0.00	1214	5.85	5.85	0.00
1215	5.85	5.85	0.00	1216	5.85	5.85	0.00
1217	5.85	5.85	0.00	1218	5.85	5.85	0.00
1219	5.85	5.85	0.00	1220	5.85	5.85	0.00
1221	5.85	5.85	0.00	1222	5.85	5.85	0.00
1223	5.85	5.85	0.00	1224	5.85	5.85	0.00
1225	5.75	5.75	0.00	1226	5.55	5.55	0.00
1227	5.35	5.35	0.00	1228	5.15	5.15	0.00
1229	4.96	4.96	0.00	1230	4.76	4.76	0.00
1231	4.56	4.56	0.00	1232	4.36	4.36	0.00
1233	4.26	4.26	0.00	1234	4.06	4.06	0.00
1235	3.86	3.86	0.00	1236	3.67	3.67	0.00
1237	3.47	3.47	0.00	1238	3.37	3.37	0.00
1239	3.17	3.17	0.00	1240	3.07	3.07	0.00
1241	3.17	3.17	0.00	1242	3.17	3.17	0.00
1243	3.17	3.17	0.00	1244	3.17	3.17	0.00
1245	3.17	3.17	0.00	1246	3.17	3.17	0.00
1247	3.17	3.17	0.00	1248	3.07	3.07	0.00
1249	3.17	3.17	0.00	1250	3.17	3.17	0.00
1251	3.17	3.17	0.00	1252	3.17	3.17	0.00
1253	3.17	3.17	0.00	1254	3.17	3.17	0.00
1255	3.17	3.17	0.00	1256	3.07	3.07	0.00
1257	3.17	3.17	0.00	1258	3.17	3.17	0.00
1259	3.17	3.17	0.00	1260	3.17	3.17	0.00

1261	3.17	3.17	0.00	1262	3.17	3.17	0.00
1263	3.17	3.17	0.00	1264	3.07	3.07	0.00
1265	3.17	3.17	0.00	1266	3.17	3.17	0.00
1267	3.17	3.17	0.00	1268	3.17	3.17	0.00
1269	3.17	3.17	0.00	1270	3.17	3.17	0.00
1271	3.17	3.17	0.00	1272	3.07	3.07	0.00
1273	3.17	3.17	0.00	1274	3.17	3.17	0.00
1275	3.17	3.17	0.00	1276	3.17	3.17	0.00
1277	3.17	3.17	0.00	1278	3.17	3.17	0.00
1279	3.17	3.17	0.00	1280	3.07	3.07	0.00
1281	3.17	3.17	0.00	1282	3.17	3.17	0.00
1283	3.17	3.17	0.00	1284	3.17	3.17	0.00
1285	3.17	3.17	0.00	1286	3.17	3.17	0.00
1287	3.17	3.17	0.00	1288	3.07	3.07	0.00
1289	3.17	3.17	0.00	1290	3.17	3.17	0.00
1291	3.17	3.17	0.00	1292	3.17	3.17	0.00
1293	3.17	3.17	0.00	1294	3.17	3.17	0.00
1295	3.17	3.17	0.00	1296	3.07	3.07	0.00
1297	3.07	3.07	0.00	1298	2.97	2.97	0.00
1299	2.87	2.87	0.00	1300	2.77	2.77	0.00
1310	1.98	1.98	0.00	1320	1.83	1.83	0.00
1330	1.78	1.78	0.00	1340	1.78	1.78	0.00
1350	1.88	1.88	0.00	1360	1.83	1.83	0.00
1370	1.78	1.78	0.00	1380	1.78	1.78	0.00
1390	1.88	1.88	0.00	1400	1.83	1.83	0.00
1420	1.78	1.78	0.00	1440	1.86	1.86	0.09
1460	0.00	0.00	0.00	1500	0.00	0.00	0.00

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 43 cfs
TIME OF PEAK: 1155 minutes
HYDROGRAPH VOLUME: 4.21 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	1.75	200	1.63	300	1.60	400	1.55
500	1.45	600	1.66	700	2.51	800	2.18	900	2.56
1000	2.87	1050	3.24	1100	2.26	1110	4.35	1120	6.72
1130	6.54	1131	6.64	1132	6.74	1133	6.69	1134	6.78

1135	6.73	1136	6.77	1137	6.67	1138	6.70	1139	6.59
1140	6.62	1141	6.78	1142	6.95	1143	7.11	1144	7.26
1145	8.38	1146	9.39	1147	10.42	1148	11.65	1149	17.51
1150	23.63	1151	29.45	1152	35.54	1153	41.63	1154	43.08
1155	43.26	1156	42.89	1157	42.72	1158	42.36	1159	41.84
1160	40.26	1161	38.70	1162	37.18	1163	35.65	1164	29.61
1165	22.75	1166	16.09	1167	9.09	1168	3.33	1169	1.69
1170	0.94	1171	0.48	1172	0.00	1173	0.00	1174	0.00
1175	0.00	1176	0.00	1177	0.00	1178	0.00	1179	0.00
1180	0.00	1181	0.00	1182	0.00	1183	0.00	1184	0.00
1185	0.00	1186	0.00	1187	0.00	1188	0.00	1189	0.00
1190	0.00	1191	0.00	1192	0.00	1193	0.00	1194	0.00
1195	0.00	1196	0.00	1197	0.00	1198	0.00	1199	0.00
1200	0.00	1201	0.00	1202	0.00	1203	0.00	1204	0.00
1205	0.00	1206	0.00	1207	0.00	1208	0.00	1209	0.00
1210	0.00	1211	0.00	1212	0.00	1213	0.00	1214	0.00
1215	0.00	1216	0.00	1217	0.00	1218	0.00	1219	0.00
1220	0.00	1221	0.00	1222	0.00	1223	0.00	1224	0.00
1225	0.00	1226	0.00	1227	0.00	1228	0.00	1229	0.00
1230	0.00	1231	0.00	1232	0.00	1233	0.00	1234	0.00
1235	0.00	1236	0.00	1237	0.00	1238	0.00	1239	0.00
1240	0.00	1241	0.00	1242	0.00	1243	0.00	1244	0.00
1245	0.00	1246	0.00	1247	0.00	1248	0.00	1249	0.00
1250	0.00	1251	0.00	1252	0.00	1253	0.00	1254	0.00
1255	0.00	1256	0.00	1257	0.00	1258	0.00	1259	0.00
1260	0.00	1261	0.00	1262	0.00	1263	0.00	1264	0.00
1265	0.00	1266	0.00	1267	0.00	1268	0.00	1269	0.00
1270	0.00	1271	0.00	1272	0.00	1273	0.00	1274	0.00
1275	0.00	1276	0.00	1277	0.00	1278	0.00	1279	0.00
1280	0.00	1281	0.00	1282	0.00	1283	0.00	1284	0.00
1285	0.00	1286	0.00	1287	0.00	1288	0.00	1289	0.00
1290	0.00	1291	0.00	1292	0.00	1293	0.00	1294	0.00
1295	0.00	1296	0.00	1297	0.00	1298	0.00	1299	0.00
1300	0.00	1310	0.00	1320	0.00	1330	0.00	1340	0.00
1350	0.00	1360	0.00	1370	0.00	1380	0.00	1390	0.00
1400	0.00	1420	0.00	1440	0.09	1460	0.00	1500	0.00

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
```

```
006     1  002A 050079003315A97                          1
110
111            1.00000    1.53
110
006     1  003A 010      099A97                          1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Subarea A Q50

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Subarea A Q50

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A50	10	79	33	73	33	73	1154	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 72.51 VOLUME (acre-ft): 10.56 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 2.83 TOTAL RAIN(in): 5.80 SCS Curve: 72 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 72.51 VOLUME (acre-ft): 7.79 *																	
2A	---	---	--	--	---	---	33	73	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	73	1154	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
Warning	Err1260	FATTENING	2A	Fattening reduced the volume of the hydrograph. It is recommended to remove fattening from the model.

HYDROGRAPH FATTENED AT 2A

```
**********************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):     72.51         VOLUME (acre-ft):     10.56      *
*      NO HYDROGRAPH ADJUSTMENT                                                              *
*      RUNOFF FACTOR(in):   2.83      TOTAL RAIN(in):   5.80      SCS Curve: 72           *
*      FATTENED HYDROGRAPH  PEAK (cfs):     72.51         VOLUME (acre-ft):      7.79      *
**********************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.51	2.51	2.46
200	2.51	2.51	2.39	300	2.50	2.50	2.35
400	2.51	2.51	2.33	500	2.51	2.51	2.28
600	2.93	2.93	2.61	700	4.27	4.27	3.84
800	4.27	4.27	3.63	900	5.54	5.54	4.51
1000	7.79	7.79	5.83	1050	10.17	10.17	7.22
1100	13.08	13.08	8.07	1110	18.43	18.43	13.19
1120	21.93	21.93	16.23	1130	22.83	22.83	16.23
1131	23.20	23.20	16.53	1132	23.56	23.56	16.83
1133	23.92	23.92	17.12	1134	24.10	24.10	17.20
1135	24.46	24.46	17.49	1136	24.82	24.82	17.78
1137	25.18	25.18	18.07	1138	25.37	25.37	18.15
1139	25.73	25.73	18.43	1140	26.08	26.08	18.70
1141	26.25	26.25	18.76	1142	26.60	26.60	19.02
1143	26.95	26.95	19.28	1144	27.30	27.30	19.54
1145	29.03	29.03	21.42	1146	30.60	30.60	23.11
1147	32.33	32.33	25.01	1148	34.22	34.22	27.10
1149	41.74	41.74	35.90	1150	49.33	49.33	44.84
1151	56.74	56.74	53.62	1152	63.92	63.92	62.19
1153	71.15	71.15	70.87	1154	72.51	72.51	72.51
1155	71.15	71.15	70.87	1156	69.62	69.62	69.04
1157	67.76	67.76	66.82	1158	66.09	66.09	64.85
1159	58.41	58.41	55.72	1160	50.35	50.35	46.20
1161	42.41	42.41	36.90	1162	34.22	34.22	27.33
1163	26.08	26.08	17.88	1164	23.92	23.92	15.50
1165	22.11	22.11	13.54	1166	20.66	20.66	12.01
1167	19.62	19.62	10.95	1168	18.43	18.43	9.73
1169	17.54	17.54	8.85	1170	16.80	16.80	8.14
1171	15.91	15.91	7.26	1172	15.16	15.16	6.55
1173	14.27	14.27	5.68	1174	13.53	13.53	4.97
1175	13.53	13.53	5.11	1176	13.53	13.53	5.25
1177	13.08	13.08	4.88	1178	12.78	12.78	4.67

1179	12.49	12.49	4.47	1180	12.19	12.19	4.26
1181	12.04	12.04	4.21	1182	11.74	11.74	4.00
1183	11.45	11.45	3.79	1184	11.15	11.15	3.57
1185	10.85	10.85	3.35	1186	10.55	10.55	3.13
1187	10.55	10.55	3.24	1188	10.70	10.70	3.52
1189	10.41	10.41	3.29	1190	10.11	10.11	3.06
1191	9.66	9.66	2.67	1192	9.51	9.51	2.60
1193	9.22	9.22	2.37	1194	8.92	8.92	2.14
1195	8.62	8.62	1.91	1196	8.47	8.47	1.83
1197	8.18	8.18	1.60	1198	7.73	7.73	1.20

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1199	7.73	7.73	1.28	1200	7.73	7.73	1.37
1201	7.88	7.88	1.62	1202	7.73	7.73	1.54
1203	7.73	7.73	1.62	1204	7.73	7.73	1.70
1205	7.88	7.88	1.94	1206	7.73	7.73	1.85
1207	7.73	7.73	1.93	1208	7.73	7.73	2.00
1209	7.88	7.88	2.23	1210	7.88	7.88	2.30
1211	7.73	7.73	2.21	1212	7.73	7.73	2.28
1213	7.88	7.88	2.51	1214	7.88	7.88	2.57
1215	7.73	7.73	2.47	1216	7.73	7.73	2.54
1217	7.88	7.88	2.76	1218	7.88	7.88	2.82
1219	7.73	7.73	2.72	1220	7.73	7.73	2.78
1221	7.73	7.73	2.83	1222	7.88	7.88	3.05
1223	7.73	7.73	2.94	1224	7.73	7.73	3.00
1225	7.43	7.43	2.73	1226	7.14	7.14	2.47
1227	6.69	6.69	2.04	1228	6.39	6.39	1.77
1229	6.09	6.09	1.51	1230	5.65	5.65	1.08
1231	5.35	5.35	0.81	1232	4.91	4.91	0.39
1233	4.61	4.61	0.12	1234	4.31	4.31	0.00
1235	4.31	4.31	0.00	1236	4.31	4.31	0.00
1237	4.31	4.31	0.00	1238	4.16	4.16	0.00
1239	4.16	4.16	0.00	1240	4.31	4.31	0.12
1241	4.31	4.31	0.16	1242	4.31	4.31	0.20
1243	4.31	4.31	0.24	1244	4.31	4.31	0.28
1245	4.31	4.31	0.32	1246	4.16	4.16	0.21
1247	4.16	4.16	0.24	1248	4.31	4.31	0.44
1249	4.31	4.31	0.48	1250	4.31	4.31	0.51
1251	4.31	4.31	0.55	1252	4.31	4.31	0.59
1253	4.16	4.16	0.46	1254	4.16	4.16	0.50
1255	4.16	4.16	0.53	1256	4.31	4.31	0.72
1257	4.31	4.31	0.76	1258	4.31	4.31	0.79
1259	4.31	4.31	0.82	1260	4.31	4.31	0.85

1261	4.16	4.16	0.73	1262	4.16	4.16	0.76
1263	4.31	4.31	0.95	1264	4.31	4.31	0.98
1265	4.31	4.31	1.01	1266	4.31	4.31	1.04
1267	4.31	4.31	1.06	1268	4.31	4.31	1.09
1269	4.16	4.16	0.96	1270	4.16	4.16	0.99
1271	4.31	4.31	1.18	1272	4.31	4.31	1.20
1273	4.31	4.31	1.23	1274	4.31	4.31	1.25
1275	4.31	4.31	1.28	1276	4.31	4.31	1.31
1277	4.16	4.16	1.18	1278	4.16	4.16	1.20
1279	4.31	4.31	1.38	1280	4.31	4.31	1.40
1281	4.31	4.31	1.43	1282	4.31	4.31	1.45
1283	4.31	4.31	1.47	1284	4.31	4.31	1.50
1285	4.16	4.16	1.37	1286	4.16	4.16	1.39
1287	4.31	4.31	1.56	1288	4.31	4.31	1.59
1289	4.31	4.31	1.61	1290	4.31	4.31	1.63
1291	4.31	4.31	1.65	1292	4.31	4.31	1.67
1293	4.16	4.16	1.54	1294	4.16	4.16	1.56
1295	4.31	4.31	1.73	1296	4.31	4.31	1.75
1297	4.16	4.16	1.62	1298	3.86	3.86	1.33
1299	3.72	3.72	1.19	1300	3.57	3.57	1.06
1310	2.53	2.53	0.16	1320	2.53	2.53	0.32
1330	2.38	2.38	0.31	1340	2.53	2.53	0.59
1350	2.53	2.53	0.71	1360	2.53	2.53	0.81
1370	2.53	2.53	0.91	1380	2.53	2.53	1.00
1390	2.53	2.53	1.08	1400	2.53	2.53	1.15
1420	2.45	2.45	1.20	1440	2.53	2.53	1.39
1460	0.00	0.00	0.00	1500	0.00	0.00	0.00

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 73 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 7.79 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	2.46	200	2.39	300	2.35	400	2.33
500	2.28	600	2.61	700	3.84	800	3.63	900	4.51
1000	5.83	1050	7.22	1100	8.07	1110	13.19	1120	16.23
1130	16.23	1131	16.53	1132	16.83	1133	17.12	1134	17.20

1135	17.49	1136	17.78	1137	18.07	1138	18.15	1139	18.43
1140	18.70	1141	18.76	1142	19.02	1143	19.28	1144	19.54
1145	21.42	1146	23.11	1147	25.01	1148	27.10	1149	35.90
1150	44.84	1151	53.62	1152	62.19	1153	70.87	1154	72.51
1155	70.87	1156	69.04	1157	66.82	1158	64.85	1159	55.72
1160	46.20	1161	36.90	1162	27.33	1163	17.88	1164	15.50
1165	13.54	1166	12.01	1167	10.95	1168	9.73	1169	8.85
1170	8.14	1171	7.26	1172	6.55	1173	5.68	1174	4.97
1175	5.11	1176	5.25	1177	4.88	1178	4.67	1179	4.47
1180	4.26	1181	4.21	1182	4.00	1183	3.79	1184	3.57
1185	3.35	1186	3.13	1187	3.24	1188	3.52	1189	3.29
1190	3.06	1191	2.67	1192	2.60	1193	2.37	1194	2.14
1195	1.91	1196	1.83	1197	1.60	1198	1.20	1199	1.28
1200	1.37	1201	1.62	1202	1.54	1203	1.62	1204	1.70
1205	1.94	1206	1.85	1207	1.93	1208	2.00	1209	2.23
1210	2.30	1211	2.21	1212	2.28	1213	2.51	1214	2.57
1215	2.47	1216	2.54	1217	2.76	1218	2.82	1219	2.72
1220	2.78	1221	2.83	1222	3.05	1223	2.94	1224	3.00
1225	2.73	1226	2.47	1227	2.04	1228	1.77	1229	1.51
1230	1.08	1231	0.81	1232	0.39	1233	0.12	1234	0.00
1235	0.00	1236	0.00	1237	0.00	1238	0.00	1239	0.00
1240	0.12	1241	0.16	1242	0.20	1243	0.24	1244	0.28
1245	0.32	1246	0.21	1247	0.24	1248	0.44	1249	0.48
1250	0.51	1251	0.55	1252	0.59	1253	0.46	1254	0.50
1255	0.53	1256	0.72	1257	0.76	1258	0.79	1259	0.82
1260	0.85	1261	0.73	1262	0.76	1263	0.95	1264	0.98
1265	1.01	1266	1.04	1267	1.06	1268	1.09	1269	0.96
1270	0.99	1271	1.18	1272	1.20	1273	1.23	1274	1.25
1275	1.28	1276	1.31	1277	1.18	1278	1.20	1279	1.38
1280	1.40	1281	1.43	1282	1.45	1283	1.47	1284	1.50
1285	1.37	1286	1.39	1287	1.56	1288	1.59	1289	1.61
1290	1.63	1291	1.65	1292	1.67	1293	1.54	1294	1.56
1295	1.73	1296	1.75	1297	1.62	1298	1.33	1299	1.19
1300	1.06	1310	0.16	1320	0.32	1330	0.31	1340	0.59
1350	0.71	1360	0.81	1370	0.91	1380	1.00	1390	1.08
1400	1.15	1420	1.20	1440	1.39	1460	0.00	1500	0.00

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
```

```
006     1  002A 050079003310A97                          1
110
111            1.00000    2.83
110
006     1  003A 010      099A97                          1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 1 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 1 - Q100

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	10	79	33	81	33	81	1154	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 80.67 VOLUME (acre-ft): 11.73 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 3.34 TOTAL RAIN(in): 6.30 SCS Curve: 73 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 80.67 VOLUME (acre-ft): 9.20 *																	
2A	---	---	--	--	---	---	33	81	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	81	1154	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
Warning	Err1260	FATTENING	2A	Fattening reduced the volume of the hydrograph. It is recommended to remove fattening from the model.

HYDROGRAPH FATTENED AT 2A

INCOMING HYDROGRAPH PEAK (cfs):	80.67	VOLUME (acre-ft):	11.73
NO HYDROGRAPH ADJUSTMENT			
RUNOFF FACTOR(in): 3.34	TOTAL RAIN(in): 6.30	SCS Curve: 73	
FATTENED HYDROGRAPH PEAK (cfs):	80.67	VOLUME (acre-ft):	9.20

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.79	2.79	2.75
200	2.79	2.79	2.68	300	2.79	2.79	2.66
400	2.79	2.79	2.62	500	2.79	2.79	2.58
600	3.26	3.26	2.97	700	4.73	4.73	4.33
800	4.73	4.73	4.14	900	6.14	6.14	5.19
1000	8.59	8.59	6.79	1050	11.24	11.24	8.53
1100	14.42	14.42	9.83	1110	20.48	20.48	15.69
1120	24.82	24.82	19.66	1130	25.91	25.91	19.95
1131	26.13	26.13	20.10	1132	26.53	26.53	20.44
1133	26.76	26.76	20.59	1134	27.16	27.16	20.92
1135	27.38	27.38	21.07	1136	27.78	27.78	21.40
1137	28.01	28.01	21.54	1138	28.23	28.23	21.67
1139	28.63	28.63	22.00	1140	28.86	28.86	22.13
1141	29.38	29.38	22.60	1142	29.73	29.73	22.86
1143	30.08	30.08	23.13	1144	30.42	30.42	23.39
1145	32.33	32.33	25.43	1146	34.22	34.22	27.46
1147	36.28	36.28	29.69	1148	38.18	38.18	31.74
1149	46.64	46.64	41.37	1150	55.07	55.07	51.03
1151	62.92	62.92	60.06	1152	70.98	70.98	69.39
1153	79.14	79.14	78.88	1154	80.67	80.67	80.67
1155	79.14	79.14	78.88	1156	77.27	77.27	76.71
1157	75.23	75.23	74.35	1158	73.53	73.53	72.40
1159	64.59	64.59	62.09	1160	55.91	55.91	52.13
1161	47.14	47.14	42.13	1162	38.18	38.18	31.94
1163	29.38	29.38	22.00	1164	26.95	26.95	19.36
1165	25.18	25.18	17.49	1166	23.56	23.56	15.78
1167	22.11	22.11	14.27	1168	20.48	20.48	12.57
1169	19.47	19.47	11.57	1170	18.43	18.43	10.53
1171	17.54	17.54	9.66	1172	16.65	16.65	8.80
1173	15.61	15.61	7.76	1174	14.72	14.72	6.89
1175	14.72	14.72	7.02	1176	14.72	14.72	7.15
1177	14.42	14.42	6.94	1178	14.12	14.12	6.73

1179	13.82	13.82	6.52	1180	13.68	13.68	6.47
1181	13.38	13.38	6.25	1182	12.93	12.93	5.87
1183	12.64	12.64	5.65	1184	12.34	12.34	5.43
1185	12.04	12.04	5.20	1186	11.74	11.74	4.98
1187	11.74	11.74	5.08	1188	11.74	11.74	5.18
1189	11.45	11.45	4.95	1190	11.00	11.00	4.55
1191	10.70	10.70	4.32	1192	10.55	10.55	4.25
1193	10.26	10.26	4.01	1194	9.96	9.96	3.78
1195	9.51	9.51	3.38	1196	9.22	9.22	3.14
1197	8.92	8.92	2.90	1198	8.62	8.62	2.66

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1199	8.47	8.47	2.58	1200	8.62	8.62	2.82
1201	8.62	8.62	2.90	1202	8.62	8.62	2.97
1203	8.62	8.62	3.04	1204	8.47	8.47	2.96
1205	8.62	8.62	3.19	1206	8.62	8.62	3.26
1207	8.62	8.62	3.32	1208	8.62	8.62	3.39
1209	8.62	8.62	3.45	1210	8.62	8.62	3.52
1211	8.62	8.62	3.58	1212	8.62	8.62	3.64
1213	8.62	8.62	3.70	1214	8.62	8.62	3.76
1215	8.62	8.62	3.82	1216	8.62	8.62	3.88
1217	8.62	8.62	3.93	1218	8.47	8.47	3.83
1219	8.62	8.62	4.04	1220	8.62	8.62	4.09
1221	8.62	8.62	4.15	1222	8.62	8.62	4.20
1223	8.47	8.47	4.09	1224	8.62	8.62	4.30
1225	8.18	8.18	3.87	1226	7.88	7.88	3.60
1227	7.43	7.43	3.18	1228	7.14	7.14	2.91
1229	6.69	6.69	2.49	1230	6.24	6.24	2.06
1231	5.80	5.80	1.64	1232	5.50	5.50	1.37
1233	5.20	5.20	1.10	1234	4.76	4.76	0.67
1235	4.76	4.76	0.71	1236	4.61	4.61	0.60
1237	4.76	4.76	0.80	1238	4.76	4.76	0.84
1239	4.76	4.76	0.88	1240	4.76	4.76	0.92
1241	4.76	4.76	0.95	1242	4.61	4.61	0.84
1243	4.76	4.76	1.03	1244	4.76	4.76	1.07
1245	4.76	4.76	1.10	1246	4.76	4.76	1.14
1247	4.61	4.61	1.02	1248	4.76	4.76	1.21
1249	4.76	4.76	1.24	1250	4.76	4.76	1.28
1251	4.76	4.76	1.31	1252	4.76	4.76	1.34
1253	4.76	4.76	1.38	1254	4.76	4.76	1.41
1255	4.76	4.76	1.44	1256	4.76	4.76	1.47
1257	4.76	4.76	1.50	1258	4.61	4.61	1.37
1259	4.76	4.76	1.56	1260	4.76	4.76	1.59

1261	4.76	4.76	1.62	1262	4.76	4.76	1.64
1263	4.61	4.61	1.52	1264	4.76	4.76	1.70
1265	4.76	4.76	1.73	1266	4.76	4.76	1.75
1267	4.76	4.76	1.78	1268	4.76	4.76	1.81
1269	4.61	4.61	1.68	1270	4.76	4.76	1.86
1271	4.76	4.76	1.88	1272	4.76	4.76	1.91
1273	4.76	4.76	1.93	1274	4.61	4.61	1.80
1275	4.76	4.76	1.98	1276	4.76	4.76	2.00
1277	4.76	4.76	2.02	1278	4.76	4.76	2.05
1279	4.76	4.76	2.07	1280	4.61	4.61	1.94
1281	4.76	4.76	2.11	1282	4.76	4.76	2.13
1283	4.76	4.76	2.15	1284	4.76	4.76	2.18
1285	4.61	4.61	2.04	1286	4.76	4.76	2.22
1287	4.76	4.76	2.24	1288	4.76	4.76	2.26
1289	4.76	4.76	2.28	1290	4.76	4.76	2.30
1291	4.61	4.61	2.16	1292	4.76	4.76	2.33
1293	4.76	4.76	2.35	1294	4.76	4.76	2.37
1295	4.76	4.76	2.39	1296	4.61	4.61	2.25
1297	4.46	4.46	2.12	1298	4.31	4.31	1.98
1299	4.16	4.16	1.85	1300	4.01	4.01	1.71
1310	2.82	2.82	0.65	1320	2.68	2.68	0.64
1330	2.82	2.82	0.93	1340	2.82	2.82	1.05
1350	2.82	2.82	1.15	1360	2.82	2.82	1.25
1370	2.68	2.68	1.19	1380	2.82	2.82	1.42
1390	2.82	2.82	1.49	1400	2.82	2.82	1.56
1420	2.75	2.75	1.60	1440	2.82	2.82	1.78
1460	0.00	0.00	0.00	1500	0.00	0.00	0.00

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 81 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 9.20 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	2.75	200	2.68	300	2.66	400	2.62
500	2.58	600	2.97	700	4.33	800	4.14	900	5.19
1000	6.79	1050	8.53	1100	9.83	1110	15.69	1120	19.66
1130	19.95	1131	20.10	1132	20.44	1133	20.59	1134	20.92

1135	21.07	1136	21.40	1137	21.54	1138	21.67	1139	22.00
1140	22.13	1141	22.60	1142	22.86	1143	23.13	1144	23.39
1145	25.43	1146	27.46	1147	29.69	1148	31.74	1149	41.37
1150	51.03	1151	60.06	1152	69.39	1153	78.88	1154	80.67
1155	78.88	1156	76.71	1157	74.35	1158	72.40	1159	62.09
1160	52.13	1161	42.13	1162	31.94	1163	22.00	1164	19.36
1165	17.49	1166	15.78	1167	14.27	1168	12.57	1169	11.57
1170	10.53	1171	9.66	1172	8.80	1173	7.76	1174	6.89
1175	7.02	1176	7.15	1177	6.94	1178	6.73	1179	6.52
1180	6.47	1181	6.25	1182	5.87	1183	5.65	1184	5.43
1185	5.20	1186	4.98	1187	5.08	1188	5.18	1189	4.95
1190	4.55	1191	4.32	1192	4.25	1193	4.01	1194	3.78
1195	3.38	1196	3.14	1197	2.90	1198	2.66	1199	2.58
1200	2.82	1201	2.90	1202	2.97	1203	3.04	1204	2.96
1205	3.19	1206	3.26	1207	3.32	1208	3.39	1209	3.45
1210	3.52	1211	3.58	1212	3.64	1213	3.70	1214	3.76
1215	3.82	1216	3.88	1217	3.93	1218	3.83	1219	4.04
1220	4.09	1221	4.15	1222	4.20	1223	4.09	1224	4.30
1225	3.87	1226	3.60	1227	3.18	1228	2.91	1229	2.49
1230	2.06	1231	1.64	1232	1.37	1233	1.10	1234	0.67
1235	0.71	1236	0.60	1237	0.80	1238	0.84	1239	0.88
1240	0.92	1241	0.95	1242	0.84	1243	1.03	1244	1.07
1245	1.10	1246	1.14	1247	1.02	1248	1.21	1249	1.24
1250	1.28	1251	1.31	1252	1.34	1253	1.38	1254	1.41
1255	1.44	1256	1.47	1257	1.50	1258	1.37	1259	1.56
1260	1.59	1261	1.62	1262	1.64	1263	1.52	1264	1.70
1265	1.73	1266	1.75	1267	1.78	1268	1.81	1269	1.68
1270	1.86	1271	1.88	1272	1.91	1273	1.93	1274	1.80
1275	1.98	1276	2.00	1277	2.02	1278	2.05	1279	2.07
1280	1.94	1281	2.11	1282	2.13	1283	2.15	1284	2.18
1285	2.04	1286	2.22	1287	2.24	1288	2.26	1289	2.28
1290	2.30	1291	2.16	1292	2.33	1293	2.35	1294	2.37
1295	2.39	1296	2.25	1297	2.12	1298	1.98	1299	1.85
1300	1.71	1310	0.65	1320	0.64	1330	0.93	1340	1.05
1350	1.15	1360	1.25	1370	1.19	1380	1.42	1390	1.49
1400	1.56	1420	1.60	1440	1.78	1460	0.00	1500	0.00

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
```

```
006     1  002A 050079003310A97                          1
110
111            1.00000    3.34
110
006     1  003A 010      099A97                          1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 2 Q10

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 2 Q10

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A10	12	41	65	68	65	68	1154	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 68.15 VOLUME (acre-ft): 8.32 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 2.05 TOTAL RAIN(in): 4.30 SCS Curve: 77 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 68.15 VOLUME (acre-ft): 11.11 *																	
2A	---	---	--	--	---	---	65	68	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	65	68	1154	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH FATTENED AT 2

```
*******************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):     68.15         VOLUME (acre-ft):      8.32      *
*      NO HYDROGRAPH ADJUSTMENT                                                            *
*      RUNOFF FACTOR(in):   2.05      TOTAL RAIN(in):   4.30      SCS Curve: 77           *
*      FATTENED HYDROGRAPH  PEAK (cfs):     68.15         VOLUME (acre-ft):     11.11      *
*******************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	1.87	1.87	1.92
200	1.86	1.86	1.98	300	1.87	1.87	2.02
400	1.87	1.87	2.06	500	1.86	1.86	2.10
600	2.19	2.19	2.51	700	3.24	3.24	3.68
800	3.23	3.23	3.88	900	4.23	4.23	5.29
1000	5.98	5.98	7.97	1050	7.88	7.88	10.85
1100	10.14	10.14	15.06	1110	13.48	13.48	18.76
1120	16.18	16.18	21.93	1130	16.97	16.97	23.52
1131	17.24	17.24	23.85	1132	17.50	17.50	24.19
1133	17.60	17.60	24.38	1134	17.83	17.83	24.68
1135	17.93	17.93	24.88	1136	18.16	18.16	25.18
1137	18.26	18.26	25.38	1138	18.49	18.49	25.69
1139	18.59	18.59	25.89	1140	18.82	18.82	26.21
1141	19.18	19.18	26.63	1142	19.53	19.53	27.05
1143	19.66	19.66	27.29	1144	19.79	19.79	27.52
1145	21.39	21.39	29.00	1146	23.32	23.32	30.73
1147	25.52	25.52	32.69	1148	27.45	27.45	34.41
1149	36.15	36.15	41.72	1150	44.29	44.29	48.52
1151	52.27	52.27	55.14	1152	59.59	59.59	61.16
1153	66.84	66.84	67.09	1154	68.15	68.15	68.15
1155	68.15	68.15	68.15	1156	67.72	67.72	67.80
1157	66.19	66.19	66.54	1158	64.44	64.44	65.10
1159	62.46	62.46	63.45	1160	60.47	60.47	61.79
1161	52.74	52.74	55.35	1162	44.29	44.29	48.26
1163	35.91	35.91	41.19	1164	26.90	26.90	33.55
1165	18.26	18.26	26.18	1166	16.61	16.61	24.66
1167	15.60	15.60	23.68	1168	14.97	14.97	23.02
1169	14.20	14.20	22.25	1170	13.57	13.57	21.59
1171	13.06	13.06	21.03	1172	12.56	12.56	20.48
1173	11.92	11.92	19.82	1174	11.41	11.41	19.26
1175	10.91	10.91	18.71	1176	10.40	10.40	18.16
1177	10.15	10.15	17.83	1178	10.02	10.02	17.61
1179	9.89	9.89	17.39	1180	9.77	9.77	17.17

1181	9.51	9.51	16.85	1182	9.26	9.26	16.52
1183	9.13	9.13	16.31	1184	8.88	8.88	15.99
1185	8.88	8.88	15.90	1186	8.62	8.62	15.58
1187	8.37	8.37	15.26	1188	8.24	8.24	15.06
1189	8.12	8.12	14.85	1190	7.86	7.86	14.54
1191	7.74	7.74	14.34	1192	7.48	7.48	14.03
1193	7.23	7.23	13.72	1194	7.10	7.10	13.52
1195	6.85	6.85	13.22	1196	6.72	6.72	13.02
1197	6.47	6.47	12.72	1198	6.34	6.34	12.52
1199	6.21	6.21	12.33	1200	5.96	5.96	12.03

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	5.96	5.96	11.96	1202	5.96	5.96	11.88
1203	5.96	5.96	11.81	1204	5.96	5.96	11.74
1205	6.09	6.09	11.79	1206	6.09	6.09	11.72
1207	6.09	6.09	11.66	1208	5.96	5.96	11.48
1209	5.96	5.96	11.41	1210	5.96	5.96	11.35
1211	5.96	5.96	11.29	1212	5.96	5.96	11.23
1213	5.96	5.96	11.17	1214	5.96	5.96	11.11
1215	5.96	5.96	11.05	1216	5.96	5.96	11.00
1217	5.96	5.96	10.94	1218	5.96	5.96	10.89
1219	5.96	5.96	10.84	1220	6.09	6.09	10.90
1221	6.09	6.09	10.85	1222	6.09	6.09	10.80
1223	5.96	5.96	10.63	1224	5.96	5.96	10.58
1225	5.83	5.83	10.42	1226	5.58	5.58	10.13
1227	5.33	5.33	9.85	1228	5.07	5.07	9.57
1229	4.82	4.82	9.29	1230	4.57	4.57	9.01
1231	4.31	4.31	8.72	1232	4.06	4.06	8.44
1233	3.93	3.93	8.28	1234	3.68	3.68	8.00
1235	3.55	3.55	7.84	1236	3.30	3.30	7.56
1237	3.17	3.17	7.40	1238	3.17	3.17	7.36
1239	3.17	3.17	7.32	1240	3.17	3.17	7.28
1241	3.30	3.30	7.36	1242	3.30	3.30	7.32
1243	3.30	3.30	7.28	1244	3.30	3.30	7.24
1245	3.17	3.17	7.09	1246	3.17	3.17	7.05
1247	3.17	3.17	7.02	1248	3.17	3.17	6.98
1249	3.30	3.30	7.07	1250	3.30	3.30	7.03
1251	3.30	3.30	7.00	1252	3.30	3.30	6.96
1253	3.17	3.17	6.81	1254	3.17	3.17	6.78
1255	3.17	3.17	6.75	1256	3.17	3.17	6.71
1257	3.30	3.30	6.80	1258	3.30	3.30	6.77
1259	3.30	3.30	6.74	1260	3.30	3.30	6.71
1261	3.17	3.17	6.56	1262	3.17	3.17	6.53

1263	3.17	3.17	6.50	1264	3.17	3.17	6.48
1265	3.30	3.30	6.57	1266	3.30	3.30	6.54
1267	3.30	3.30	6.51	1268	3.30	3.30	6.49
1269	3.17	3.17	6.34	1270	3.17	3.17	6.31
1271	3.17	3.17	6.29	1272	3.17	3.17	6.26
1273	3.30	3.30	6.36	1274	3.30	3.30	6.33
1275	3.30	3.30	6.31	1276	3.30	3.30	6.28
1277	3.17	3.17	6.14	1278	3.17	3.17	6.12
1279	3.17	3.17	6.09	1280	3.17	3.17	6.07
1281	3.30	3.30	6.17	1282	3.30	3.30	6.15
1283	3.30	3.30	6.12	1284	3.30	3.30	6.10
1285	3.17	3.17	5.96	1286	3.17	3.17	5.94
1287	3.17	3.17	5.92	1288	3.17	3.17	5.90
1289	3.30	3.30	6.00	1290	3.30	3.30	5.98
1291	3.30	3.30	5.96	1292	3.30	3.30	5.94
1293	3.17	3.17	5.80	1294	3.17	3.17	5.78
1295	3.17	3.17	5.76	1296	3.17	3.17	5.74
1297	3.17	3.17	5.72	1298	3.04	3.04	5.58
1299	2.92	2.92	5.44	1300	2.79	2.79	5.30
1310	1.90	1.90	4.27	1320	1.85	1.85	4.07
1330	1.83	1.83	3.90	1340	1.83	1.83	3.78
1350	1.95	1.95	3.78	1360	1.85	1.85	3.58
1370	1.83	1.83	3.46	1380	1.83	1.83	3.38
1390	1.95	1.95	3.42	1400	1.85	1.85	3.25
1420	1.83	1.83	3.09	1440	1.90	1.90	3.06
1460	0.00	0.00	1.09	1500	0.00	0.00	0.93

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 65 acres
HYDROGRAPH PEAK: 68 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 11.10 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	1.92	200	1.98	300	2.02	400	2.06
500	2.10	600	2.51	700	3.68	800	3.88	900	5.29
1000	7.97	1050	10.85	1100	15.06	1110	18.76	1120	21.93
1130	23.52	1131	23.85	1132	24.19	1133	24.38	1134	24.68
1135	24.88	1136	25.18	1137	25.38	1138	25.69	1139	25.89

1140	26.21	1141	26.63	1142	27.05	1143	27.29	1144	27.52
1145	29.00	1146	30.73	1147	32.69	1148	34.41	1149	41.72
1150	48.52	1151	55.14	1152	61.16	1153	67.09	1154	68.15
1155	68.15	1156	67.80	1157	66.54	1158	65.10	1159	63.45
1160	61.79	1161	55.35	1162	48.26	1163	41.19	1164	33.55
1165	26.18	1166	24.66	1167	23.68	1168	23.02	1169	22.25
1170	21.59	1171	21.03	1172	20.48	1173	19.82	1174	19.26
1175	18.71	1176	18.16	1177	17.83	1178	17.61	1179	17.39
1180	17.17	1181	16.85	1182	16.52	1183	16.31	1184	15.99
1185	15.90	1186	15.58	1187	15.26	1188	15.06	1189	14.85
1190	14.54	1191	14.34	1192	14.03	1193	13.72	1194	13.52
1195	13.22	1196	13.02	1197	12.72	1198	12.52	1199	12.33
1200	12.03	1201	11.96	1202	11.88	1203	11.81	1204	11.74
1205	11.79	1206	11.72	1207	11.66	1208	11.48	1209	11.41
1210	11.35	1211	11.29	1212	11.23	1213	11.17	1214	11.11
1215	11.05	1216	11.00	1217	10.94	1218	10.89	1219	10.84
1220	10.90	1221	10.85	1222	10.80	1223	10.63	1224	10.58
1225	10.42	1226	10.13	1227	9.85	1228	9.57	1229	9.29
1230	9.01	1231	8.72	1232	8.44	1233	8.28	1234	8.00
1235	7.84	1236	7.56	1237	7.40	1238	7.36	1239	7.32
1240	7.28	1241	7.36	1242	7.32	1243	7.28	1244	7.24
1245	7.09	1246	7.05	1247	7.02	1248	6.98	1249	7.07
1250	7.03	1251	7.00	1252	6.96	1253	6.81	1254	6.78
1255	6.75	1256	6.71	1257	6.80	1258	6.77	1259	6.74
1260	6.71	1261	6.56	1262	6.53	1263	6.50	1264	6.48
1265	6.57	1266	6.54	1267	6.51	1268	6.49	1269	6.34
1270	6.31	1271	6.29	1272	6.26	1273	6.36	1274	6.33
1275	6.31	1276	6.28	1277	6.14	1278	6.12	1279	6.09
1280	6.07	1281	6.17	1282	6.15	1283	6.12	1284	6.10
1285	5.96	1286	5.94	1287	5.92	1288	5.90	1289	6.00
1290	5.98	1291	5.96	1292	5.94	1293	5.80	1294	5.78
1295	5.76	1296	5.74	1297	5.72	1298	5.58	1299	5.44
1300	5.30	1310	4.27	1320	4.07	1330	3.90	1340	3.78
1350	3.78	1360	3.58	1370	3.46	1380	3.38	1390	3.42
1400	3.25	1420	3.09	1440	3.06	1460	1.09	1500	0.93

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050041006512A97                            1
```

```
110
111            1.00000    2.05
110
006     1  003A 010      099A97                            1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 2 Q50

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Phase 2 Q50

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A50	9	41	65	110	65	110	1153	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 110.40 VOLUME (acre-ft): 11.43 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 3.60 TOTAL RAIN(in): 5.80 SCS Curve: 80 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 110.40 VOLUME (acre-ft): 19.50 *																	
2A	---	---	--	--	---	---	65	110	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	65	110	1153	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH FATTENED AT 2

```
**********************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):    110.40         VOLUME (acre-ft):     11.43      *
*      NO HYDROGRAPH ADJUSTMENT                                                              *
*      RUNOFF FACTOR(in):   3.60      TOTAL RAIN(in):   5.80      SCS Curve: 80           *
*      FATTENED HYDROGRAPH  PEAK (cfs):    110.40         VOLUME (acre-ft):     19.50      *
**********************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.57	2.57	2.72
200	2.57	2.57	2.94	300	2.56	2.56	3.00
400	2.57	2.57	3.12	500	2.57	2.57	3.28
600	3.00	3.00	3.94	700	4.37	4.37	5.66
800	4.37	4.37	6.29	900	5.68	5.68	8.78
1000	7.98	7.98	13.80	1050	10.41	10.41	19.11
1100	13.39	13.39	27.77	1110	18.87	18.87	34.24
1120	24.15	24.15	40.67	1130	25.80	25.80	44.43
1131	26.53	26.53	45.27	1132	27.26	27.26	46.12
1133	28.00	28.00	46.96	1134	28.36	28.36	47.52
1135	29.10	29.10	48.37	1136	29.83	29.83	49.21
1137	30.57	30.57	50.06	1138	30.93	30.93	50.63
1139	31.62	31.62	51.45	1140	31.62	31.62	51.76
1141	31.95	31.95	52.31	1142	32.59	32.59	53.10
1143	33.56	33.56	54.13	1144	33.89	33.89	54.69
1145	37.12	37.12	57.37	1146	40.03	40.03	59.78
1147	43.51	43.51	62.58	1148	46.64	46.64	65.12
1149	59.96	59.96	74.81	1150	72.82	72.82	84.07
1151	85.15	85.15	92.83	1152	97.27	97.27	101.33
1153	110.40	110.40	110.40	1154	110.10	110.10	110.20
1155	108.01	108.01	108.74	1156	105.01	105.01	106.63
1157	101.71	101.71	104.28	1158	89.10	89.10	95.29
1159	75.74	75.74	85.67	1160	61.72	61.72	75.46
1161	47.58	47.58	65.03	1162	32.27	32.27	53.66
1163	28.36	28.36	50.49	1164	26.53	26.53	48.82
1165	23.59	23.59	46.32	1166	21.03	21.03	44.09
1167	19.45	19.45	42.58	1168	18.43	18.43	41.49
1169	17.59	17.59	40.52	1170	16.57	16.57	39.43
1171	15.73	15.73	38.47	1172	14.71	14.71	37.38
1173	13.87	13.87	36.42	1174	13.87	13.87	36.11
1175	13.87	13.87	35.80	1176	13.70	13.70	35.37
1177	13.36	13.36	34.82	1178	13.02	13.02	34.27
1179	12.68	12.68	33.72	1180	12.34	12.34	33.17

1181	12.18	12.18	32.77	1182	11.84	11.84	32.23
1183	11.50	11.50	31.70	1184	11.16	11.16	31.16
1185	10.82	10.82	30.64	1186	10.82	10.82	30.39
1187	10.82	10.82	30.14	1188	10.99	10.99	30.03
1189	10.65	10.65	29.52	1190	10.15	10.15	28.87
1191	9.81	9.81	28.37	1192	9.64	9.64	28.00
1193	9.30	9.30	27.50	1194	8.96	8.96	27.00
1195	8.62	8.62	26.51	1196	8.46	8.46	26.15
1197	7.95	7.95	25.52	1198	7.95	7.95	25.31
1199	7.95	7.95	25.11	1200	7.95	7.95	24.91

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	7.95	7.95	24.71	1202	7.95	7.95	24.52
1203	7.95	7.95	24.33	1204	7.95	7.95	24.14
1205	7.95	7.95	23.96	1206	7.95	7.95	23.78
1207	7.95	7.95	23.60	1208	7.95	7.95	23.43
1209	8.12	8.12	23.40	1210	7.95	7.95	23.09
1211	7.95	7.95	22.92	1212	7.95	7.95	22.76
1213	8.12	8.12	22.75	1214	7.95	7.95	22.44
1215	7.95	7.95	22.29	1216	7.95	7.95	22.14
1217	8.12	8.12	22.13	1218	7.95	7.95	21.84
1219	7.95	7.95	21.69	1220	7.95	7.95	21.55
1221	7.95	7.95	21.41	1222	7.95	7.95	21.27
1223	7.95	7.95	21.13	1224	7.95	7.95	21.00
1225	7.61	7.61	20.57	1226	7.10	7.10	20.00
1227	6.76	6.76	19.57	1228	6.43	6.43	19.15
1229	6.09	6.09	18.73	1230	5.58	5.58	18.16
1231	5.07	5.07	17.59	1232	4.73	4.73	17.17
1233	4.40	4.40	16.75	1234	4.40	4.40	16.63
1235	4.40	4.40	16.51	1236	4.40	4.40	16.39
1237	4.40	4.40	16.28	1238	4.23	4.23	16.02
1239	4.40	4.40	16.06	1240	4.40	4.40	15.95
1241	4.40	4.40	15.84	1242	4.40	4.40	15.74
1243	4.40	4.40	15.63	1244	4.40	4.40	15.53
1245	4.40	4.40	15.43	1246	4.23	4.23	15.18
1247	4.40	4.40	15.23	1248	4.40	4.40	15.13
1249	4.40	4.40	15.04	1250	4.40	4.40	14.94
1251	4.40	4.40	14.85	1252	4.40	4.40	14.76
1253	4.23	4.23	14.51	1254	4.23	4.23	14.42
1255	4.40	4.40	14.49	1256	4.40	4.40	14.40
1257	4.40	4.40	14.32	1258	4.40	4.40	14.23
1259	4.40	4.40	14.15	1260	4.40	4.40	14.07
1261	4.23	4.23	13.83	1262	4.40	4.40	13.90

1263	4.40	4.40	13.82	1264	4.40	4.40	13.75
1265	4.40	4.40	13.67	1266	4.40	4.40	13.59
1267	4.40	4.40	13.52	1268	4.40	4.40	13.44
1269	4.23	4.23	13.22	1270	4.40	4.40	13.30
1271	4.40	4.40	13.23	1272	4.40	4.40	13.16
1273	4.40	4.40	13.09	1274	4.40	4.40	13.02
1275	4.40	4.40	12.95	1276	4.40	4.40	12.88
1277	4.23	4.23	12.66	1278	4.40	4.40	12.75
1279	4.40	4.40	12.69	1280	4.40	4.40	12.62
1281	4.40	4.40	12.56	1282	4.40	4.40	12.50
1283	4.40	4.40	12.43	1284	4.40	4.40	12.37
1285	4.23	4.23	12.16	1286	4.40	4.40	12.25
1287	4.40	4.40	12.19	1288	4.40	4.40	12.14
1289	4.40	4.40	12.08	1290	4.40	4.40	12.02
1291	4.40	4.40	11.97	1292	4.40	4.40	11.91
1293	4.23	4.23	11.70	1294	4.40	4.40	11.80
1295	4.40	4.40	11.75	1296	4.40	4.40	11.70
1297	4.23	4.23	11.49	1298	3.89	3.89	11.12
1299	3.72	3.72	10.91	1300	3.55	3.55	10.70
1310	2.59	2.59	9.32	1320	2.59	2.59	8.88
1330	2.44	2.44	8.35	1340	2.59	2.59	8.14
1350	2.59	2.59	7.82	1360	2.59	2.59	7.52
1370	2.59	2.59	7.26	1380	2.59	2.59	7.01
1390	2.59	2.59	6.79	1400	2.59	2.59	6.58
1420	2.51	2.51	6.14	1440	2.59	2.59	5.90
1460	0.00	0.00	3.11	1500	0.00	0.00	2.66

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 65 acres
HYDROGRAPH PEAK: 110 cfs
TIME OF PEAK: 1153 minutes
HYDROGRAPH VOLUME: 19.50 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	2.72	200	2.94	300	3.00	400	3.12
500	3.28	600	3.94	700	5.66	800	6.29	900	8.78
1000	13.80	1050	19.11	1100	27.77	1110	34.24	1120	40.67
1130	44.43	1131	45.27	1132	46.12	1133	46.96	1134	47.52
1135	48.37	1136	49.21	1137	50.06	1138	50.63	1139	51.45

1140	51.76	1141	52.31	1142	53.10	1143	54.13	1144	54.69
1145	57.37	1146	59.78	1147	62.58	1148	65.12	1149	74.81
1150	84.07	1151	92.83	1152	101.33	1153	110.40	1154	110.20
1155	108.74	1156	106.63	1157	104.28	1158	95.29	1159	85.67
1160	75.46	1161	65.03	1162	53.66	1163	50.49	1164	48.82
1165	46.32	1166	44.09	1167	42.58	1168	41.49	1169	40.52
1170	39.43	1171	38.47	1172	37.38	1173	36.42	1174	36.11
1175	35.80	1176	35.37	1177	34.82	1178	34.27	1179	33.72
1180	33.17	1181	32.77	1182	32.23	1183	31.70	1184	31.16
1185	30.64	1186	30.39	1187	30.14	1188	30.03	1189	29.52
1190	28.87	1191	28.37	1192	28.00	1193	27.50	1194	27.00
1195	26.51	1196	26.15	1197	25.52	1198	25.31	1199	25.11
1200	24.91	1201	24.71	1202	24.52	1203	24.33	1204	24.14
1205	23.96	1206	23.78	1207	23.60	1208	23.43	1209	23.40
1210	23.09	1211	22.92	1212	22.76	1213	22.75	1214	22.44
1215	22.29	1216	22.14	1217	22.13	1218	21.84	1219	21.69
1220	21.55	1221	21.41	1222	21.27	1223	21.13	1224	21.00
1225	20.57	1226	20.00	1227	19.57	1228	19.15	1229	18.73
1230	18.16	1231	17.59	1232	17.17	1233	16.75	1234	16.63
1235	16.51	1236	16.39	1237	16.28	1238	16.02	1239	16.06
1240	15.95	1241	15.84	1242	15.74	1243	15.63	1244	15.53
1245	15.43	1246	15.18	1247	15.23	1248	15.13	1249	15.04
1250	14.94	1251	14.85	1252	14.76	1253	14.51	1254	14.42
1255	14.49	1256	14.40	1257	14.32	1258	14.23	1259	14.15
1260	14.07	1261	13.83	1262	13.90	1263	13.82	1264	13.75
1265	13.67	1266	13.59	1267	13.52	1268	13.44	1269	13.22
1270	13.30	1271	13.23	1272	13.16	1273	13.09	1274	13.02
1275	12.95	1276	12.88	1277	12.66	1278	12.75	1279	12.69
1280	12.62	1281	12.56	1282	12.50	1283	12.43	1284	12.37
1285	12.16	1286	12.25	1287	12.19	1288	12.14	1289	12.08
1290	12.02	1291	11.97	1292	11.91	1293	11.70	1294	11.80
1295	11.75	1296	11.70	1297	11.49	1298	11.12	1299	10.91
1300	10.70	1310	9.32	1320	8.88	1330	8.35	1340	8.14
1350	7.82	1360	7.52	1370	7.26	1380	7.01	1390	6.79
1400	6.58	1420	6.14	1440	5.90	1460	3.11	1500	2.66

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050041006509A97                            1
```

```
110
111            1.00000    3.60
110
006     1  003A 010      099A97                            1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 2 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Model Results

NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	ACCUMULATED DATA AREA (AC)	ACCUMULATED DATA FLOW (CFS)	ACCUMULATED DATA TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	9	41	65	124	65	124	1154	-------	----	-------	---	----	-----	-----	--	--
	**********																	
	* INCOMING HYDROGRAPH PEAK (cfs): 123.80 VOLUME (acre-ft): 12.82 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 4.16 TOTAL RAIN(in): 6.30 SCS Curve: 81 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 123.80 VOLUME (acre-ft): 22.53 *																	
	**********																	
2A	---	---	--	--	---	---	65	124	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	65	124	1154	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
NO ISSUES OR WARNINGS DETECTED				

HYDROGRAPH FATTENED AT 2

```
*****************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):    123.80         VOLUME (acre-ft):     12.82      *
*      NO HYDROGRAPH ADJUSTMENT                                                            *
*      RUNOFF FACTOR(in):   4.16      TOTAL RAIN(in):   6.30      SCS Curve: 81            *
*      FATTENED HYDROGRAPH  PEAK (cfs):    123.80         VOLUME (acre-ft):     22.53      *
*****************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	2.86	2.86	3.04
200	2.86	2.86	3.30	300	2.86	2.86	3.40
400	2.86	2.86	3.53	500	2.86	2.86	3.72
600	3.33	3.33	4.47	700	4.84	4.84	6.40
800	4.84	4.84	7.15	900	6.29	6.29	10.02
1000	8.80	8.80	15.79	1050	11.51	11.51	21.92
1100	14.76	14.76	31.91	1110	21.50	21.50	39.69
1120	29.43	29.43	48.54	1130	31.40	31.40	52.87
1131	31.82	31.82	53.50	1132	32.56	32.56	54.38
1133	32.98	32.98	55.01	1134	33.73	33.73	55.90
1135	34.15	34.15	56.54	1136	34.89	34.89	57.42
1137	35.31	35.31	58.07	1138	35.73	35.73	58.72
1139	36.48	36.48	59.61	1140	36.48	36.48	59.96
1141	37.12	37.12	60.79	1142	38.09	38.09	61.85
1143	38.42	38.42	62.45	1144	39.39	39.39	63.52
1145	42.57	42.57	66.15	1146	46.32	46.32	69.17
1147	50.08	50.08	72.16	1148	53.18	53.18	74.67
1149	68.15	68.15	85.36	1150	81.77	81.77	94.97
1151	95.02	95.02	104.20	1152	109.50	109.50	114.14
1153	123.51	123.51	123.61	1154	123.80	123.80	123.80
1155	120.88	120.88	121.85	1156	117.60	117.60	119.61
1157	114.30	114.30	117.34	1158	99.31	99.31	107.03
1159	84.59	84.59	96.75	1160	69.61	69.61	86.17
1161	54.07	54.07	75.06	1162	37.77	37.77	63.29
1163	33.56	33.56	59.93	1164	32.27	32.27	58.63
1165	29.10	29.10	55.97	1166	26.16	26.16	53.47
1167	22.86	22.86	50.69	1168	20.66	20.66	48.69
1169	19.45	19.45	47.40	1170	18.26	18.26	46.14
1171	17.25	17.25	45.00	1172	16.06	16.06	43.74
1173	15.05	15.05	42.60	1174	15.05	15.05	42.22
1175	15.05	15.05	41.85	1176	15.05	15.05	41.49
1177	14.71	14.71	40.88	1178	14.37	14.37	40.27
1179	14.20	14.20	39.79	1180	13.87	13.87	39.20

1181	13.53	13.53	38.60	1182	13.02	13.02	37.88
1183	12.68	12.68	37.30	1184	12.34	12.34	36.72
1185	12.01	12.01	36.14	1186	12.01	12.01	35.84
1187	12.01	12.01	35.53	1188	12.01	12.01	35.24
1189	11.67	11.67	34.68	1190	11.16	11.16	33.99
1191	10.99	10.99	33.58	1192	10.65	10.65	33.03
1193	10.32	10.32	32.48	1194	9.98	9.98	31.94
1195	9.47	9.47	31.27	1196	9.13	9.13	30.73
1197	8.79	8.79	30.20	1198	8.79	8.79	29.95
1199	8.79	8.79	29.70	1200	8.79	8.79	29.46

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	8.79	8.79	29.22	1202	8.79	8.79	28.98
1203	8.79	8.79	28.75	1204	8.79	8.79	28.53
1205	8.79	8.79	28.30	1206	8.79	8.79	28.08
1207	8.79	8.79	27.87	1208	8.96	8.96	27.80
1209	8.79	8.79	27.45	1210	8.79	8.79	27.24
1211	8.79	8.79	27.04	1212	8.79	8.79	26.84
1213	8.96	8.96	26.79	1214	8.79	8.79	26.45
1215	8.79	8.79	26.27	1216	8.79	8.79	26.08
1217	8.79	8.79	25.90	1218	8.79	8.79	25.72
1219	8.79	8.79	25.54	1220	8.79	8.79	25.37
1221	8.79	8.79	25.20	1222	8.79	8.79	25.03
1223	8.79	8.79	24.86	1224	8.79	8.79	24.70
1225	8.29	8.29	24.10	1226	7.95	7.95	23.65
1227	7.61	7.61	23.20	1228	7.10	7.10	22.60
1229	6.60	6.60	22.01	1230	6.09	6.09	21.42
1231	5.58	5.58	20.82	1232	5.41	5.41	20.53
1233	4.90	4.90	19.94	1234	4.90	4.90	19.79
1235	4.73	4.73	19.50	1236	4.73	4.73	19.36
1237	4.90	4.90	19.37	1238	4.90	4.90	19.23
1239	4.90	4.90	19.10	1240	4.90	4.90	18.97
1241	4.73	4.73	18.69	1242	4.73	4.73	18.56
1243	4.90	4.90	18.58	1244	4.90	4.90	18.46
1245	4.90	4.90	18.33	1246	4.73	4.73	18.06
1247	4.73	4.73	17.94	1248	4.90	4.90	17.97
1249	4.90	4.90	17.86	1250	4.90	4.90	17.74
1251	4.90	4.90	17.63	1252	4.73	4.73	17.36
1253	4.90	4.90	17.40	1254	4.90	4.90	17.30
1255	4.90	4.90	17.19	1256	4.90	4.90	17.08
1257	4.73	4.73	16.83	1258	4.73	4.73	16.72
1259	4.90	4.90	16.77	1260	4.90	4.90	16.67
1261	4.90	4.90	16.57	1262	4.73	4.73	16.32

1263	4.73	4.73	16.23	1264	4.90	4.90	16.28
1265	4.90	4.90	16.19	1266	4.90	4.90	16.10
1267	4.90	4.90	16.00	1268	4.73	4.73	15.76
1269	4.73	4.73	15.67	1270	4.90	4.90	15.74
1271	4.90	4.90	15.65	1272	4.90	4.90	15.56
1273	4.73	4.73	15.32	1274	4.73	4.73	15.24
1275	4.90	4.90	15.31	1276	4.90	4.90	15.23
1277	4.90	4.90	15.15	1278	4.90	4.90	15.07
1279	4.73	4.73	14.84	1280	4.73	4.73	14.76
1281	4.90	4.90	14.84	1282	4.90	4.90	14.76
1283	4.90	4.90	14.68	1284	4.73	4.73	14.46
1285	4.73	4.73	14.38	1286	4.90	4.90	14.46
1287	4.90	4.90	14.39	1288	4.90	4.90	14.32
1289	4.90	4.90	14.25	1290	4.73	4.73	14.03
1291	4.73	4.73	13.96	1292	4.90	4.90	14.05
1293	4.90	4.90	13.98	1294	4.90	4.90	13.91
1295	4.73	4.73	13.69	1296	4.73	4.73	13.63
1297	4.57	4.57	13.41	1298	4.40	4.40	13.19
1299	4.23	4.23	12.97	1300	4.06	4.06	12.75
1310	2.89	2.89	11.08	1320	2.74	2.74	10.41
1330	2.89	2.89	10.07	1340	2.89	2.89	9.64
1350	2.89	2.89	9.25	1360	2.89	2.89	8.89
1370	2.74	2.74	8.42	1380	2.89	2.89	8.27
1390	2.89	2.89	8.00	1400	2.89	2.89	7.75
1420	2.82	2.82	7.23	1440	2.89	2.89	6.92
1460	0.00	0.00	3.78	1500	0.00	0.00	3.23

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 65 acres
HYDROGRAPH PEAK: 124 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 22.53 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	3.04	200	3.30	300	3.40	400	3.53
500	3.72	600	4.47	700	6.40	800	7.15	900	10.02
1000	15.79	1050	21.92	1100	31.91	1110	39.69	1120	48.54
1130	52.87	1131	53.50	1132	54.38	1133	55.01	1134	55.90
1135	56.54	1136	57.42	1137	58.07	1138	58.72	1139	59.61

1140	59.96	1141	60.79	1142	61.85	1143	62.45	1144	63.52
1145	66.15	1146	69.17	1147	72.16	1148	74.67	1149	85.36
1150	94.97	1151	104.20	1152	114.14	1153	123.61	1154	123.80
1155	121.85	1156	119.61	1157	117.34	1158	107.03	1159	96.75
1160	86.17	1161	75.06	1162	63.29	1163	59.93	1164	58.63
1165	55.97	1166	53.47	1167	50.69	1168	48.69	1169	47.40
1170	46.14	1171	45.00	1172	43.74	1173	42.60	1174	42.22
1175	41.85	1176	41.49	1177	40.88	1178	40.27	1179	39.79
1180	39.20	1181	38.60	1182	37.88	1183	37.30	1184	36.72
1185	36.14	1186	35.84	1187	35.53	1188	35.24	1189	34.68
1190	33.99	1191	33.58	1192	33.03	1193	32.48	1194	31.94
1195	31.27	1196	30.73	1197	30.20	1198	29.95	1199	29.70
1200	29.46	1201	29.22	1202	28.98	1203	28.75	1204	28.53
1205	28.30	1206	28.08	1207	27.87	1208	27.80	1209	27.45
1210	27.24	1211	27.04	1212	26.84	1213	26.79	1214	26.45
1215	26.27	1216	26.08	1217	25.90	1218	25.72	1219	25.54
1220	25.37	1221	25.20	1222	25.03	1223	24.86	1224	24.70
1225	24.10	1226	23.65	1227	23.20	1228	22.60	1229	22.01
1230	21.42	1231	20.82	1232	20.53	1233	19.94	1234	19.79
1235	19.50	1236	19.36	1237	19.37	1238	19.23	1239	19.10
1240	18.97	1241	18.69	1242	18.56	1243	18.58	1244	18.46
1245	18.33	1246	18.06	1247	17.94	1248	17.97	1249	17.86
1250	17.74	1251	17.63	1252	17.36	1253	17.40	1254	17.30
1255	17.19	1256	17.08	1257	16.83	1258	16.72	1259	16.77
1260	16.67	1261	16.57	1262	16.32	1263	16.23	1264	16.28
1265	16.19	1266	16.10	1267	16.00	1268	15.76	1269	15.67
1270	15.74	1271	15.65	1272	15.56	1273	15.32	1274	15.24
1275	15.31	1276	15.23	1277	15.15	1278	15.07	1279	14.84
1280	14.76	1281	14.84	1282	14.76	1283	14.68	1284	14.46
1285	14.38	1286	14.46	1287	14.39	1288	14.32	1289	14.25
1290	14.03	1291	13.96	1292	14.05	1293	13.98	1294	13.91
1295	13.69	1296	13.63	1297	13.41	1298	13.19	1299	12.97
1300	12.75	1310	11.08	1320	10.41	1330	10.07	1340	9.64
1350	9.25	1360	8.89	1370	8.42	1380	8.27	1390	8.00
1400	7.75	1420	7.23	1440	6.92	1460	3.78	1500	3.23

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050041006509A97                            1
```

```
110
111            1.00000    4.16
110
006     1  003A 010      099A97                            1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Subarea C Q10

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Subarea C Q10

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A10	9	4	33	25	33	25	1153	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 25.49 VOLUME (acre-ft): 0.71 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 0.38 TOTAL RAIN(in): 4.30 SCS Curve: 20 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 25.49 VOLUME (acre-ft): 1.06 *																	
2A	---	---	--	--	---	---	33	25	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	25	1153	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH FATTENED AT 2

****

* INCOMING HYDROGRAPH PEAK (cfs): 25.49 VOLUME (acre-ft): 0.71 *

* NO HYDROGRAPH ADJUSTMENT *

* RUNOFF FACTOR(in): 0.38 TOTAL RAIN(in): 4.30 SCS Curve: 20 *

* FATTENED HYDROGRAPH PEAK (cfs): 25.49 VOLUME (acre-ft): 1.06 *

****

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	0.10	0.10	0.10
200	0.09	0.09	0.11	300	0.10	0.10	0.11
400	0.10	0.10	0.12	500	0.09	0.09	0.12
600	0.11	0.11	0.15	700	0.17	0.17	0.21
800	0.16	0.16	0.24	900	0.22	0.22	0.34
1000	0.31	0.31	0.54	1050	0.40	0.40	0.76
1100	0.52	0.52	1.15	1110	0.72	0.72	1.44
1120	0.85	0.85	1.67	1130	0.87	0.87	1.82
1131	0.88	0.88	1.85	1132	0.90	0.90	1.89
1133	0.91	0.91	1.91	1134	0.92	0.92	1.94
1135	0.93	0.93	1.96	1136	0.95	0.95	2.00
1137	0.95	0.95	2.02	1138	0.97	0.97	2.05
1139	0.97	0.97	2.08	1140	0.97	0.97	2.10
1141	0.98	0.98	2.13	1142	1.00	1.00	2.16
1143	1.01	1.01	2.19	1144	1.03	1.03	2.23
1145	2.07	2.07	3.24	1146	3.44	3.44	4.57
1147	4.65	4.65	5.73	1148	6.02	6.02	7.05
1149	10.54	10.54	11.34	1150	14.74	14.74	15.33
1151	18.37	18.37	18.77	1152	21.90	21.90	22.11
1153	25.49	25.49	25.49	1154	25.49	25.49	25.49
1155	24.87	24.87	24.90	1156	23.99	23.99	24.07
1157	23.22	23.22	23.34	1158	19.48	19.48	19.80
1159	15.45	15.45	15.98	1160	11.05	11.05	11.79
1161	6.33	6.33	7.30	1162	0.99	0.99	2.20
1163	0.91	0.91	2.11	1164	0.89	0.89	2.07
1165	0.85	0.85	2.01	1166	0.79	0.79	1.94
1167	0.74	0.74	1.87	1168	0.71	0.71	1.82
1169	0.67	0.67	1.77	1170	0.64	0.64	1.72
1171	0.60	0.60	1.67	1172	0.57	0.57	1.62
1173	0.53	0.53	1.56	1174	0.53	0.53	1.54
1175	0.53	0.53	1.53	1176	0.53	0.53	1.52
1177	0.52	0.52	1.49	1178	0.51	0.51	1.47
1179	0.49	0.49	1.44	1180	0.48	0.48	1.41

1181	0.47	0.47	1.38	1182	0.46	0.46	1.36
1183	0.45	0.45	1.34	1184	0.43	0.43	1.31
1185	0.42	0.42	1.29	1186	0.42	0.42	1.28
1187	0.41	0.41	1.26	1188	0.42	0.42	1.26
1189	0.41	0.41	1.23	1190	0.40	0.40	1.21
1191	0.39	0.39	1.19	1192	0.37	0.37	1.16
1193	0.35	0.35	1.14	1194	0.34	0.34	1.11
1195	0.33	0.33	1.09	1196	0.32	0.32	1.07
1197	0.30	0.30	1.05	1198	0.30	0.30	1.04
1199	0.30	0.30	1.03	1200	0.30	0.30	1.02

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	0.30	0.30	1.01	1202	0.31	0.31	1.01
1203	0.31	0.31	1.00	1204	0.31	0.31	0.99
1205	0.31	0.31	0.98	1206	0.31	0.31	0.97
1207	0.31	0.31	0.97	1208	0.30	0.30	0.95
1209	0.30	0.30	0.94	1210	0.30	0.30	0.94
1211	0.30	0.30	0.93	1212	0.30	0.30	0.92
1213	0.30	0.30	0.91	1214	0.30	0.30	0.91
1215	0.30	0.30	0.90	1216	0.30	0.30	0.89
1217	0.31	0.31	0.89	1218	0.31	0.31	0.89
1219	0.31	0.31	0.88	1220	0.31	0.31	0.88
1221	0.31	0.31	0.87	1222	0.31	0.31	0.86
1223	0.30	0.30	0.85	1224	0.30	0.30	0.84
1225	0.29	0.29	0.83	1226	0.28	0.28	0.81
1227	0.26	0.26	0.78	1228	0.24	0.24	0.76
1229	0.22	0.22	0.74	1230	0.21	0.21	0.72
1231	0.19	0.19	0.69	1232	0.18	0.18	0.68
1233	0.17	0.17	0.67	1234	0.16	0.16	0.65
1235	0.16	0.16	0.65	1236	0.16	0.16	0.64
1237	0.16	0.16	0.64	1238	0.16	0.16	0.63
1239	0.16	0.16	0.63	1240	0.16	0.16	0.63
1241	0.17	0.17	0.63	1242	0.16	0.16	0.62
1243	0.16	0.16	0.61	1244	0.16	0.16	0.61
1245	0.16	0.16	0.60	1246	0.16	0.16	0.60
1247	0.16	0.16	0.60	1248	0.16	0.16	0.59
1249	0.17	0.17	0.60	1250	0.16	0.16	0.58
1251	0.16	0.16	0.58	1252	0.16	0.16	0.58
1253	0.16	0.16	0.57	1254	0.16	0.16	0.57
1255	0.16	0.16	0.56	1256	0.16	0.16	0.56
1257	0.17	0.17	0.57	1258	0.16	0.16	0.55
1259	0.16	0.16	0.55	1260	0.16	0.16	0.55
1261	0.16	0.16	0.54	1262	0.16	0.16	0.54

1263	0.16	0.16	0.54	1264	0.16	0.16	0.53
1265	0.17	0.17	0.54	1266	0.16	0.16	0.53
1267	0.16	0.16	0.52	1268	0.16	0.16	0.52
1269	0.16	0.16	0.52	1270	0.16	0.16	0.52
1271	0.16	0.16	0.51	1272	0.16	0.16	0.51
1273	0.17	0.17	0.52	1274	0.16	0.16	0.50
1275	0.16	0.16	0.50	1276	0.16	0.16	0.50
1277	0.16	0.16	0.50	1278	0.16	0.16	0.49
1279	0.16	0.16	0.49	1280	0.16	0.16	0.49
1281	0.17	0.17	0.49	1282	0.16	0.16	0.48
1283	0.16	0.16	0.48	1284	0.16	0.16	0.48
1285	0.16	0.16	0.48	1286	0.16	0.16	0.47
1287	0.16	0.16	0.47	1288	0.16	0.16	0.47
1289	0.17	0.17	0.47	1290	0.16	0.16	0.46
1291	0.16	0.16	0.46	1292	0.16	0.16	0.46
1293	0.16	0.16	0.46	1294	0.16	0.16	0.45
1295	0.16	0.16	0.45	1296	0.16	0.16	0.45
1297	0.16	0.16	0.45	1298	0.15	0.15	0.43
1299	0.14	0.14	0.42	1300	0.13	0.13	0.41
1310	0.10	0.10	0.36	1320	0.09	0.09	0.34
1330	0.09	0.09	0.32	1340	0.09	0.09	0.31
1350	0.10	0.10	0.30	1360	0.09	0.09	0.28
1370	0.09	0.09	0.27	1380	0.09	0.09	0.26
1390	0.10	0.10	0.26	1400	0.09	0.09	0.25
1420	0.09	0.09	0.23	1440	0.10	0.10	0.22
1460	0.00	0.00	0.12	1500	0.00	0.00	0.10

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 25 cfs
TIME OF PEAK: 1153 minutes
HYDROGRAPH VOLUME: 1.06 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	0.10	200	0.11	300	0.11	400	0.12
500	0.12	600	0.15	700	0.21	800	0.24	900	0.34
1000	0.54	1050	0.76	1100	1.15	1110	1.44	1120	1.67
1130	1.82	1131	1.85	1132	1.89	1133	1.91	1134	1.94
1135	1.96	1136	2.00	1137	2.02	1138	2.05	1139	2.08

1140	2.10	1141	2.13	1142	2.16	1143	2.19	1144	2.23
1145	3.24	1146	4.57	1147	5.73	1148	7.05	1149	11.34
1150	15.33	1151	18.77	1152	22.11	1153	25.49	1154	25.49
1155	24.90	1156	24.07	1157	23.34	1158	19.80	1159	15.98
1160	11.79	1161	7.30	1162	2.20	1163	2.11	1164	2.07
1165	2.01	1166	1.94	1167	1.87	1168	1.82	1169	1.77
1170	1.72	1171	1.67	1172	1.62	1173	1.56	1174	1.54
1175	1.53	1176	1.52	1177	1.49	1178	1.47	1179	1.44
1180	1.41	1181	1.38	1182	1.36	1183	1.34	1184	1.31
1185	1.29	1186	1.28	1187	1.26	1188	1.26	1189	1.23
1190	1.21	1191	1.19	1192	1.16	1193	1.14	1194	1.11
1195	1.09	1196	1.07	1197	1.05	1198	1.04	1199	1.03
1200	1.02	1201	1.01	1202	1.01	1203	1.00	1204	0.99
1205	0.98	1206	0.97	1207	0.97	1208	0.95	1209	0.94
1210	0.94	1211	0.93	1212	0.92	1213	0.91	1214	0.91
1215	0.90	1216	0.89	1217	0.89	1218	0.89	1219	0.88
1220	0.88	1221	0.87	1222	0.86	1223	0.85	1224	0.84
1225	0.83	1226	0.81	1227	0.78	1228	0.76	1229	0.74
1230	0.72	1231	0.69	1232	0.68	1233	0.67	1234	0.65
1235	0.65	1236	0.64	1237	0.64	1238	0.63	1239	0.63
1240	0.63	1241	0.63	1242	0.62	1243	0.61	1244	0.61
1245	0.60	1246	0.60	1247	0.60	1248	0.59	1249	0.60
1250	0.58	1251	0.58	1252	0.58	1253	0.57	1254	0.57
1255	0.56	1256	0.56	1257	0.57	1258	0.55	1259	0.55
1260	0.55	1261	0.54	1262	0.54	1263	0.54	1264	0.53
1265	0.54	1266	0.53	1267	0.52	1268	0.52	1269	0.52
1270	0.52	1271	0.51	1272	0.51	1273	0.52	1274	0.50
1275	0.50	1276	0.50	1277	0.50	1278	0.49	1279	0.49
1280	0.49	1281	0.49	1282	0.48	1283	0.48	1284	0.48
1285	0.48	1286	0.47	1287	0.47	1288	0.47	1289	0.47
1290	0.46	1291	0.46	1292	0.46	1293	0.46	1294	0.45
1295	0.45	1296	0.45	1297	0.45	1298	0.43	1299	0.42
1300	0.41	1310	0.36	1320	0.34	1330	0.32	1340	0.31
1350	0.30	1360	0.28	1370	0.27	1380	0.26	1390	0.26
1400	0.25	1420	0.23	1440	0.22	1460	0.12	1500	0.10

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050004003309A97                            1
```

```
110
111            1.00000    0.38
110
006     1  003A 010      099A97                            1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Subarea C Q50

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Job: 1 Project: Rio Del Valley School Expansion Subarea C Q50

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A50	5	4	33	52	33	52	1153	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 52.30 VOLUME (acre-ft): 1.17 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 0.14 TOTAL RAIN(in): 5.80 SCS Curve: 33 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 52.30 VOLUME (acre-ft): 0.40 *																	
2A	---	---	--	--	---	---	33	52	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	52	1153	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE
Warning	Err1260	FATTENING	2	Fattening reduced the volume of the hydrograph. It is recommended to remove fattening from the model.

HYDROGRAPH FATTENED AT 2

***

1179	0.61	0.61	0.00	1180	0.57	0.57	0.00
1181	0.56	0.56	0.00	1182	0.56	0.56	0.00
1183	0.56	0.56	0.00	1184	0.56	0.56	0.00
1185	0.56	0.56	0.00	1186	0.54	0.54	0.00
1187	0.54	0.54	0.00	1188	0.56	0.56	0.00
1189	0.53	0.53	0.00	1190	0.50	0.50	0.00
1191	0.47	0.47	0.00	1192	0.45	0.45	0.00
1193	0.40	0.40	0.00	1194	0.40	0.40	0.00
1195	0.40	0.40	0.00	1196	0.42	0.42	0.00
1197	0.40	0.40	0.00	1198	0.40	0.40	0.00

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1199	0.40	0.40	0.00	1200	0.40	0.40	0.00
1201	0.40	0.40	0.00	1202	0.40	0.40	0.00
1203	0.40	0.40	0.00	1204	0.40	0.40	0.00
1205	0.42	0.42	0.00	1206	0.40	0.40	0.00
1207	0.40	0.40	0.00	1208	0.40	0.40	0.00
1209	0.42	0.42	0.00	1210	0.40	0.40	0.00
1211	0.40	0.40	0.00	1212	0.40	0.40	0.00
1213	0.42	0.42	0.00	1214	0.40	0.40	0.00
1215	0.40	0.40	0.00	1216	0.40	0.40	0.00
1217	0.42	0.42	0.00	1218	0.40	0.40	0.00
1219	0.40	0.40	0.00	1220	0.40	0.40	0.00
1221	0.40	0.40	0.00	1222	0.40	0.40	0.00
1223	0.40	0.40	0.00	1224	0.40	0.40	0.00
1225	0.37	0.37	0.00	1226	0.34	0.34	0.00
1227	0.29	0.29	0.00	1228	0.26	0.26	0.00
1229	0.23	0.23	0.00	1230	0.22	0.22	0.00
1231	0.22	0.22	0.00	1232	0.22	0.22	0.00
1233	0.22	0.22	0.00	1234	0.22	0.22	0.00
1235	0.23	0.23	0.00	1236	0.23	0.23	0.00
1237	0.23	0.23	0.00	1238	0.22	0.22	0.00
1239	0.22	0.22	0.00	1240	0.22	0.22	0.00
1241	0.22	0.22	0.00	1242	0.22	0.22	0.00
1243	0.23	0.23	0.00	1244	0.23	0.23	0.00
1245	0.23	0.23	0.00	1246	0.22	0.22	0.00
1247	0.22	0.22	0.00	1248	0.22	0.22	0.00
1249	0.22	0.22	0.00	1250	0.22	0.22	0.00
1251	0.23	0.23	0.00	1252	0.23	0.23	0.00
1253	0.22	0.22	0.00	1254	0.22	0.22	0.00
1255	0.22	0.22	0.00	1256	0.22	0.22	0.00
1257	0.22	0.22	0.00	1258	0.23	0.23	0.00
1259	0.23	0.23	0.00	1260	0.23	0.23	0.00

1261	0.22	0.22	0.00	1262	0.22	0.22	0.00
1263	0.22	0.22	0.00	1264	0.22	0.22	0.00
1265	0.22	0.22	0.00	1266	0.23	0.23	0.00
1267	0.23	0.23	0.00	1268	0.23	0.23	0.00
1269	0.22	0.22	0.00	1270	0.22	0.22	0.00
1271	0.22	0.22	0.00	1272	0.22	0.22	0.00
1273	0.22	0.22	0.00	1274	0.23	0.23	0.00
1275	0.23	0.23	0.00	1276	0.23	0.23	0.00
1277	0.22	0.22	0.00	1278	0.22	0.22	0.00
1279	0.22	0.22	0.00	1280	0.22	0.22	0.00
1281	0.22	0.22	0.00	1282	0.23	0.23	0.00
1283	0.23	0.23	0.00	1284	0.23	0.23	0.00
1285	0.22	0.22	0.00	1286	0.22	0.22	0.00
1287	0.22	0.22	0.00	1288	0.22	0.22	0.00
1289	0.22	0.22	0.00	1290	0.23	0.23	0.00
1291	0.23	0.23	0.00	1292	0.23	0.23	0.00
1293	0.22	0.22	0.00	1294	0.22	0.22	0.00
1295	0.22	0.22	0.00	1296	0.22	0.22	0.00
1297	0.20	0.20	0.00	1298	0.19	0.19	0.00
1299	0.17	0.17	0.00	1300	0.16	0.16	0.00
1310	0.13	0.13	0.00	1320	0.13	0.13	0.00
1330	0.12	0.12	0.00	1340	0.13	0.13	0.00
1350	0.13	0.13	0.00	1360	0.13	0.13	0.00
1370	0.13	0.13	0.00	1380	0.13	0.13	0.00
1390	0.13	0.13	0.00	1400	0.13	0.13	0.00
1420	0.13	0.13	0.00	1440	0.13	0.13	0.00
1460	0.00	0.00	0.00	1500	0.00	0.00	0.00

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 52 cfs
TIME OF PEAK: 1153 minutes
HYDROGRAPH VOLUME: 0.40 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	0.07	200	0.00	300	0.00	400	0.00
500	0.00	600	0.00	700	0.00	800	0.00	900	0.00
1000	0.00	1050	0.00	1100	0.00	1110	0.00	1120	0.00
1130	0.00	1131	0.00	1132	0.00	1133	0.00	1134	0.00

1135	0.00	1136	0.00	1137	0.00	1138	0.00	1139	0.00
1140	0.00	1141	0.00	1142	0.00	1143	0.00	1144	0.00
1145	0.00	1146	0.82	1147	2.94	1148	4.94	1149	15.91
1150	24.20	1151	33.84	1152	43.11	1153	52.30	1154	43.11
1155	31.61	1156	20.08	1157	8.62	1158	0.00	1159	0.00
1160	0.00	1161	0.00	1162	0.00	1163	0.00	1164	0.00
1165	0.00	1166	0.00	1167	0.00	1168	0.00	1169	0.00
1170	0.00	1171	0.00	1172	0.00	1173	0.00	1174	0.00
1175	0.00	1176	0.00	1177	0.00	1178	0.00	1179	0.00
1180	0.00	1181	0.00	1182	0.00	1183	0.00	1184	0.00
1185	0.00	1186	0.00	1187	0.00	1188	0.00	1189	0.00
1190	0.00	1191	0.00	1192	0.00	1193	0.00	1194	0.00
1195	0.00	1196	0.00	1197	0.00	1198	0.00	1199	0.00
1200	0.00	1201	0.00	1202	0.00	1203	0.00	1204	0.00
1205	0.00	1206	0.00	1207	0.00	1208	0.00	1209	0.00
1210	0.00	1211	0.00	1212	0.00	1213	0.00	1214	0.00
1215	0.00	1216	0.00	1217	0.00	1218	0.00	1219	0.00
1220	0.00	1221	0.00	1222	0.00	1223	0.00	1224	0.00
1225	0.00	1226	0.00	1227	0.00	1228	0.00	1229	0.00
1230	0.00	1231	0.00	1232	0.00	1233	0.00	1234	0.00
1235	0.00	1236	0.00	1237	0.00	1238	0.00	1239	0.00
1240	0.00	1241	0.00	1242	0.00	1243	0.00	1244	0.00
1245	0.00	1246	0.00	1247	0.00	1248	0.00	1249	0.00
1250	0.00	1251	0.00	1252	0.00	1253	0.00	1254	0.00
1255	0.00	1256	0.00	1257	0.00	1258	0.00	1259	0.00
1260	0.00	1261	0.00	1262	0.00	1263	0.00	1264	0.00
1265	0.00	1266	0.00	1267	0.00	1268	0.00	1269	0.00
1270	0.00	1271	0.00	1272	0.00	1273	0.00	1274	0.00
1275	0.00	1276	0.00	1277	0.00	1278	0.00	1279	0.00
1280	0.00	1281	0.00	1282	0.00	1283	0.00	1284	0.00
1285	0.00	1286	0.00	1287	0.00	1288	0.00	1289	0.00
1290	0.00	1291	0.00	1292	0.00	1293	0.00	1294	0.00
1295	0.00	1296	0.00	1297	0.00	1298	0.00	1299	0.00
1300	0.00	1310	0.00	1320	0.00	1330	0.00	1340	0.00
1350	0.00	1360	0.00	1370	0.00	1380	0.00	1390	0.00
1400	0.00	1420	0.00	1440	0.00	1460	0.00	1500	0.00

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
```

```
006     1  002A 050004003305A97                          1
110
111            1.00000    0.14
110
006     1  003A 010      099A97                          1  2
999
```

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.64)

Modified Rational Model Results Report

Job: 1 Project: Rio Del Valley School Expansion Phase 3 - Q100

Project Description

VCRat version: 2.64.0.37
VCRain version: 201801
DOS EXE version: PC 2.64-201605
VCRain Curve Set: VCWPD 2016 Revised Curve Set
Curve A: REV2: Oxnard Plain - Nyeland Drain
Curve B: None
Curve C: None
Curve D: None

Model Results

NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	ACCUMULATED DATA AREA (AC)	ACCUMULATED DATA FLOW (CFS)	ACCUMULATED DATA TIME (MIN)	ROUTING AFTER ACCUMULATION CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A	---	---	--	--	---	---	0	0	----	-------	----	-------	---	----	-----	-----	--	--
2A	050	A100	5	4	33	59	33	59	1153	-------	----	-------	---	----	-----	-----	--	--
	* INCOMING HYDROGRAPH PEAK (cfs): 58.75 VOLUME (acre-ft): 1.43 *																	
	* NO HYDROGRAPH ADJUSTMENT *																	
	* RUNOFF FACTOR(in): 1.61 TOTAL RAIN(in): 6.30 SCS Curve: 54 *																	
	* FATTENED HYDROGRAPH PEAK (cfs): 58.75 VOLUME (acre-ft): 4.43 *																	
2A	---	---	--	--	---	---	33	59	----	-------	----	-------	---	----	-----	-----	--	--
3A	---	---	--	--	---	---	33	59	1153	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH FATTENED AT 2

```
**********************************************************************************************
*      INCOMING HYDROGRAPH  PEAK (cfs):     58.75         VOLUME (acre-ft):      1.43      *
*      NO HYDROGRAPH ADJUSTMENT                                                             *
*      RUNOFF FACTOR(in):   1.61      TOTAL RAIN(in):   6.30      SCS Curve: 54            *
*      FATTENED HYDROGRAPH  PEAK (cfs):     58.75         VOLUME (acre-ft):      4.43      *
**********************************************************************************************
```

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
0	0.00	0.00	0.00	100	0.15	0.15	0.20
200	0.15	0.15	0.27	300	0.15	0.15	0.30
400	0.15	0.15	0.33	500	0.15	0.15	0.39
600	0.17	0.17	0.49	700	0.25	0.25	0.69
800	0.25	0.25	0.91	900	0.32	0.32	1.40
1000	0.45	0.45	2.54	1050	0.59	0.59	3.79
1100	0.75	0.75	6.26	1110	1.60	1.60	7.78
1120	5.32	5.32	11.94	1130	6.24	6.24	13.76
1131	6.56	6.56	14.15	1132	7.12	7.12	14.75
1133	7.44	7.44	15.14	1134	8.00	8.00	15.74
1135	8.32	8.32	16.13	1136	8.56	8.56	16.46
1137	8.32	8.32	16.38	1138	8.32	8.32	16.51
1139	8.32	8.32	16.64	1140	8.32	8.32	16.77
1141	8.81	8.81	17.32	1142	9.55	9.55	18.07
1143	10.04	10.04	18.61	1144	10.51	10.51	19.15
1145	13.03	13.03	21.36	1146	15.09	15.09	23.18
1147	16.91	16.91	24.79	1148	18.73	18.73	26.40
1149	27.99	27.99	33.99	1150	35.61	35.61	40.20
1151	43.41	43.41	46.50	1152	51.12	51.12	52.69
1153	58.75	58.75	58.75	1154	51.12	51.12	52.69
1155	41.63	41.63	45.09	1156	31.47	31.47	36.90
1157	21.90	21.90	29.11	1158	11.66	11.66	20.71
1159	8.32	8.32	17.86	1160	7.34	7.34	16.91
1161	6.60	6.60	16.16	1162	6.09	6.09	15.59
1163	5.47	5.47	14.93	1164	5.47	5.47	14.78
1165	3.62	3.62	13.10	1166	1.76	1.76	11.41
1167	0.98	0.98	10.61	1168	0.87	0.87	10.38
1169	0.78	0.78	10.16	1170	0.76	0.76	10.00
1171	0.76	0.76	9.87	1172	0.76	0.76	9.73
1173	0.76	0.76	9.60	1174	0.76	0.76	9.47
1175	0.78	0.78	9.36	1176	0.78	0.78	9.24
1177	0.75	0.75	9.09	1178	0.71	0.71	8.95
1179	0.68	0.68	8.81	1180	0.65	0.65	8.67

1181	0.62	0.62	8.53	1182	0.61	0.61	8.41
1183	0.61	0.61	8.31	1184	0.61	0.61	8.20
1185	0.61	0.61	8.10	1186	0.61	0.61	8.00
1187	0.62	0.62	7.92	1188	0.62	0.62	7.82
1189	0.59	0.59	7.70	1190	0.54	0.54	7.57
1191	0.51	0.51	7.45	1192	0.48	0.48	7.34
1193	0.45	0.45	7.22	1194	0.45	0.45	7.14
1195	0.45	0.45	7.05	1196	0.45	0.45	6.97
1197	0.45	0.45	6.89	1198	0.45	0.45	6.81
1199	0.43	0.43	6.72	1200	0.45	0.45	6.66

Hydrograph Printouts

TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)	TIME (min)	PRE-ADJ (cfs)	PRE-FAT (cfs)	FATTENED (cfs)
1201	0.45	0.45	6.59	1202	0.45	0.45	6.51
1203	0.45	0.45	6.44	1204	0.45	0.45	6.37
1205	0.45	0.45	6.30	1206	0.45	0.45	6.23
1207	0.45	0.45	6.17	1208	0.45	0.45	6.10
1209	0.45	0.45	6.04	1210	0.45	0.45	5.97
1211	0.45	0.45	5.91	1212	0.45	0.45	5.85
1213	0.45	0.45	5.79	1214	0.45	0.45	5.73
1215	0.45	0.45	5.67	1216	0.45	0.45	5.62
1217	0.45	0.45	5.56	1218	0.43	0.43	5.49
1219	0.45	0.45	5.45	1220	0.45	0.45	5.40
1221	0.45	0.45	5.34	1222	0.45	0.45	5.29
1223	0.45	0.45	5.24	1224	0.45	0.45	5.19
1225	0.40	0.40	5.10	1226	0.37	0.37	5.02
1227	0.33	0.33	4.93	1228	0.29	0.29	4.86
1229	0.25	0.25	4.77	1230	0.25	0.25	4.72
1231	0.23	0.23	4.66	1232	0.25	0.25	4.63
1233	0.25	0.25	4.59	1234	0.25	0.25	4.55
1235	0.25	0.25	4.50	1236	0.25	0.25	4.46
1237	0.25	0.25	4.42	1238	0.25	0.25	4.38
1239	0.25	0.25	4.34	1240	0.25	0.25	4.30
1241	0.25	0.25	4.26	1242	0.23	0.23	4.21
1243	0.25	0.25	4.19	1244	0.25	0.25	4.15
1245	0.25	0.25	4.12	1246	0.25	0.25	4.08
1247	0.25	0.25	4.05	1248	0.25	0.25	4.01
1249	0.25	0.25	3.98	1250	0.25	0.25	3.94
1251	0.25	0.25	3.91	1252	0.25	0.25	3.88
1253	0.25	0.25	3.84	1254	0.25	0.25	3.81
1255	0.25	0.25	3.78	1256	0.25	0.25	3.75
1257	0.25	0.25	3.72	1258	0.23	0.23	3.67
1259	0.25	0.25	3.66	1260	0.25	0.25	3.63
1261	0.25	0.25	3.60	1262	0.25	0.25	3.57

1263	0.25	0.25	3.54	1264	0.25	0.25	3.52
1265	0.25	0.25	3.49	1266	0.25	0.25	3.46
1267	0.25	0.25	3.44	1268	0.25	0.25	3.41
1269	0.23	0.23	3.37	1270	0.25	0.25	3.36
1271	0.25	0.25	3.33	1272	0.25	0.25	3.31
1273	0.25	0.25	3.28	1274	0.25	0.25	3.26
1275	0.25	0.25	3.23	1276	0.25	0.25	3.21
1277	0.25	0.25	3.19	1278	0.25	0.25	3.16
1279	0.25	0.25	3.14	1280	0.23	0.23	3.10
1281	0.25	0.25	3.10	1282	0.25	0.25	3.07
1283	0.25	0.25	3.05	1284	0.25	0.25	3.03
1285	0.25	0.25	3.01	1286	0.25	0.25	2.99
1287	0.25	0.25	2.97	1288	0.25	0.25	2.95
1289	0.25	0.25	2.93	1290	0.25	0.25	2.91
1291	0.23	0.23	2.87	1292	0.25	0.25	2.87
1293	0.25	0.25	2.85	1294	0.25	0.25	2.83
1295	0.25	0.25	2.81	1296	0.25	0.25	2.79
1297	0.22	0.22	2.74	1298	0.20	0.20	2.71
1299	0.19	0.19	2.68	1300	0.17	0.17	2.64
1310	0.15	0.15	2.45	1320	0.14	0.14	2.30
1330	0.15	0.15	2.17	1340	0.15	0.15	2.05
1350	0.15	0.15	1.93	1360	0.15	0.15	1.83
1370	0.14	0.14	1.73	1380	0.15	0.15	1.66
1390	0.15	0.15	1.58	1400	0.15	0.15	1.51
1420	0.14	0.14	1.38	1440	0.15	0.15	1.28
1460	0.00	0.00	1.04	1500	0.00	0.00	0.89

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 3A

TOTAL AREA TO HYDROGRAPH: 33 acres
HYDROGRAPH PEAK: 59 cfs
TIME OF PEAK: 1153 minutes
HYDROGRAPH VOLUME: 4.44 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.00	100	0.20	200	0.27	300	0.30	400	0.33
500	0.39	600	0.49	700	0.69	800	0.91	900	1.40
1000	2.54	1050	3.79	1100	6.26	1110	7.78	1120	11.94
1130	13.76	1131	14.15	1132	14.75	1133	15.14	1134	15.74
1135	16.13	1136	16.46	1137	16.38	1138	16.51	1139	16.64

1140	16.77	1141	17.32	1142	18.07	1143	18.61	1144	19.15
1145	21.36	1146	23.18	1147	24.79	1148	26.40	1149	33.99
1150	40.20	1151	46.50	1152	52.69	1153	58.75	1154	52.69
1155	45.09	1156	36.90	1157	29.11	1158	20.71	1159	17.86
1160	16.91	1161	16.16	1162	15.59	1163	14.93	1164	14.78
1165	13.10	1166	11.41	1167	10.61	1168	10.38	1169	10.16
1170	10.00	1171	9.87	1172	9.73	1173	9.60	1174	9.47
1175	9.36	1176	9.24	1177	9.09	1178	8.95	1179	8.81
1180	8.67	1181	8.53	1182	8.41	1183	8.31	1184	8.20
1185	8.10	1186	8.00	1187	7.92	1188	7.82	1189	7.70
1190	7.57	1191	7.45	1192	7.34	1193	7.22	1194	7.14
1195	7.05	1196	6.97	1197	6.89	1198	6.81	1199	6.72
1200	6.66	1201	6.59	1202	6.51	1203	6.44	1204	6.37
1205	6.30	1206	6.23	1207	6.17	1208	6.10	1209	6.04
1210	5.97	1211	5.91	1212	5.85	1213	5.79	1214	5.73
1215	5.67	1216	5.62	1217	5.56	1218	5.49	1219	5.45
1220	5.40	1221	5.34	1222	5.29	1223	5.24	1224	5.19
1225	5.10	1226	5.02	1227	4.93	1228	4.86	1229	4.77
1230	4.72	1231	4.66	1232	4.63	1233	4.59	1234	4.55
1235	4.50	1236	4.46	1237	4.42	1238	4.38	1239	4.34
1240	4.30	1241	4.26	1242	4.21	1243	4.19	1244	4.15
1245	4.12	1246	4.08	1247	4.05	1248	4.01	1249	3.98
1250	3.94	1251	3.91	1252	3.88	1253	3.84	1254	3.81
1255	3.78	1256	3.75	1257	3.72	1258	3.67	1259	3.66
1260	3.63	1261	3.60	1262	3.57	1263	3.54	1264	3.52
1265	3.49	1266	3.46	1267	3.44	1268	3.41	1269	3.37
1270	3.36	1271	3.33	1272	3.31	1273	3.28	1274	3.26
1275	3.23	1276	3.21	1277	3.19	1278	3.16	1279	3.14
1280	3.10	1281	3.10	1282	3.07	1283	3.05	1284	3.03
1285	3.01	1286	2.99	1287	2.97	1288	2.95	1289	2.93
1290	2.91	1291	2.87	1292	2.87	1293	2.85	1294	2.83
1295	2.81	1296	2.79	1297	2.74	1298	2.71	1299	2.68
1300	2.64	1310	2.45	1320	2.30	1330	2.17	1340	2.05
1350	1.93	1360	1.83	1370	1.73	1380	1.66	1390	1.58
1400	1.51	1420	1.38	1440	1.28	1460	1.04	1500	0.89

VCRat Model Input

Model Lines

```
005     1  001A Header place holder
005     1  002A Header place holder
005     1  003A Header place holder
999
999
006     1  001A 010      099A97                              G1
006     1  002A 050004003305A97                            1
```

```
110
111            1.00000    1.61
110
006     1  003A 010      099A97                            1  2
999
```

HYDRAFLOW ROUTED HYDROGRAPHS

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Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.23

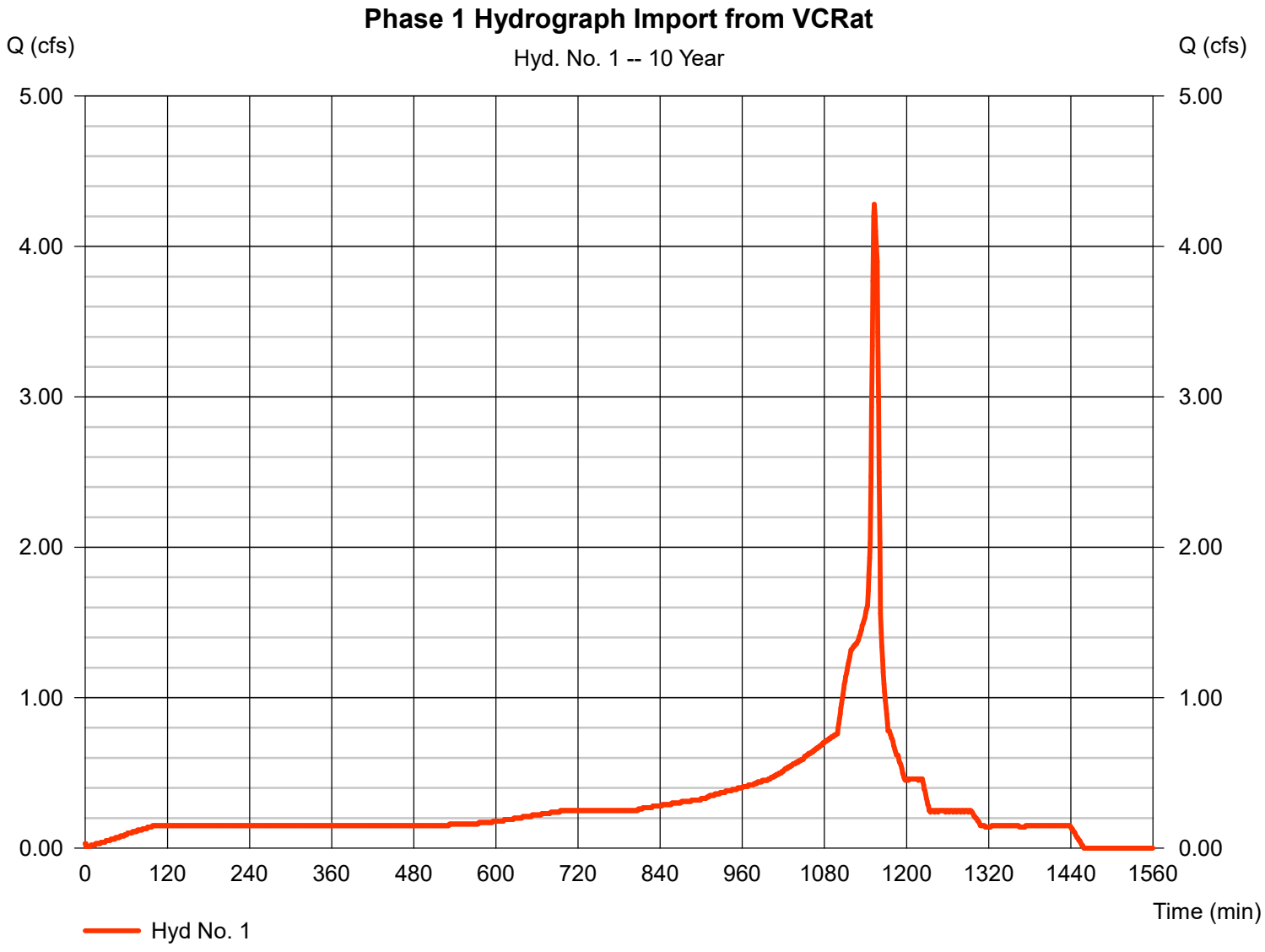
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	4.280	1	1153	27,163	----	------	------	Phase 1 Hydrograph Import from VC
2	Diversion1	0.250	1	694	6,739	1	------	------	First Flush to infiltration
3	Diversion2	4.280	1	1153	20,424	1	------	------	Remaining Flow
4	Diversion1	2.500	1	1149	19,607	3	------	------	Flow Released to City SD
5	Diversion2	1.780	1	1153	817	3	------	------	Flow Sent to Detention
7	Manual	6.790	1	1153	53,816	----	------	------	Phase 2 Hydrograph Import from VC
8	Diversion1	0.190	1	274	3,024	7	------	------	First Flush to infiltration
9	Diversion2	6.790	1	1153	50,792	7	------	------	Remaining Flow
10	Diversion1	5.000	1	1149	50,096	9	------	------	Flow Released to City SD
11	Diversion2	1.790	1	1153	696	9	------	------	Flow Sent to Detention
13	Manual	2.490	1	1152	8,165	----	------	------	Phase 3 Hydrograph Import from VC
14	Diversion1	0.040	1	761	781	13	------	------	First Flush to infiltration
15	Diversion2	2.490	1	1152	7,384	13	------	------	Remaining Flow
16	Diversion1	2.490	1	1152	7,384	15	------	------	Flow Released to City SD
17	Diversion2	0.000	1	n/a	0	15	------	------	Flow Sent to Detention
19	Combine	9.990	1	1152	77,088	4, 10, 16,	------	------	Combined Flow Released to City SD
20	Combine	3.570	1	1153	1,513	5, 11, 17,	------	------	Combined Flow Sent to Detention

Hydrograph Report

Hyd. No. 1

Phase 1 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 4.280 cfs
Storm frequency	= 10 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 27,163 cuft

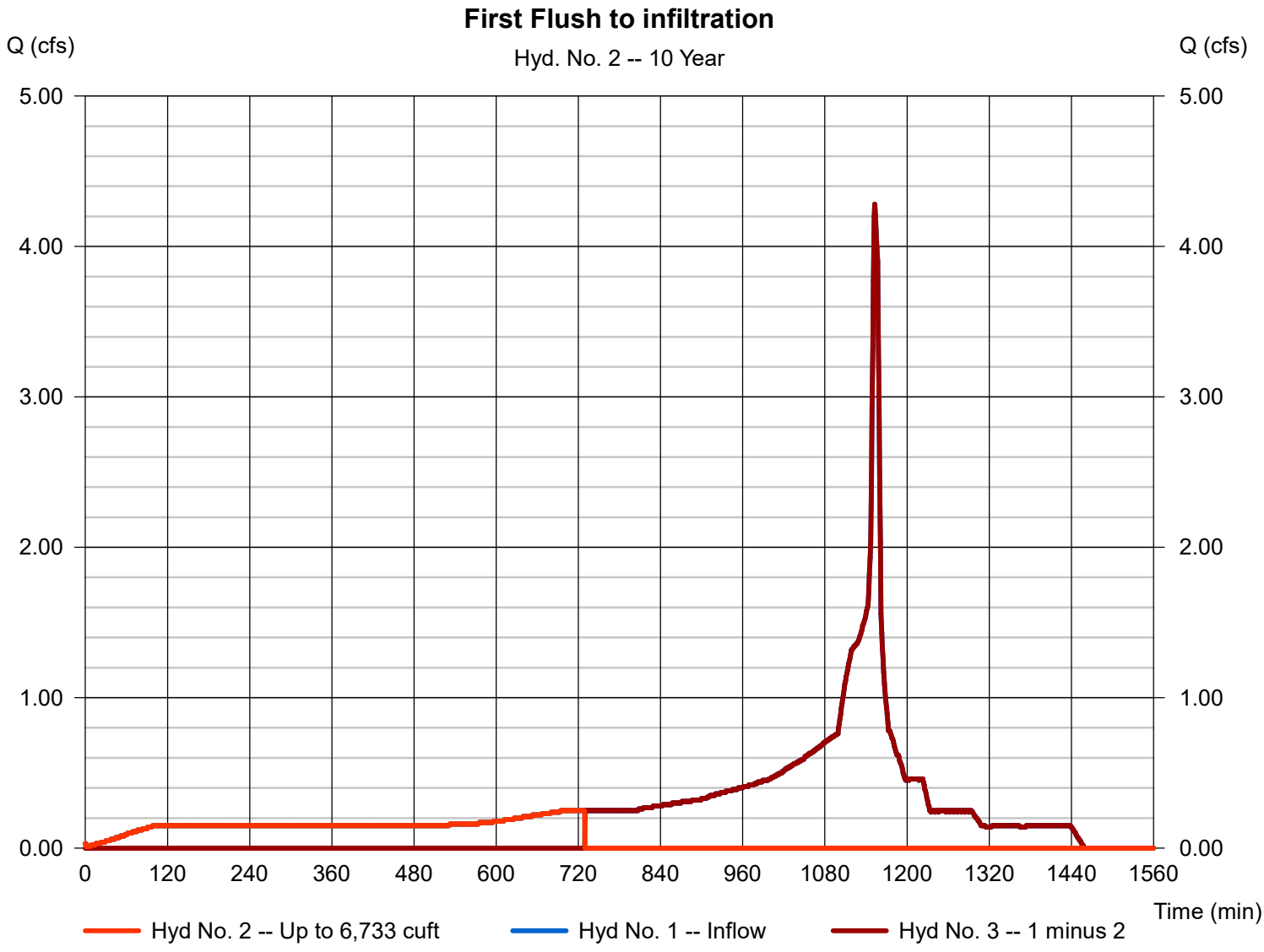


Hydrograph Report

Hyd. No. 2

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.250 cfs
Storm frequency	=	10 yrs	Time to peak	=	694 min
Time interval	=	1 min	Hyd. volume	=	6,739 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	3
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

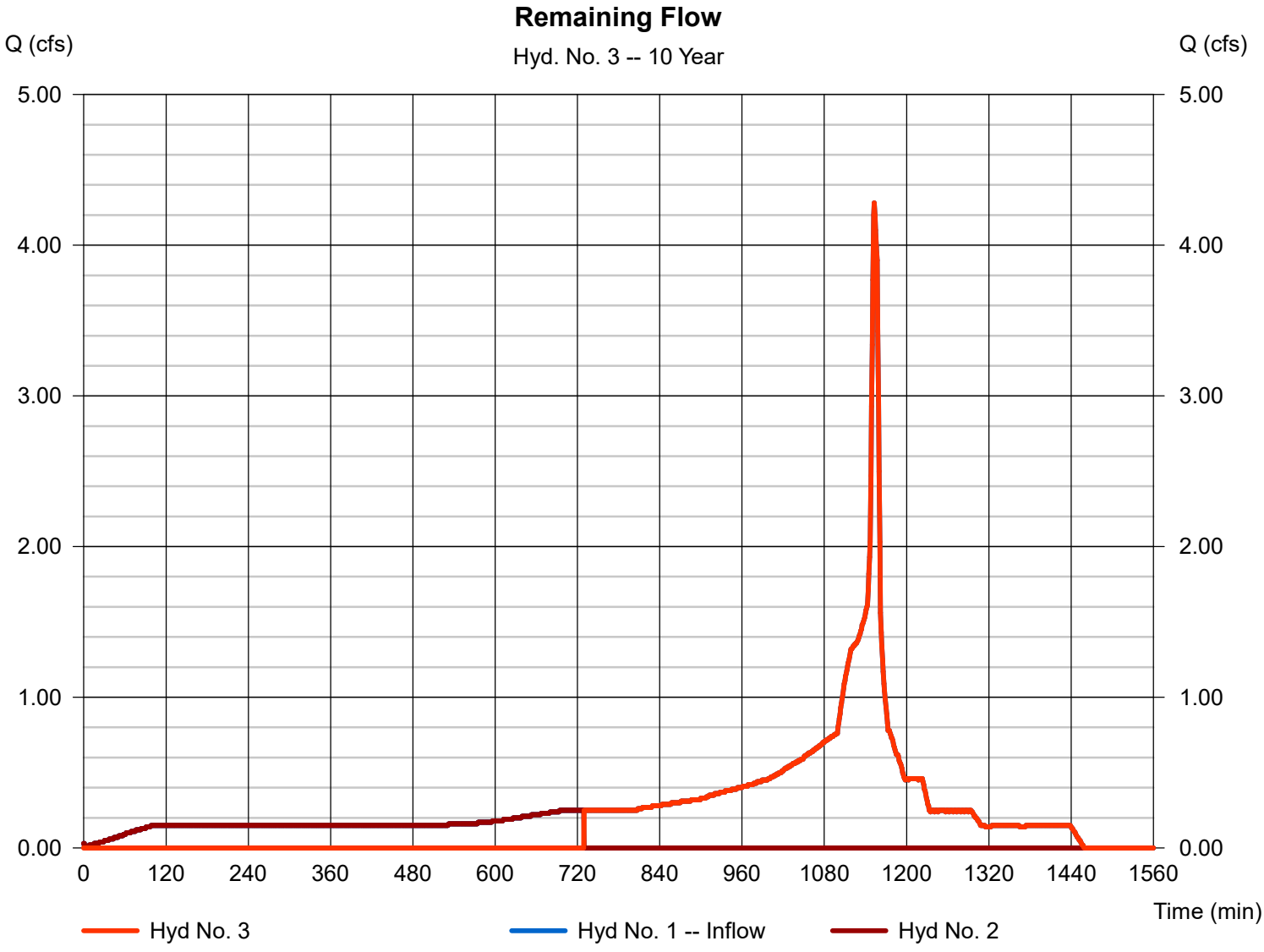


Hydrograph Report

Hyd. No. 3

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	4.280 cfs
Storm frequency	=	10 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	20,424 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	2
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

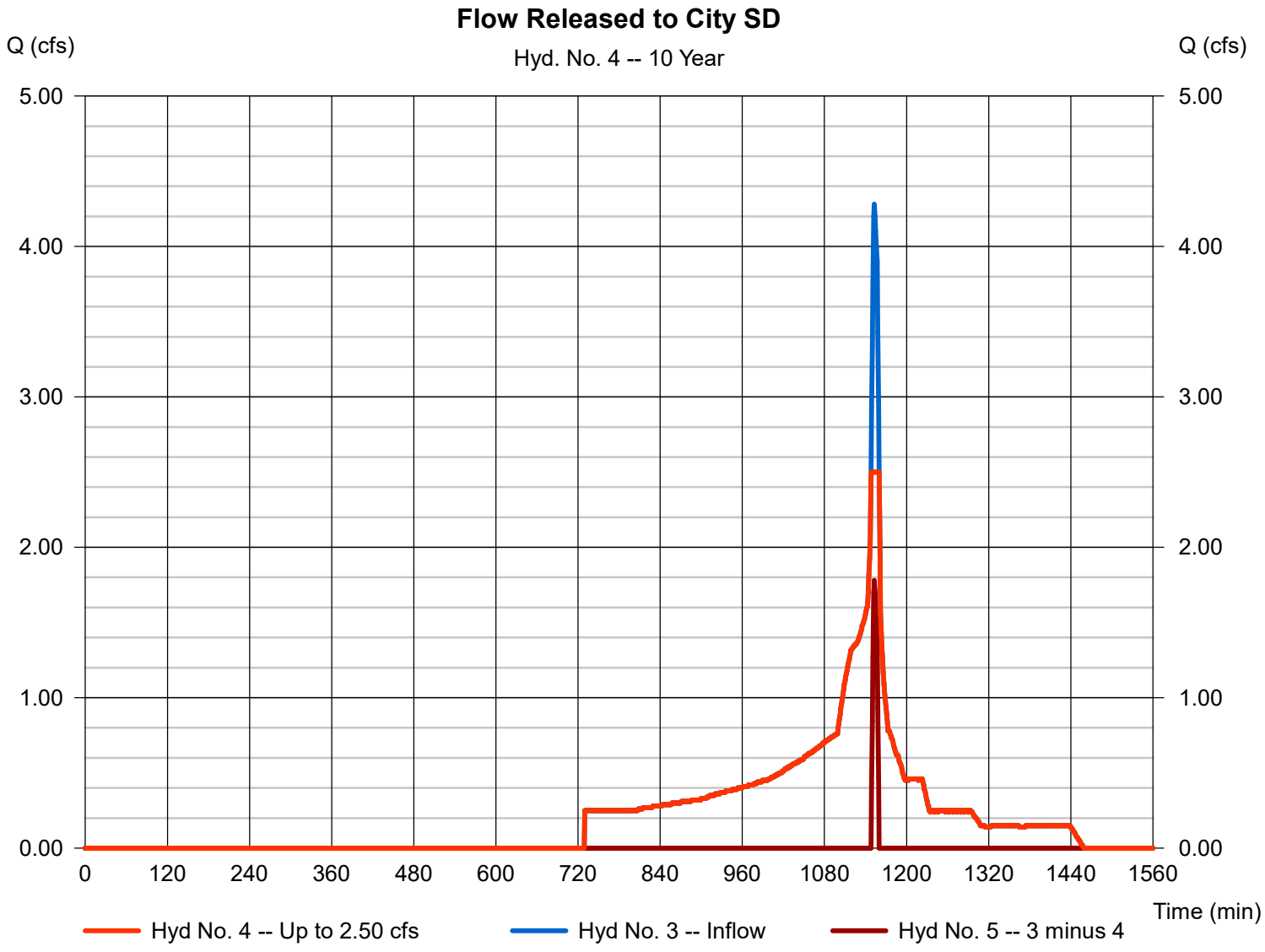


Hydrograph Report

Hyd. No. 4

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.500 cfs
Storm frequency	=	10 yrs	Time to peak	=	1149 min
Time interval	=	1 min	Hyd. volume	=	19,607 cuft
Inflow hydrograph	=	3 - Remaining Flow	2nd diverted hyd.	=	5
Diversion method	=	Constant Q	Constant Q	=	2.50 cfs

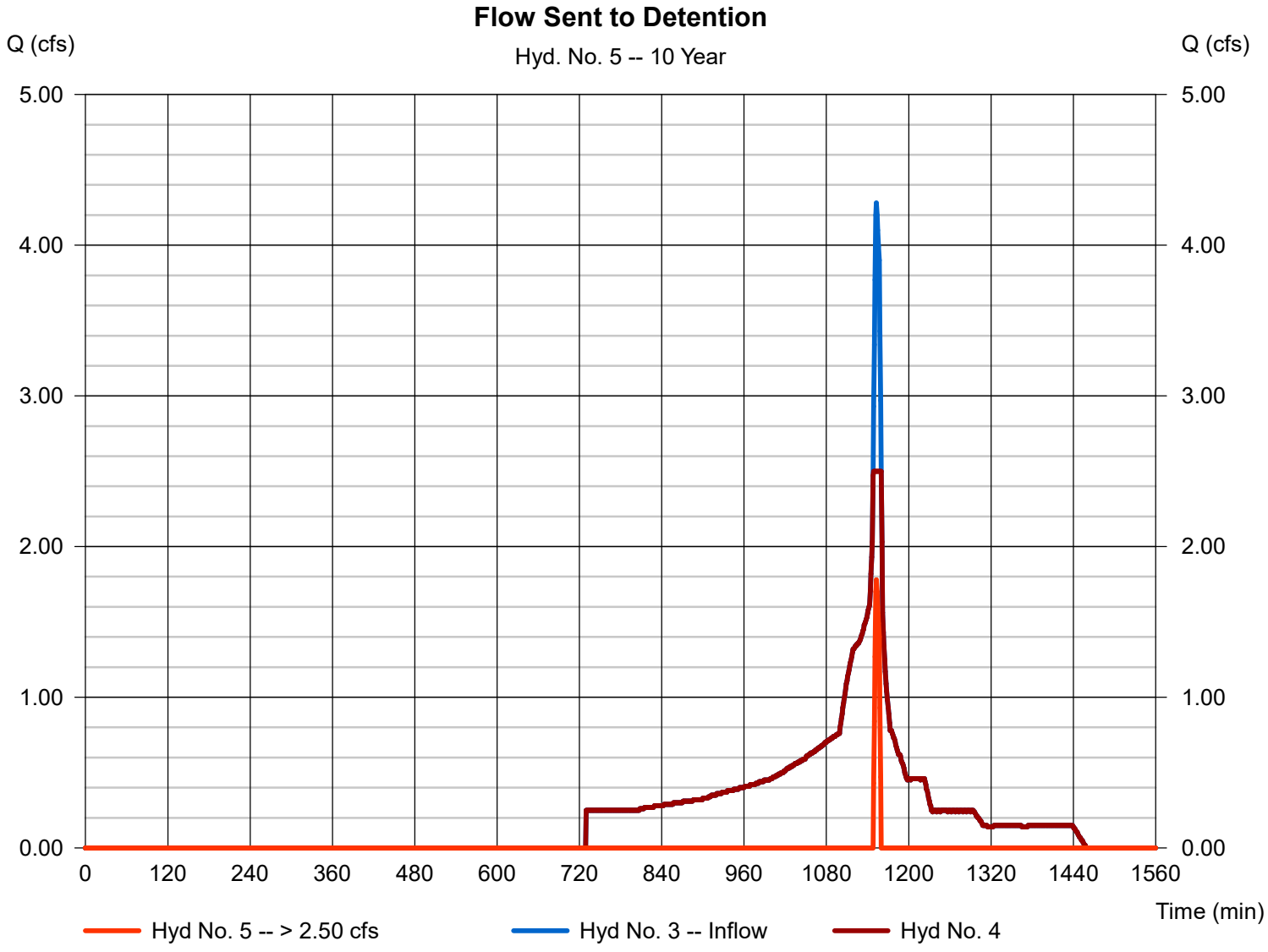


Hydrograph Report

Hyd. No. 5

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 1.780 cfs
Storm frequency	= 10 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 817 cuft
Inflow hydrograph	= 3 - Remaining Flow	2nd diverted hyd.	= 4
Diversion method	= Constant Q	Constant Q	= 2.50 cfs

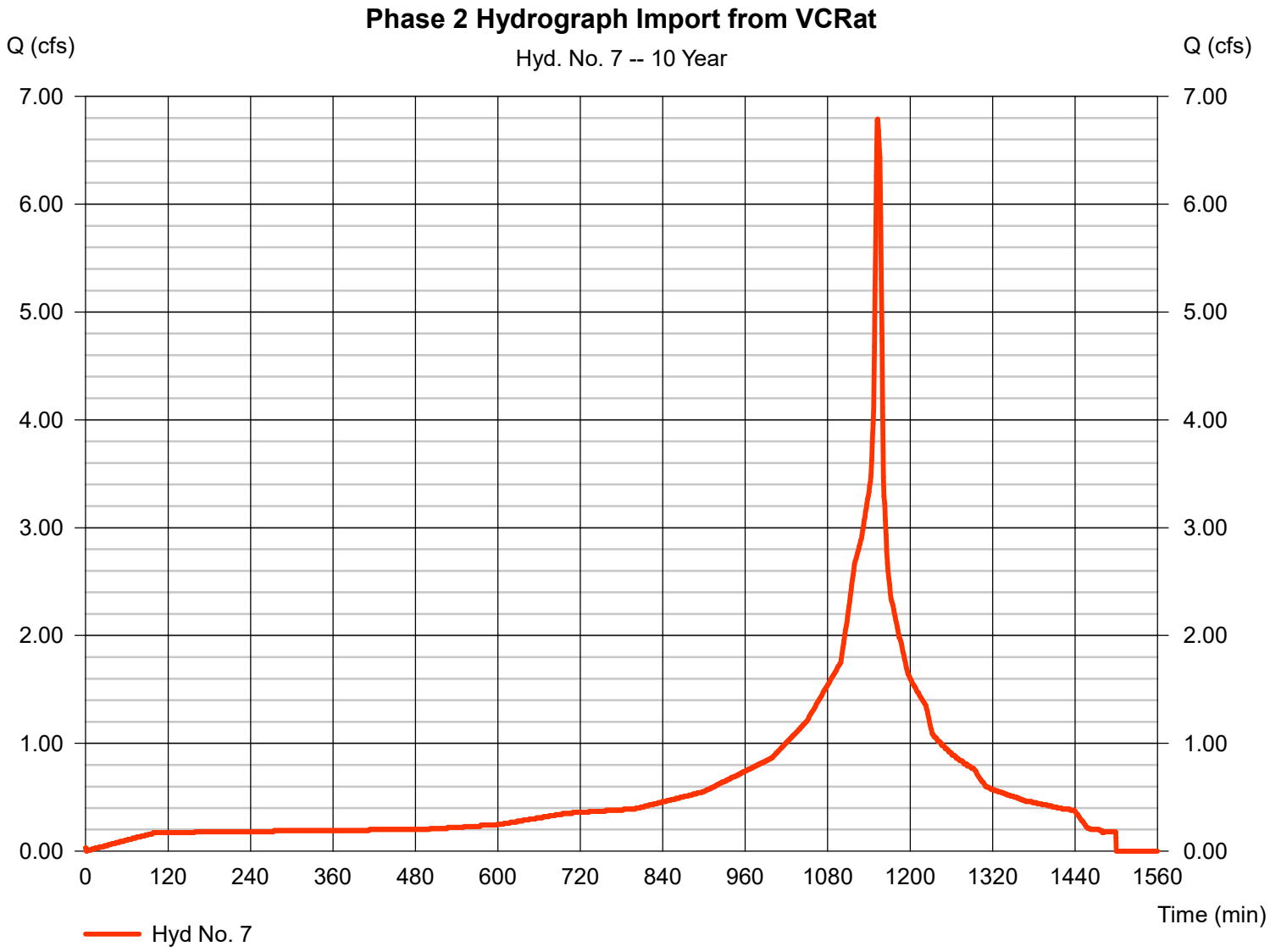


Hydrograph Report

Hyd. No. 7

Phase 2 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 6.790 cfs
Storm frequency	= 10 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 53,816 cuft

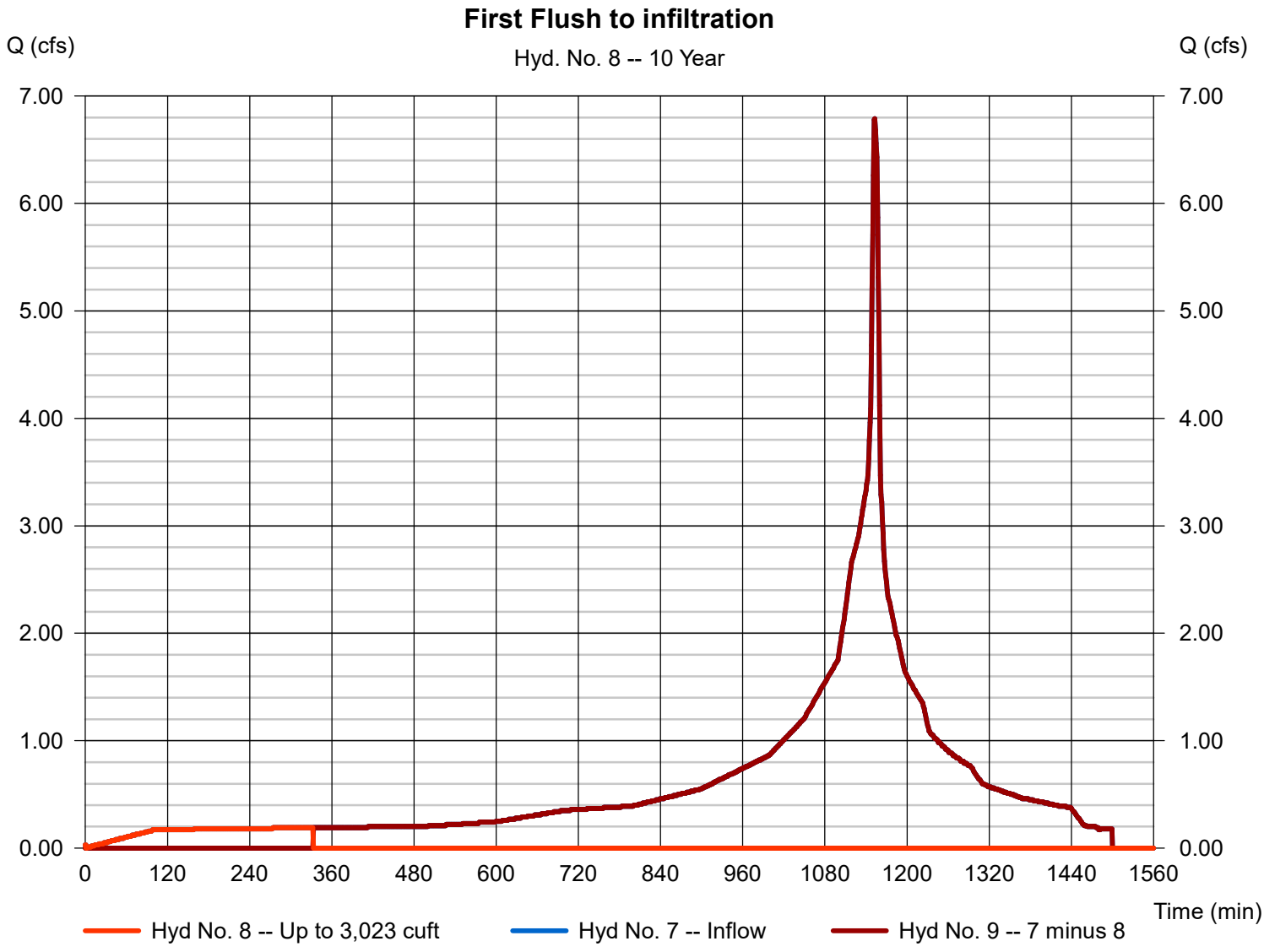


Hydrograph Report

Hyd. No. 8

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.190 cfs
Storm frequency	=	10 yrs	Time to peak	=	274 min
Time interval	=	1 min	Hyd. volume	=	3,024 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	9
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

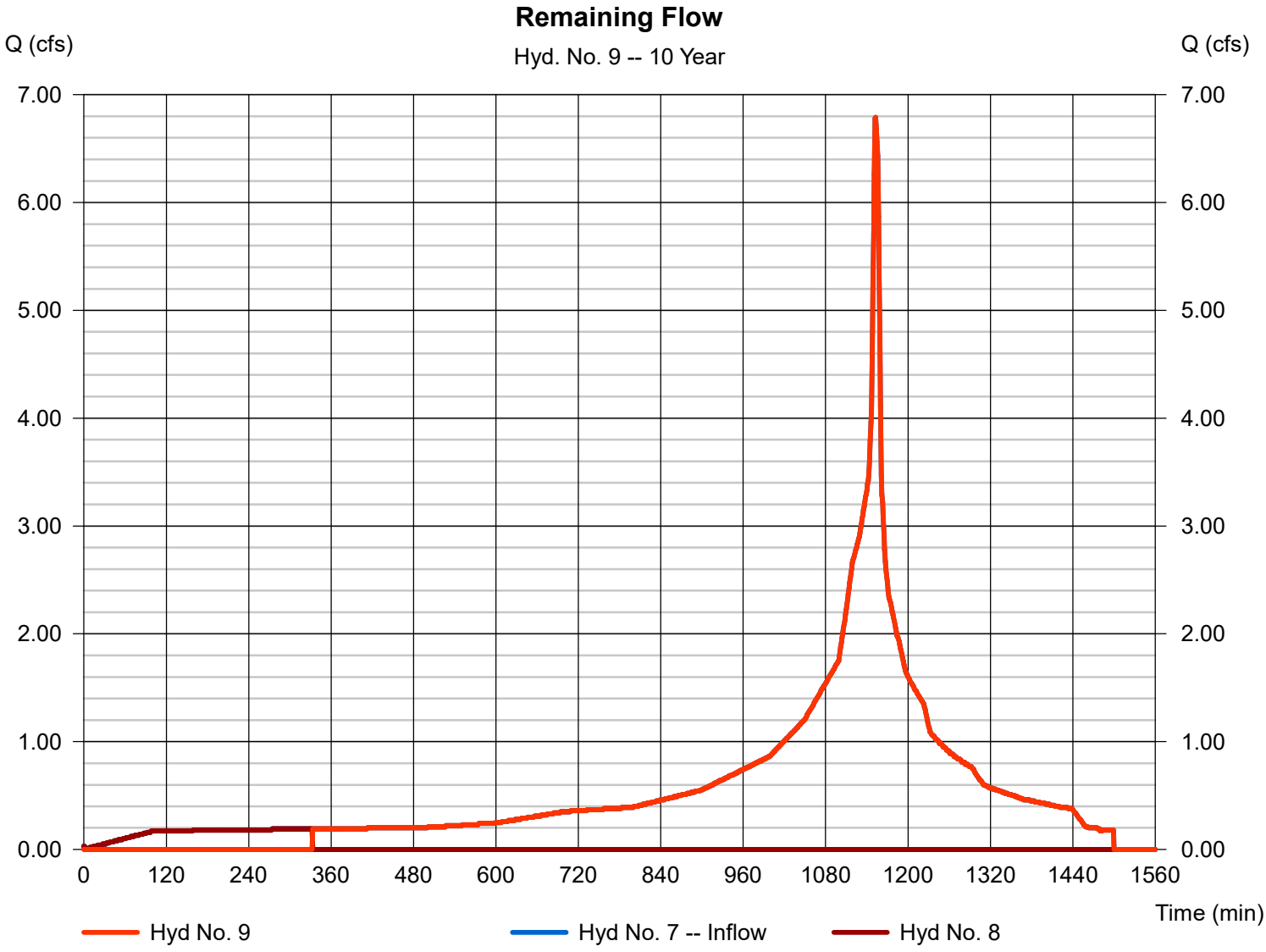


Hydrograph Report

Hyd. No. 9

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	6.790 cfs
Storm frequency	=	10 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	50,792 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCR	2nd diverted hyd.	=	8
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

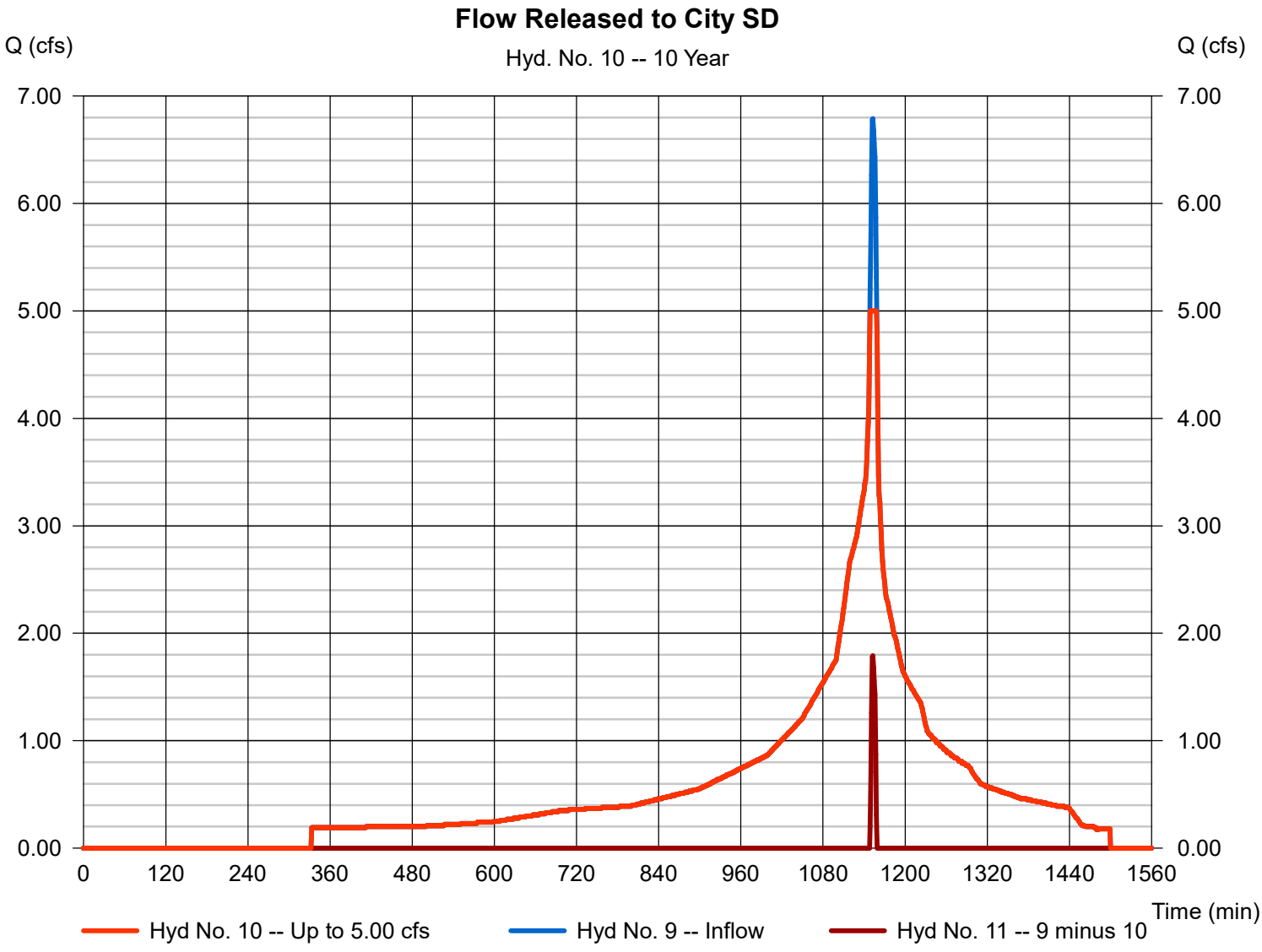


Hydrograph Report

Hyd. No. 10

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	5.000 cfs
Storm frequency	=	10 yrs	Time to peak	=	1149 min
Time interval	=	1 min	Hyd. volume	=	50,096 cuft
Inflow hydrograph	=	9 - Remaining Flow	2nd diverted hyd.	=	11
Diversion method	=	Constant Q	Constant Q	=	5.00 cfs

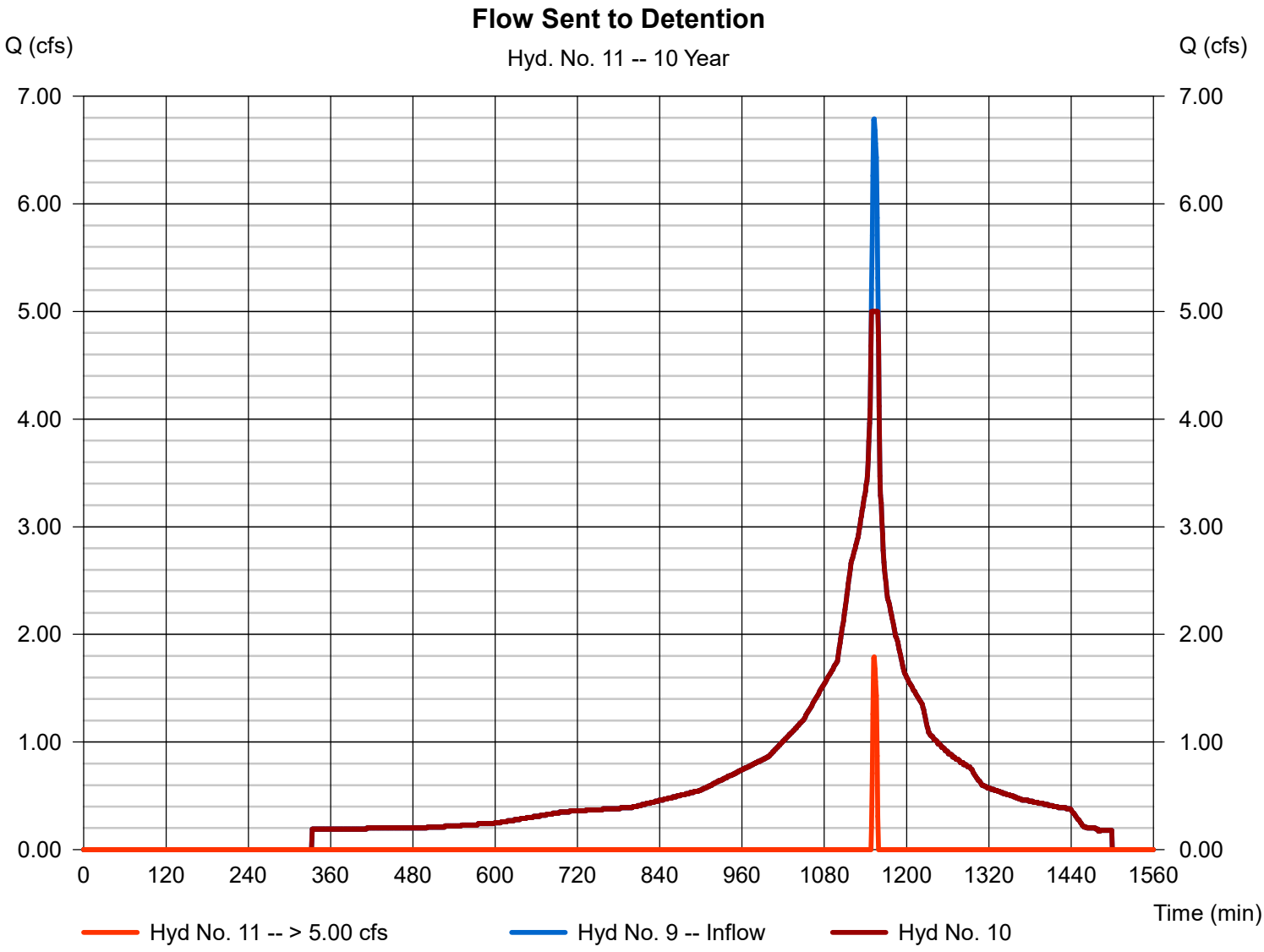


Hydrograph Report

Hyd. No. 11

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 1.790 cfs
Storm frequency	= 10 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 696 cuft
Inflow hydrograph	= 9 - Remaining Flow	2nd diverted hyd.	= 10
Diversion method	= Constant Q	Constant Q	= 5.00 cfs

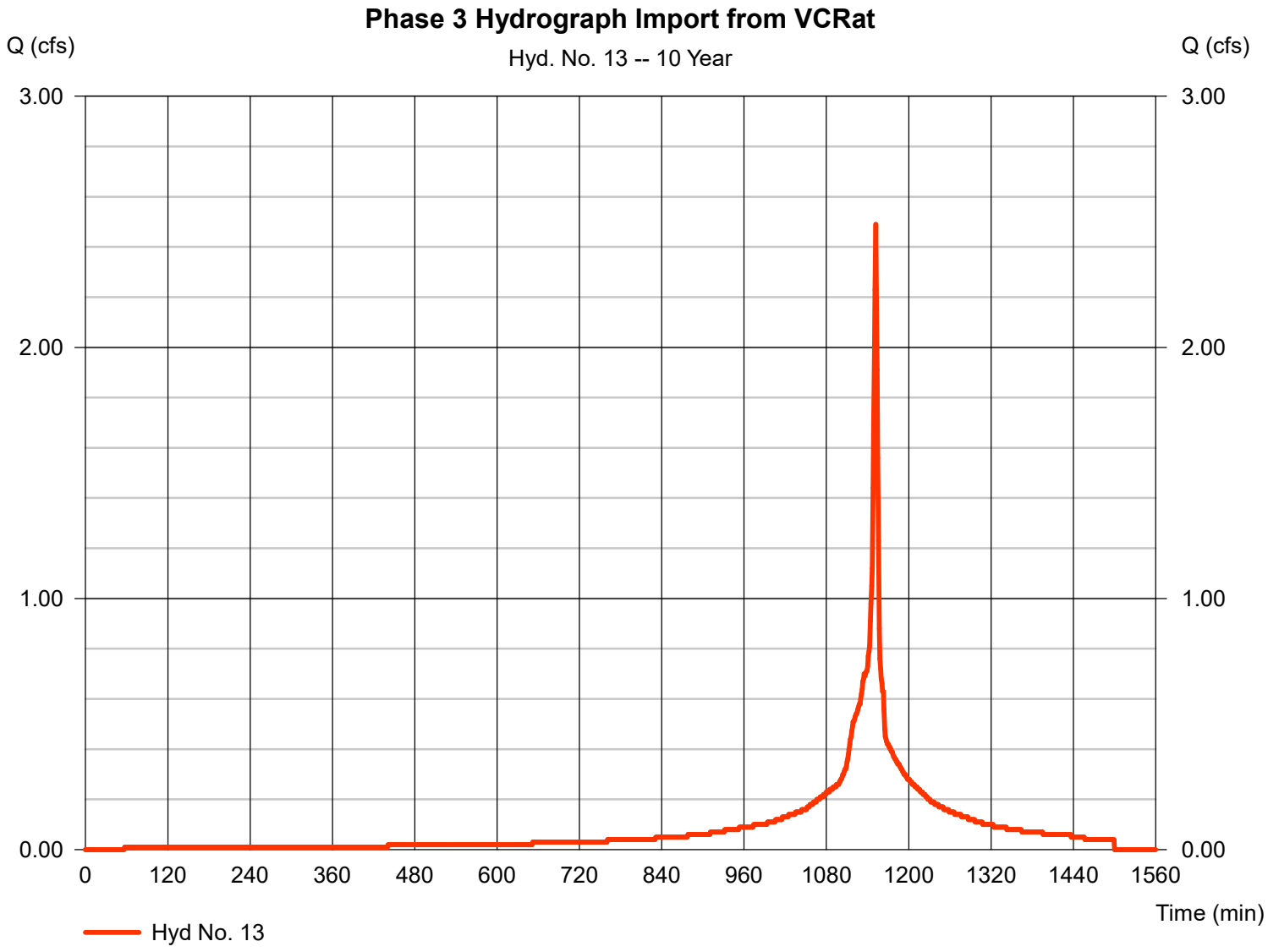


Hydrograph Report

Hyd. No. 13

Phase 3 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 2.490 cfs
Storm frequency	= 10 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 8,165 cuft

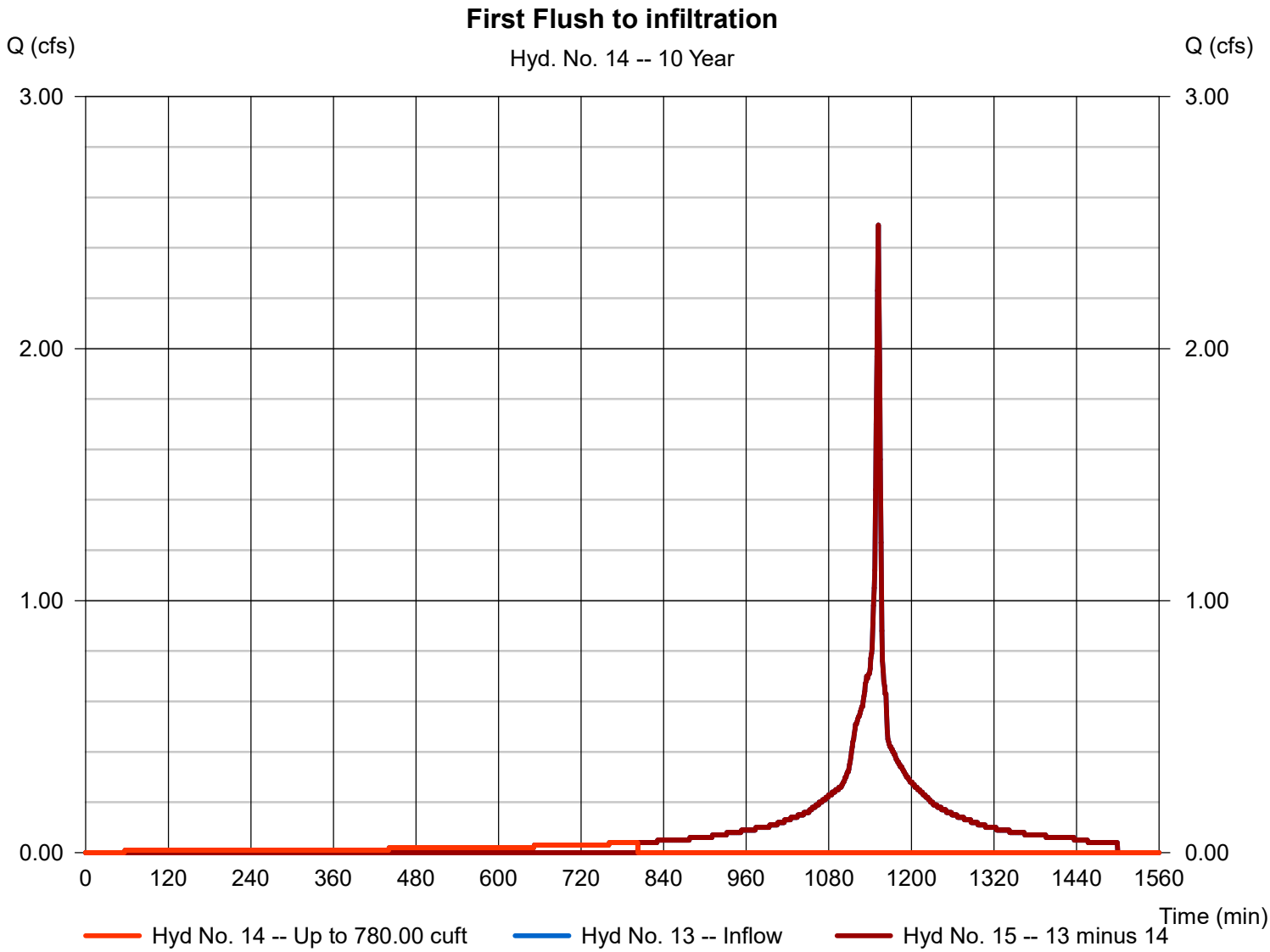


Hydrograph Report

Hyd. No. 14

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.040 cfs
Storm frequency	=	10 yrs	Time to peak	=	761 min
Time interval	=	1 min	Hyd. volume	=	781 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	15
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

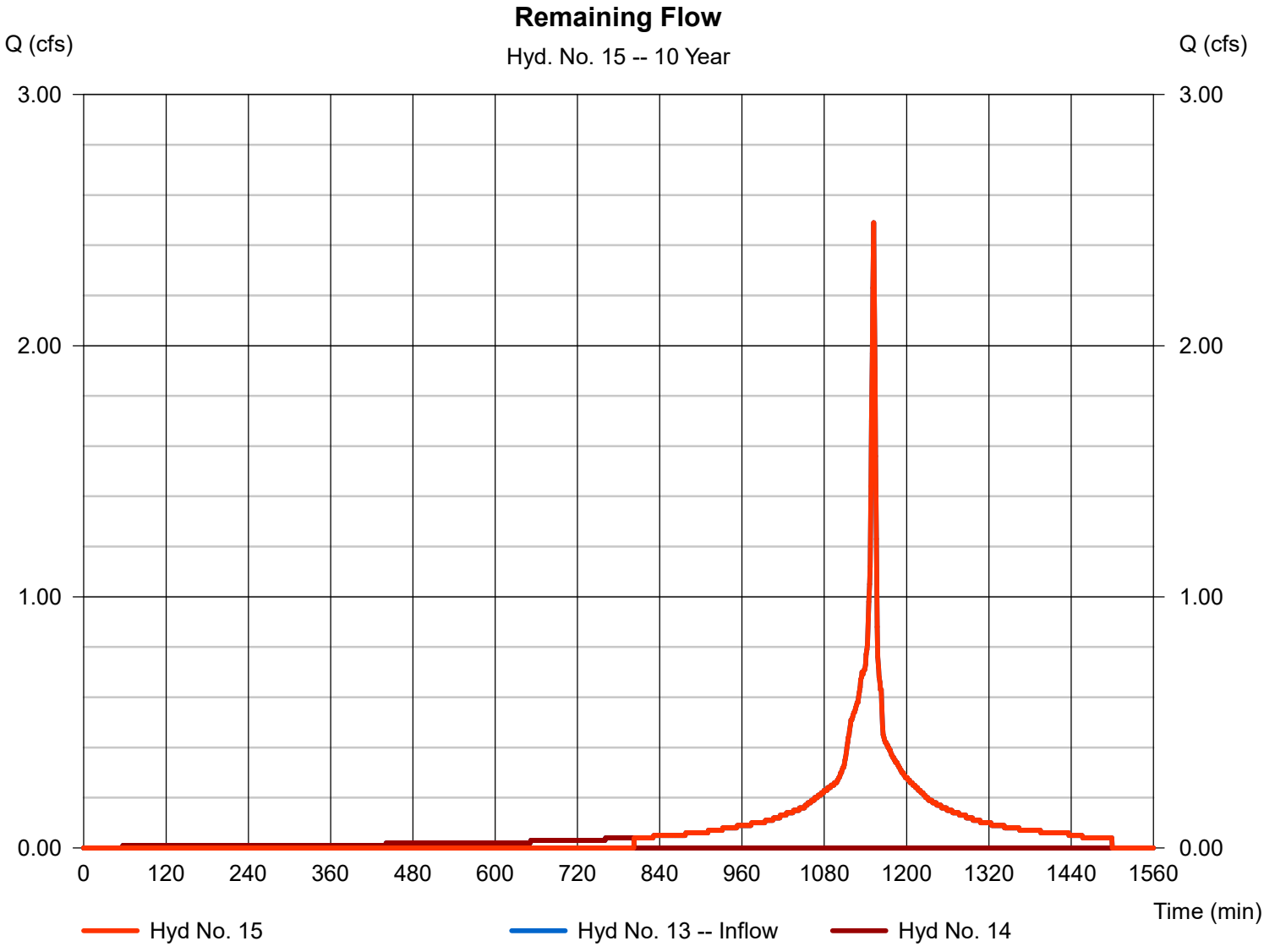


Hydrograph Report

Hyd. No. 15

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	2.490 cfs
Storm frequency	=	10 yrs	Time to peak	=	1152 min
Time interval	=	1 min	Hyd. volume	=	7,384 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	14
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

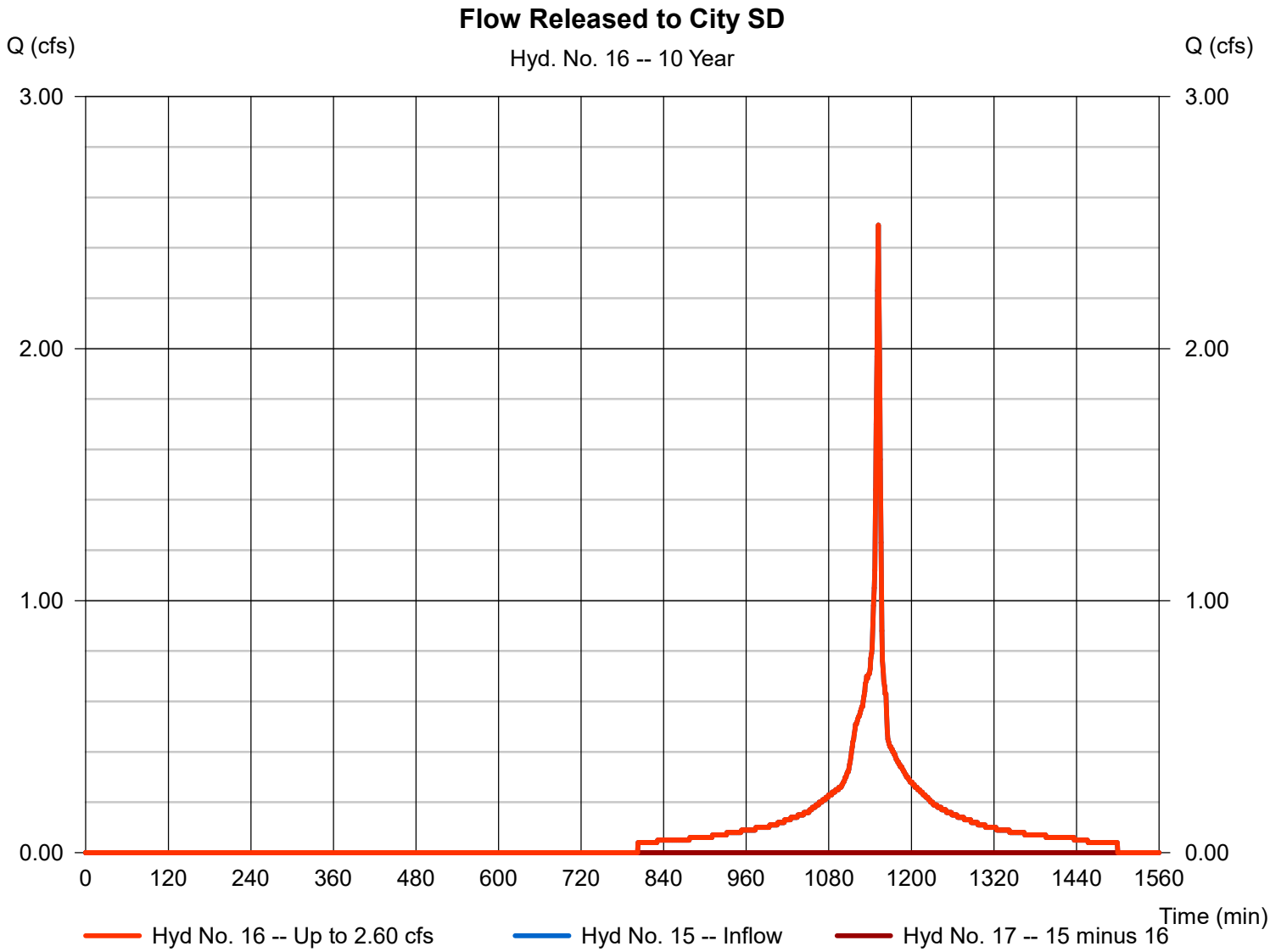


Hydrograph Report

Hyd. No. 16

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.490 cfs
Storm frequency	=	10 yrs	Time to peak	=	1152 min
Time interval	=	1 min	Hyd. volume	=	7,384 cuft
Inflow hydrograph	=	15 - Remaining Flow	2nd diverted hyd.	=	17
Diversion method	=	Constant Q	Constant Q	=	2.60 cfs

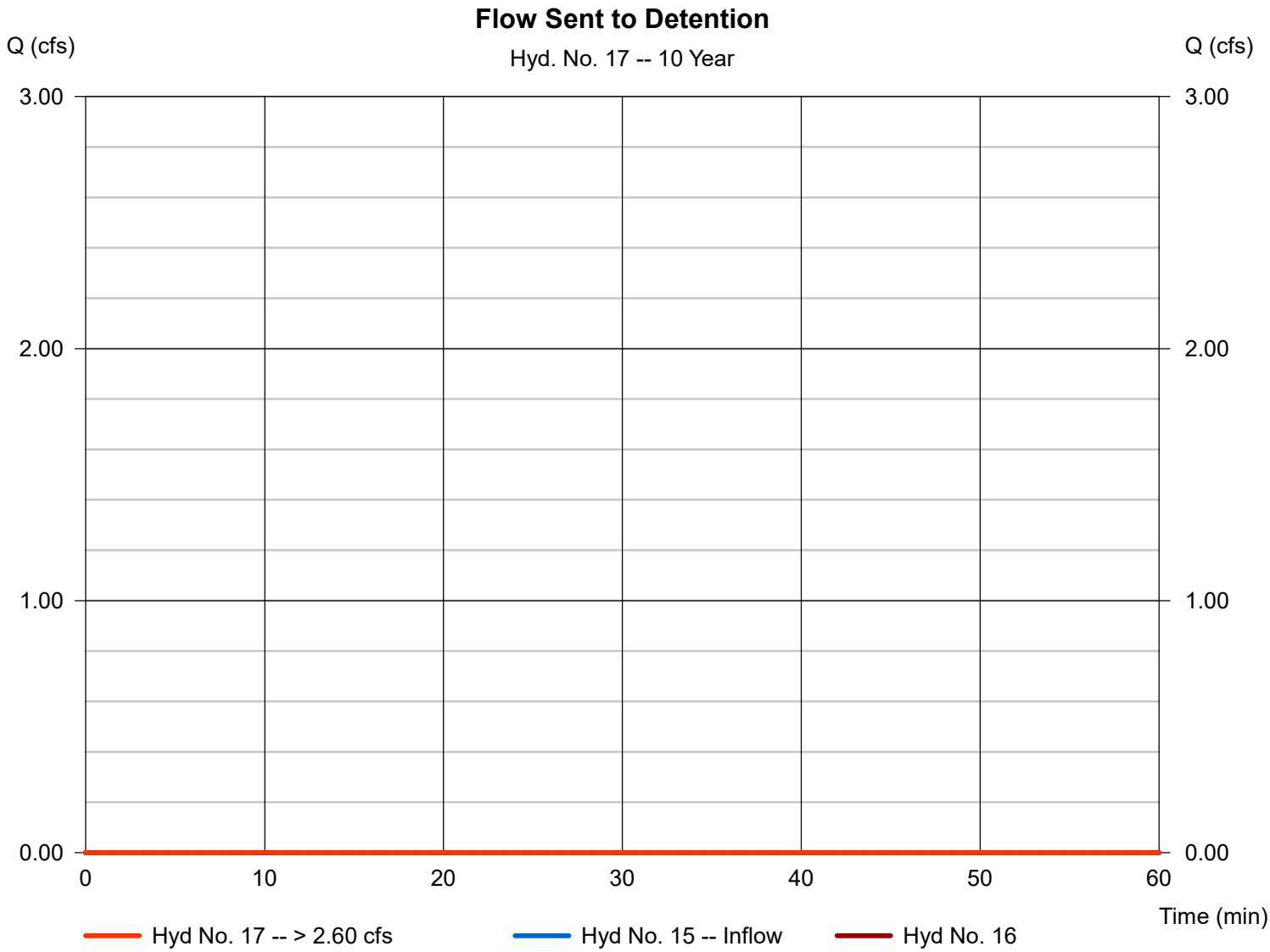


Hydrograph Report

Hyd. No. 17

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 0.000 cfs
Storm frequency	= 10 yrs	Time to peak	= n/a
Time interval	= 1 min	Hyd. volume	= 0 cuft
Inflow hydrograph	= 15 - Remaining Flow	2nd diverted hyd.	= 16
Diversion method	= Constant Q	Constant Q	= 2.60 cfs

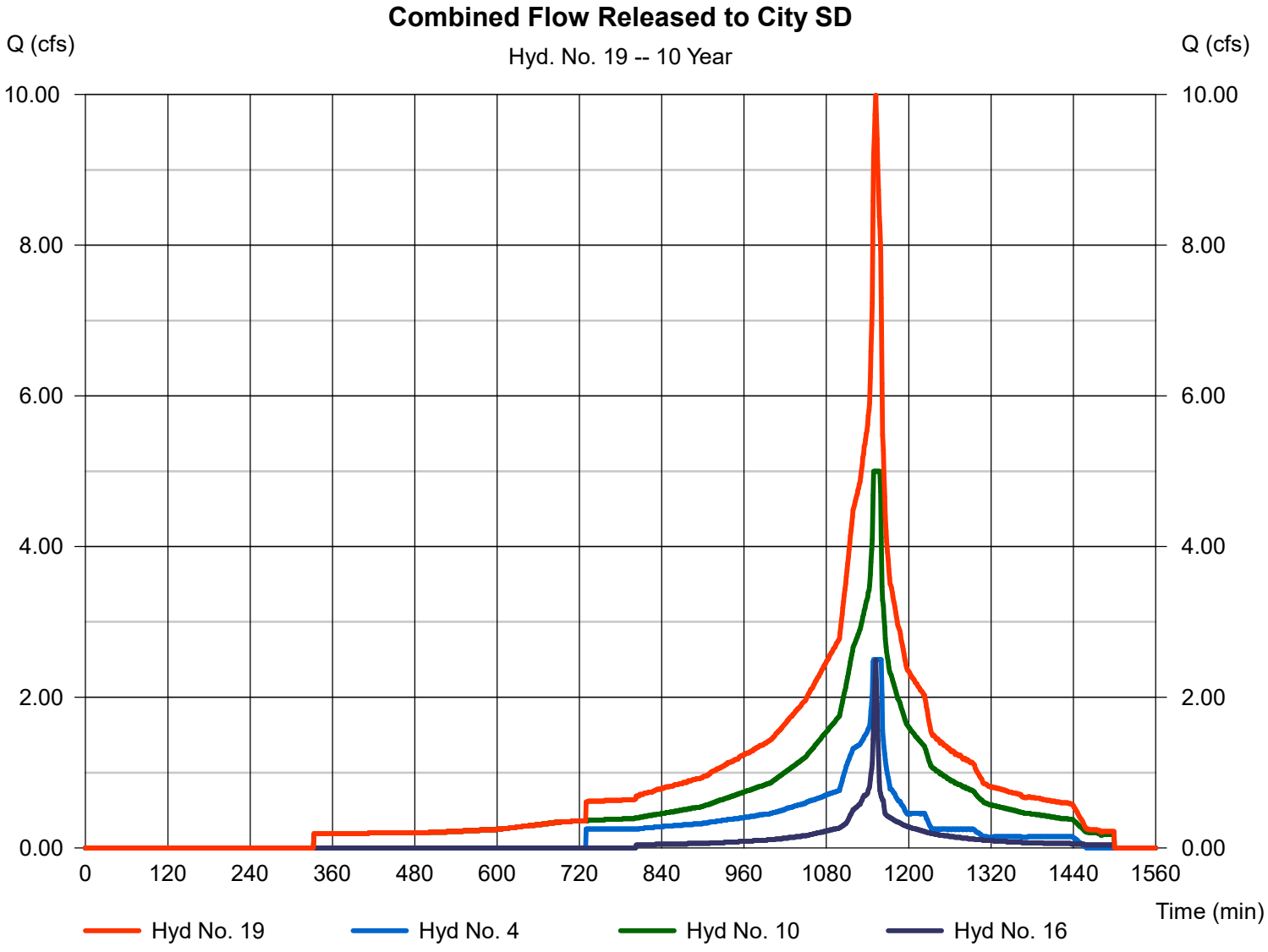


Hydrograph Report

Hyd. No. 19

Combined Flow Released to City SD

Hydrograph type	= Combine	Peak discharge	= 9.990 cfs
Storm frequency	= 10 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 77,088 cuft
Inflow hyds.	= 4, 10, 16	Contrib. drain. area	= 0.000 ac

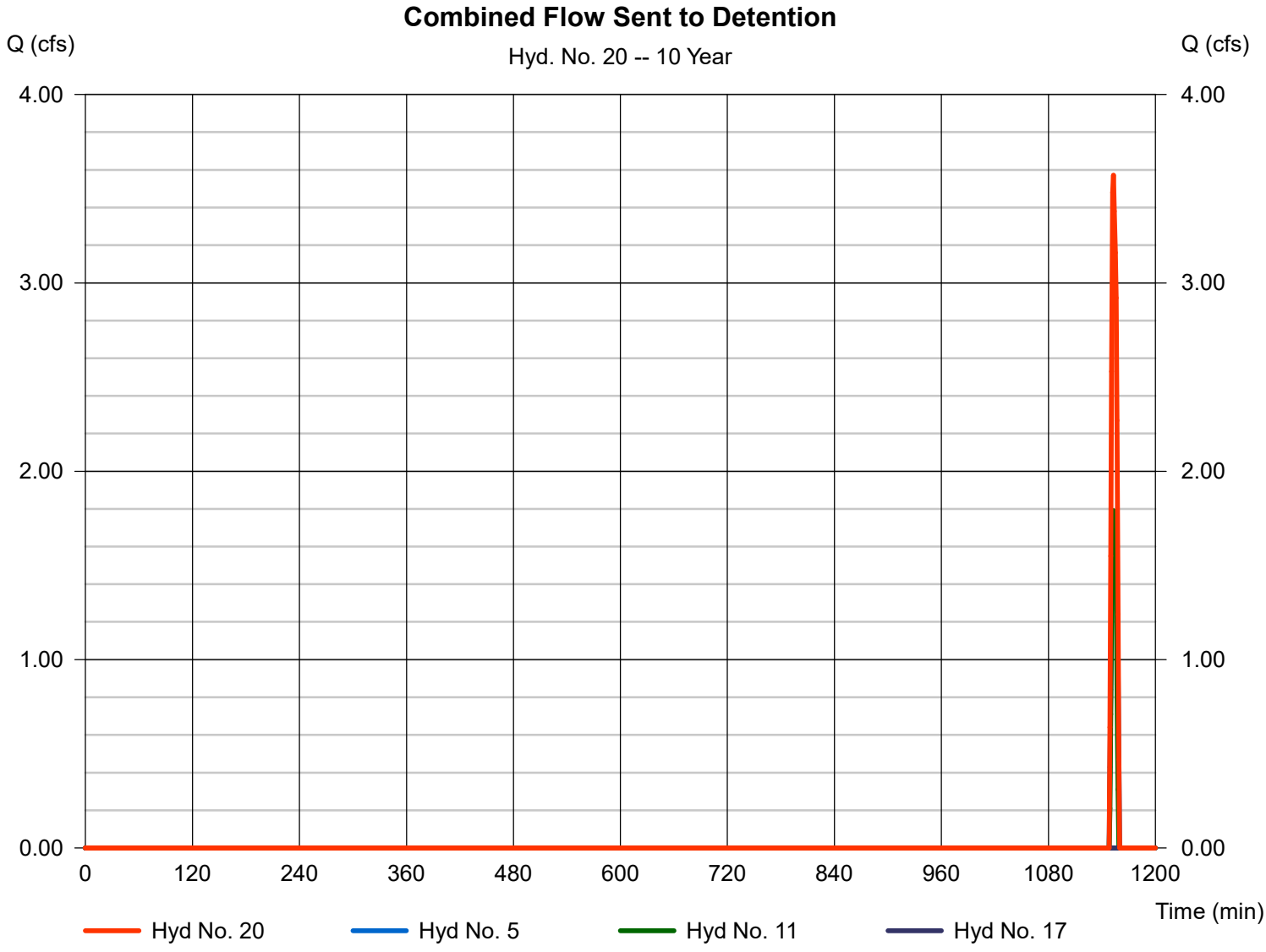


Hydrograph Report

Hyd. No. 20

Combined Flow Sent to Detention

Hydrograph type	= Combine	Peak discharge	= 3.570 cfs
Storm frequency	= 10 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 1,513 cuft
Inflow hyds.	= 5, 11, 17	Contrib. drain. area	= 0.000 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.23

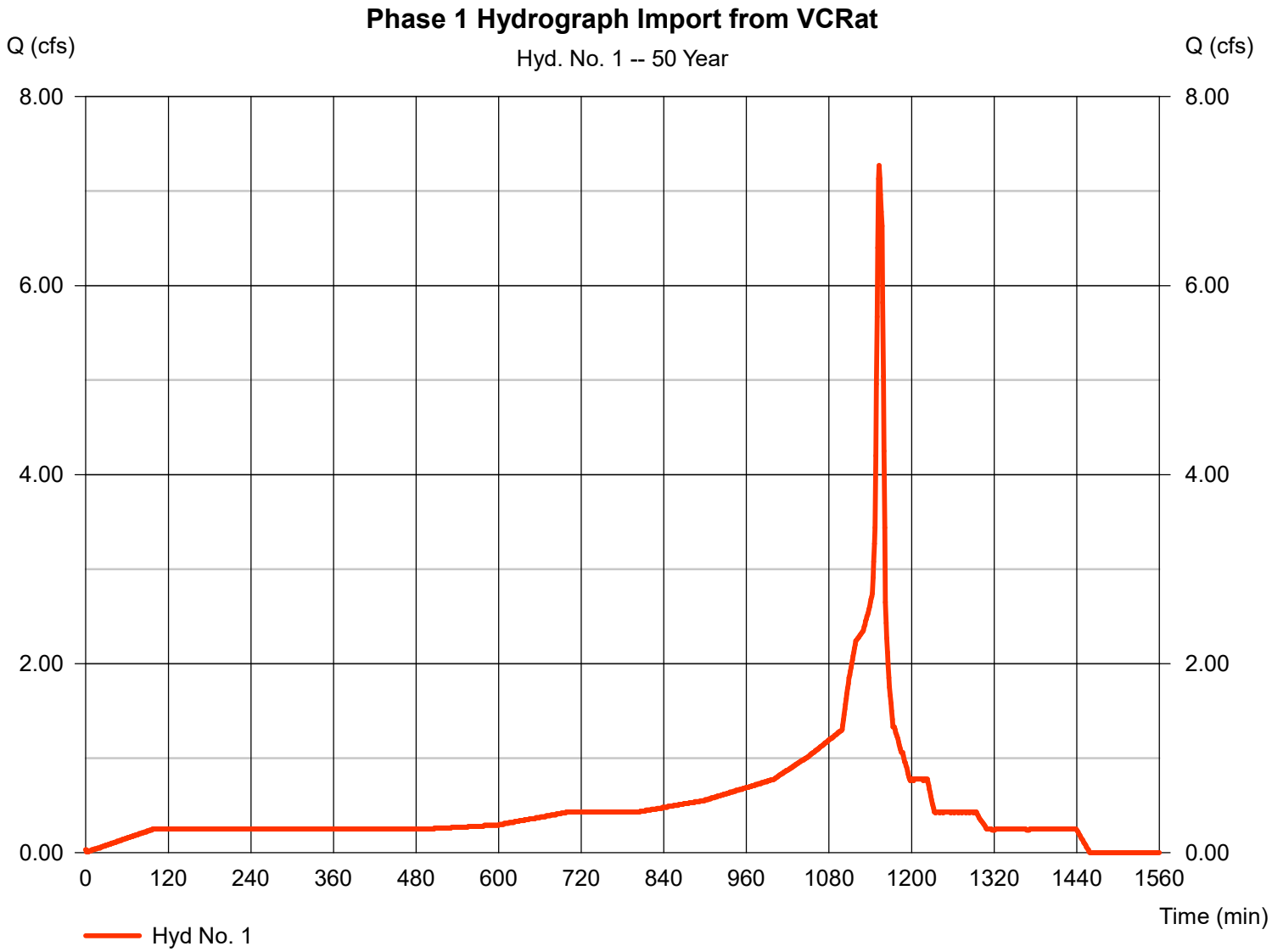
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	7.270	1	1153	46,022	----	------	------	Phase 1 Hydrograph Import from VC
2	Diversion1	0.250	1	97	6,736	1	------	------	First Flush to infiltration
3	Diversion2	7.270	1	1153	39,286	1	------	------	Remaining Flow
4	Diversion1	2.500	1	1135	36,253	3	------	------	Flow Released to City SD
5	Diversion2	4.770	1	1153	3,033	3	------	------	Flow Sent to Detention
7	Manual	10.98	1	1153	87,060	----	------	------	Phase 2 Hydrograph Import from VC
8	Diversion1	0.300	1	224	3,032	7	------	------	First Flush to infiltration
9	Diversion2	10.98	1	1153	84,028	7	------	------	Remaining Flow
10	Diversion1	5.000	1	1134	80,080	9	------	------	Flow Released to City SD
11	Diversion2	5.980	1	1153	3,948	9	------	------	Flow Sent to Detention
13	Manual	5.180	1	1152	17,033	----	------	------	Phase 3 Hydrograph Import from VC
14	Diversion1	0.040	1	504	781	13	------	------	First Flush to infiltration
15	Diversion2	5.180	1	1152	16,252	13	------	------	Remaining Flow
16	Diversion1	2.600	1	1148	15,561	15	------	------	Flow Released to City SD
17	Diversion2	2.580	1	1152	691	15	------	------	Flow Sent to Detention
19	Combine	10.10	1	1148	131,894	4, 10, 16,	------	------	Combined Flow Released to City SD
20	Combine	13.18	1	1152	7,672	5, 11, 17,	------	------	Combined Flow Sent to Detention

Hydrograph Report

Hyd. No. 1

Phase 1 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 7.270 cfs
Storm frequency	= 50 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 46,022 cuft

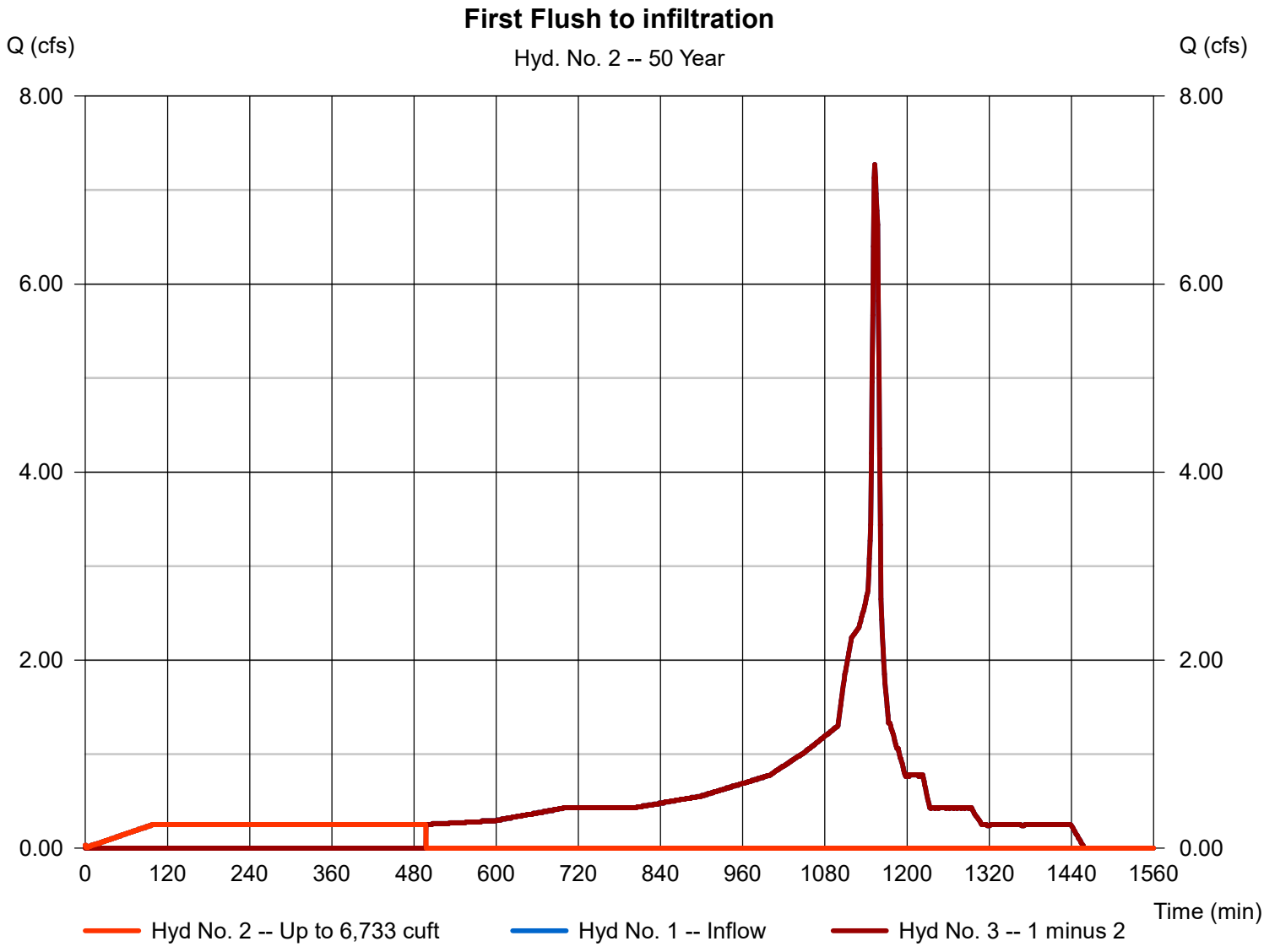


Hydrograph Report

Hyd. No. 2

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.250 cfs
Storm frequency	=	50 yrs	Time to peak	=	97 min
Time interval	=	1 min	Hyd. volume	=	6,736 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	3
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

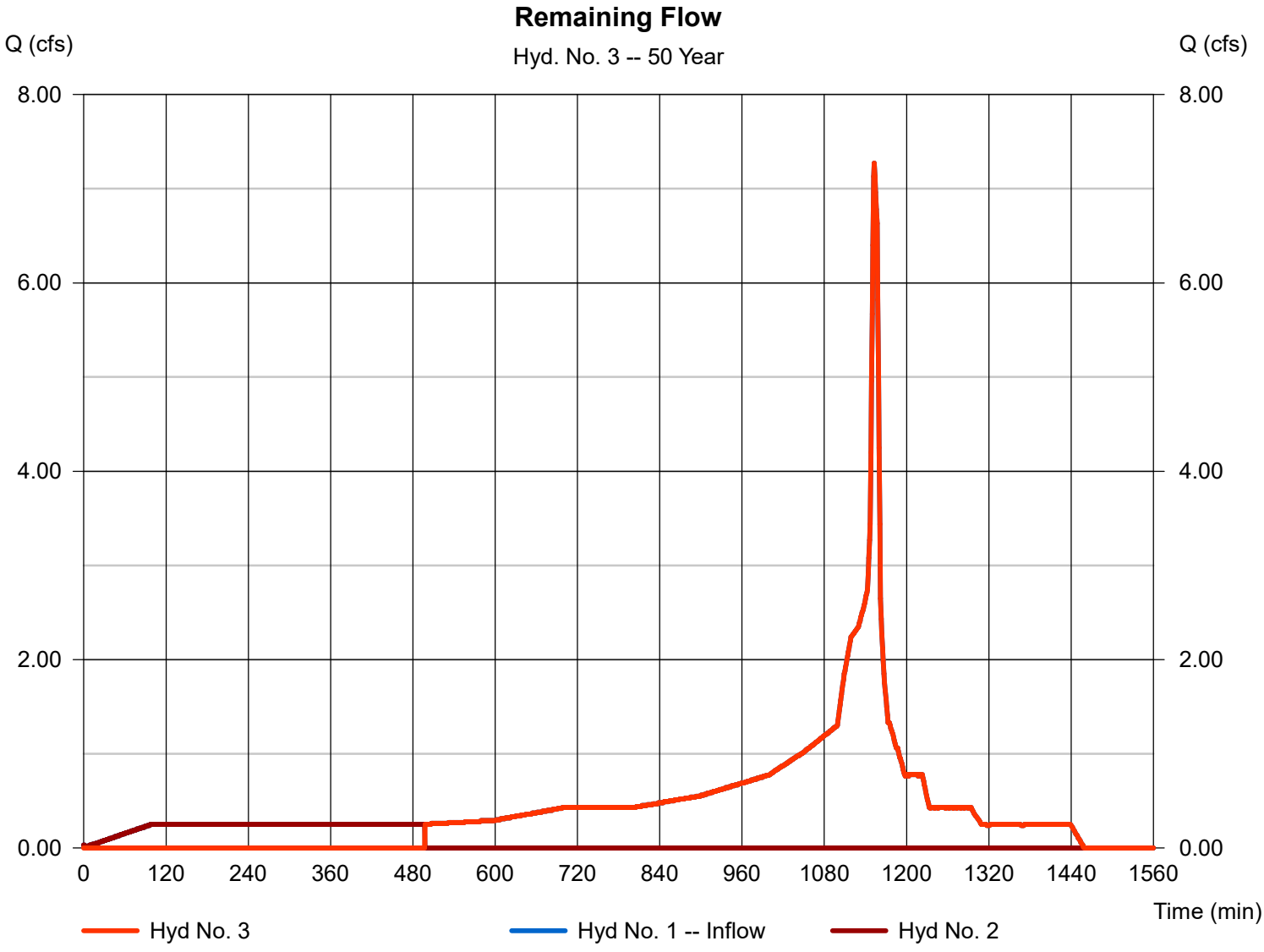


Hydrograph Report

Hyd. No. 3

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	7.270 cfs
Storm frequency	=	50 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	39,286 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	2
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

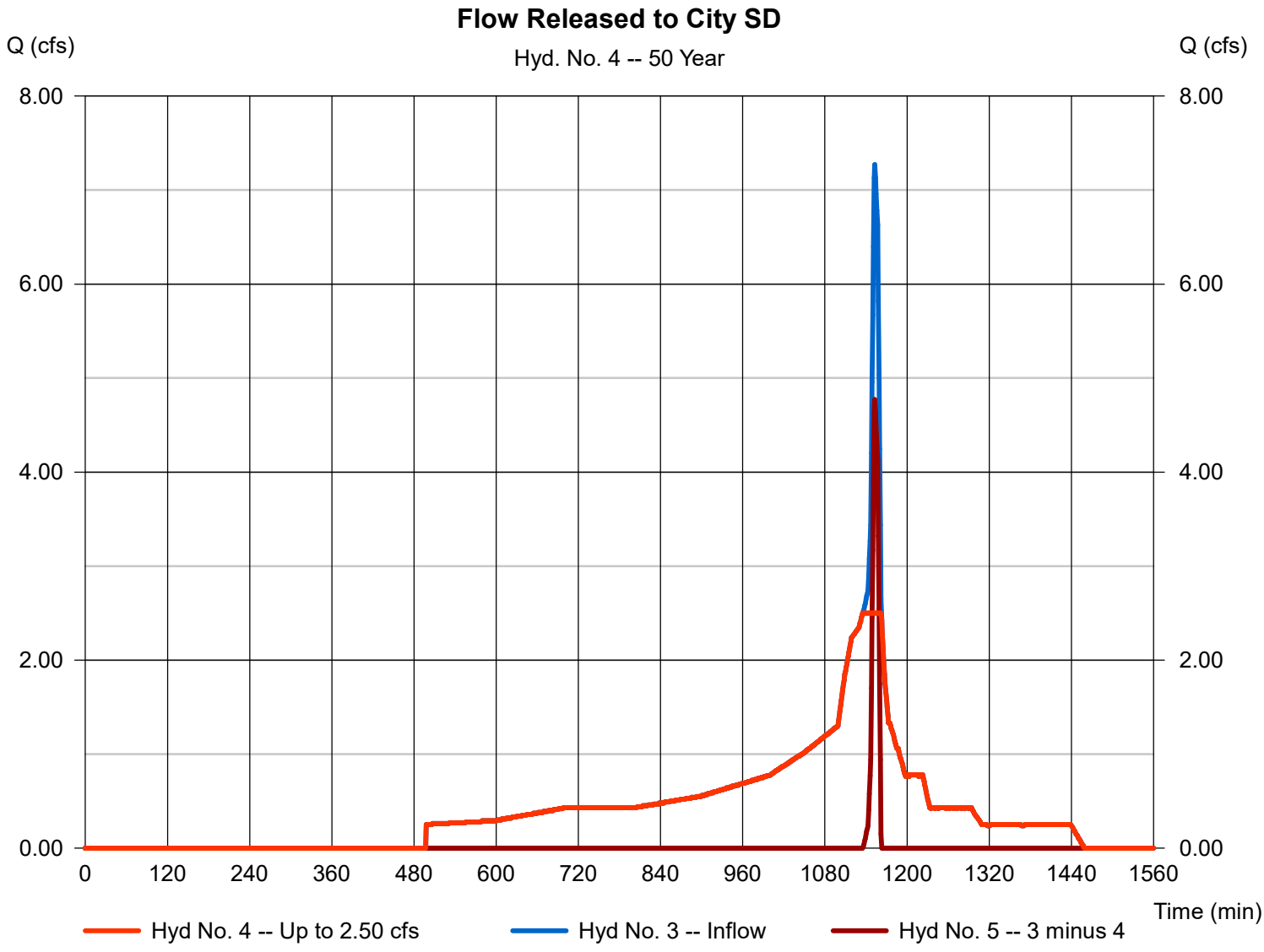


Hydrograph Report

Hyd. No. 4

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.500 cfs
Storm frequency	=	50 yrs	Time to peak	=	1135 min
Time interval	=	1 min	Hyd. volume	=	36,253 cuft
Inflow hydrograph	=	3 - Remaining Flow	2nd diverted hyd.	=	5
Diversion method	=	Constant Q	Constant Q	=	2.50 cfs

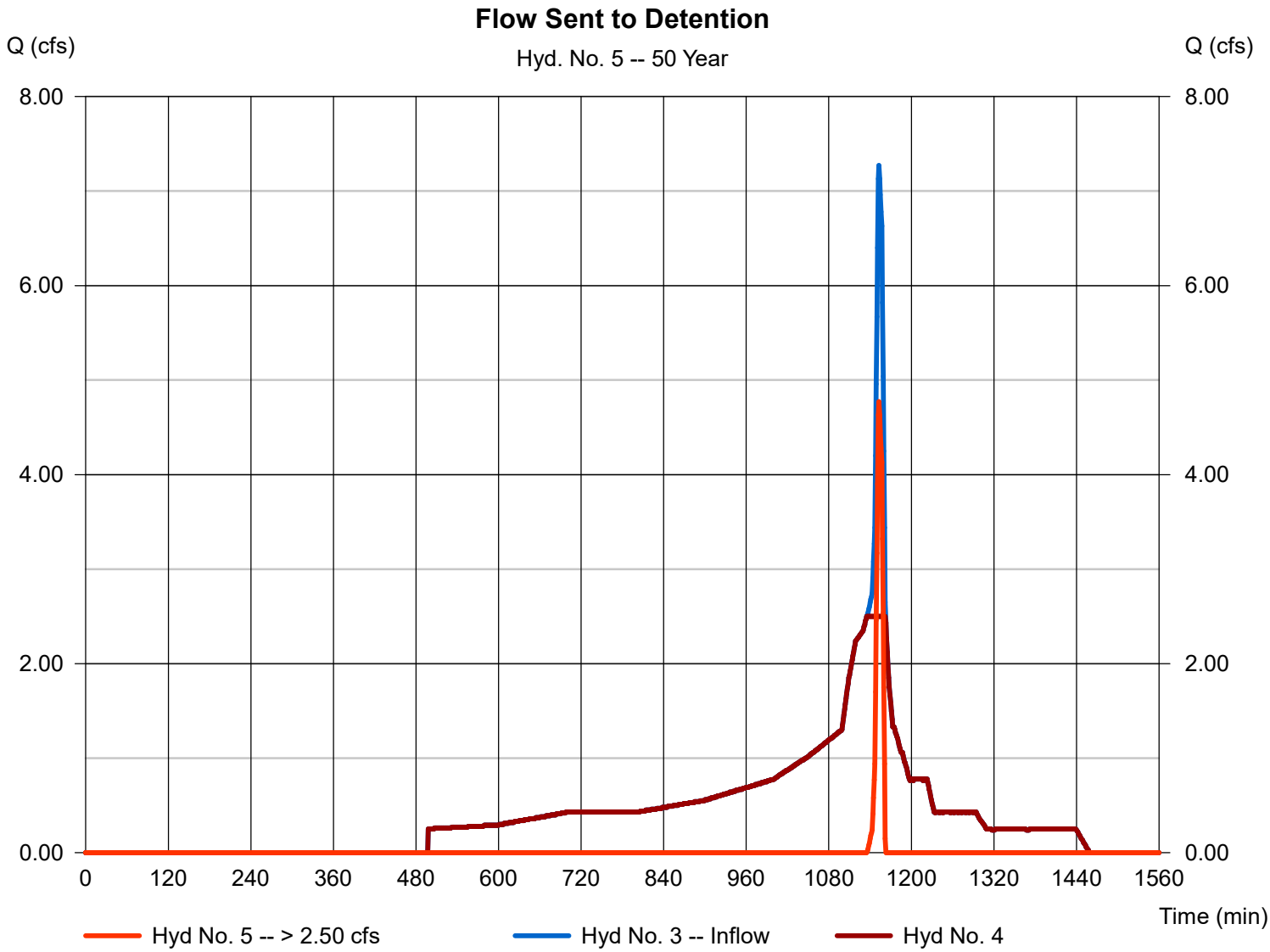


Hydrograph Report

Hyd. No. 5

Flow Sent to Detention

Hydrograph type	=	Diversion2	Peak discharge	=	4.770 cfs
Storm frequency	=	50 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	3,033 cuft
Inflow hydrograph	=	3 - Remaining Flow	2nd diverted hyd.	=	4
Diversion method	=	Constant Q	Constant Q	=	2.50 cfs

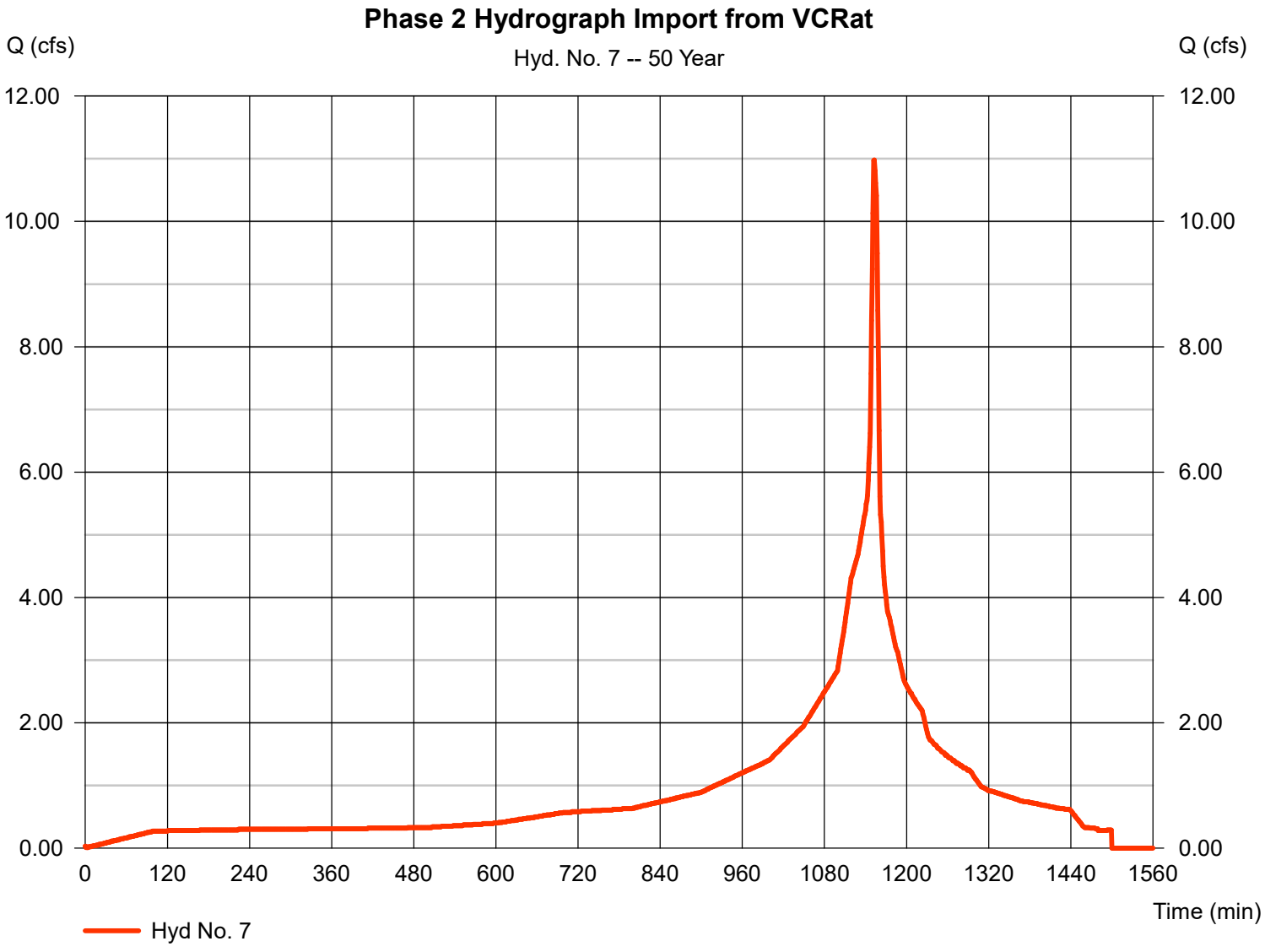


Hydrograph Report

Hyd. No. 7

Phase 2 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 10.98 cfs
Storm frequency	= 50 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 87,060 cuft

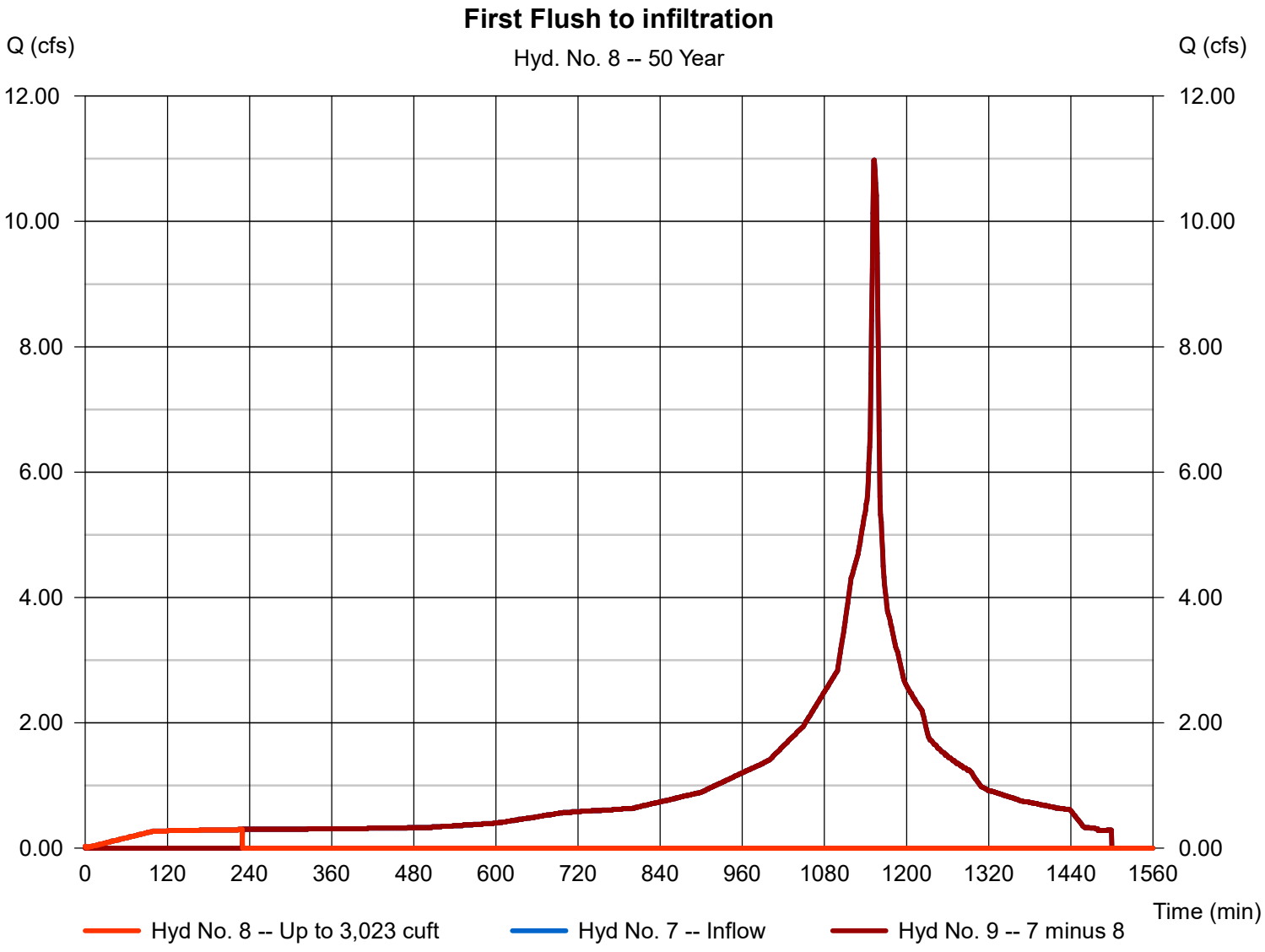


Hydrograph Report

Hyd. No. 8

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.300 cfs
Storm frequency	=	50 yrs	Time to peak	=	224 min
Time interval	=	1 min	Hyd. volume	=	3,032 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	9
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

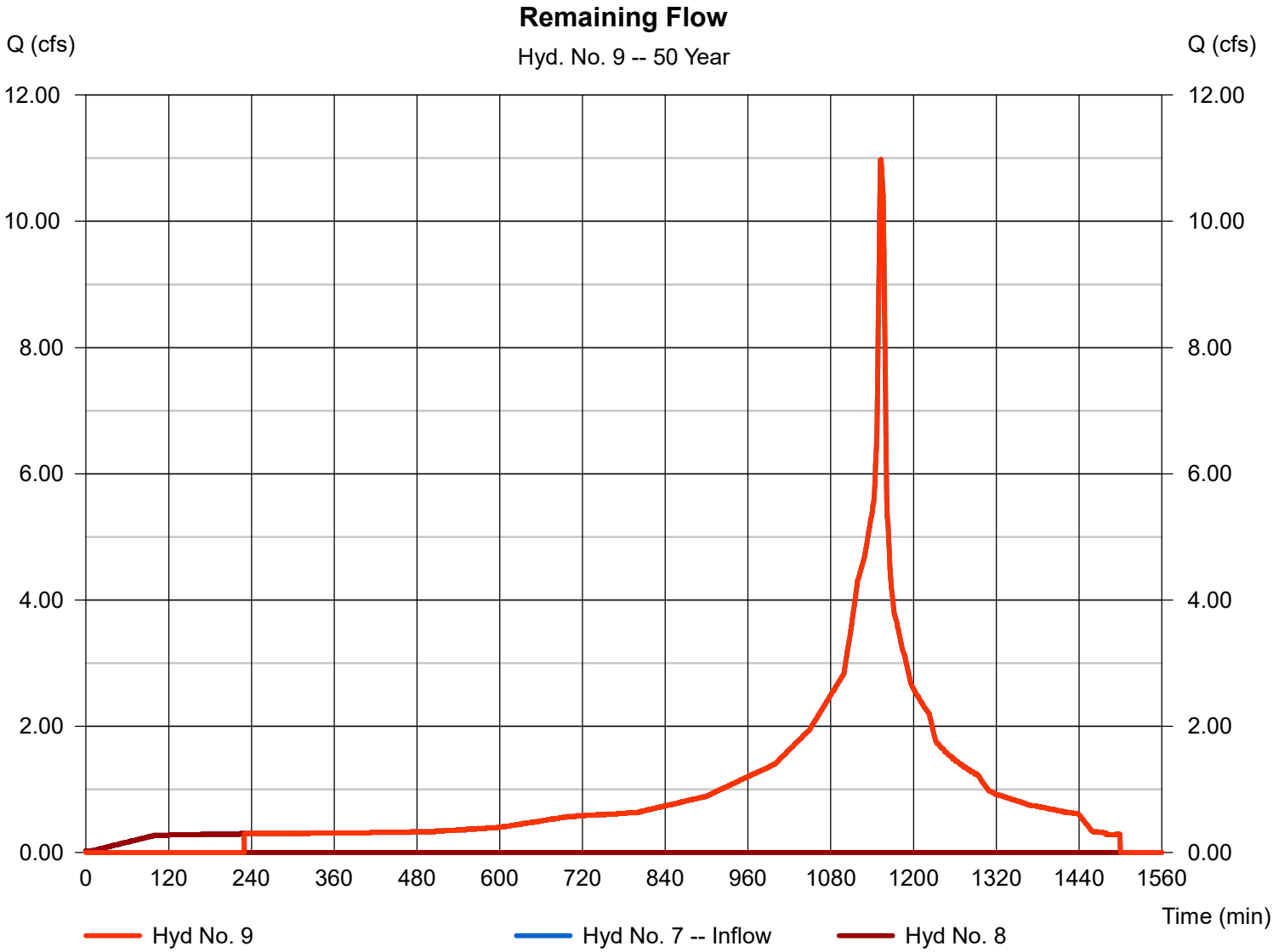


Hydrograph Report

Hyd. No. 9

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	10.98 cfs
Storm frequency	=	50 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	84,028 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	8
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

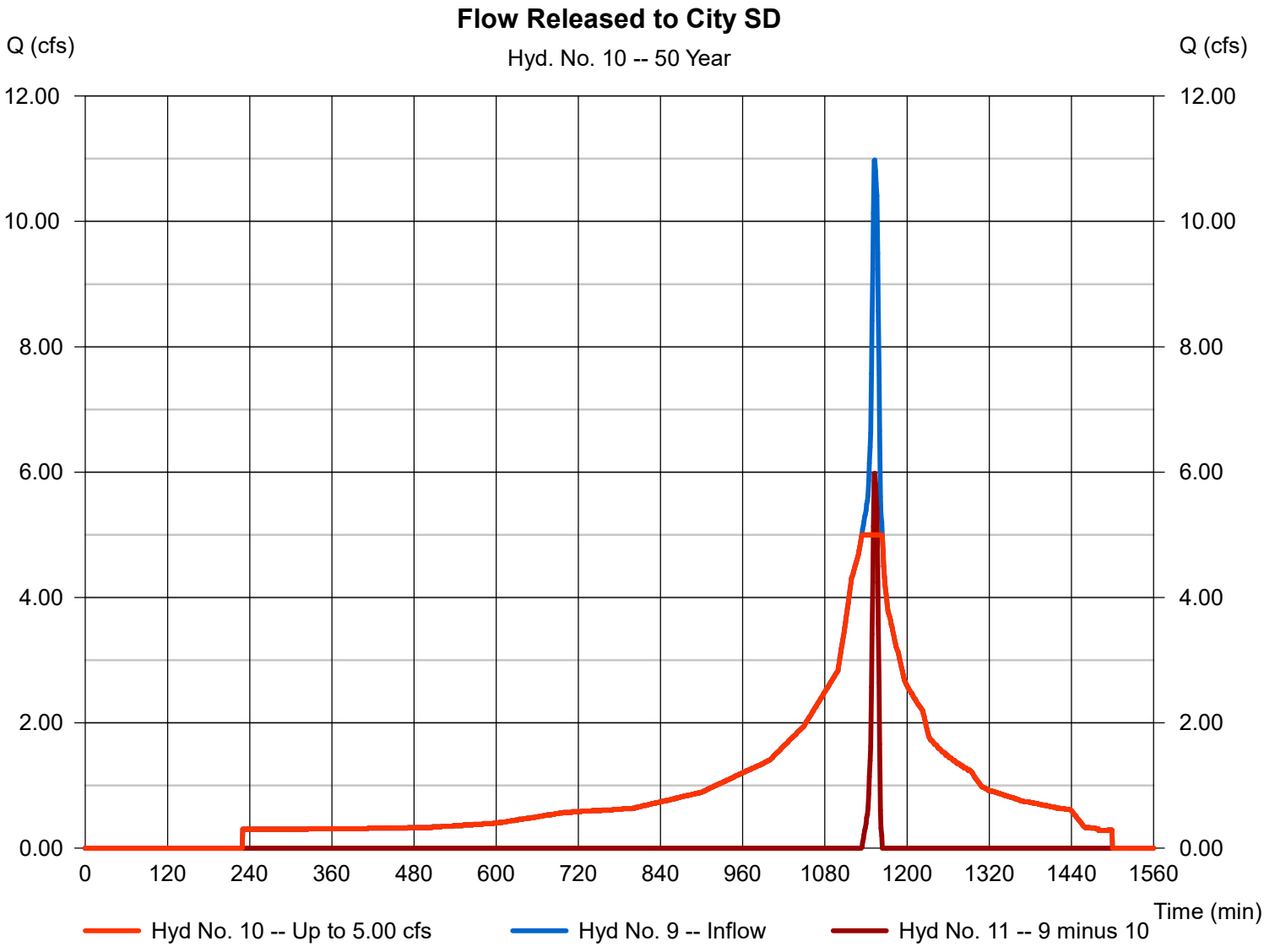


Hydrograph Report

Hyd. No. 10

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	5.000 cfs
Storm frequency	=	50 yrs	Time to peak	=	1134 min
Time interval	=	1 min	Hyd. volume	=	80,080 cuft
Inflow hydrograph	=	9 - Remaining Flow	2nd diverted hyd.	=	11
Diversion method	=	Constant Q	Constant Q	=	5.00 cfs

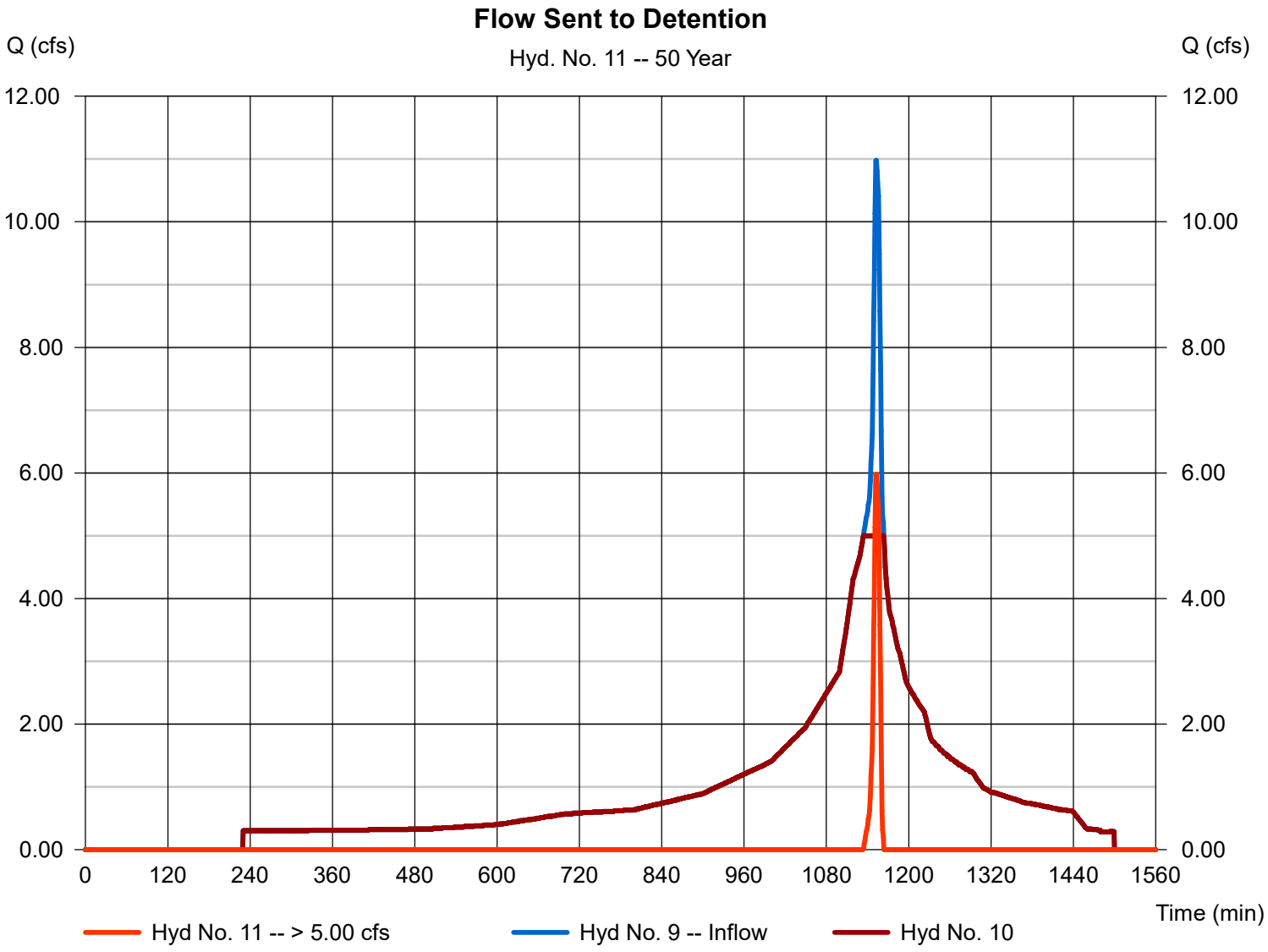


Hydrograph Report

Hyd. No. 11

Flow Sent to Detention

Hydrograph type	=	Diversion2	Peak discharge	=	5.980 cfs
Storm frequency	=	50 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	3,948 cuft
Inflow hydrograph	=	9 - Remaining Flow	2nd diverted hyd.	=	10
Diversion method	=	Constant Q	Constant Q	=	5.00 cfs

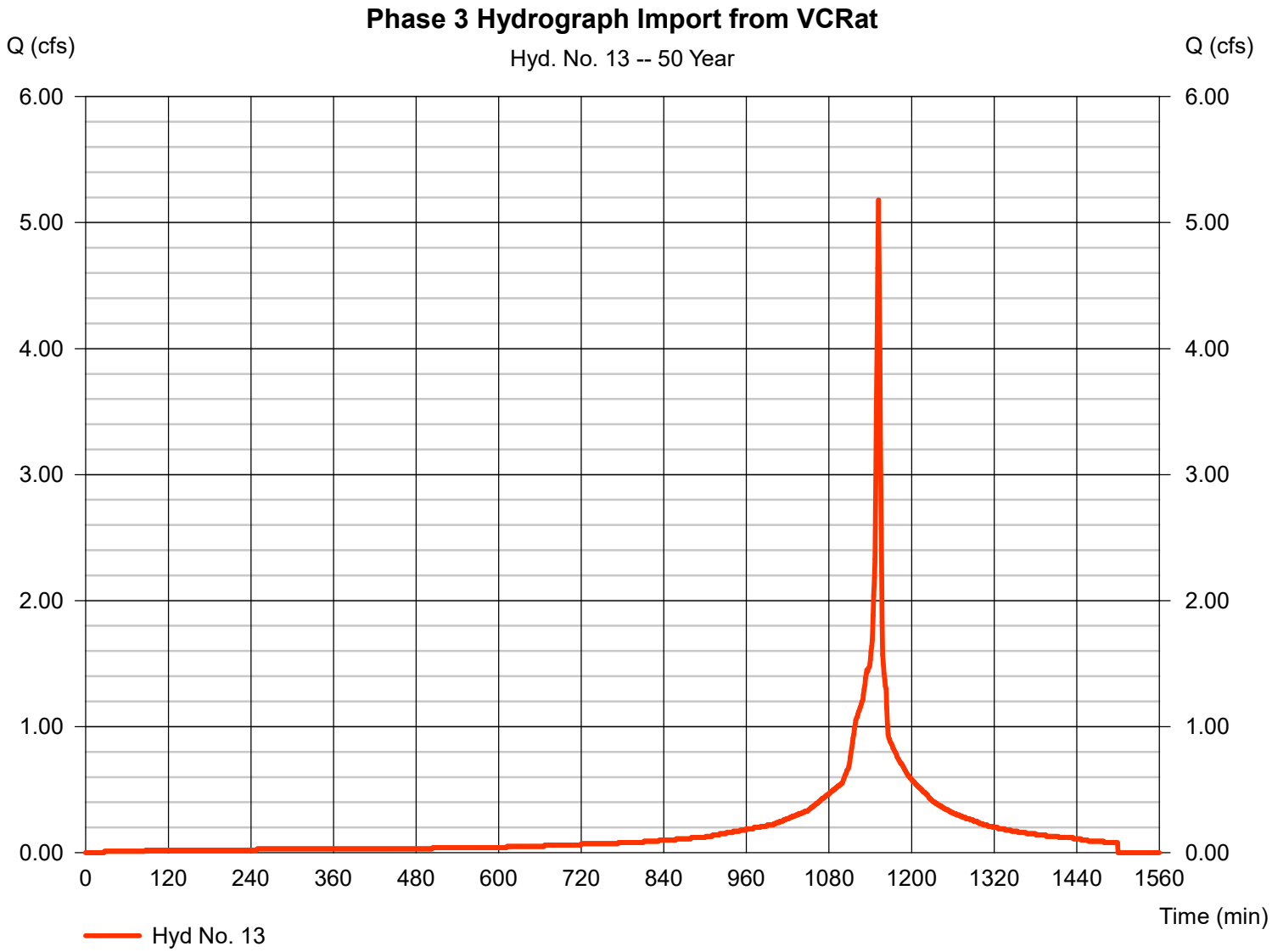


Hydrograph Report

Hyd. No. 13

Phase 3 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 5.180 cfs
Storm frequency	= 50 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 17,033 cuft

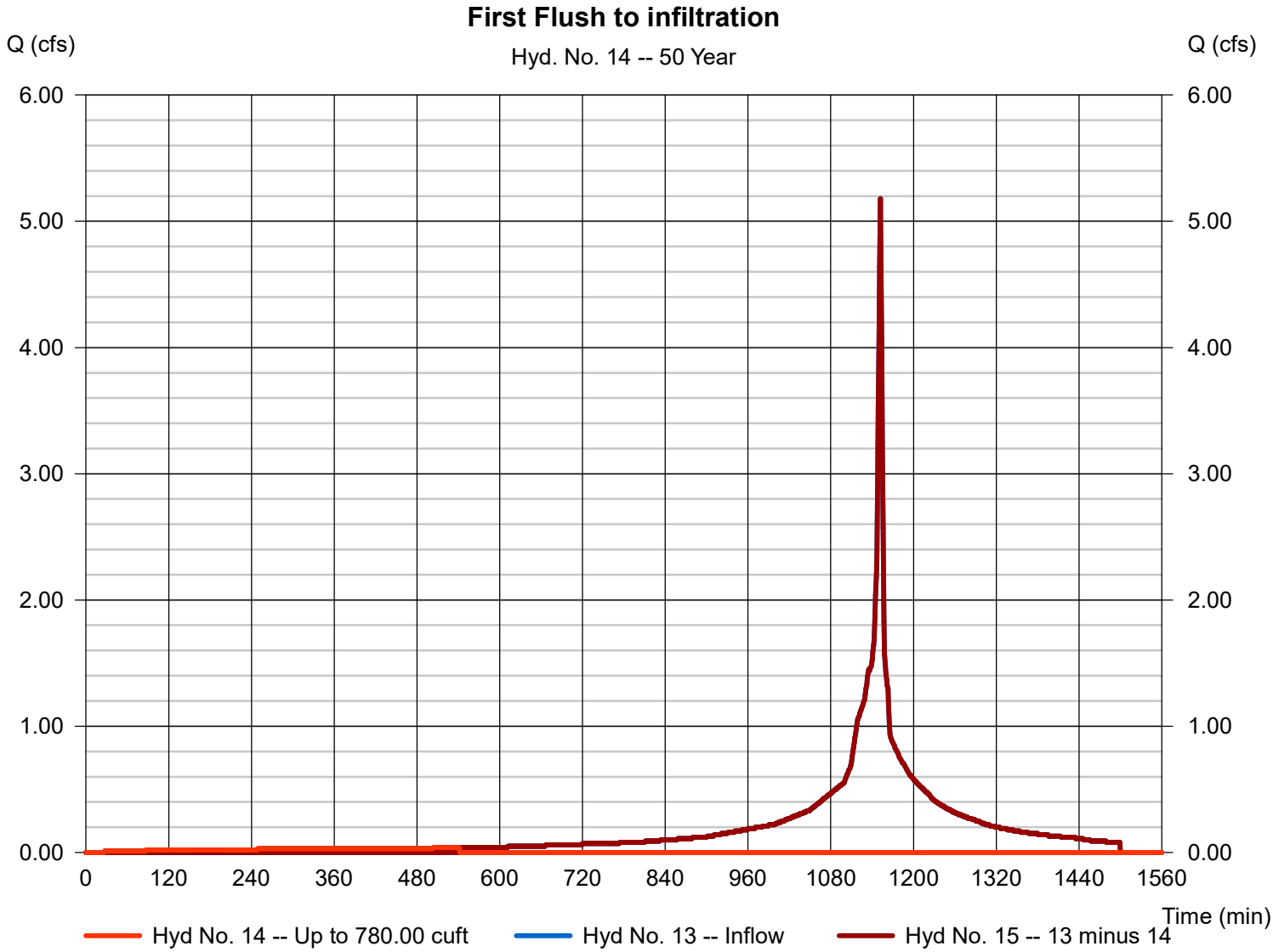


Hydrograph Report

Hyd. No. 14

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.040 cfs
Storm frequency	=	50 yrs	Time to peak	=	504 min
Time interval	=	1 min	Hyd. volume	=	781 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	15
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

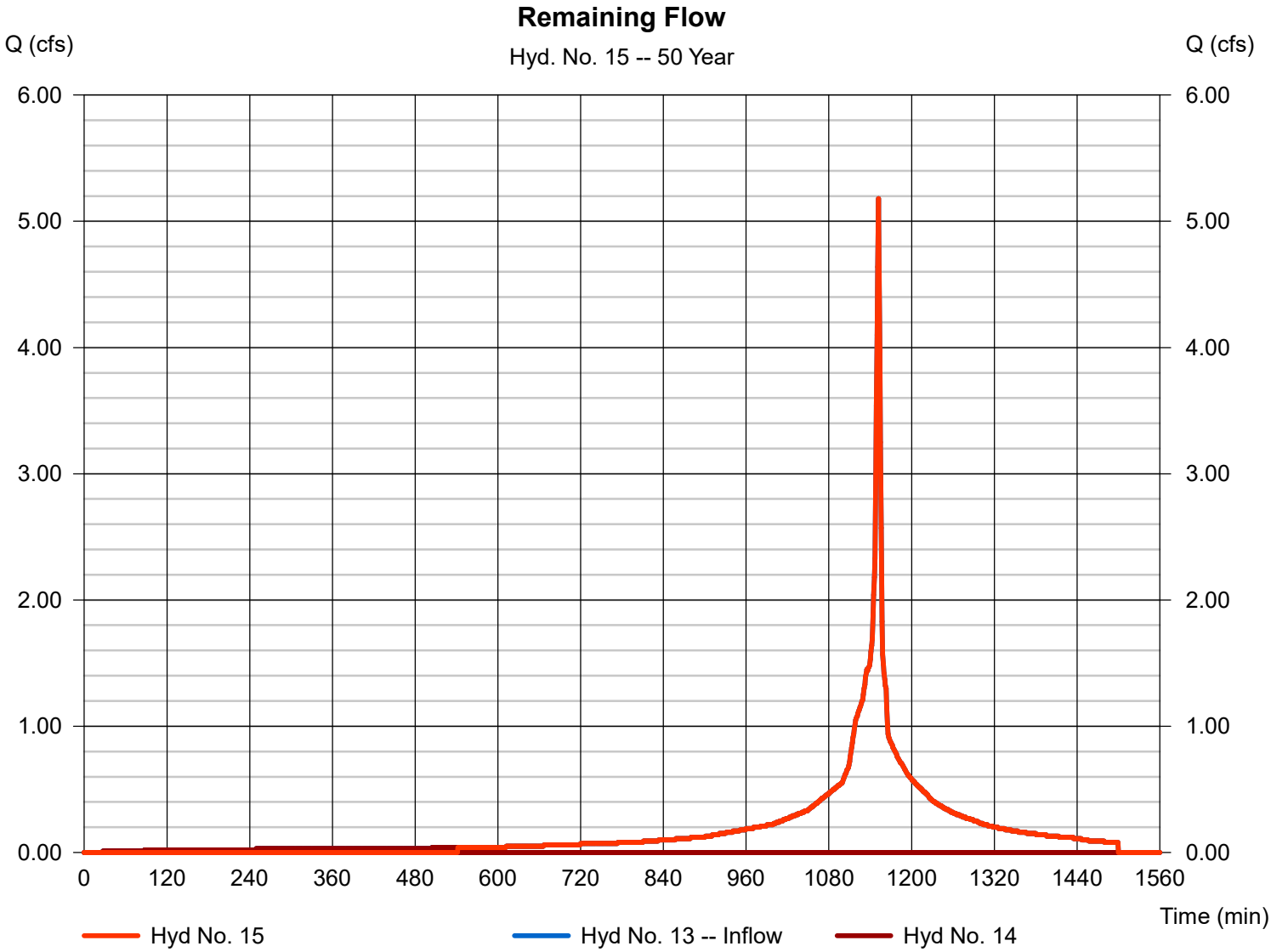


Hydrograph Report

Hyd. No. 15

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	5.180 cfs
Storm frequency	=	50 yrs	Time to peak	=	1152 min
Time interval	=	1 min	Hyd. volume	=	16,252 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	14
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

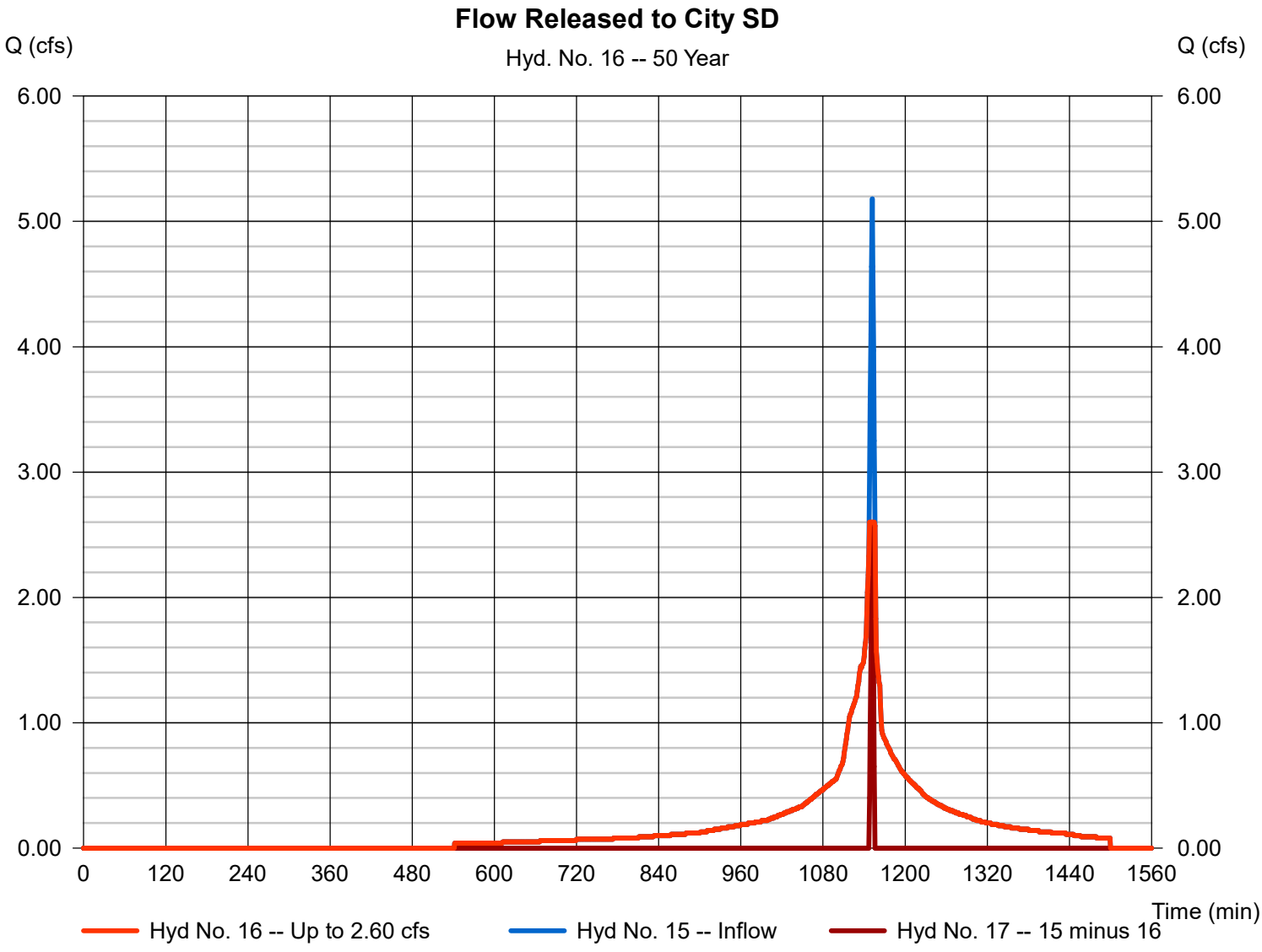


Hydrograph Report

Hyd. No. 16

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.600 cfs
Storm frequency	=	50 yrs	Time to peak	=	1148 min
Time interval	=	1 min	Hyd. volume	=	15,561 cuft
Inflow hydrograph	=	15 - Remaining Flow	2nd diverted hyd.	=	17
Diversion method	=	Constant Q	Constant Q	=	2.60 cfs

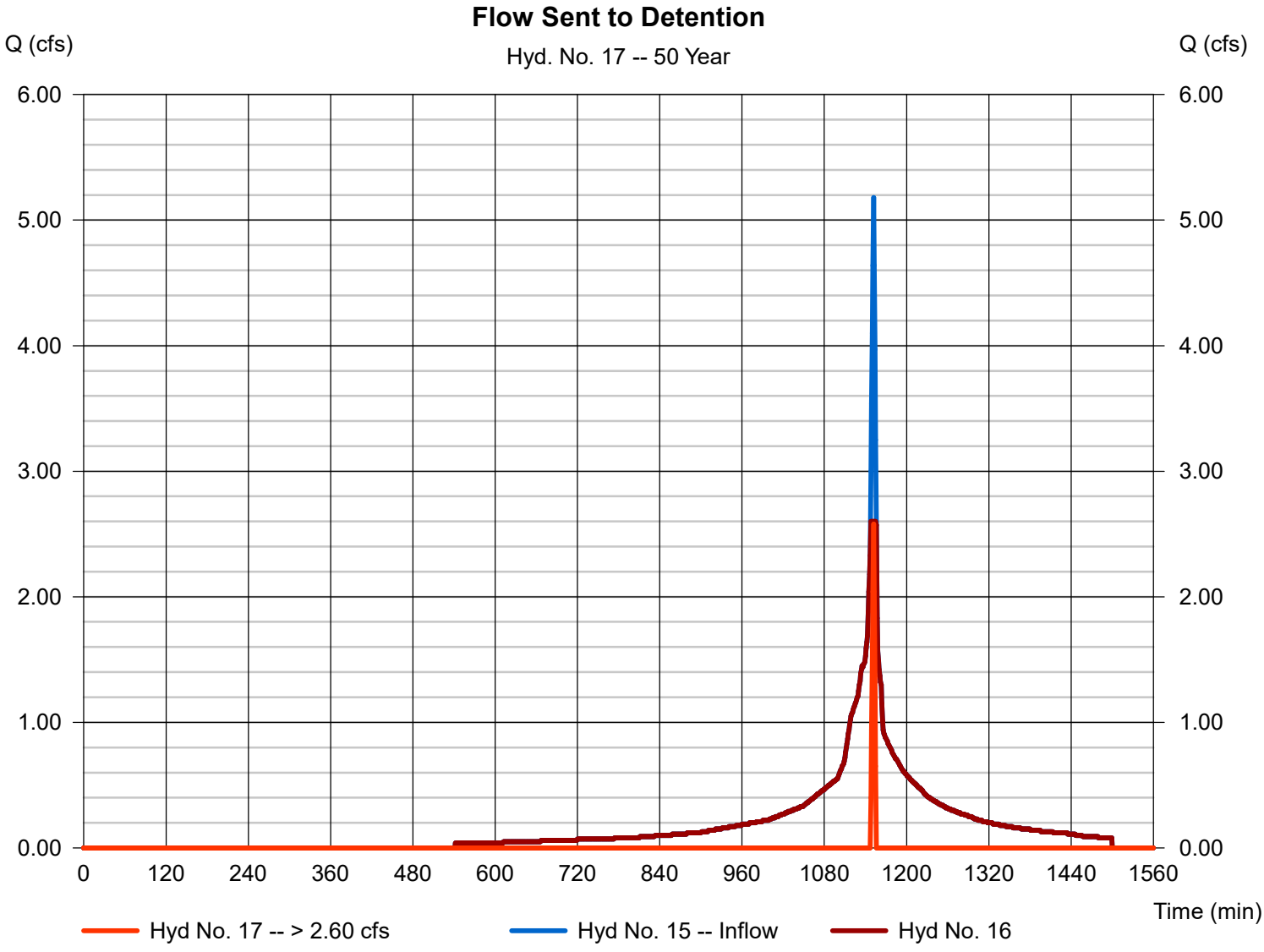


Hydrograph Report

Hyd. No. 17

Flow Sent to Detention

Hydrograph type	=	Diversion2	Peak discharge	=	2.580 cfs
Storm frequency	=	50 yrs	Time to peak	=	1152 min
Time interval	=	1 min	Hyd. volume	=	691 cuft
Inflow hydrograph	=	15 - Remaining Flow	2nd diverted hyd.	=	16
Diversion method	=	Constant Q	Constant Q	=	2.60 cfs

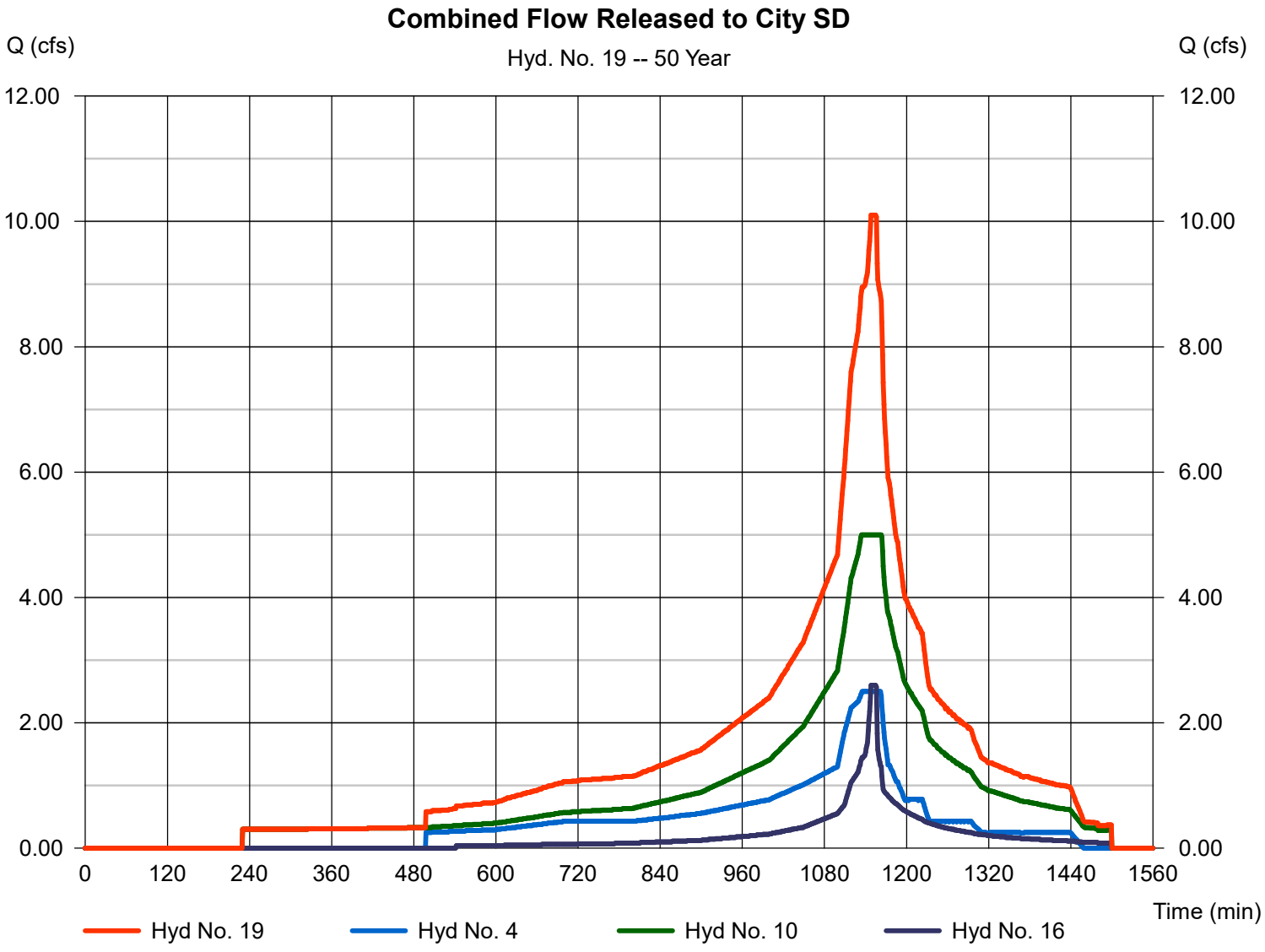


Hydrograph Report

Hyd. No. 19

Combined Flow Released to City SD

Hydrograph type	= Combine	Peak discharge	= 10.10 cfs
Storm frequency	= 50 yrs	Time to peak	= 1148 min
Time interval	= 1 min	Hyd. volume	= 131,894 cuft
Inflow hyds.	= 4, 10, 16	Contrib. drain. area	= 0.000 ac

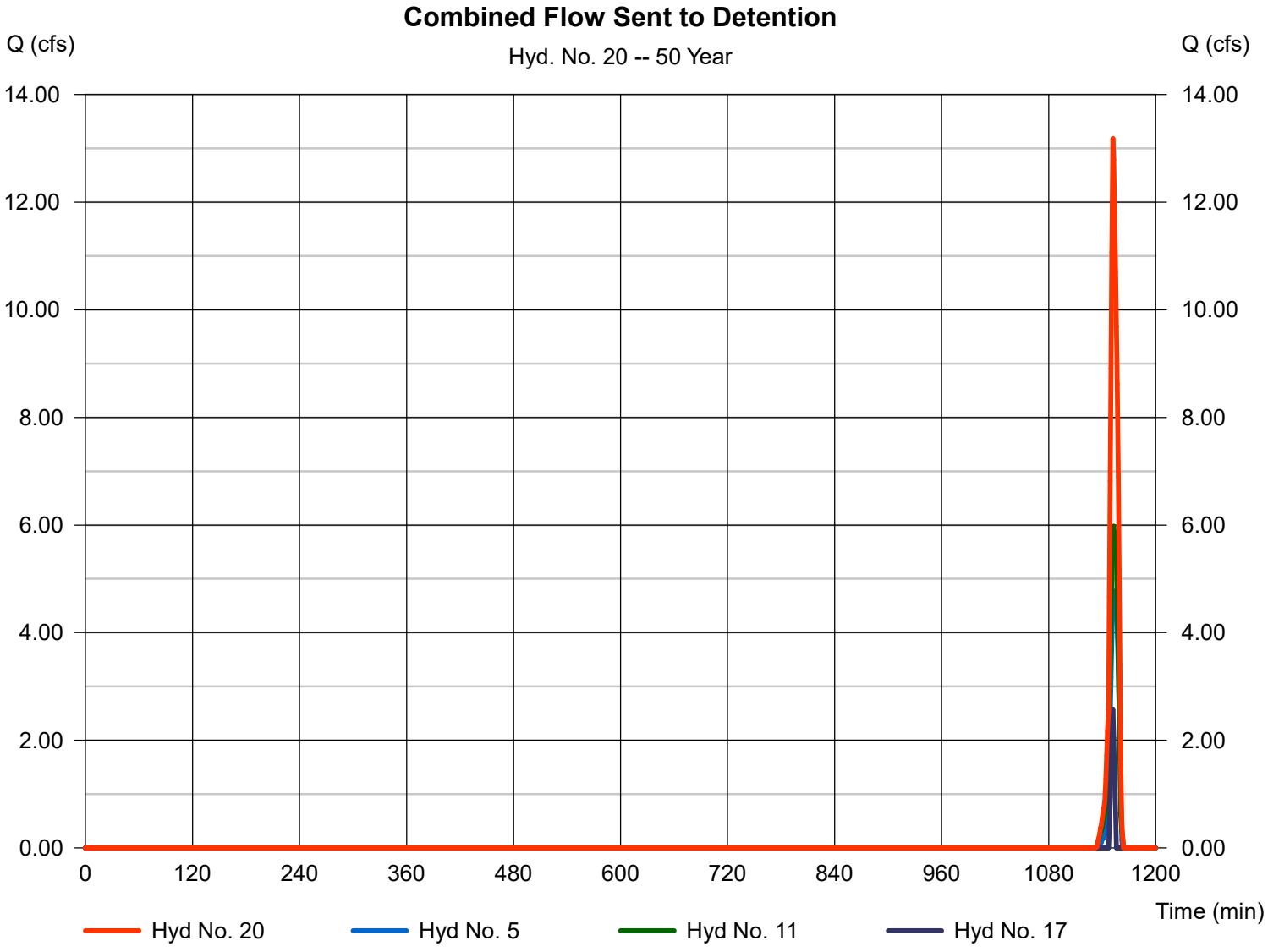


Hydrograph Report

Hyd. No. 20

Combined Flow Sent to Detention

Hydrograph type	= Combine	Peak discharge	= 13.18 cfs
Storm frequency	= 50 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 7,672 cuft
Inflow hyds.	= 5, 11, 17	Contrib. drain. area	= 0.000 ac



Hydrograph Summary Report

Hydraflow Hydrographs by Intelisolve v9.23

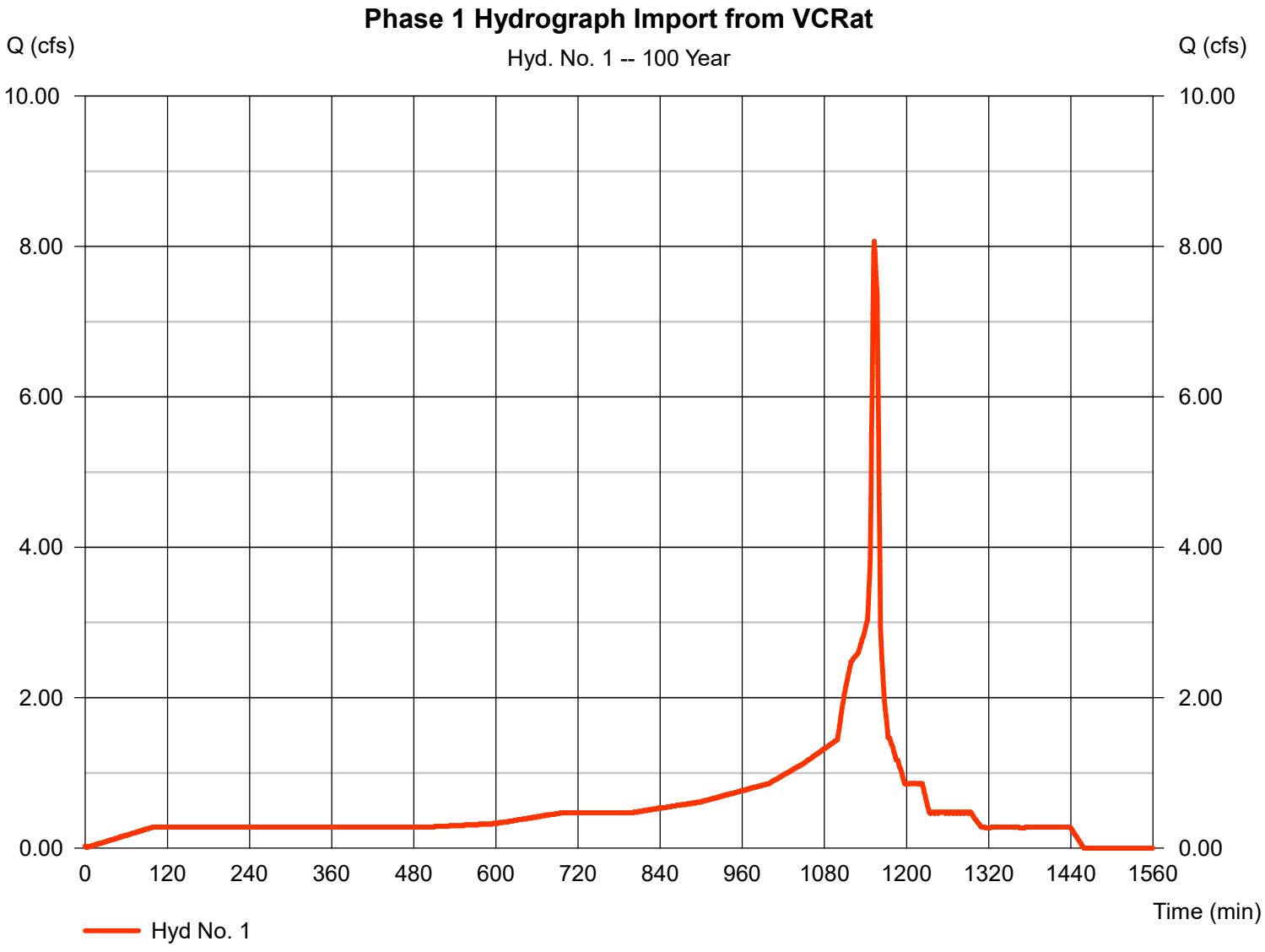
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph description
1	Manual	8.070	1	1153	51,117	----	------	------	Phase 1 Hydrograph Import from VC
2	Diversion1	0.280	1	98	6,747	1	------	------	First Flush to infiltration
3	Diversion2	8.070	1	1153	44,370	1	------	------	Remaining Flow
4	Diversion1	2.500	1	1121	40,450	3	------	------	Flow Released to City SD
5	Diversion2	5.570	1	1153	3,920	3	------	------	Flow Sent to Detention
7	Manual	12.38	1	1153	98,180	----	------	------	Phase 2 Hydrograph Import from VC
8	Diversion1	0.330	1	178	3,032	7	------	------	First Flush to infiltration
9	Diversion2	12.38	1	1153	95,147	7	------	------	Remaining Flow
10	Diversion1	5.000	1	1123	89,309	9	------	------	Flow Released to City SD
11	Diversion2	7.380	1	1153	5,839	9	------	------	Flow Sent to Detention
13	Manual	5.880	1	1152	19,358	----	------	------	Phase 3 Hydrograph Import from VC
14	Diversion1	0.040	1	424	781	13	------	------	First Flush to infiltration
15	Diversion2	5.880	1	1152	18,577	13	------	------	Remaining Flow
16	Diversion1	2.600	1	1147	17,603	15	------	------	Flow Released to City SD
17	Diversion2	3.280	1	1152	974	15	------	------	Flow Sent to Detention
19	Combine	10.10	1	1147	147,361	4, 10, 16,	------	------	Combined Flow Released to City SD
20	Combine	16.05	1	1152	10,733	5, 11, 17,	------	------	Combined Flow Sent to Detention

Hydrograph Report

Hyd. No. 1

Phase 1 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 8.070 cfs
Storm frequency	= 100 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 51,117 cuft

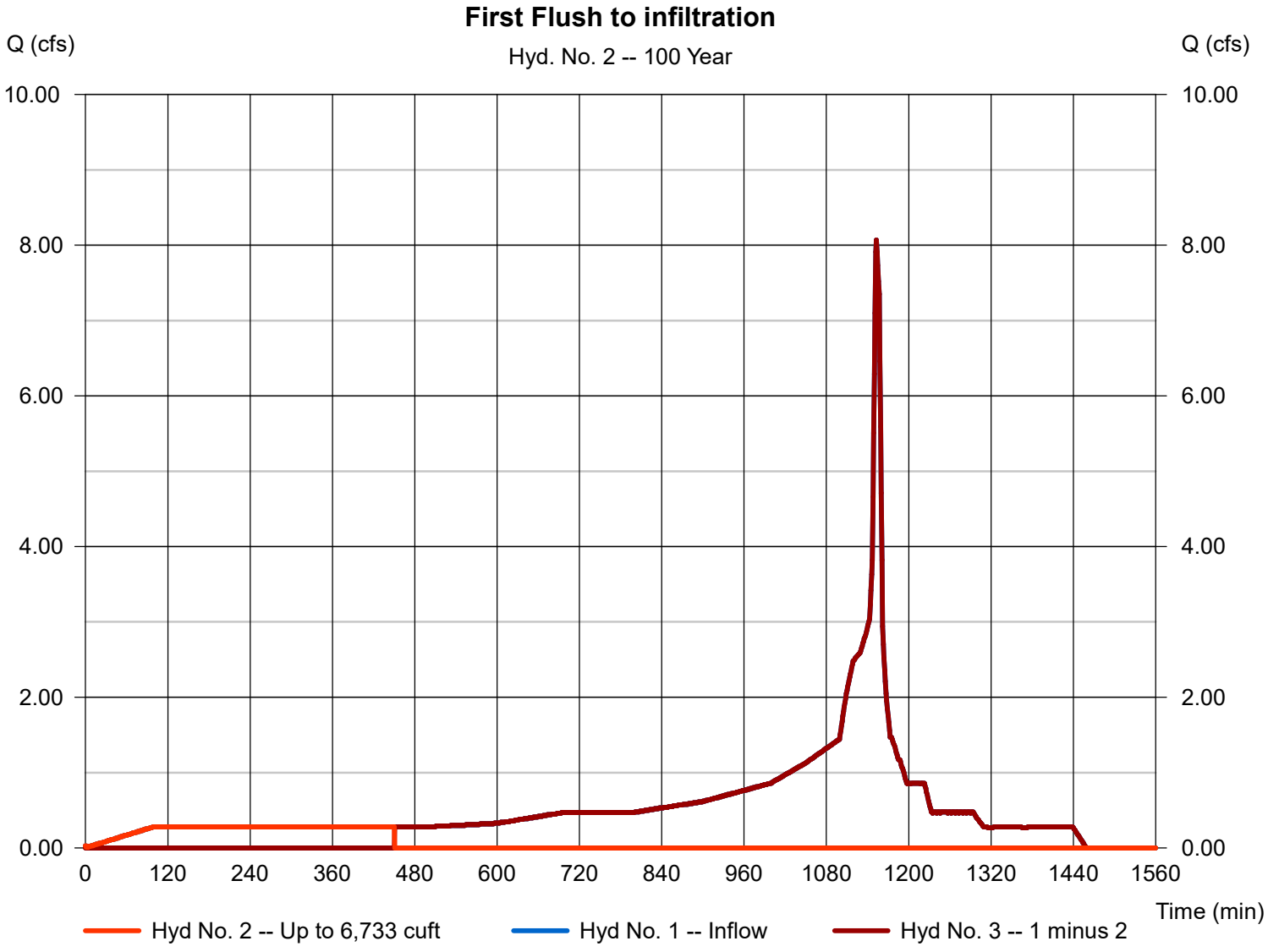


Hydrograph Report

Hyd. No. 2

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.280 cfs
Storm frequency	=	100 yrs	Time to peak	=	98 min
Time interval	=	1 min	Hyd. volume	=	6,747 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	3
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

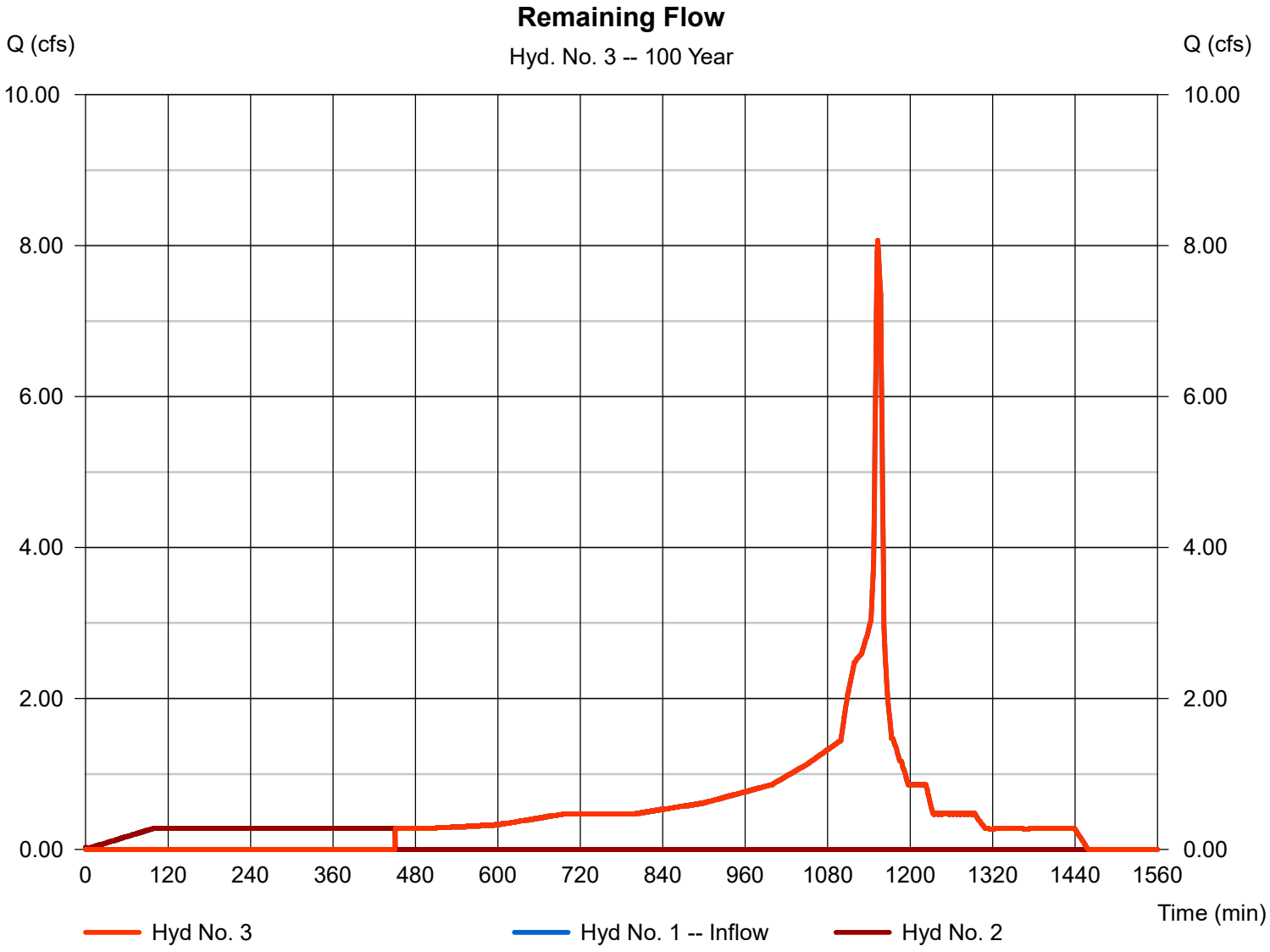


Hydrograph Report

Hyd. No. 3

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	8.070 cfs
Storm frequency	=	100 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	44,370 cuft
Inflow hydrograph	=	1 - Phase 1 Hydrograph Import from VCR	2nd diverted hyd.	=	2
Diversion method	=	First Flush Volume	Volume Up To	=	6,733 cuft

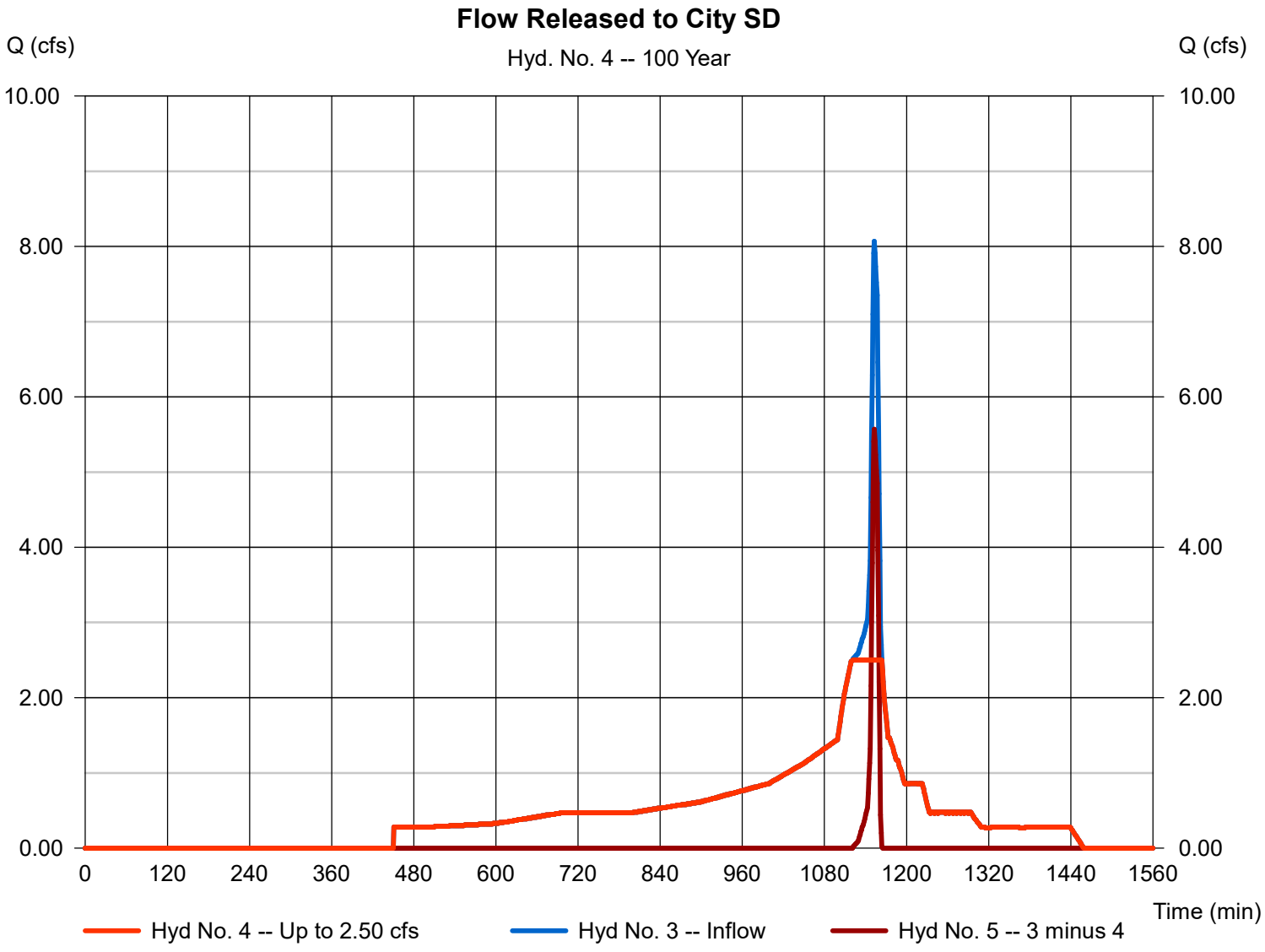


Hydrograph Report

Hyd. No. 4

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.500 cfs
Storm frequency	=	100 yrs	Time to peak	=	1121 min
Time interval	=	1 min	Hyd. volume	=	40,450 cuft
Inflow hydrograph	=	3 - Remaining Flow	2nd diverted hyd.	=	5
Diversion method	=	Constant Q	Constant Q	=	2.50 cfs

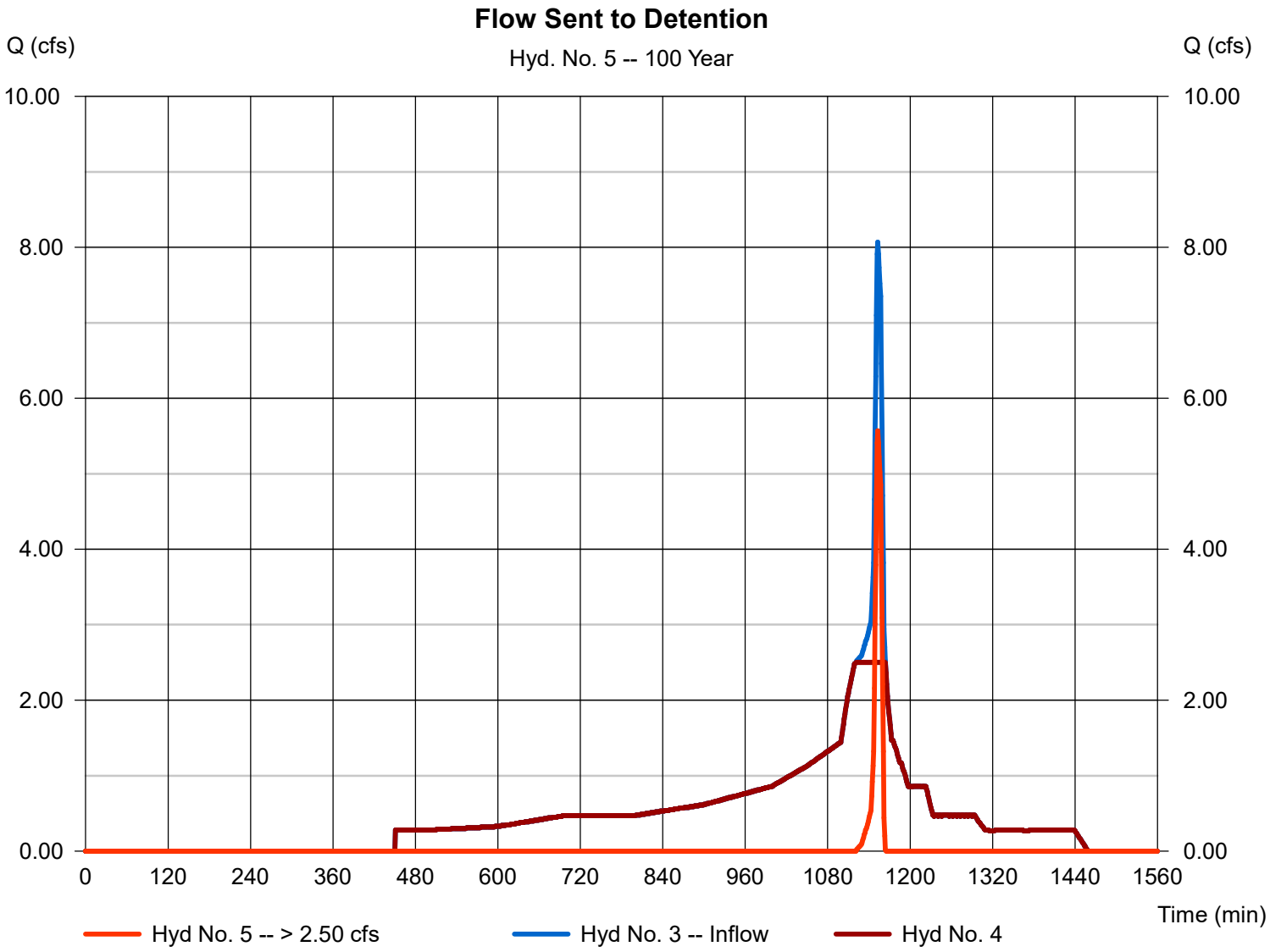


Hydrograph Report

Hyd. No. 5

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 5.570 cfs
Storm frequency	= 100 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 3,920 cuft
Inflow hydrograph	= 3 - Remaining Flow	2nd diverted hyd.	= 4
Diversion method	= Constant Q	Constant Q	= 2.50 cfs

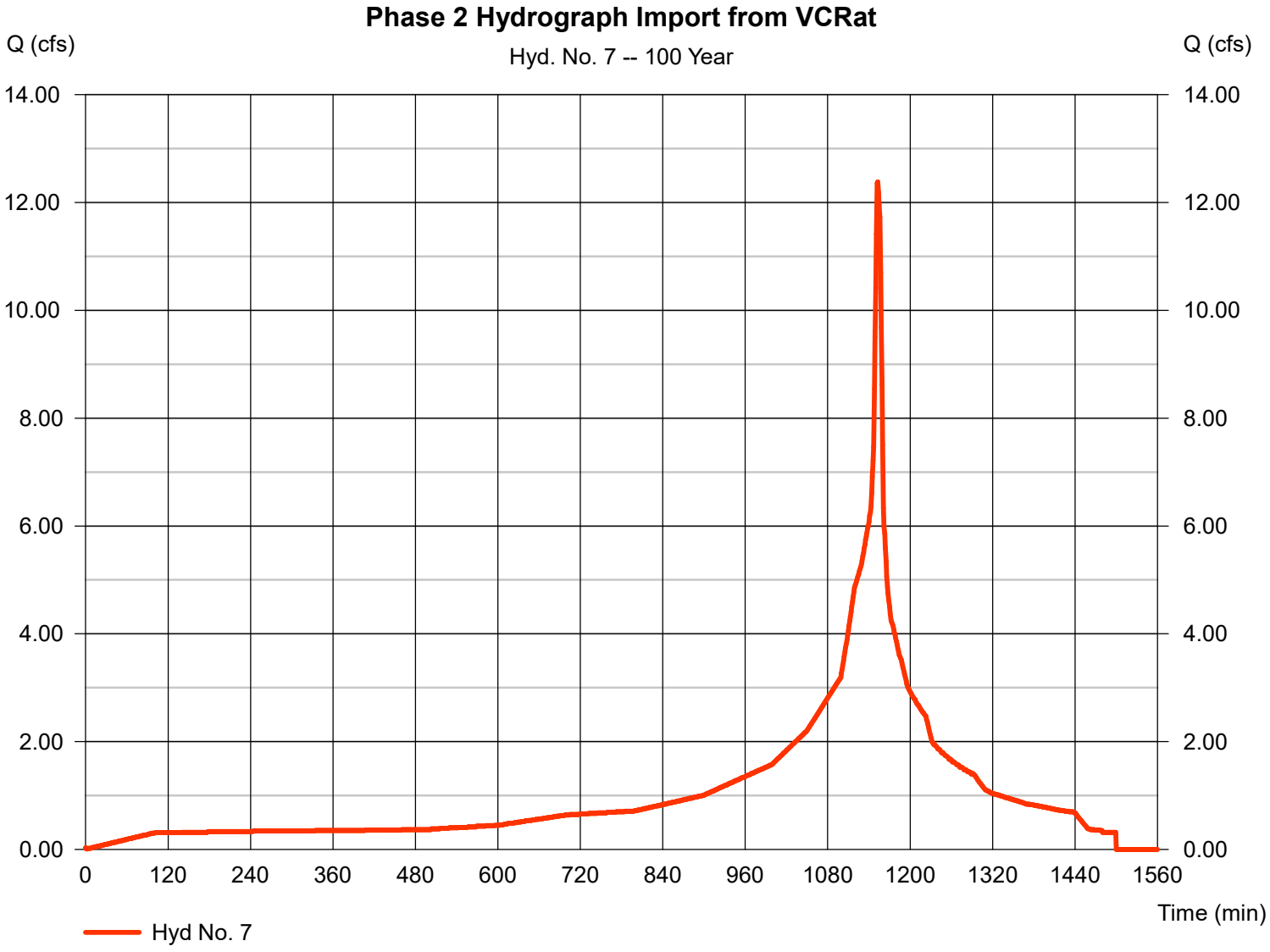


Hydrograph Report

Hyd. No. 7

Phase 2 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 12.38 cfs
Storm frequency	= 100 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 98,180 cuft

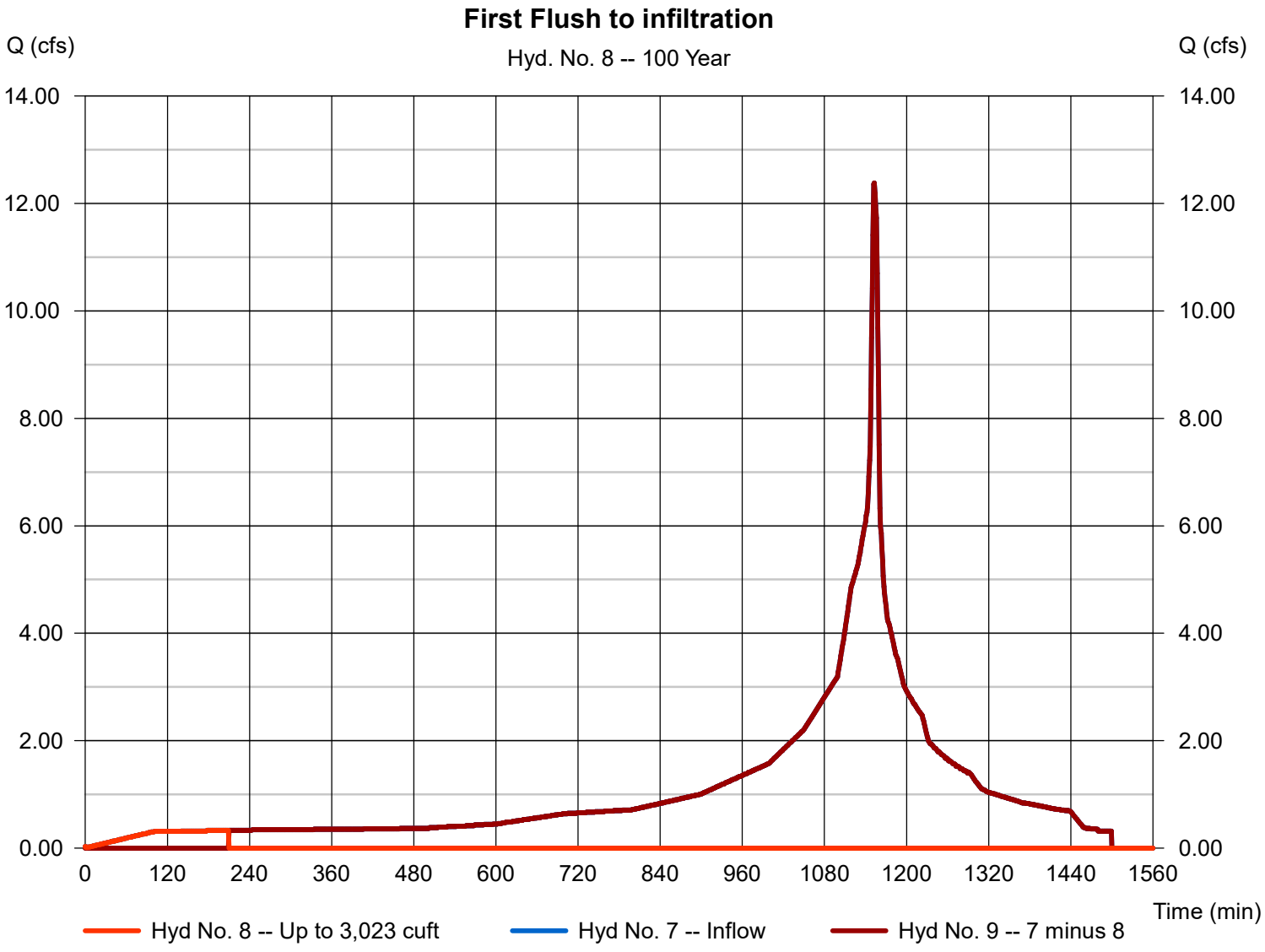


Hydrograph Report

Hyd. No. 8

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.330 cfs
Storm frequency	=	100 yrs	Time to peak	=	178 min
Time interval	=	1 min	Hyd. volume	=	3,032 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	9
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

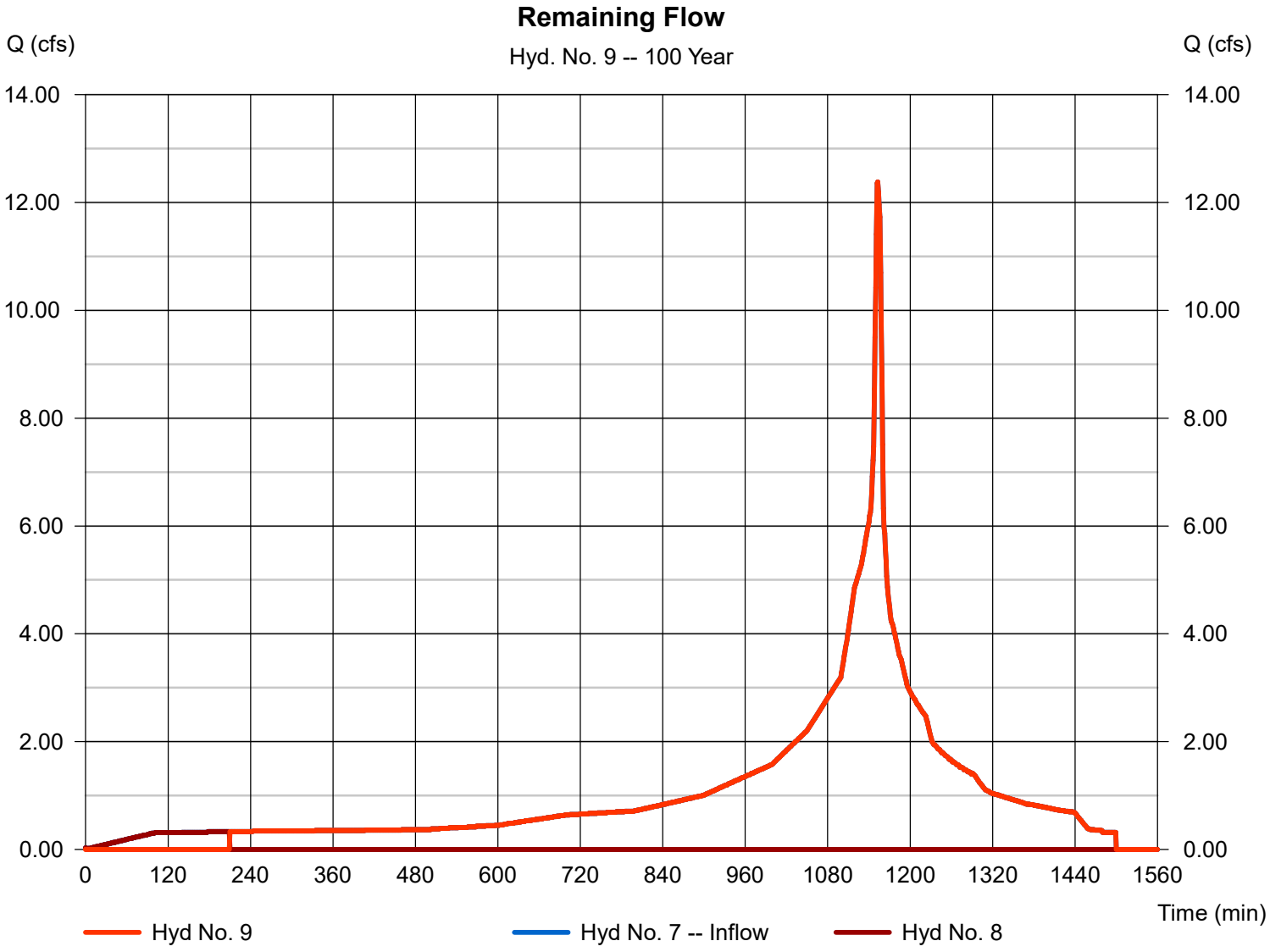


Hydrograph Report

Hyd. No. 9

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	12.38 cfs
Storm frequency	=	100 yrs	Time to peak	=	1153 min
Time interval	=	1 min	Hyd. volume	=	95,147 cuft
Inflow hydrograph	=	7 - Phase 2 Hydrograph Import from VCRa	2nd diverted hyd.	=	8
Diversion method	=	First Flush Volume	Volume Up To	=	3,023 cuft

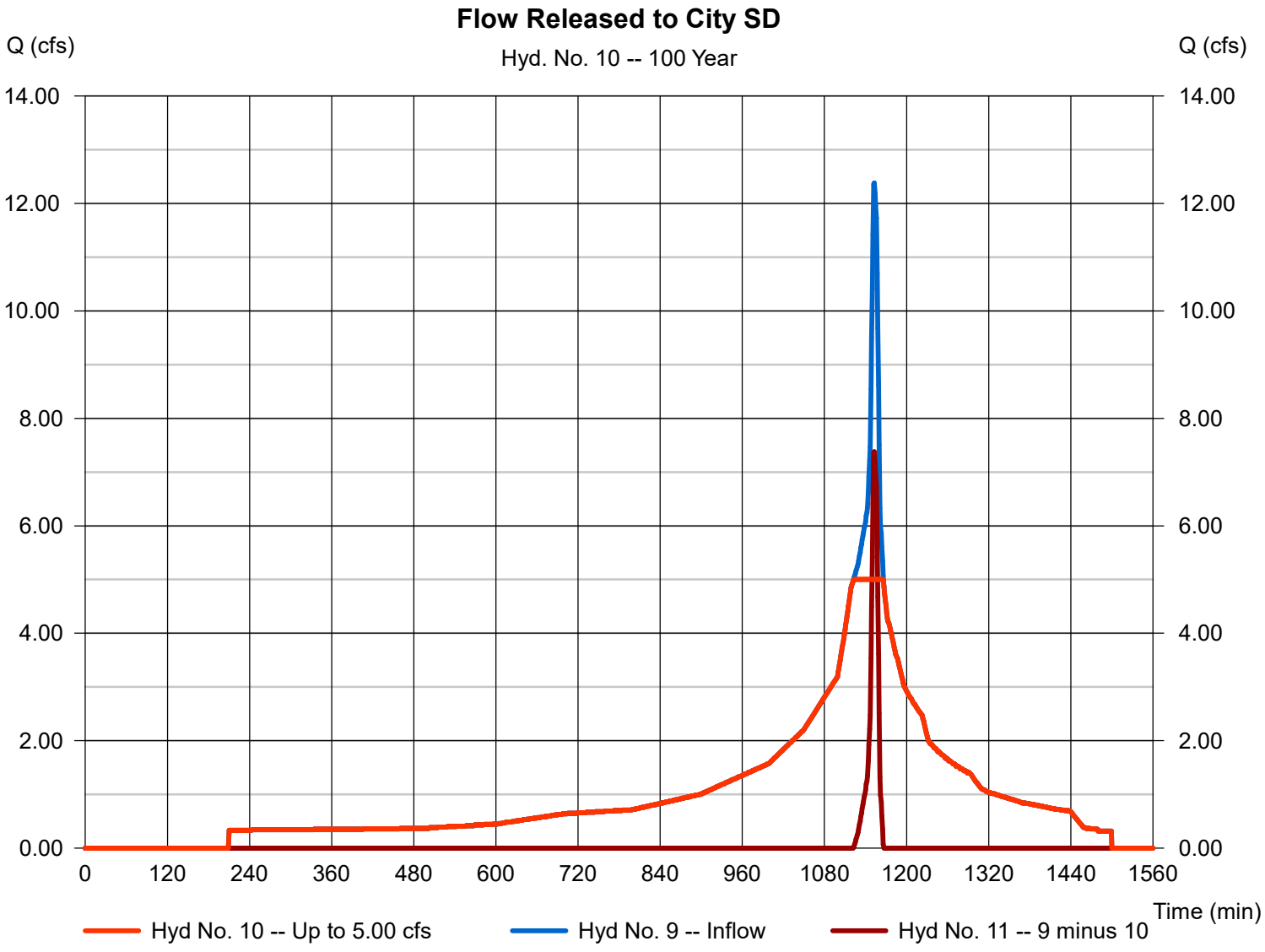


Hydrograph Report

Hyd. No. 10

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	5.000 cfs
Storm frequency	=	100 yrs	Time to peak	=	1123 min
Time interval	=	1 min	Hyd. volume	=	89,309 cuft
Inflow hydrograph	=	9 - Remaining Flow	2nd diverted hyd.	=	11
Diversion method	=	Constant Q	Constant Q	=	5.00 cfs

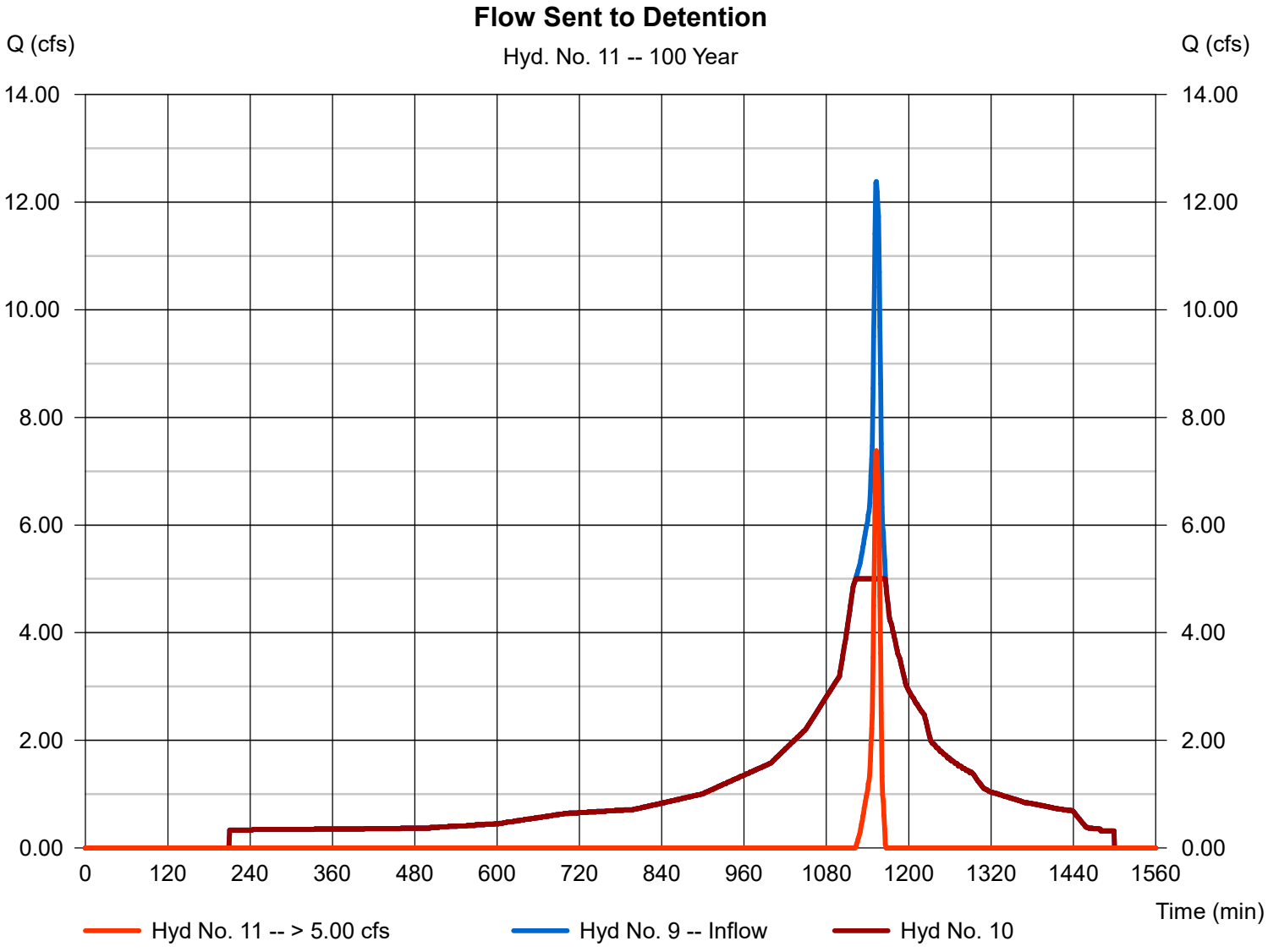


Hydrograph Report

Hyd. No. 11

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 7.380 cfs
Storm frequency	= 100 yrs	Time to peak	= 1153 min
Time interval	= 1 min	Hyd. volume	= 5,839 cuft
Inflow hydrograph	= 9 - Remaining Flow	2nd diverted hyd.	= 10
Diversion method	= Constant Q	Constant Q	= 5.00 cfs

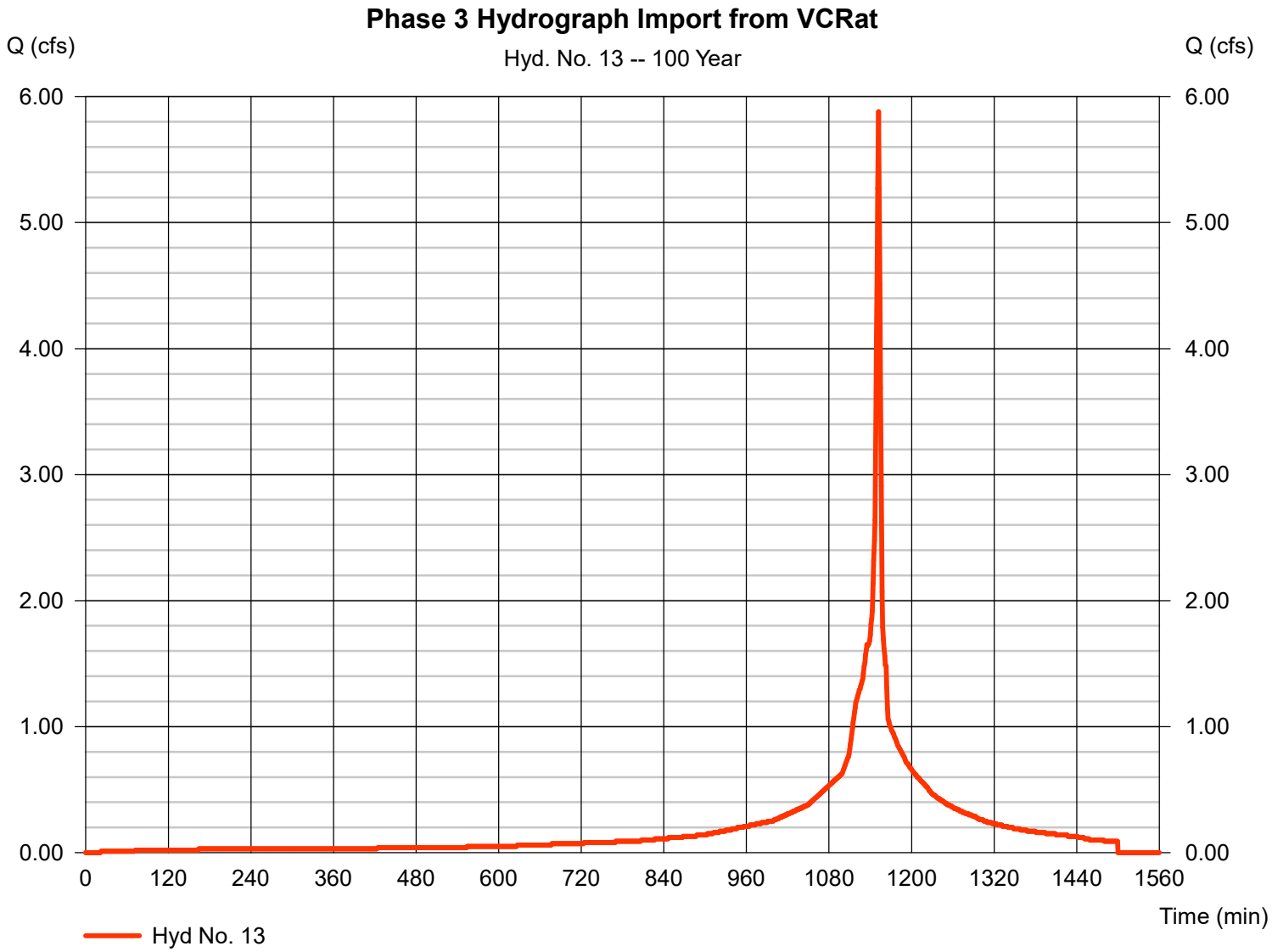


Hydrograph Report

Hyd. No. 13

Phase 3 Hydrograph Import from VCRat

Hydrograph type	= Manual	Peak discharge	= 5.880 cfs
Storm frequency	= 100 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 19,358 cuft

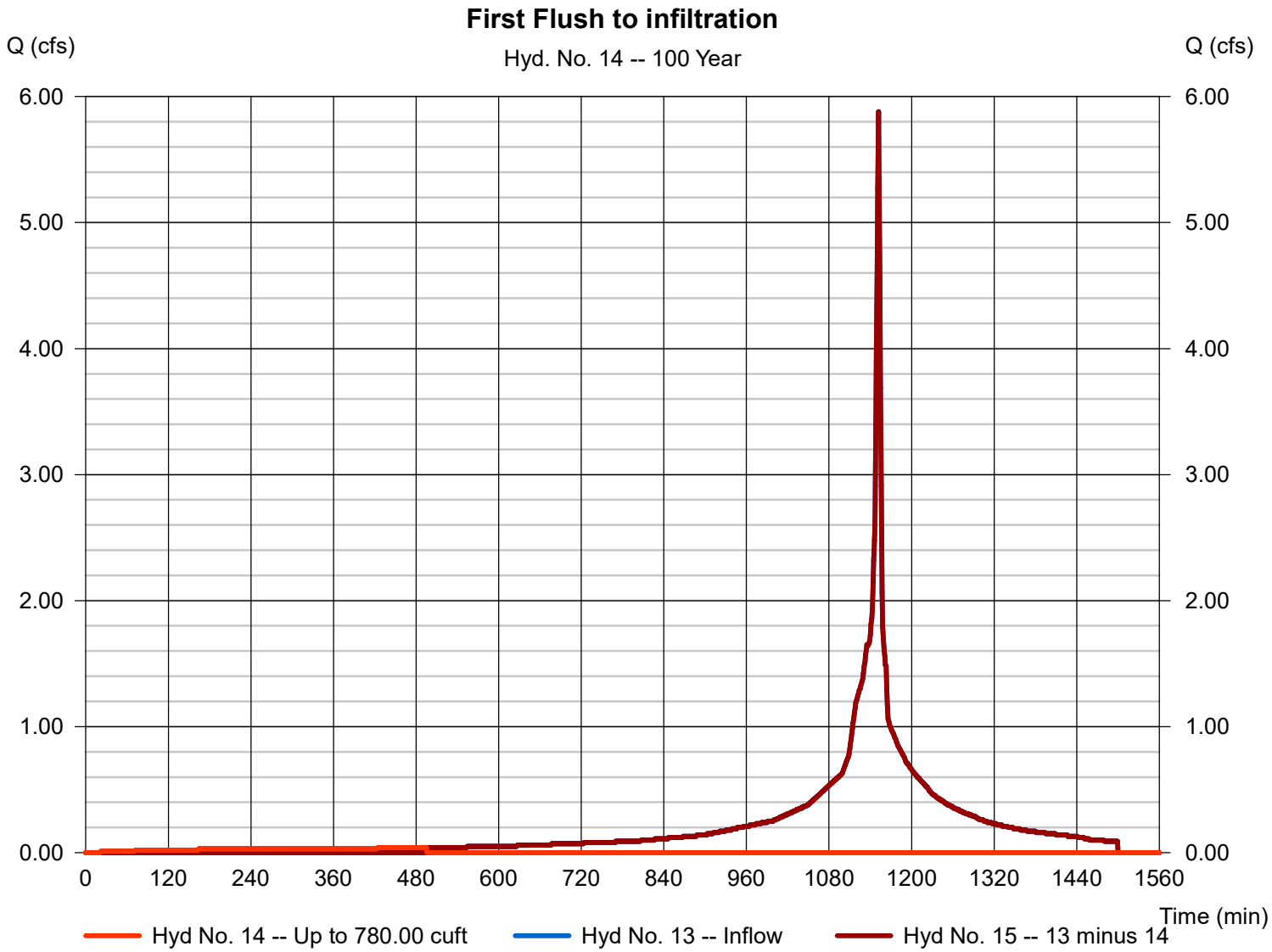


Hydrograph Report

Hyd. No. 14

First Flush to infiltration

Hydrograph type	=	Diversion1	Peak discharge	=	0.040 cfs
Storm frequency	=	100 yrs	Time to peak	=	424 min
Time interval	=	1 min	Hyd. volume	=	781 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	15
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

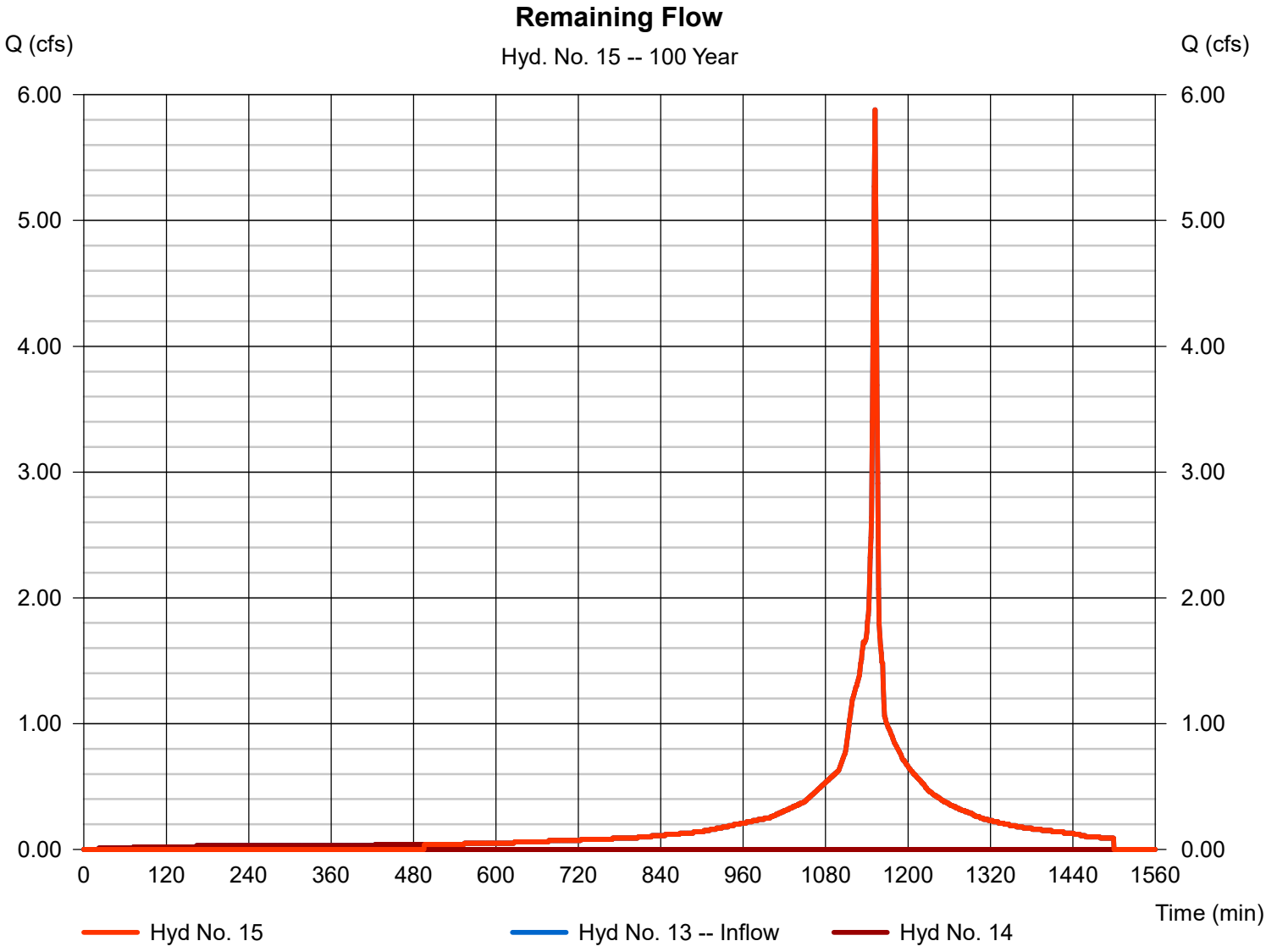


Hydrograph Report

Hyd. No. 15

Remaining Flow

Hydrograph type	=	Diversion2	Peak discharge	=	5.880 cfs
Storm frequency	=	100 yrs	Time to peak	=	1152 min
Time interval	=	1 min	Hyd. volume	=	18,577 cuft
Inflow hydrograph	=	13 - Phase 3 Hydrograph Import from VCP2	2nd diverted hyd.	=	14
Diversion method	=	First Flush Volume	Volume Up To	=	780.00 cuft

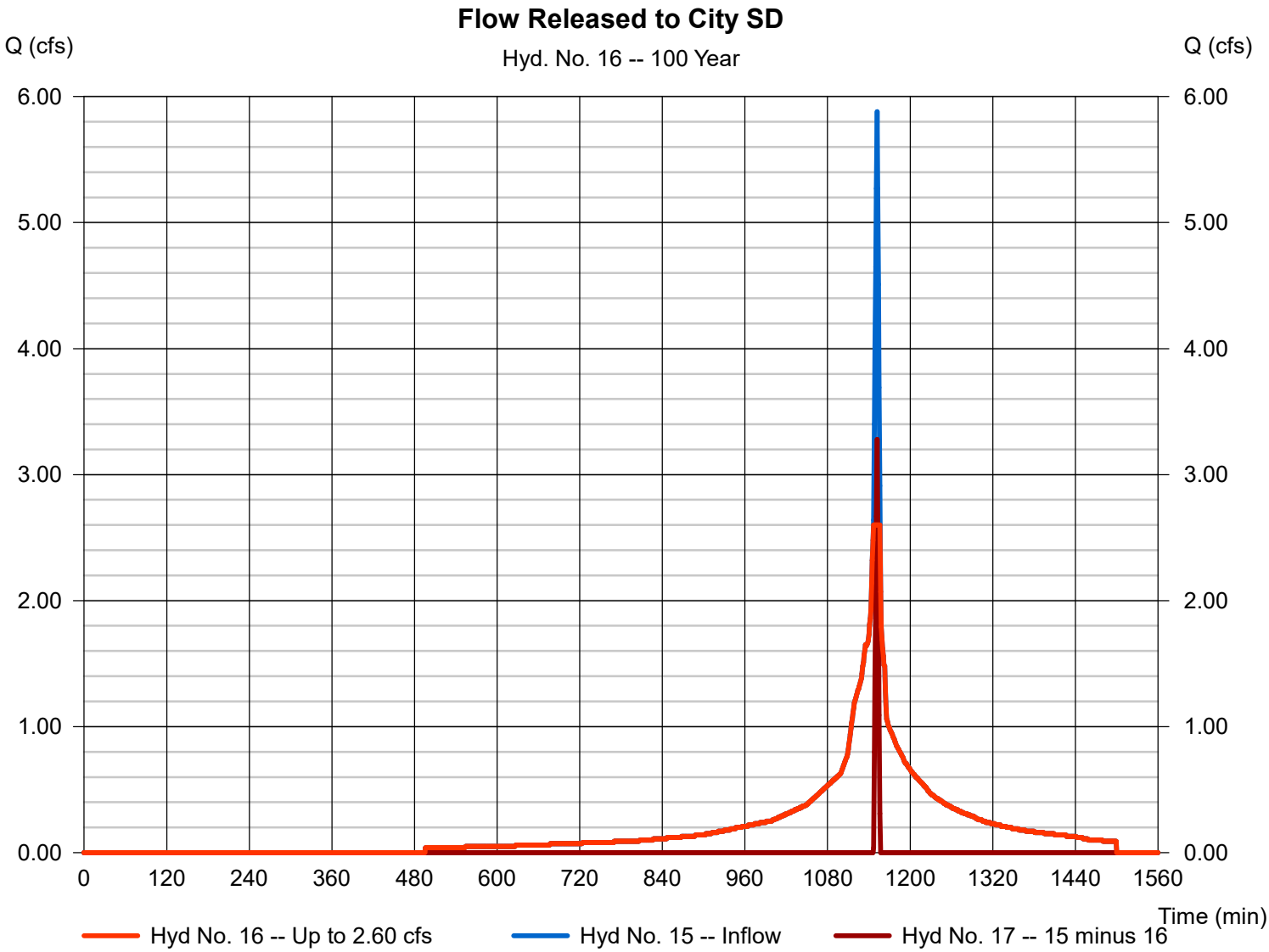


Hydrograph Report

Hyd. No. 16

Flow Released to City SD

Hydrograph type	=	Diversion1	Peak discharge	=	2.600 cfs
Storm frequency	=	100 yrs	Time to peak	=	1147 min
Time interval	=	1 min	Hyd. volume	=	17,603 cuft
Inflow hydrograph	=	15 - Remaining Flow	2nd diverted hyd.	=	17
Diversion method	=	Constant Q	Constant Q	=	2.60 cfs

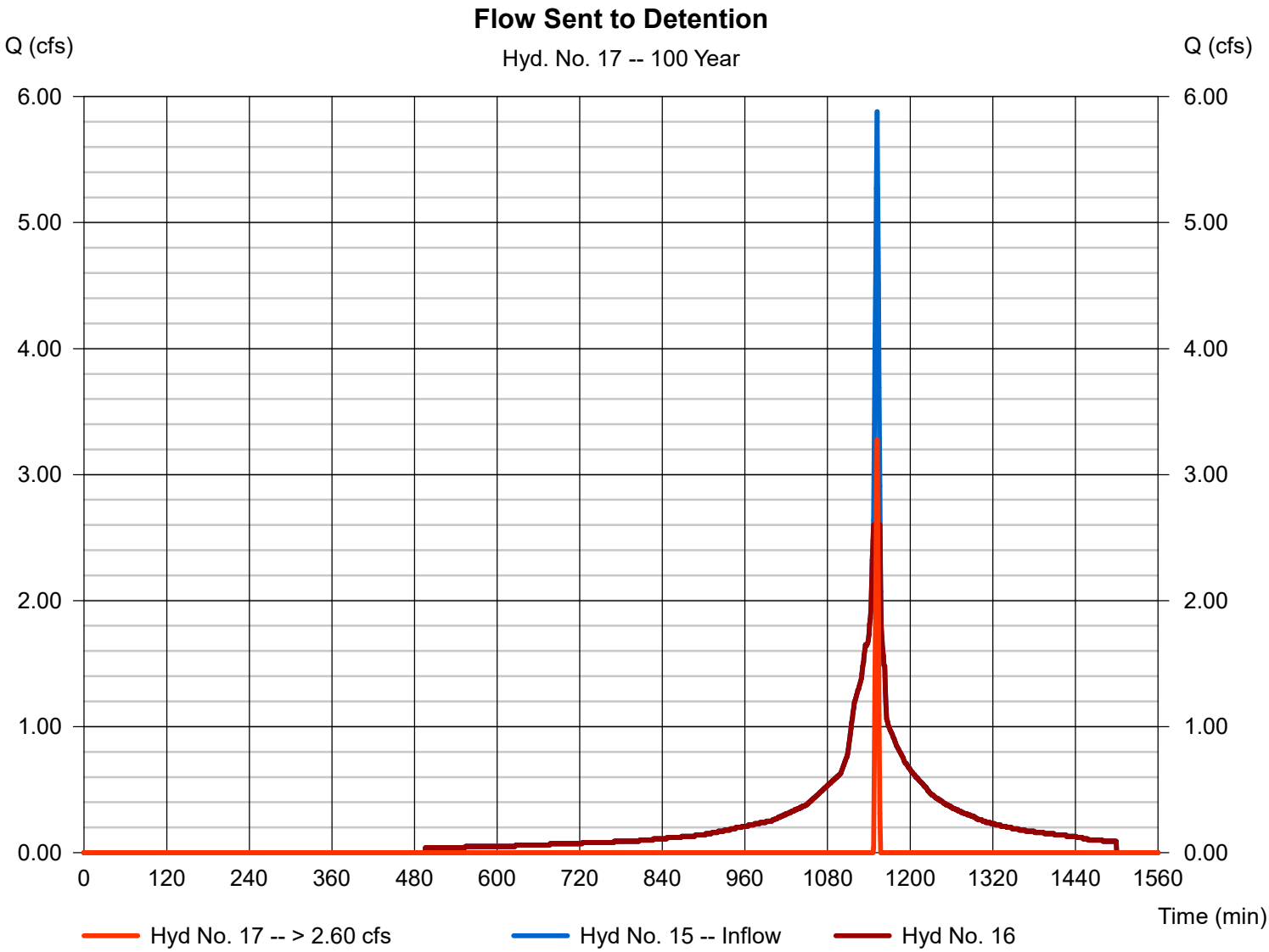


Hydrograph Report

Hyd. No. 17

Flow Sent to Detention

Hydrograph type	= Diversion2	Peak discharge	= 3.280 cfs
Storm frequency	= 100 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 974 cuft
Inflow hydrograph	= 15 - Remaining Flow	2nd diverted hyd.	= 16
Diversion method	= Constant Q	Constant Q	= 2.60 cfs

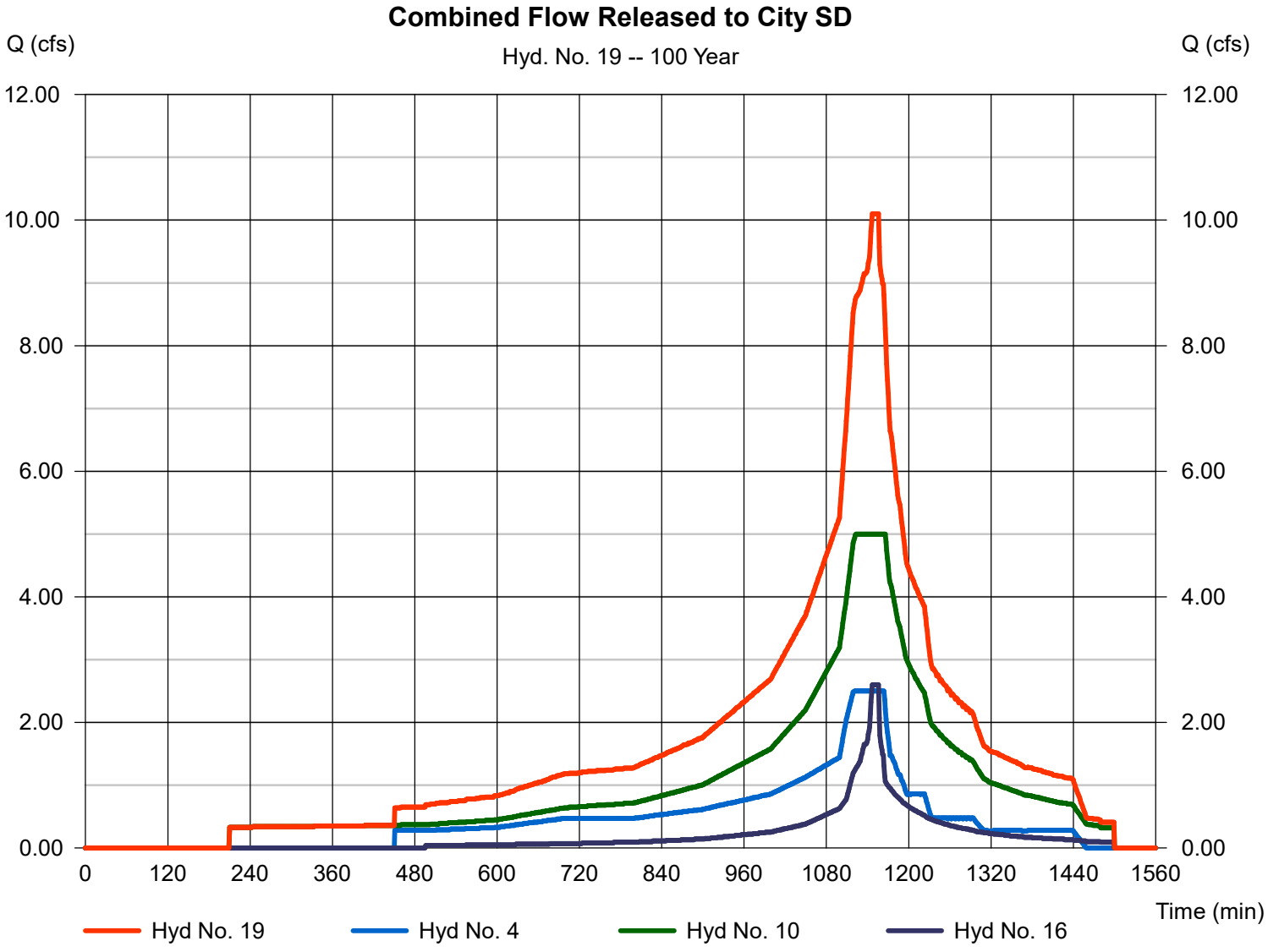


Hydrograph Report

Hyd. No. 19

Combined Flow Released to City SD

Hydrograph type	= Combine	Peak discharge	= 10.10 cfs
Storm frequency	= 100 yrs	Time to peak	= 1147 min
Time interval	= 1 min	Hyd. volume	= 147,361 cuft
Inflow hyds.	= 4, 10, 16	Contrib. drain. area	= 0.000 ac

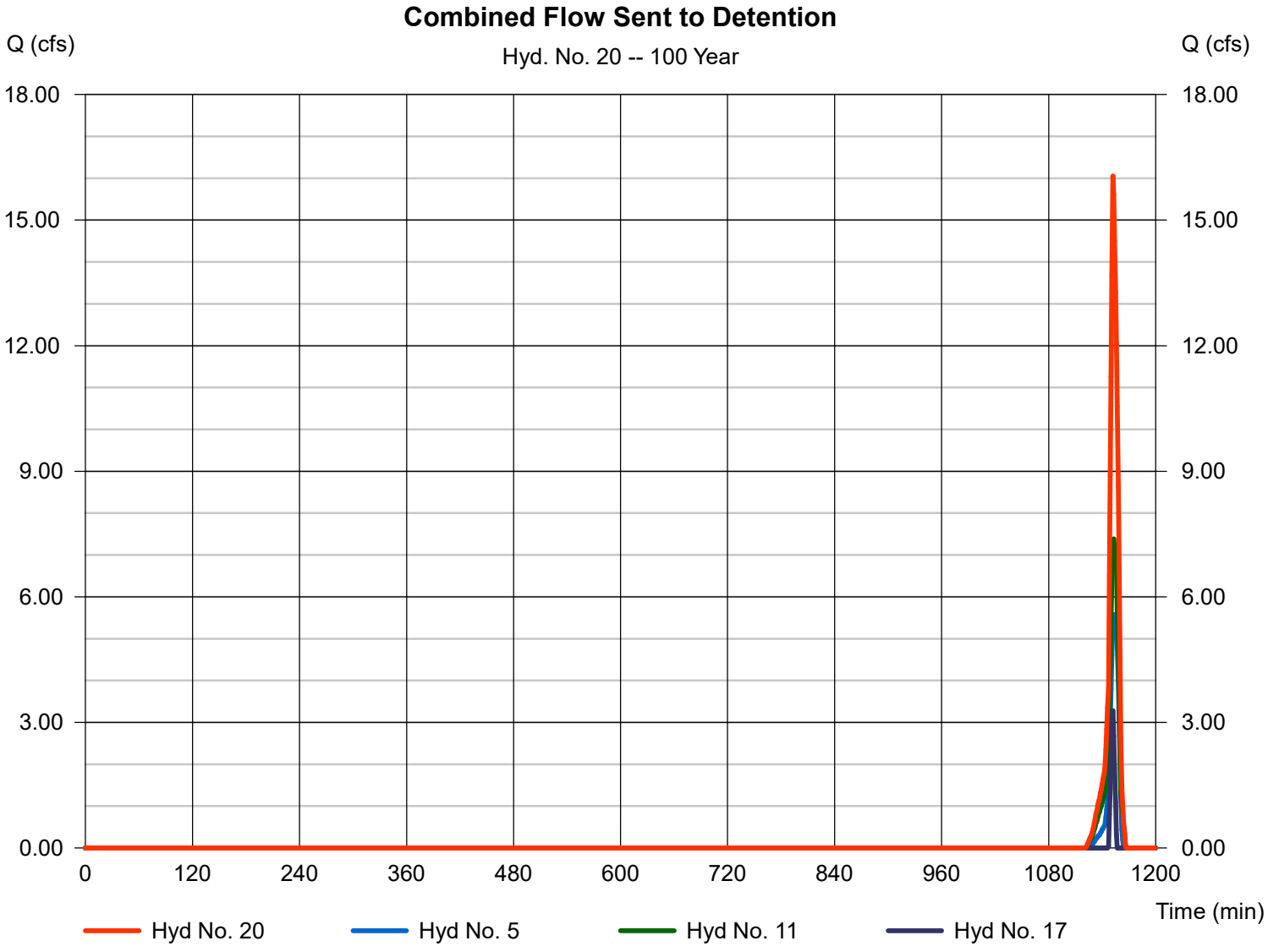


Hydrograph Report

Hyd. No. 20

Combined Flow Sent to Detention

Hydrograph type	= Combine	Peak discharge	= 16.05 cfs
Storm frequency	= 100 yrs	Time to peak	= 1152 min
Time interval	= 1 min	Hyd. volume	= 10,733 cuft
Inflow hyds.	= 5, 11, 17	Contrib. drain. area	= 0.000 ac



CONTECH CMP DETENTION SYSTEM

Contech CMP Detention System

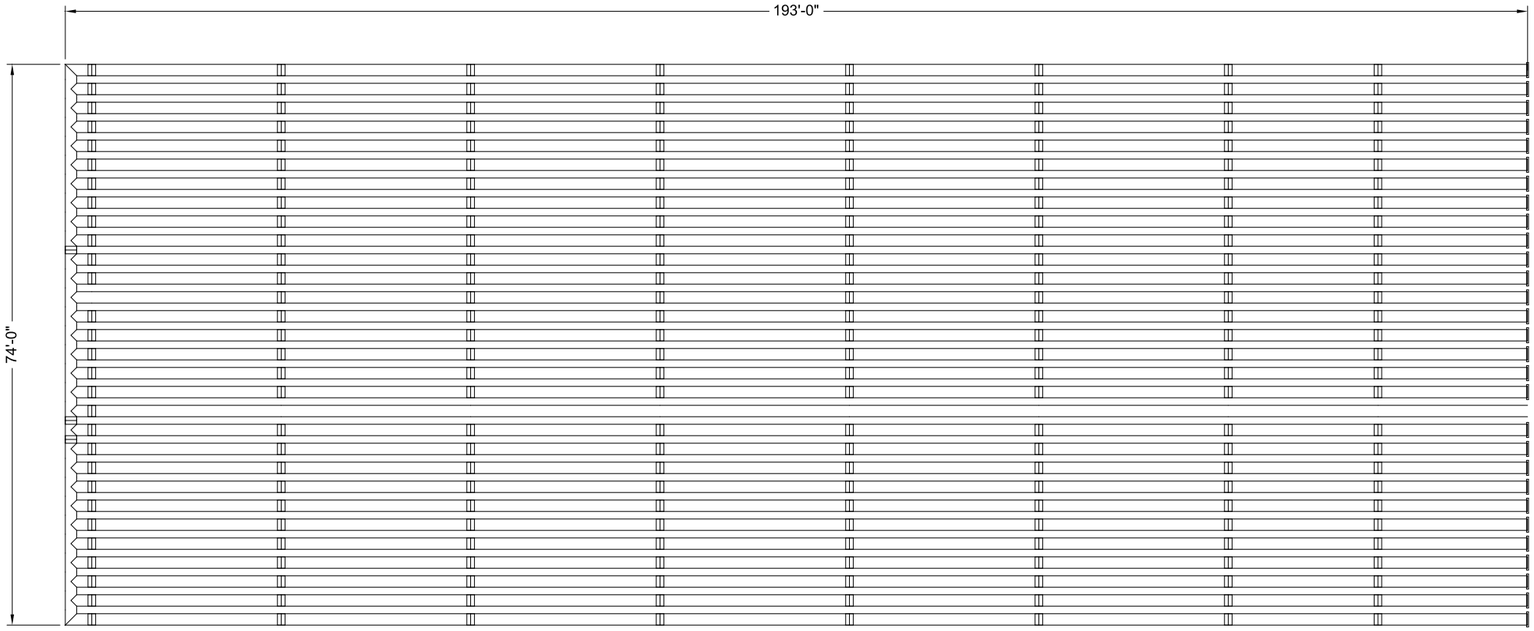
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 5,819 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 15,000 CF
- PIPE STORAGE VOLUME = 10,283 CF
- BACKFILL STORAGE VOLUME = 4,779 CF
- TOTAL STORAGE PROVIDED = 15,062 CF
- STONE VOID = 40%

PIPE DETAILS
- DIAMETER = 18"
- CORRUGATION = 2 2/3x1/2
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 12"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"



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" = 20'

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CONTECH CMP DETENTION SYSTEMS

CONTECH **DYODS** DRAWING

DYO70747 Rio Del Valle
Detention System
Oxnard, CA
DETENTION SYSTEM

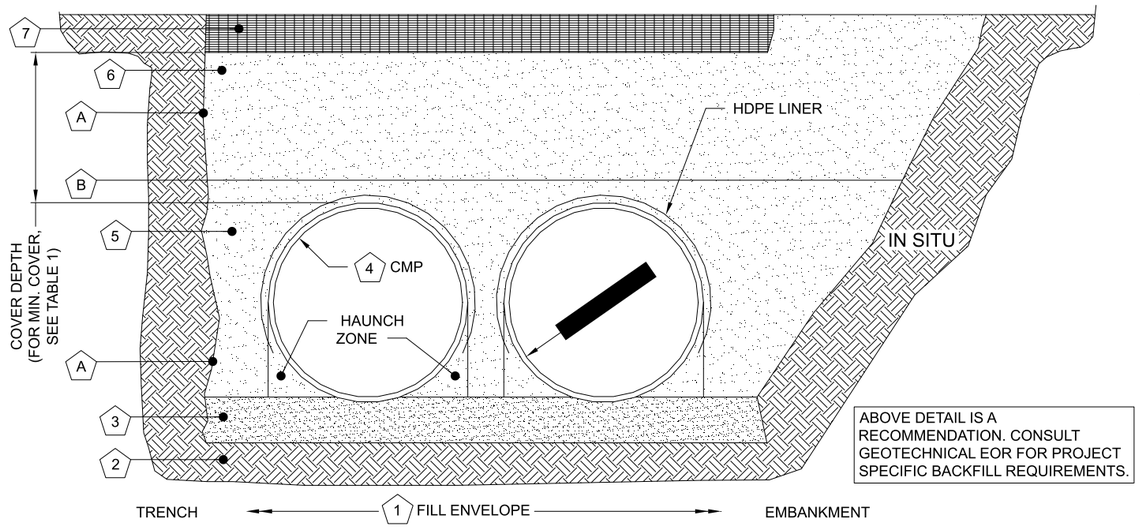
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DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

C:\EXPORTS\TEMPLATES\CMP_V10.DWG 10/18/2019 10:02 AM

TABLE 1:

DIAMETER, D	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
>48"-96"	12"	3" x 1", 5" x 1"
>96"	D/8	3" x 1", 5" x 1"

- STRUCTURAL BACKFILL MUST EXTEND TO LIMITS OF THE TABLE
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.



ABOVE DETAIL IS A RECOMMENDATION. CONSULT GEOTECHNICAL EOR FOR PROJECT SPECIFIC BACKFILL REQUIREMENTS.

MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT

INSTALLATION NOTES

1. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES.
2. OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.
3. AN HDPE MEMBRANE LINER WILL BE PLACED ON THE CROWN OF EACH PIPE TO PROVIDE AN IMPERMEABLE BARRIER AGAINST ENVIRONMENTAL CHANGES THAT MAY ADVERSELY AFFECT THE SYSTEM OVER TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL TECHNICAL DETAILS.

TABLE 2: PERFORATED STANDARD

CMP RETENTION STANDARD BACKFILL SPECIFICATIONS

	MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION	
1	FILL ENVELOPE WIDTH	PER ENGINEER OF RECORD	MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH, OR EOR RECOMMENDATION: PIPE ≤ 12": D + 16" PIPE > 12": 1.5D + 12"	MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE: PIPE < 24": 3.0D PIPE 24" - 144": D + 4'0" PIPE > 144": D + 10'0"
2	FOUNDATION	**AASHTO 26.5.2** - PER ENGINEER OF RECORD	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 FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.	
3	BEDDING	**AASHTO M 43: 3, 357, 4, 467, 5, 56, 57**	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE OPEN GRADED GRANULAR BEDDING CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1	
4	CORRUGATED METAL PIPE			
5	BACKFILL	FREE-DRAINING, ANGULAR, NATURALLY OCCURRING WASHED-STONE PER **AASHTO M 43: 3, 357, 4, 467, 5, 56, 57** OR APPROVED EQUAL *	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 8" +/- LOOSE LIFTS AND COMPACTED TO 90% STANDARD PROCTOR PER AASHTO T 99. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING. WHERE CONVENTIONAL COMPACTION TESTING IS NOT PRACTICAL, THE MATERIAL SHALL BE MECHANICALLY COMPACTED UNTIL NO FURTHER YIELDING OF MATERIAL IS OBSERVED UNDER THE COMPACTOR. **IN AREAS WITH HIGH WATER TABLE FLUCTUATIONS THAT INTERACT WITH THE PIPE ZONE, CONSIDER INSTALLING A GEOTEXTILE SEPARATION LAYER TO PREVENT SOIL MIGRATION.	
6	COVER MATERIAL	UP TO MIN. COVER - **AASHTO M 145: A-1, A-2, A-3** ABOVE MIN. COVER - PER ENGINEER OF RECORD	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROADBASE MATERIAL WITHIN MIN COVER LIMITS	
7	RIGID OR FLEXIBLE PAVEMENT (IF APPLICABLE)	PER ENGINEER OF RECORD	FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD.	
A	OPTIONAL SIDE GEOTEXTILE	NONE	GEOTEXTILE LAYER IS RECOMMENDED ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION.	
B	GEOTEXTILE BETWEEN LAYERS	NONE	IF SOIL TYPES DIFFER AT ANY POINT ABOVE PIPE INVERT, A GEOTEXTILE LAYER IS RECOMMENDED TO BE PLACED BETWEEN THE LAYERS TO PREVENT SOIL MIGRATION.	

NOTES:
- FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER /2 BUT NO LESS THAN 12" FOR DIAMETERS <72". FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 36". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING.

* APPROVED REGIONAL EQUIVALENTS FOR SECTION 5 INCLUDE CA-7, MIDOT 6AA, 6A, OR 5G, PROVIDED THEY MEET THE PARTICLE SIZES INDICATED.

MANUFACTURER RECOMMENDED BACKFILL

NOT TO SCALE

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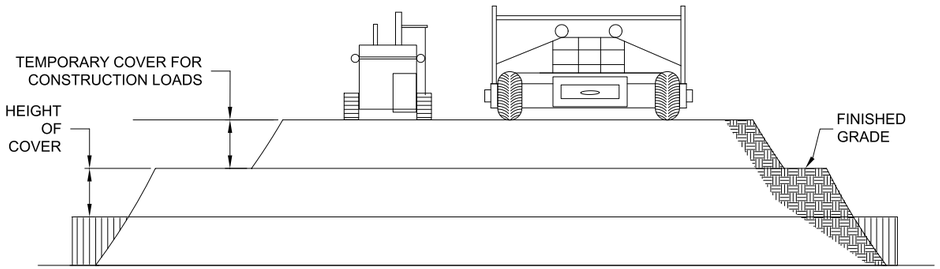
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DYO70747 Rio Del Valle
Detention System
Oxnard, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
50748	70747	3/10/2025
DESIGNED: DYO	DRAWN: DYO	
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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 REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE 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

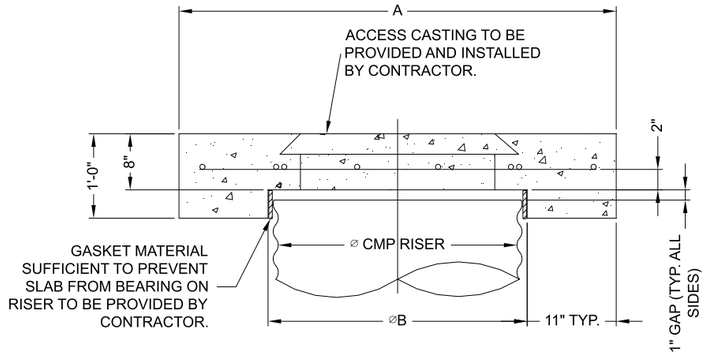
APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE
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.
REQUIREMENTS
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.

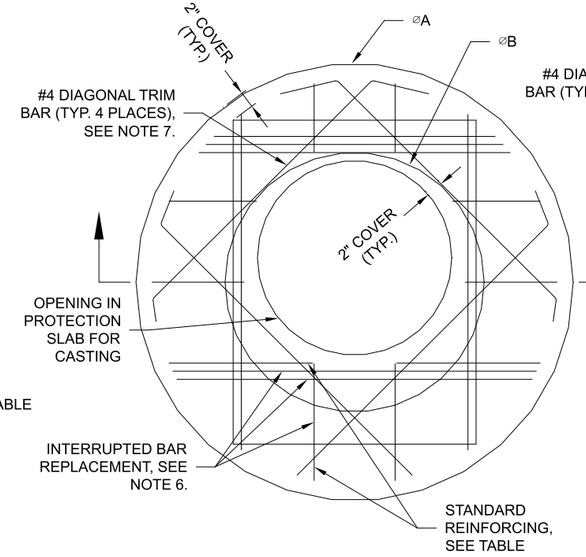
NOTE:
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



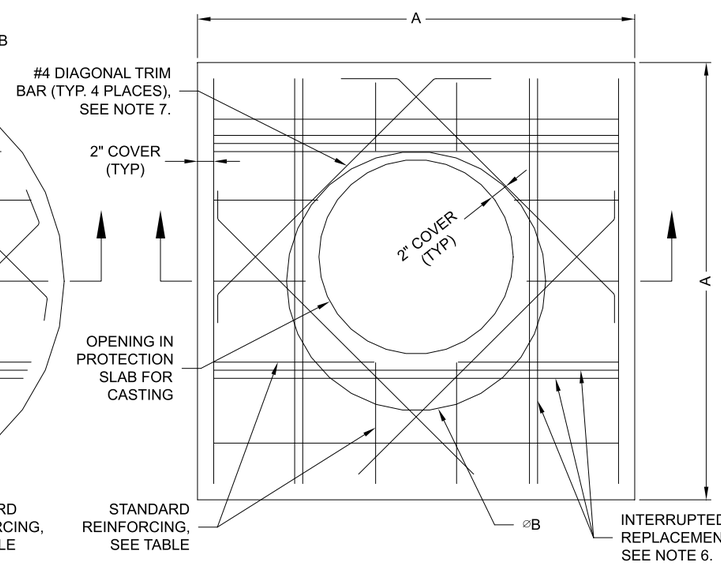
SECTION VIEW

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

DYO70747 Rio Del Valle
Detention System
Oxnard, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
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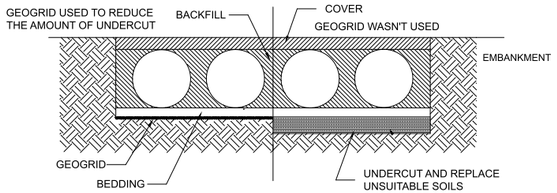
CMP DETENTION INSTALLATION GUIDE

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.

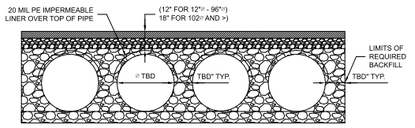
IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM 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

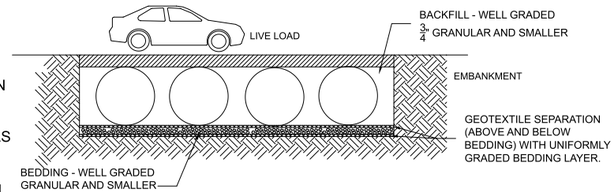
THE RESISTIVITY OF A PROJECT SITE MAY CHANGE OVER TIME DUE TO THE USE OF VARIOUS SALTING, DE-ICING, AND AGRICULTURAL AGENTS APPLIED ON OR NEAR THE AREA. TO MITIGATE THE POTENTIAL IMPACT OF THESE AGENTS, AN HDPE MEMBRANE LINER WILL BE INSTALLED ON THE CROWN OF EACH PIPE, CREATING AN IMPERMEABLE BARRIER. THIS MEASURE IS DESIGNED TO PROTECT THE SYSTEM FROM ENVIRONMENTAL CHANGES THAT COULD LEAD TO PREMATURE CORROSION AND REDUCE THE OVERALL SERVICE LIFE.



IN-SITU TRENCH WALL

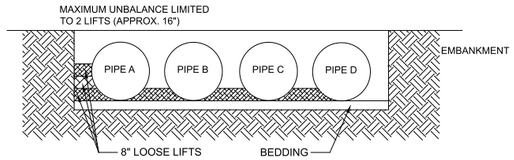
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION 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.



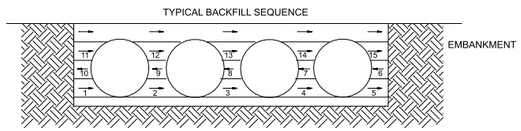
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

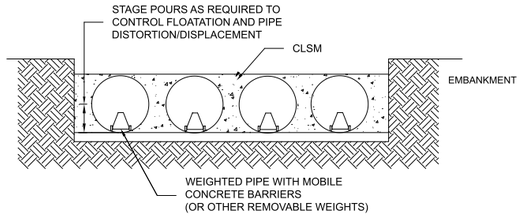


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE 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.

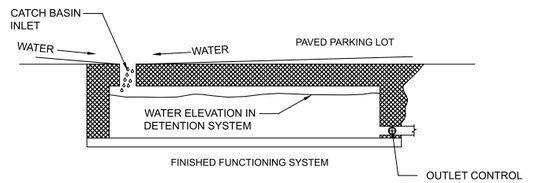


CONSTRUCTION LOADING

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

DYO70747 Rio Del Valle Detention System Oxnard, CA DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
50748	70747	3/10/2025
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Downstream Sewer Analysis

JENSEN
DESIGN & SURVEY, INC.
Delivering excellence through experience

1672 Donlon Street
Ventura, CA 93003
Local 805 654-6977
Fax 805 654-6979
www.jdscivil.com

RIO01.6207
December 1, 2023

City of Oxnard
Tai Chau
214 South C Street
Oxnard, CA 93030

Subject: Downstream Sewer Analysis
Rio del Valle School Expansion

Dear Mr. Chau,

The school proposes to expand south of the existing campus to Collins Street. The expansion will add 11.3 acres to the campus. The current campus is served by City of Oxnard sewer and is tributary to the Eastern Trunk Line which is one of eight City sewer trunk lines. The proposed expansion is expected to also be served by City sewer and the Eastern Trunk Line.

This letter is provided in response to the following incompleteness comment: *"the District shall prepare an additional report to identify the trunk line and any vacant lands that have yet to be developed (that connect to the same sewer trunk) and compute the peak flow sewer flow rate assuming the vacant areas will be fully developed using the existing permitted land use designation."* Ordinarily, sewer demand projections along an entire City Trunk Line would be part of a City Sewer Master Plan prepared by the City or its consultant at the City's direction. Master planning the entirety of a city trunk line would typically be outside of the realm of a single 11-acre project. However, at the request of the City, we have made this initial effort in identifying all of the potential downstream sewer generation between this project site and the wastewater treatment plant nine miles downstream. We do not expect this report to replace the City's sewer master planning efforts, nor do we expect this report to define downstream development opportunities and limitations.

With reductions in water usage over the last decade or more the City's sewer generation calculation guidelines are outdated and no longer applicable. Therefore, projected sewer generation provided herein for future developments is determined based on projected water usage and the corresponding rate of return identified in city water bills. It is anticipated that the City will use this information in conjunction with the currently unadopted Sewer Master Plan prepared in December 2015 within their existing model of the Eastern Trunk Line to analyze future impacts and deficiencies.

The attached "Sewer Reference Map" and Sewer Parcel Data identify 59 vacant parcels that could contribute to the Eastern Trunk Line in the future. Of those 59 parcels, 8 are zoned commercial, 44 are zoned industrial, 2 are zoned partially industrial and partially commercial, and 5 are zoned residential.

Commercial/Industrial
Sewer flow for the commercial and industrial parcels was calculated based on lot coverage. Building lot coverage was assumed to be an average of 35% based on 14 recent projects within the area that had an average of 33.8% coverage at build out. With this lot coverage, water usage for the commercial and industrial zoned parcels was assessed on an AFY/AC basis with the values provided by the City of Oxnard in the 2015 Public Works Integrated Master Plan, Memorandum 2.2, Table 5, included herein for reference.

Residential
Residential zoned lots were assessed on a per unit basis with the unit count either assumed to be the maximum allowed or for those parcels in the planning process, the expected unit count was used. The AFY/DU factor used to calculate residential water usage was taken from Addendum #15 of the Riverpark EIR, Section 3.17, Table 17, accepted by the City in 2021. Sewer generation was calculated using a rate of return of the water usage as established in the September 1, 2021 City of Oxnard Wastewater Rates. The Rates did not provide a value for industrial development, so 0.85 was used which is the same as commercial. The peak flow was assessed per City of Oxnard Standard Plate 42 using the calculated sewer demands.

These calculations are provided at the request of the City to assist in assessment of the existing Eastern Trunk Line. Final inclusion into the City's sewer model will be handled by the City. If you have any questions, please contact Robert Harvey at 805-633-2224 or rharvey@jdscivil.com.

Sincerely,
Jensen Design & Survey, Inc.

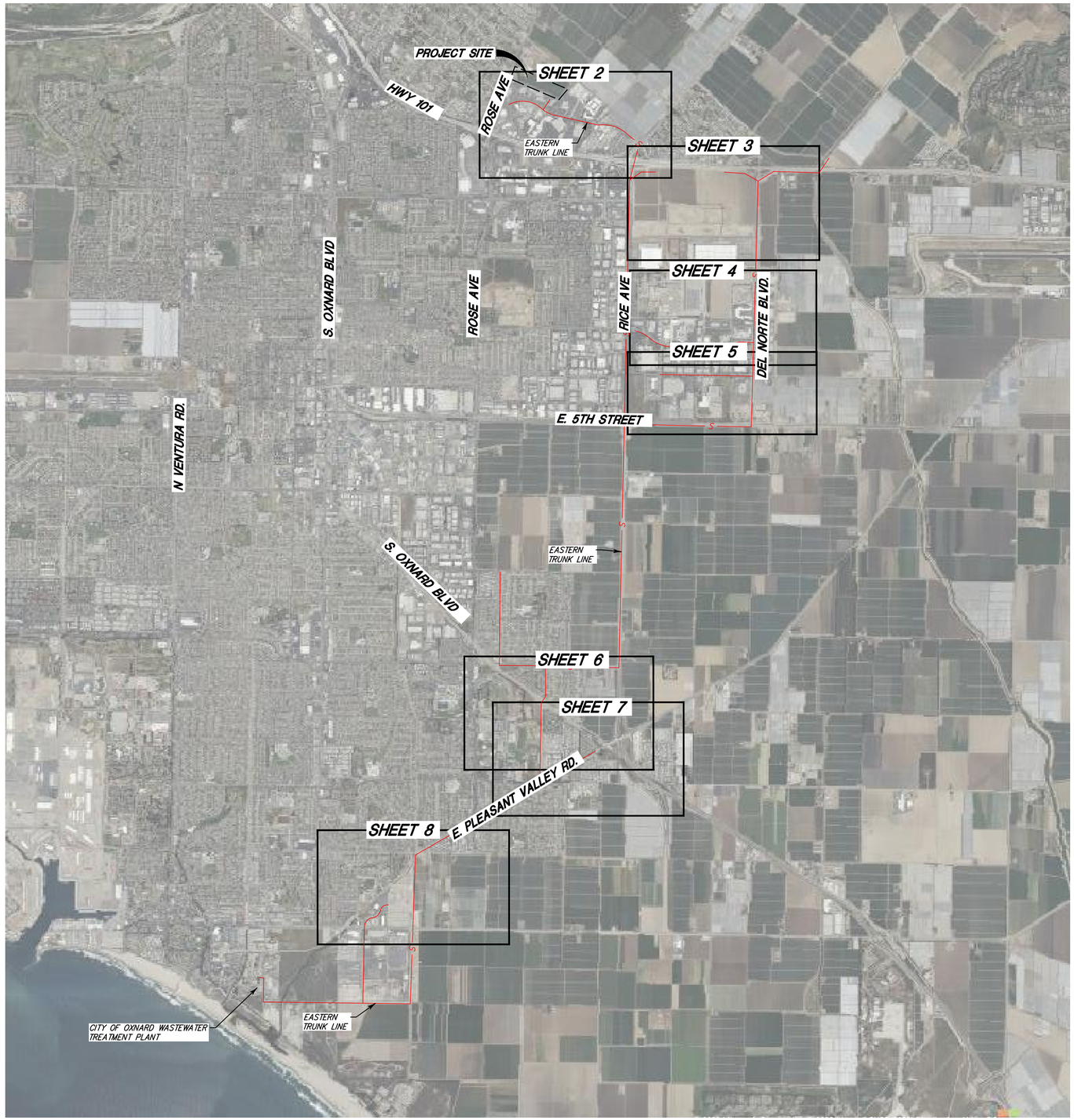


Robert Harvey, P.E.
Civil Engineer

Attachments:
Downstream Parcel Data
Sewer Reference Map
Excerpt from City of Oxnard in the 2015 Public Works Integrated Master Plan, Memorandum 2.2
Excerpt from Addendum #15 of the Riverpark EIR, Section 3.17, Table 17
City of Oxnard September 1, 2021 Wastewater Rate Table

I.D. No.	APN	AC	ZONE	Land Use	LOT COVERAGE AC	WATER USAGE (GPD)	WATER USAGE (AFY)	SEWER GENERATION (AFY)	SEWER GENERATION (CFS)	SEWER PEAK FLOW (CFS)	Notes
RS-1	144-0-134-115	1.46	SPLAN	COMMERCIAL	0.09	170	0.19	0.16	0.00022	0.0020	New 3,885 SF Restaurant
RS-2	144-0-134-085	0.82	SPLAN	COMMERCIAL	0.04	79	0.09	0.08	0.00010	0.0011	New 1,800 SF Resturaunt
RS-3	144-0-150-025	2.53	SPLAN	COMMERCIAL	0.89	1693	1.90	1.61	0.00223	0.0132	Triangle site btw. Auto Ctr Dr & Los Olivos
RS-4	144-0-120-165	1.52	SPLAN	COMMERCIAL	0.53	1017	1.14	0.97	0.00134	0.0087	Lot at end of Ventura Blvd at Santa Clara Interchange
SF-1	216-0-030-185	170.88	BRP	COMMERCIAL	59.81	114233	128.04	108.84	0.15033	0.4213	Un-developed portion of Sakoka Farm SPLAN
SF-2	216-0-240-015	2.49	M-1-PD	INDUSTRIAL	0.87	2634	2.95	2.51	0.00347	0.0190	Un-developed portion of Sakoka Farm SPLAN
SF-3	216-0-240-025	2.41	M-1-PD	INDUSTRIAL	0.84	2549	2.86	2.43	0.00335	0.0185	Un-developed portion of Sakoka Farm SPLAN
SF-4	216-0-240-035	2.31	M-1-PD	INDUSTRIAL	0.81	2442	2.74	2.33	0.00321	0.0179	Un-developed portion of Sakoka Farm SPLAN
SF-5	216-0-240-045	2.13	M-1-PD	INDUSTRIAL	0.74	2254	2.53	2.15	0.00297	0.0167	Un-developed portion of Sakoka Farm SPLAN
SF-6	216-0-240-005	1.96	M-1-PD	INDUSTRIAL	0.69	2074	2.32	1.98	0.00273	0.0156	Un-developed portion of Sakoka Farm SPLAN
SF-7	216-0-240-055	1.88	M-1-PD	INDUSTRIAL	0.66	1989	2.23	1.89	0.00262	0.0151	Un-developed portion of Sakoka Farm SPLAN
SF-8	216-0-240-085	0.69	M-1-PD	INDUSTRIAL	0.24	726	0.81	0.69	0.00096	0.0066	Un-developed portion of Sakoka Farm SPLAN
SF-9	216-0-240-075	0.69	M-1-PD	INDUSTRIAL	0.24	729	0.82	0.69	0.00096	0.0066	Un-developed portion of Sakoka Farm SPLAN
SF-10	216-0-030-165	0.40	M-1-PD	INDUSTRIAL	0.14	421	0.47	0.40	0.00055	0.0042	Un-developed portion of Sakoka Farm SPLAN
SF-11	216-0-240-155	2.62	M-1-PD	INDUSTRIAL	0.92	2777	3.11	2.65	0.00365	0.0198	Un-developed portion of Amazon Lot
SF-12	216-0-240-165	2.67	M-1-PD	INDUSTRIAL	0.93	2823	3.16	2.69	0.00371	0.0201	Un-developed portion of Amazon Lot
SF-13	216-0-250-035	2.72	M-1-PD	INDUSTRIAL	0.95	2883	3.23	2.75	0.00379	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-14	216-0-025-025	2.72	M-1-PD	INDUSTRIAL	0.95	2886	3.23	2.75	0.00380	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-15	216-0-250-015	2.72	M-1-PD	INDUSTRIAL	0.95	2886	3.23	2.75	0.00380	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-16	216-0-240-175	9.07	M-1-PD	INDUSTRIAL	3.17	9605	10.77	9.15	0.01264	0.0550	Un-developed portion of Amazon Lot
SF-17	216-0-250-045	8.17	M-1-PD	INDUSTRIAL	2.86	8658	9.70	8.25	0.01139	0.0505	Un-developed portion of Sakoka Farm SPLAN
SF-18	216-0-250-055	8.17	M-1-PD	INDUSTRIAL	2.86	8658	9.70	8.25	0.01139	0.0505	Un-developed portion of Sakoka Farm SPLAN
SF-19	216-0-250-065	8.17	M-1-PD	INDUSTRIAL	2.86	8658	9.70	8.25	0.01139	0.0505	Un-developed portion of Sakoka Farm SPLAN
SF-20	216-0-250-095	2.72	M-1-PD	INDUSTRIAL	0.95	2883	3.23	2.75	0.00379	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-21	216-0-250-085	2.72	M-1-PD	INDUSTRIAL	0.95	2886	3.23	2.75	0.00380	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-22	216-0-250-075	2.72	M-1-PD	INDUSTRIAL	0.95	2886	3.23	2.75	0.00380	0.0205	Un-developed portion of Sakoka Farm SPLAN
SF-23	216-0-030-175	2.49	M-1-PD	INDUSTRIAL	0.87	2633	2.95	2.51	0.00347	0.0190	Un-developed portion of Sakoka Farm SPLAN
SF-24	216-0-260-075	1.10	M-1-PD	INDUSTRIAL	0.38	1164	1.30	1.11	0.00153	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-25	216-0-260-065	1.10	M-1-PD	INDUSTRIAL	0.39	1167	1.31	1.11	0.00154	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-26	216-0-260-055	1.10	M-1-PD	INDUSTRIAL	0.39	1167	1.31	1.11	0.00154	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-27	216-0-260-045	1.10	M-1-PD	INDUSTRIAL	0.39	1167	1.31	1.11	0.00154	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-28	216-0-260-035	1.10	M-1-PD	INDUSTRIAL	0.39	1167	1.31	1.11	0.00154	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-29	216-0-260-025	1.10	M-1-PD	INDUSTRIAL	0.39	1167	1.31	1.11	0.00154	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-30	216-0-260-015	1.10	M-1-PD	INDUSTRIAL	0.38	1162	1.30	1.11	0.00153	0.0097	Un-developed portion of Sakoka Farm SPLAN
SF-31	216-0-031-195	22.79	M-1-PD	INDUSTRIAL	7.98	24137	27.05	23.00	0.03176	0.1174	Un-developed portion of Sakoka Farm SPLAN
SF-32	216-0-030-205	26.78	M-1-PD / BRP	INDUSTRIAL/ COMMERCIAL	6.96 (M-1-PD) 5.89 (BRP)	36140	40.51	34.43	0.04756	0.1636	Un-developed portion of SF SPLAN (Portion of Lot is ZONE BRP per Oxn Data)
CRBP-1	216-0-030-120	39.74	M-1-PD / BRP	INDUSTRIAL/ COMMERCIAL	21.18 (M-1-PD) 3.61 (BRP)	81350	91.18	77.51	0.10706	0.3187	Un-developed CRBP SPLAN (Portion of Lot is ZONE BRP per Oxn Data)
MRBP-1	216-0-232-055	0.99	M-1-PD	INDUSTRIAL	0.35	1047	1.17	1.00	0.00138	0.0089	No development plans per Oxn Data.
MRBP-2	216-0-232-085	3.26	M-1-PD	INDUSTRIAL	1.14	3448	3.87	3.29	0.00454	0.0237	No development plans per Oxn Data.
MRBP-3	216-0-232-035	10.99	M-1-PD	INDUSTRIAL	3.85	11643	13.05	11.09	0.01532	0.0645	Active 1,146 square-foot equipment enclosure
LOT-1	216-0151-345	28.00	M-1-PD	INDUSTRIAL	9.80	29651	33.24	28.25	0.03902	0.1390	Eastern portion of undeveloped P&G owned properties
LOT-2	216-0-211-045	7.87	M-1-PD	INDUSTRIAL	2.76	8338	9.35	7.94	0.01097	0.0490	0
LOT-3	216-0-160-535	2.85	M-1-PD	INDUSTRIAL	1.00	3022	3.39	2.88	0.00398	0.0213	0
LOT-4	216-0-160-545	2.40	M-1-PD	INDUSTRIAL	0.84	2542	2.85	2.42	0.00335	0.0185	0
LOT-5	216-0-160-555	2.45	M-1-PD	INDUSTRIAL	0.86	2597	2.91	2.47	0.00342	0.0188	0
LOT-6	216-0-160-565	2.41	M-1-PD	INDUSTRIAL	0.84	2550	2.86	2.43	0.00336	0.0185	0
LOT-7	216-0-160-575	10.85	M-1-PD	INDUSTRIAL	3.80	11487	12.88	10.94	0.01512	0.0638	0
LOT-8	216-0-160-045	3.00	M-2	INDUSTRIAL	1.05	3177	3.56	3.03	0.00418	0.0222	Concrete batch plant on a 3 acre site with a 2,833 square feet on a 130, 680 sq ft lot with a two story office/shop.
LOT-9	216-0-160-295	25.19	M-2	INDUSTRIAL	8.82	26678	29.90	25.42	0.03511	0.1275	A four lot subdivision and industrial park. The site will include the Active building, water tanks, fuel island, and related batch plant equipment.

I.D. No.	APN	AC	ZONE	Land Use	LOT COVERAGE AC	WATER USAGE (GPD)	WATER USAGE (AFY)	SEWER GENERATION (AFY)	SEWER GENERATION (CFS)	SEWER PEAK FLOW (CFS)	Notes
LOT-10	220-0-030-205	1.67	C-1-PD	COMMERCIAL	0.58	1114	1.25	1.06	0.00147	0.0094	0
LOT-11	225-0-014-180	13.94	R-2-AHP	RESIDENTIAL	N/A	16978	19.03	17.13	0.02366	0.0921	Possible mobile home park
LOT-12	225-0-014-275	1.05	R-2-AHD	RESIDENTIAL	N/A	4514	5.06	4.55	0.00629	0.0310	46 unit, two story apartment building / Requested zone change, general plan amendment and PD overlay
LOT-13	225-0-014-265	1.42	R-2-AHD	RESIDENTIAL	N/A	1766	1.98	1.78	0.00246	0.0143	Possible Location of Buidling Pad for future Development
LOT-14	225-0-014-030	2.92	R-2-AH	RESIDENTIAL	N/A	5692	6.38	5.74	0.00793	0.0375	58 affordable apartment units for farmworkers and veterans
LOT-15	225-0-014-020	1.98	R-2-AHP	RESIDENTIAL	N/A	5692	6.38	5.74	0.00793	0.0375	58 affordable apartment units for farmworkers and veterans
LOT-16	223-0-042-045	1.00	M-L-PD	INDUSTRIAL	0.35	1060	1.19	1.01	0.00139	0.0090	0
LOT-17	223-0-042-035	1.00	M-L-PD	INDUSTRIAL	0.35	1060	1.19	1.01	0.00140	0.0090	0
LOT-18	225-0-012-100	1.22	C-2	COMMERCIAL	0.43	813	0.91	0.77	0.00107	0.0072	Unlikely location for development
LOT-19	224-0-011-015	1.29	C-2	COMMERCIAL	0.45	862	0.97	0.82	0.00113	0.0076	Unlikely location for development



2000' 1000' 0' 2000' 4000'

GRAPHIC SCALE: 1"=2000'

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SEWER REFERENCE MAP FOR EASTERN TRUNK LINE

3100 N ROSE AVE
CITY OF OXNARD

COUNTY OF VENTURA STATE OF CALIFORNIA

SHEET 1 OF 8

Jan 04, 2024

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LEGEND

- PLANNED PROJECT
- SAKIOKA FARMS SPECIFIC PLAN
- VACANT LOT
- SEWER SUBAREA BOUNDARY
- S — EASTERN TRUNK LINE

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SEWER REFERENCE MAP FOR EASTERN TRUNK LINE

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SEWER REFERENCE MAP FOR EASTERN TRUNK LINE

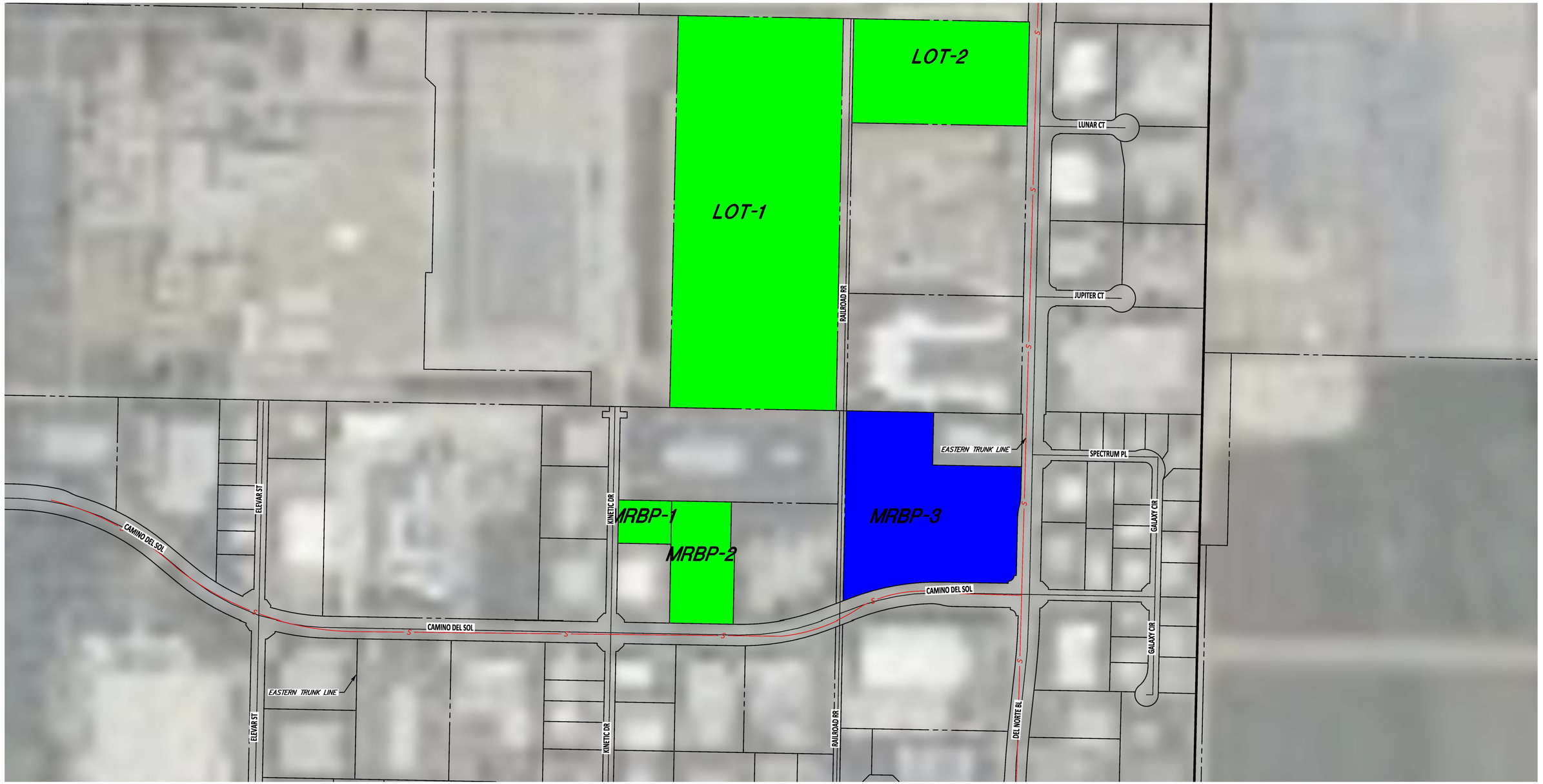
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SEWER REFERENCE MAP FOR EASTERN TRUNK LINE

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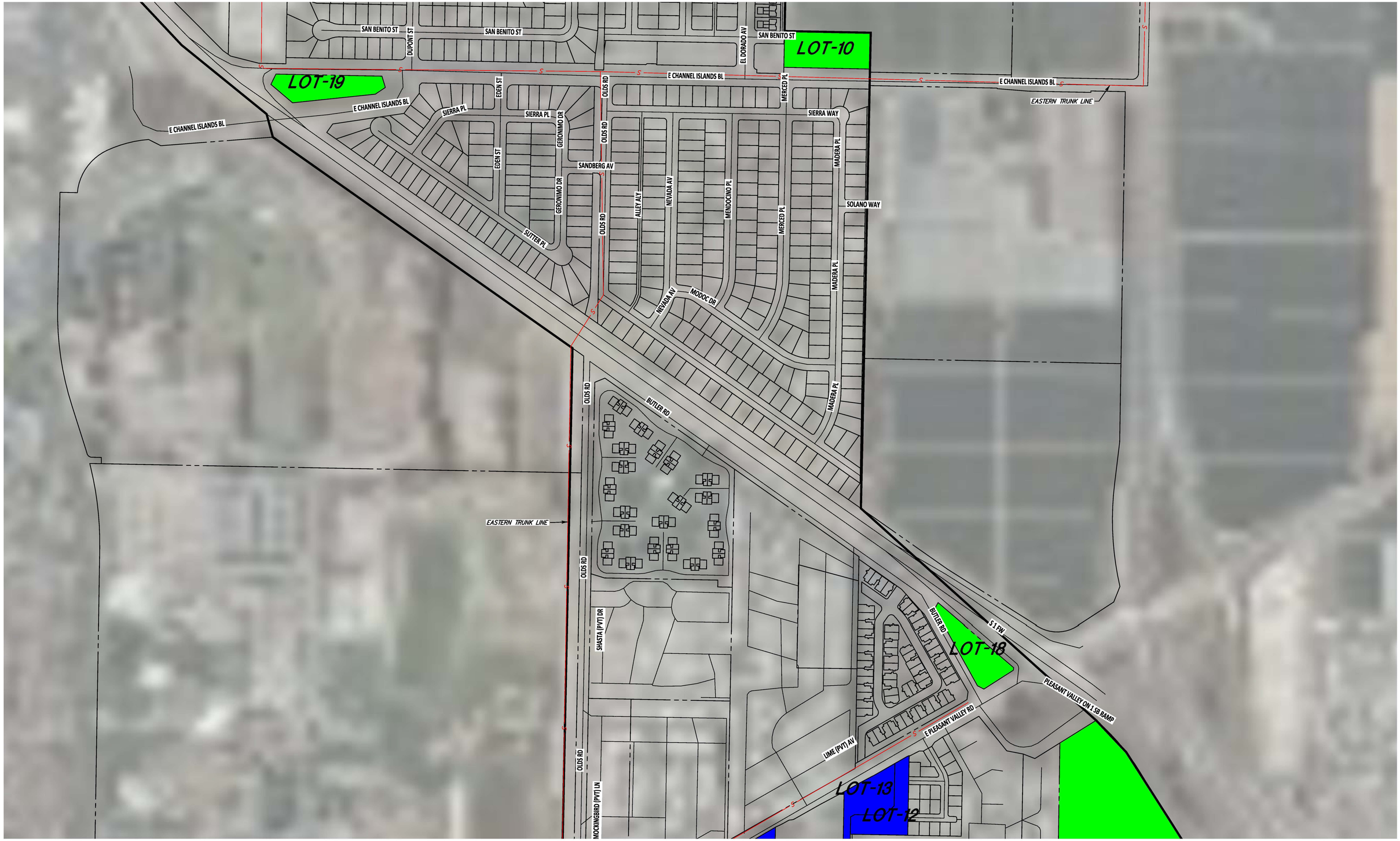
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CITY OF OXNARD

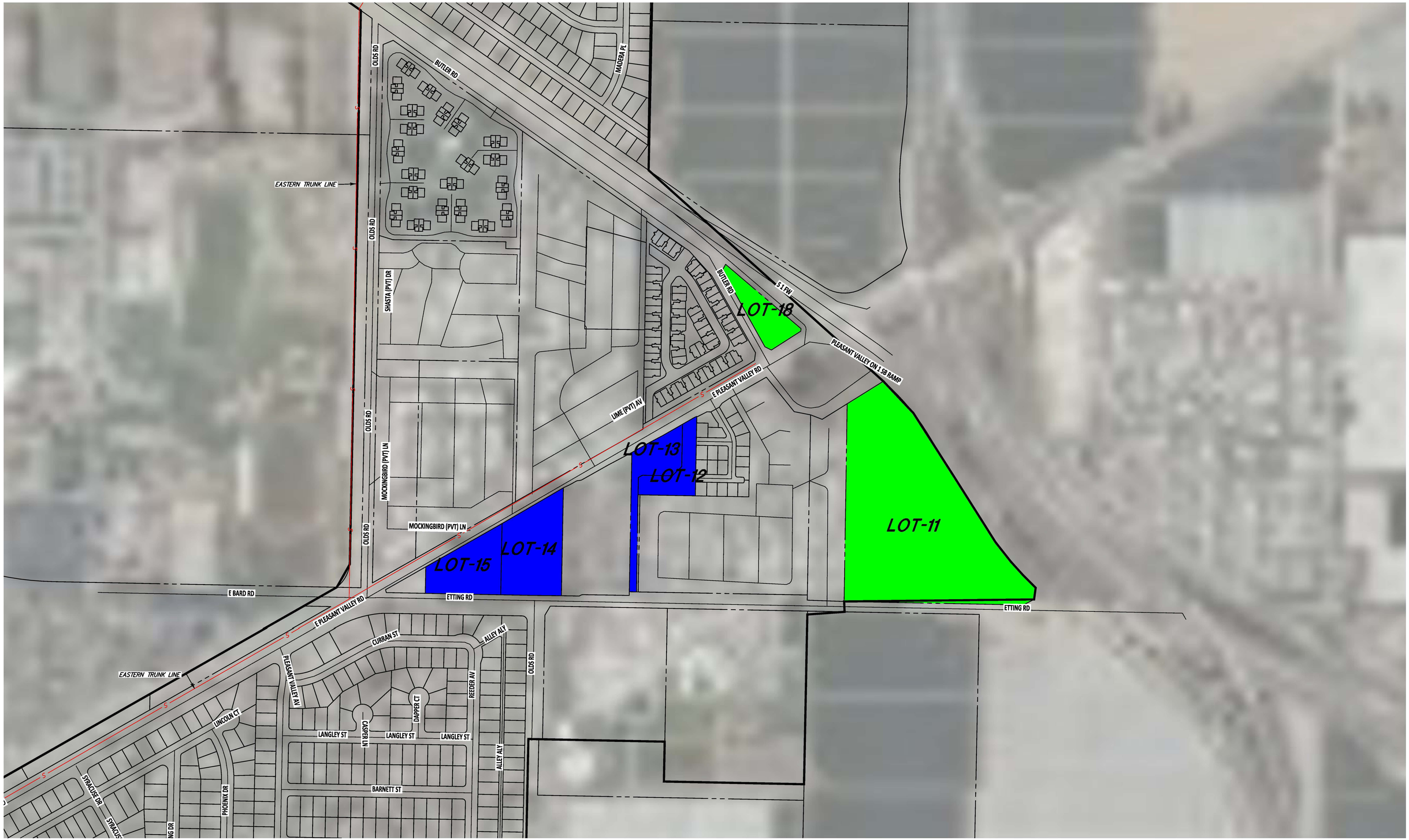
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LEGEND

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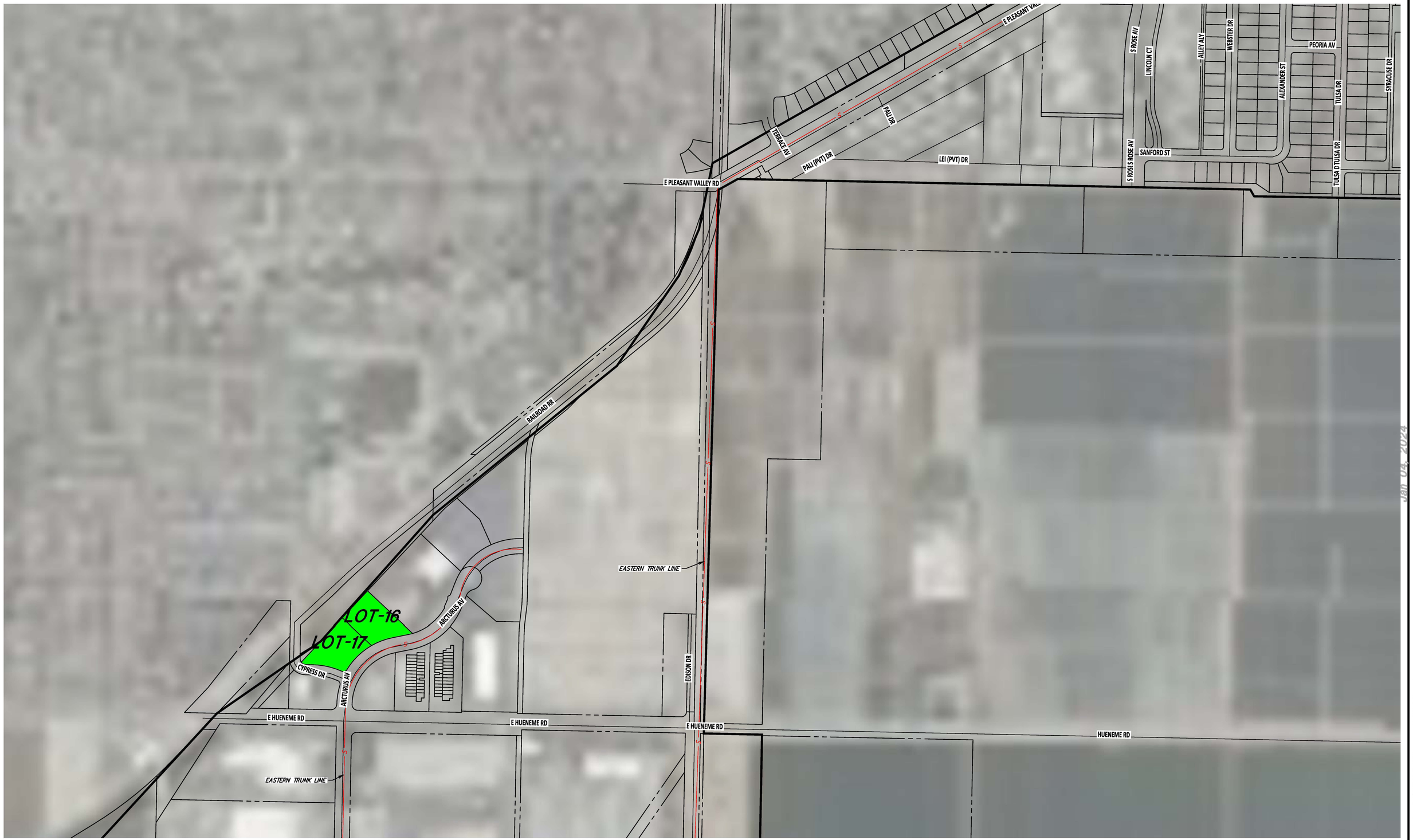
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SEWER REFERENCE MAP FOR EASTERN TRUNK LINE

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3.1 Residential Population-Based Forecast

Residential demand forecasting utilized population projections to project future water use. An average per capita water use expressed in gpcd was developed by examining historical demands and planning documents. The target gpcd of 132.4 from the 2010 Urban Water Management Plan (UWMP) was used to provide a consistent and conservative planning basis. The per capita water use was then combined with population projections from the population forecast to project the City's future water demand.

3.2 Commercial and Industrial Land-Use Based Forecast

The land use based method was utilized to estimate the commercial and industrial future demands of developments. This method requires the use of water demand factors (WDF) and land use plans, integrated into geographic information software (GIS).

A WDF is defined as the estimated amount of water usage per area for a certain land use type. WDFs are typically expressed in gallons per day per acre (gpd/ac). These factors are used to estimate the average day demand (ADD) for existing and potential development areas by multiplying the WDF with the total number of acres of each land use category. WDFs were developed as part of this Public Works Integrated Master Plan (PWIMP) to project demands for planned industrial and commercial development where land use details are known at this time (see Section 5.0).

WDFs are typically determined from a combination of geocoded billing records and land use information using spatial GIS routines. WDFs can also be verified against other agencies with similar land use and climate conditions.

Water demand factors for the existing system were derived from a total system average by using the geocoded billing records. The City's billing records from calendar year 2012 were geocoded to calculate WDFs by dividing the total system demand by land use category by the total area of each land use category. These WDFs for the existing system are presented in Table 5.

Table 5 Water Demand Factors
Public Works Integrated Master Plan
City of Oxnard

PWIMP Land Use	2030 General Plan Land Use Designation[1]	Calculated WDF (gpd/ac)	Recommended Demand Forecast WDF (gpd/ac)
Agriculture	AG	444	500
Open Space	OS, PRK, PR, REC, RP	503	750[2]
Industrial	CIA, IH, ILT, ILM, ICD, PUE	3,026	3,500
Commercial	AC, BRP, CBD, SG, SN, COF, CCM, CCV, CR, PSP, VSC	1,910	2,000
School	SCH	1,271	1,500

effort is part of the City's Groundwater Recovery Enhancement and Treatment (GREAT) program. In coordination with other service providers in the region (including Pleasant Valley County Water District, Port Hueneme Water Agency, and UWCD, the GREAT program is a regional effort that will assist in aquifer restoration and in achieving the groundwater allocation restrictions imposed by the FCGWMA. Another component of the City's GREAT program is its desalinization plant, or Desalter #1. This plant treats brackish groundwater and works in conjunction with the AWPF described above and the City's groundwater injection well as part of the larger aquifer or groundwater management system. At the present time, expansion of the desalinization program to treat seawater is not considered financially feasible.

The reduction in the amount of commercial development and the increase in multifamily residential development would result in a net decrease in water demand. As shown in **Table 17: Estimated Water Demand**, the 562,000 square foot reduction in commercial development would reduce water demand by 113.4 afy, while the increase in multifamily residential development of 1,025 units would increase demand by 108.0 afy, resulting in net decrease in water demand of 5.4 afy.

108 AFY / 1,025 UNITS = 0.11 AFY/UNIT

Table 17
Estimated Water Demand

Scenario	Land Use		Change in Annual Commercial Demand (af)	Change in Annual Residential Demand (af)	Annual Net Change (af)
	Commercial (ksf)	Residential			
District B, C & D	-562,000	+ 1,025 units	-113.4	108.0	**-5.4**
Districts B & C	-336,377	+ 613	-67.8	64.6	**-3.2**
Districts C & D	-379,727	+ 692	-76.6	72.9	**-3.7**
Districts B & D	-408,810	+ 745	-82.4	78.5	**-3.9**
District B	-182,730	+ 333	-36.8	35.1	**-1.8**
District C	-153,647	+ 280	-31.0	29.5	**-1.5**
District D	-226,080	+ 412	-45.6	43.4	**-2.2**

Source: Draft 2020 Urban Water Management Plan (October 2021).
*Notes: *Commercial Generation – 180 GPD/ksf; Residential Generation – 55 GPD*
**Average household of 1.71 multiplied by number of residential units*
**+3 AFY added to indoor water demand for outdoor landscape water demand*
af = acre-feet (325,900 gallons)
Ksf = thousand square feet

CITY OF OXNARD WATER AND WASTEWATER RATES

Effective September 1, 2021, respective utility rates have been reduced to reflect the temporaty removal of the Infrastructure Use Fee from rates, as approved by Council

WASTEWATER RATES AND CHARGES - EFFECTIVE SEPTEMBER 1, 2021

(monthly bill consists of base rate charge + volume rate of return charge)

MONTHLY BASE RATE						
Single Family	$35.79					
Multi-Family	Each of 1st 6 Units = $26.19			7+ Units = $13.06		
Outside City-Residential	$92.54					
Outside City-Multi-Family	$64.59					
Non-Metered	$61.42					

VOLUME CHARGE PER HCF (RATE OF WATER RETURN %)						
Single Family (80%)	0-9	$2.35	>9-18	$2.62	>18	$3.63
Single Family Large Lots (60%)	0-16	$2.35	>16-25	$2.62	>25	$3.63
Multi-Family - per unit (90%)	0-6	$1.91	>6-12	$2.13	>12	$2.97
Commercial (85%)	Minimum Monthly Fee $23.77 *OR* whichever is greater					
	0-50	$4.19	>50-930	$5.23	>930	10.43
School (85%)	Minimum Monthly Fee $83.42 *OR* whichever is greater					
	0-50	$4.19	>50-930	$5.23	>930	$10.43
Restaurant (80%)	Minimum Monthly Fee $22.07 *OR* whichever is greater					
	0-20	$4.19	>20-160	$5.23	>160	$10.43
Laundry (90%)	Minimum Monthly Fee 109.35 *OR* whichever is greater					
	0-105	$4.19	>105-525	$4.63	>525	$5.77
Las Posas Commercial	0-50	$7.60	>50-930	$9.47	>930	$18.91

MONTHLY RATES FOR USER CHARGE FORMULA

Wastewater Discharge/Millions of Gallons: p= $3,655.42

Biological Oxygen Demand (BOD) Discharge/Thousands of lbs: q= $832.95

Suspended Solids (SS) Discharge/Thousands of lbs: r= $658.75

WASTEWATER ODOR OR OTHER SERVICE ISSUES CALL 805-271-2200

Appendix C – Updated Traffic and Circulation Study and VMT Analysis

Traffic and Circulation Study

RIO DEL VALLE MIDDLE SCHOOL PROJECT
RIO SCHOOL DISTRICT

Updated Traffic and Circulation Study

City of Oxnard, CA

October 31, 2024

P.N. 2042695200

Prepared By:

Stantec

200 E. Carrillo Street, Ste 101
Santa Barbara, CA 93101
Phone: (805) 963-9532

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Appendix 1 – Ventura County Transportation Commission (VCTC) CMP level of service criteria
Appendix 2 – Exhibits A & B
Appendix 3 – SRTS Improvement Exhibit and Rose Avenue Bike Lanes Exhibits
Appendix 4 – County and City Cumulative Projects Lists
Appendix 5 – Roadway and Intersection Counts
Appendix 6 – Intersection Level of Service Calculation Worksheets
Appendix 7 – Auto Center Dr/Collins St Collision Data

INTRODUCTION

Stantec has prepared the following updated traffic and circulation study for the Rio del Valle Middle School Project. This updated traffic and circulation study supersedes the report submitted on December 2022 (Revised Traffic and Circulation Study for the Rio Del Valle Middle School, Stantec, December 8, 2022). The updated study provides an assessment of the existing and future traffic conditions within the study area, determines the trip generation and trip distribution for the proposed development, evaluates the potential traffic impacts to the vicinity roadways and intersections, and provides feasible improvements where applicable. A discussion of the site access and circulation plan and parking is also provided. A vehicle miles traveled (VMT) analysis is provided in a separate document.

PROJECT DESCRIPTION

The proposed project includes the expansion of the Rio del Valle Middle School campus located at 3100 Rose Avenue, and incorporation of the school site and adjacent segment of Rose Avenue into the City of Oxnard. Exhibit 1 shows the location of the project site and Exhibit 2 illustrates the proposed on-site and off-site improvements.

The existing campus is approximately 30.2 acres including the 20.2-acre main campus (APN 144-0-110-445) and 10-acres of active agricultural lands (a portion of 144-0-110-225) to the north of the main campus buildings. The proposed project would add approximately 11.1-acres to the south (a portion of 144-0-110-590) that the District proposes to acquire and develop with new educational and support facilities resulting in an approximately 41.3-acre campus (project site). The anticipated student enrollment increase is expected to be 250 students over a five-year period once school expansion is completed. In addition, the District proposes to transfer the existing school bus parking and workroom facilities (District Transportation and Parking Facility) from the current location at 940 Maulhardt Avenue to the project site.

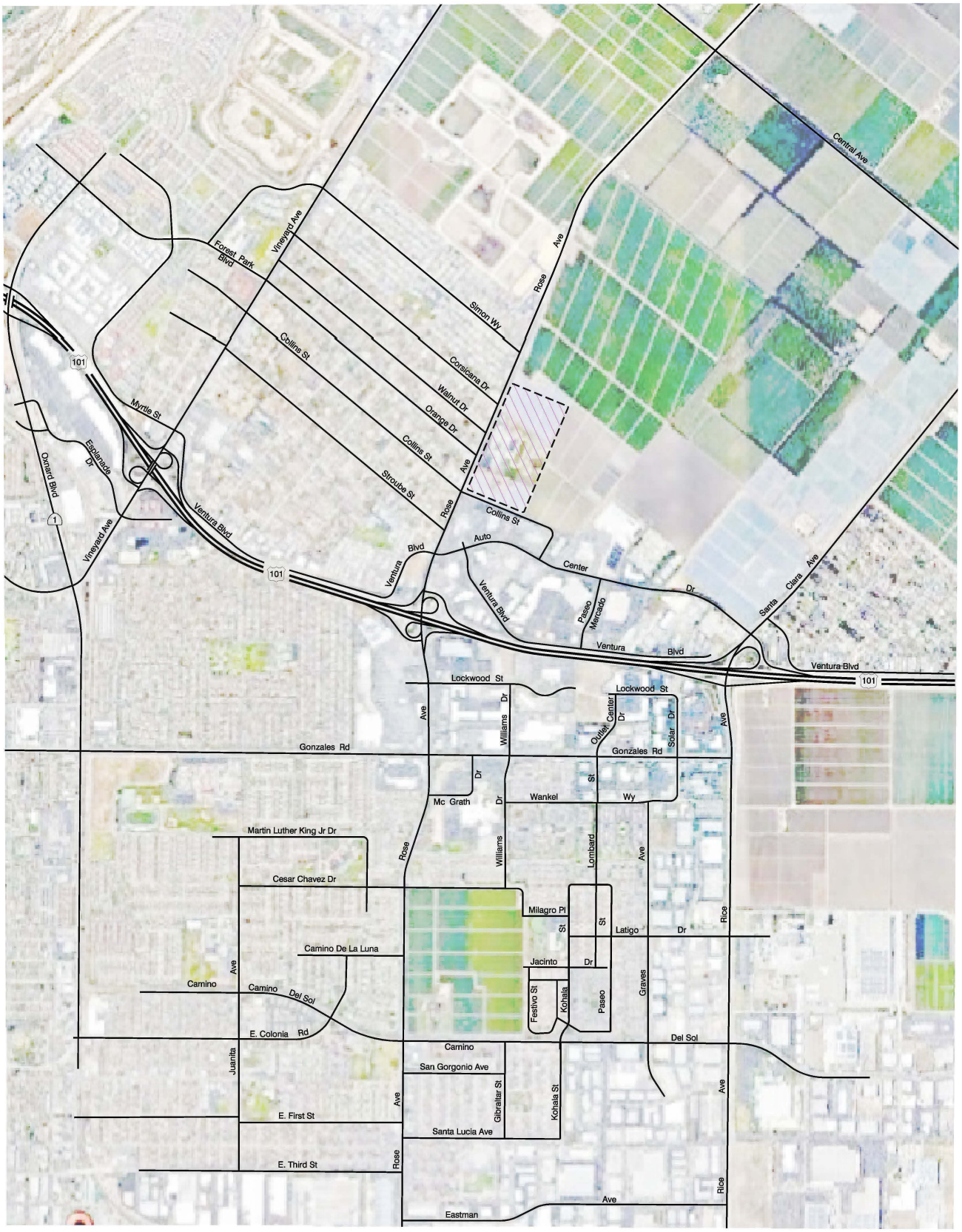
As illustrated in Exhibit 2, student and staff access is proposed via a new ingress only driveway on Rose Avenue south of Orange Drive and the existing egress only driveway on Rose Avenue opposite Walnut Drive. The existing driveways to parking lot “B” on Rose Avenue to the north will remain, and the existing ingress only driveway opposite Orange Drive will be removed. Two new driveways are proposed on Collins Drive. The western driveway provides access to parking lot “A” and the school bus drop-off/pick-up lane. The eastern driveway will provide access to the District Transportation and Parking Facility.

STUDY METHODOLOGY

Traffic Analysis Scenarios

The project site and Rose Avenue (up to the school northern boundary) will be incorporated into the City of Oxnard. Traffic analysis scenarios were coordinated with City of Oxnard staff. The traffic analysis includes the following scenarios:

a. Existing (roadway counts reflecting all completed and occupied construction projects to date).
b. Existing, plus approved (projects which have been approved by the City but are not yet occupied), plus pending (projects for which applications have been filed and are currently being processed, but have not yet received final approval).
c. Existing, plus approved, plus pending, plus project (the subject proposed project, not yet finally approved by the City).
d. Year 2030.
e. Year 2030 plus project.



LEGEND

- Project Site

EXHIBIT 1

EXISTING STREET NETWORK/ PROJECT SITE LOCATION

Stantec

200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532



Stantec

200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

N.T.S.

EXHIBIT 2

SCHEMATIC PROJECT SITE PLAN

Level of Service Criteria

A level of service (LOS) ranking scale is used to identify the operating condition on roadways and at intersections. This scale compares traffic volumes to intersection capacity and assigns a letter value to this relationship. The letter scale ranges from A to F with LOS A representing free flow conditions and LOS F representing congested conditions. The level of service criteria are summarized in Table 1.

Table 1: Intersection Level of Service Criteria

LOS	County of Ventura Signalized Intersections (V/C ratio)	City of Oxnard Signalized Intersections (sec. of delay)	Unsignalized Intersections (sec. of delay)	Definition
A	< 0.60	≤ 10	≤ 10	Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
B	0.61 – 0.70	> 10 and ≤ 20	> 10 and ≤ 15	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
C	0.71- 0.80	> 20 and ≤ 35	> 15 and ≤ 25	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.
D	0.81 – 0.90	> 35 and ≤ 55	> 25 and ≤ 35	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	0.91 – 1.00	> 55 and ≤ 80	> 35 and ≤ 50	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
F	> 1.00	> 80	> 50	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal

Source: Highway Capacity Manual, 7th Edition.

Traffic Analysis Methodology

County of Ventura. The analyses for the two roadway segments and two intersections located in Ventura County are completed conform to the *Ventura County Initial Study Assessment Guidelines Section 27a(1). Transportation & Circulation – Roadways and Highways – Level of Service (LOS).*

Roadway levels of service are calculated by comparing the average daily traffic (ADT) to the roadway segment's design capacity. Levels of service for the two County signalized intersections are based on the Intersection Capacity Utilization (ICU) method and the service flow rates adopted by the County from the Ventura County Transportation Commission (VCTC) for the Congestion Management Plan (CMP). the CMP level of service criteria are included in the Technical Appendix.

City of Oxnard. Levels of service for the intersections within or proposed to be within the City's jurisdiction are analyzed pursuant the methodologies outlined in the *Highway Capacity Manual*[1] and the results are presented in average seconds of delay for all intersection approaches. Levels of service for State intersections were analyzed based on the HCM methodologies. Intersection levels of service were

[1] Highway Capacity Manual, 7th Edition: A Guide for Multi-Modal Mobility Analysis, Transportation Research Board, 2022.

calculated using Synchro[2] software, which implements the HCM methodology to determine intersection levels of service, control delays and queue lengths for each approach.

EXISTING CONDITIONS

Roadway Network

The roadway system in the study area is comprised of a network of freeways, arterials and collectors. The study-area roadway network is shown in Exhibit 3 and a brief description of the major components is provided below.

U.S. Highway 101 (U.S. 101) extends along the Pacific Coast between Los Angeles and San Francisco. Within the City of Oxnard, the six to eight-lane freeway is the principal route between Oxnard and the cities of Ventura and Santa Barbara to the north, and the cities of Camarillo, Thousand Oaks and Los Angeles to the south. Regional access from U.S. 101 to the project site is provided via the interchange with Rose Avenue.

Rose Avenue is a north-south primary arterial roadway that extends from Pleasant Valley Road south of Oxnard to Los Angeles Avenue (SR 118) in the County of Ventura. North of Ventura Boulevard the roadway contains four travel lanes with a raised or painted median and left-turn lanes at intersections. The speed limit adjacent to the school is 45 MPH. The roadway provides direct access to the project site via its intersections with Orange Avenue and Walnut Drive. The intersections with Auto Center Drive, Collins Street, Walnut Drive, Simon Way and Central Avenue are signalized.

Vineyard Avenue (S.R. 232) is a north-south four- to six-lane arterial roadway that extends from Oxnard Boulevard to Los Angeles Avenue (SR 118) in Ventura County.

Auto Center Drive is an east-west four-lane roadway with a raised median and left-turn lanes at intersections. The posted speed limit on Auto Center Drive is 40 MPH and on-street parking is prohibited. Auto Center Drive terminates on the east at Santa Clara Avenue and on the west at Rose Avenue.

Alternative Transportation

Bus service in the project area is provided by Gold Coast Transit Route 15, which provides a connection between the Riverpark Specific Plan Area and St. John's Regional Medical Center, but does not have a bus stop in the vicinity of the project site. School bus service throughout the El Rio neighborhood is provided by the El Rio School District.

Existing Roadway and Intersection Operations

Two roadway segments and nine intersections were selected for analysis in consultation with County and City staff. Traffic counts were collected on January 26 and March 1, 2022. Given that no significant development has occurred in the study area since counts were completed (see Cumulative Conditions section in this report), the counts are considered to be representative of existing conditions.

Roadways. The existing roadway levels of service for the two segments of Rose Avenue located in the County of Ventura are summarized in Table 2. As shown, the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue operates in the LOS A range.

[2] Synchro plus SimTraffic 11, Trafficware Ltd., 2018.

Table 2: Existing Roadway Levels of Service

Roadway Segment	Classification	Number of Lanes	Existing ADT	County LOS C Threshold	Existing LOS
Rose Ave n/o Simon Way	Class I	4 lanes	12,800 ADT	38,000 ADT	LOS A
Rose Ave n/o Walnut Dr	Class I	4 lanes	15,500 ADT	38,000 ADT	LOS A

Intersections. Levels of service for the study area intersections are calculated for the peak hour within the 7am – 9am commute period and the 4pm – 6pm commute period. The intersection count sheets included in the Technical Appendix indicate that the AM peak hour occurs from 7:30am – 8:30am, which is within the 7am – 9am count window. The start of the school's bell schedule during the counts in 2022 was at 8am and currently at 8:25am, which are both within the peak hour. The PM peak hour occurs from 4:45pm – 5:45pm, which is within the 4pm – 6pm count window.

The lane geometry and control for the intersections within the study area are shown in Exhibit 3 and the existing traffic volumes are illustrated in Exhibit 4. Levels of service were calculated using the methodologies for each jurisdiction (V/.C ratio for County intersections and HCM methodology for City intersections). The technical calculation worksheets are included in the Technical Appendix, and the intersection levels of service are summarized in Table 3.

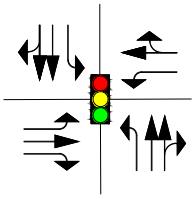
Table 3: Existing AM and PM Peak Hour Intersection Levels of Service

Intersection	Jurisdiction	Control	AM Peak Hour		PM Peak Hour	
			V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Rose Ave/Central Ave	County	signal	0.64/LOS B	-	0.55/LOS A	-
2. Rose Ave/Simon Wy	County	signal	0.37/LOS A	-	0.32/LOS A	-
3. Rose Ave/Walnut Dr	Oxnard	signal	-	9.9 sec/LOS A	-	4.4 sec/LOS A
4. Rose Ave/Orange Dr [1]	Oxnard	one-way stop	-	19.3 sec/LOS C	-	12.1 sec/LOS B
5. Rose Ave/Collins St	Oxnard	signal	-	21.4 sec/LOS C	-	15.0 sec/LOS B
6. Rose Ave/Stroube St [1]	Oxnard	one-way stop	-	18.9 sec/LOS C	-	13.7 sec/LOS B
7. Rose Ave/ Auto Cntr Dr	Oxnard	signal	-	26.3 sec/LOS C	-	32.8 sec/LOS C
8. Auto Cntr Dr/Collins St [1]	Oxnard	one-way stop	-	13.8 sec/LOS B	-	*28.4 sec/LOS D*
9. Santa Clara Ave/Ventura Blvd	Oxnard	signal	-	11.8 sec/LOS B	-	11.9 sec/LOS B

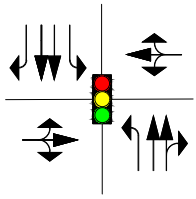
[1] Unsignalized intersection: level of service based on seconds of delay on minor street.

Table 3 indicates that the study-area intersections operate in the LOS A-C range except the Auto Center Dr/Collins St intersection, which operate below the City of Oxnard LOS C standard.

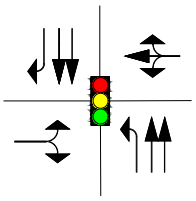
1. Rose Ave & Central Ave



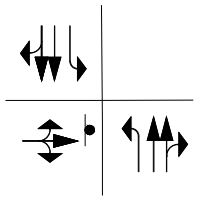
2. Rose Ave & Simon Wy



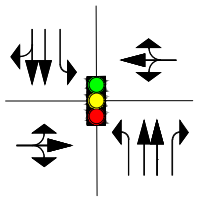
3. Rose Ave & Walnut Dr



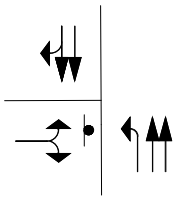
4. Rose Ave & Orange Dr



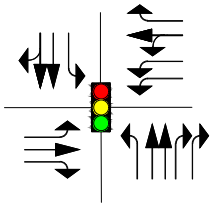
5. Rose Ave & Collins St



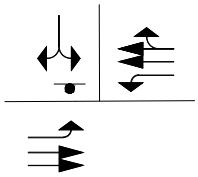
6. Rose Ave & Stroube St



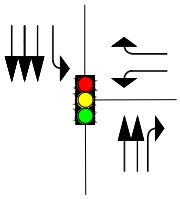
7. Rose Ave & Ventura Blvd

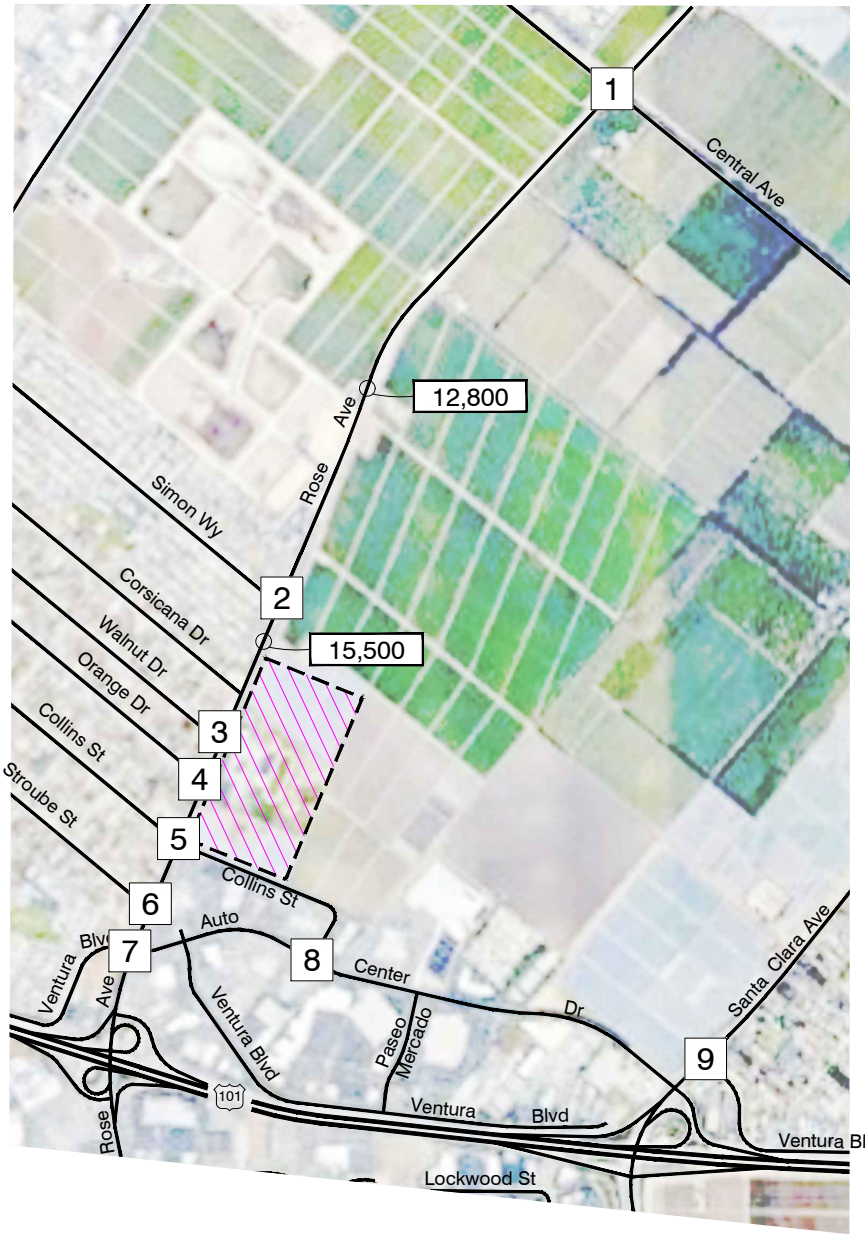


8. Auto Center Dr & Collins St



9. Santa Clara Ave & Ventura Blvd





LEGEND

- Traffic Signal
- Stop Sign
- Approach Lane Geometry

N

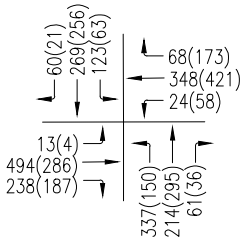
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EXHIBIT 3
EXISTING INTERSECTION GEOMETRIES

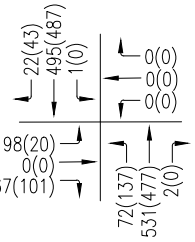
Stantec

200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

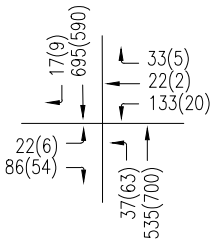
1. Rose Ave & Central Ave



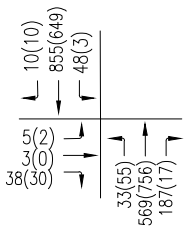
2. Rose Ave & Simon Wy



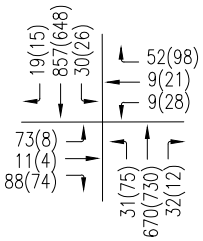
3. Rose Ave & Walnut Dr



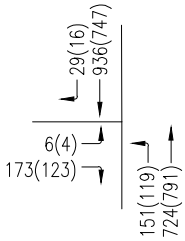
4. Rose Ave & Orange Dr



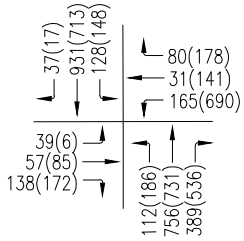
5. Rose Ave & Collins St



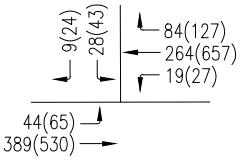
6. Rose Ave & Stroube St



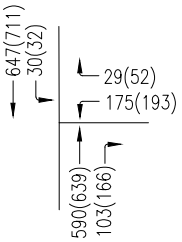
7. Rose Ave & Ventura Blvd

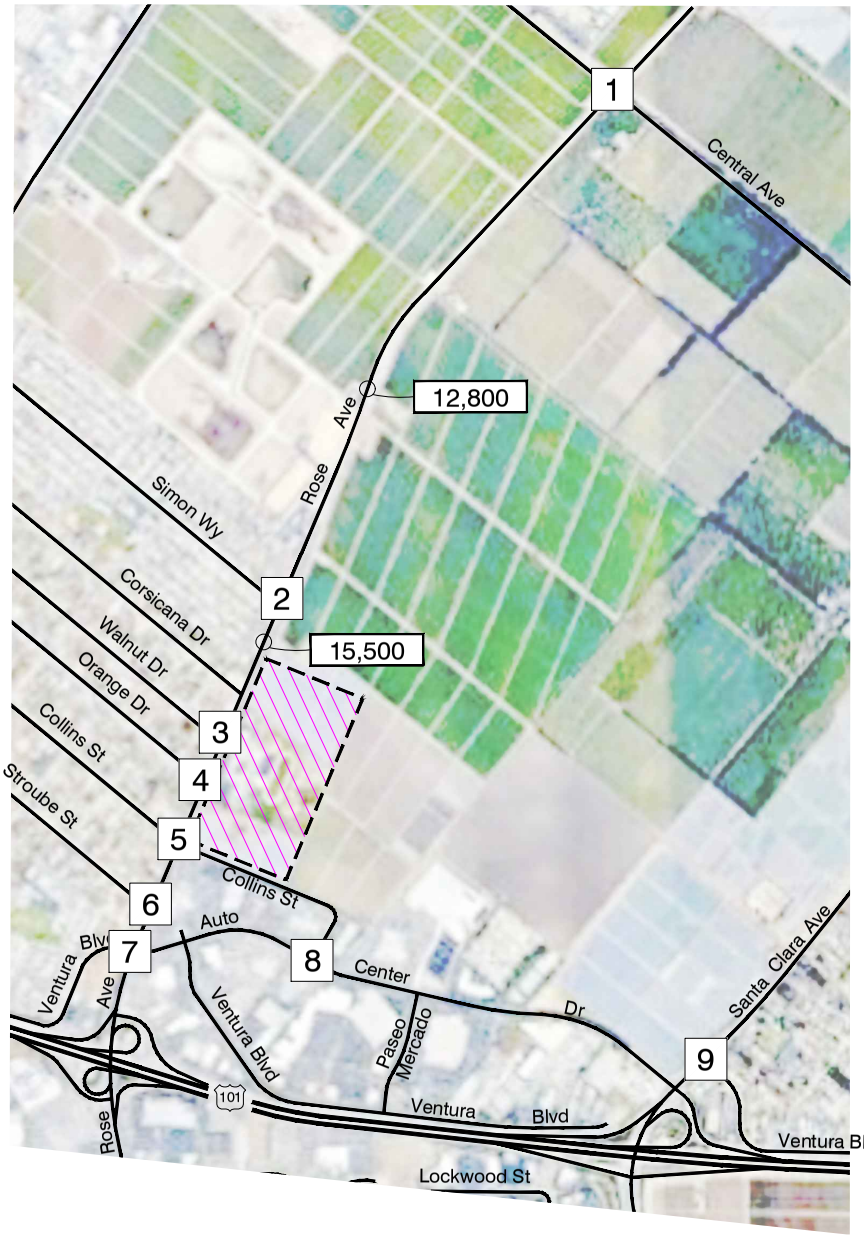


8. Auto Center Dr & Collins St



9. Santa Clara Ave & Ventura Blvd





LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

N

N.T.S.

Stantec

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Phone: (805) 963-9532

EXHIBIT 4
EXISTING TRAFFIC VOLUMES

CUMULATIVE CONDITIONS

Cumulative Projects Trip Generation and Distribution

The cumulative (existing plus approved and pending projects) conditions serves as a near future baseline to assess potential impacts generated by the project. Cumulative traffic volumes were developed based on approved and pending projects information provided by City of Oxnard and County of Ventura planning staff.

A list of approved and pending development projects in the City of Oxnard was provided by City staff[3]. The location map and *Development Project List* information for the approved and pending projects is included in the Technical Appendix. Comparison with the most recent list (7/9/2024) indicates that the same approved and pending projects are listed, plus one additional development on Auto Center Drive (self-storage facility). This development was added to the cumulative forecasts.

The County's Resource Management Agency (RMA) staff provided a parcel map with approved and pending projects within a five-mile radius from the project site in 2022 and 2024. The parcel maps' information was compared with development information for each parcel contained in the County's Approved Projects list and the Pending Project lists[4] and added to the cumulative traffic forecasts. The parcel maps are included in the Technical Appendix.

Trip generation estimates for the approved and pending projects were developed based on rates contained in the ITE Trip Generation Manual and trips were distributed based on the location of each project, project distribution data contained in traffic studies completed for several approved and pending projects, and existing traffic patterns in the study area. The trip generation worksheets and cumulative-added volumes (Exhibit B) are included in the Technical Appendix. The cumulative (existing plus approved and pending) traffic volumes are illustrated in Exhibit 5.

Short-Term Future Improvement Projects

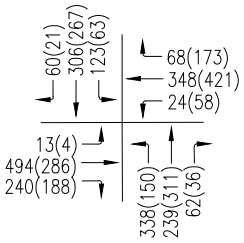
The County's short-term improvements (2023-2027 Capital Improvement Program, or CIP) include the following projects:

- El Rio Sidewalk Improvements: Construction of sidewalks and intersection improvements on various roads within the El Rio area. This project is associated with the Rio Del Valle Safe Routes to School (SRTS) program.
- Rose Avenue Bike Lanes (Collins-Simon): Construction of Class II bike lanes on Rose Avenue from Collins Street to Simon Way. This will include pavement overlay and bike lane striping improvements on Rose Avenue from south of Collins Street to North of Simon Way, installation of speed feedback signs and other signing additions.

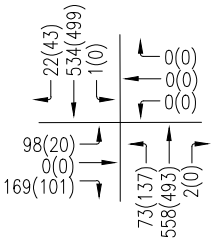
In addition, the County's systemic signal improvement project will install new controllers and upgrade the pedestrian pushbuttons at the signalized intersections along Rose Avenue, with improvements to be implemented this year.

[3] Planning Division Quarterly Project List, City of Oxnard, April 2022 and July 2024.
[4] County of Ventura, RMA Planning Division, Approved Projects list and Pending Projects list, June 8, 2022 and August 1, 2024.

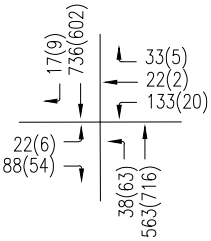
1. Rose Ave & Central Ave



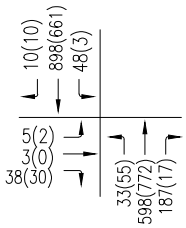
2. Rose Ave & Simon Wy



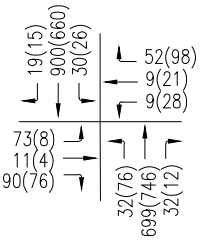
3. Rose Ave & Walnut Dr



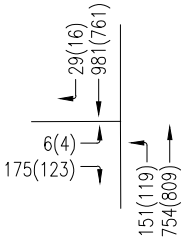
4. Rose Ave & Orange Dr



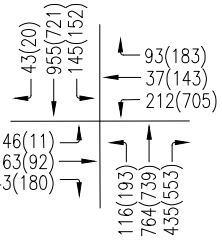
5. Rose Ave & Collins St



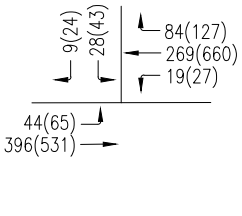
6. Rose Ave & Stroube St



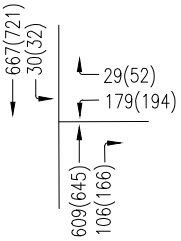
7. Rose Ave & Ventura Blvd

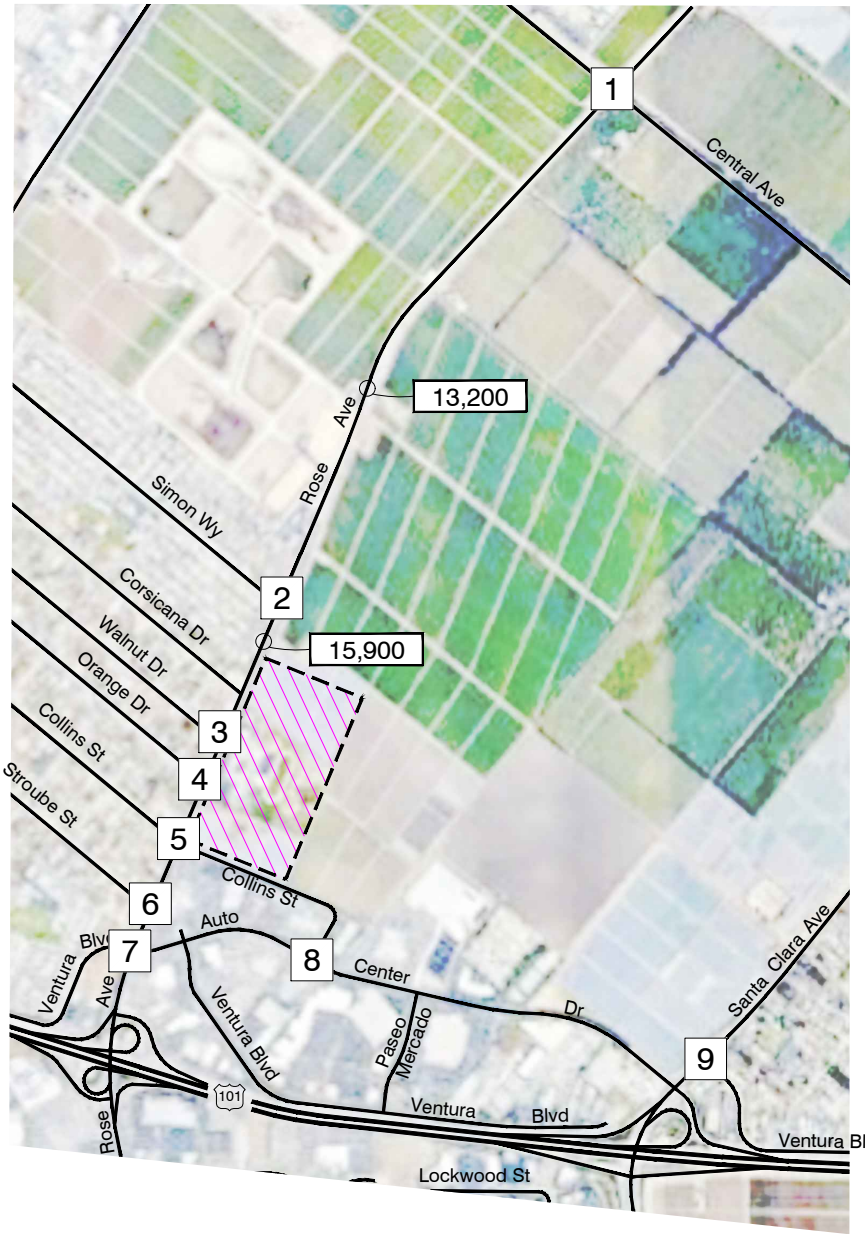


8. Auto Center Dr & Collins St



9. Santa Clara Ave & Ventura Blvd





LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

N

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EXHIBIT 5
CUMULATIVE TRAFFIC VOLUMES

Cumulative Roadway and Intersection Operations

Intersection levels of service were recalculated assuming cumulative conditions. Tables 4 and 5 summarize the cumulative level of service calculations.

Table 4: Cumulative Roadway Levels of Service

Roadway Segment	Classification	Cumulative ADT	LOS C Threshold	Existing LOS
Rose Ave n/o Simon Way	Class I	13,200 ADT	38,000 ADT	LOS A
Rose Ave n/o Walnut Dr	Class I	15,900 ADT	38,000 ADT	LOS A

Table 5: Cumulative AM and PM Peak Hour Intersection Levels of Service

	AM Peak Hour		PM Peak Hour	
Intersection	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Rose Ave/Central Ave	0.64/LOS B	-	0.55/LOS A	-
2. Rose Ave/Simon Wy	0.37/LOS A	-	0.32LOS A	-
3. Rose Ave/Walnut Dr	-	10.0 sec/LOS B	-	4.4 sec/LOS A
4. Rose Ave/Orange Dr [1]	-	21.8 sec/LOS C	-	12.2 sec/LOS B
5. Rose Ave/Collins St	-	21.9 sec/LOS C	-	19.1 sec/LOS B
6. Rose Ave/Stroube St [1]	-	20.2 sec/LOS C	-	13.9 sec/LOS B
7. Rose Ave/Auto Cntr Dr	-	28.3 sec./LOS C	-	33.5 sec/LOS C
8. Auto Center Dr/Collins St [1]	-	13.9 sec/LOS B	-	*28.5 sec/LOS D*
9. Santa Clara Ave/Ventura Blvd	-	11.9 sec/LOS B	-	11.9 sec/LOS B

[1] Unsignalized intersection: level of service based on seconds of delay on minor street.

Table 4 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under cumulative conditions. Table 5 indicates that the study-area intersections would operate in the LOS A-C range under cumulative conditions, except the Auto Center Dr/Collins St intersections, which would operate below the City of Oxnard LOS C standard.

PROJECT SPECIFIC CONDITIONS

Traffic Impact Thresholds

Pursuant California Environmental Quality Act (CEQA) guidelines, a vehicle miles traveled (VMT) analysis and an evaluation of consistency with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was prepared in support of the Project's environmental documentation. The VMT analysis is provided in a separate document. Because project-specific impacts are not evaluated using vehicle delay (V/C increase or seconds of delay) anymore, the following traffic impact analysis focusses on consistency with local plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system.

City of Oxnard. The City requires level of service C as the threshold of significance for intersections during environmental review.

County of Ventura. The County of Ventura considers LOS C the minimum level of service for local roads and LOS D the minimum level of service for County thoroughfares, with the less stringent minimum level of service applied to intersections between local roads and thoroughfares.

Table 6: Minimum Acceptable Level of Service (LOS) for Roadway Segments and Intersections

Minimum LOS	County of Ventura - Description
C	All County maintained local roads.
D	All County thoroughfares and state highways within the unincorporated area of the County, except as provided below.
E	a. State Route 33 between the end of the Ojai freeway and the City of Ojai. b. State Route 118 between Santa Clara Avenue and the City of Moorpark. c. State Route 34 (Somis Road) north of the City of Camarillo. d. Santa Rosa Road between Camarillo city limit line and Thousand Oaks city limit line. e. Moorpark Road north of Santa Rosa Road to Moorpark city limits line.
Varies	The LOS prescribed by the applicable city for all State highways, city thoroughfares, and city maintained local roads located within that city, if the city has formally adopted General Plan policies, ordinances, or a reciprocal agreement with the County, pertaining to development in the city that would individually or cumulatively affect the LOS of State highways, County thoroughfares and County-maintained local roads in the unincorporated area of the County.
	County LOS standards are applicable for any city that has not adopted its own standards or has not executed a reciprocal agreement with the County pertaining to impacts to County roads.
At any intersection between two roads, each of which has a prescribed minimum acceptable LOS, the less stringent LOS of the two shall be the minimum acceptable LOS of that intersection.	

Project Trip Generation

Middle School. The middle school has a student enrollment of 819 students. The project could potentially result in a 250–student increase. Trip generation estimates for the school were calculated based on rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)* for *Land Use #522 – Middle School/Junior High School*.

District Transportation and Parking Facility. The project also includes the relocation of the District Transportation and Parking Facility from Maulhardt Avenue to the project site. While the relocation would not add traffic to the regional roadway network, it would divert bus and employee trips to the immediate vicinity of the school site and its driveways. The District Transportation and Parking Facility operational statistics provided by the district are as follows:

- 17 school busses in service. All busses will be parked at the facility.
- Bus traffic consists of 13 AM bus routes, 4 midday bus routes and 13 PM bus routes, for a total 30 busses per school day.
- Total of 10 office/maintenance employees, work times 6:30 AM to 3:30 PM.

The existing school is served by 6 school busses which currently enter the site and leave to the existing facility after dropping off students. In the future, these 6 busses will leave the site to start student pick-up routes and remain on the site after returning to drop off students.

Table 7: Project Trip Generation

Land Use	Size/Variable	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Middle School	rate/student	2.10	0.36	0.31	0.67	0.072	0.078	0.15
	250 students	*525*	*90*	*78*	*168*	*18*	*20*	*38*
District Transportation and Parking Facility	Ex. Site Count	*267*	*26*	*4*	*30*	*4*	*6*	*10*
Total		**792**	**116**	**82**	**198**	**22**	**26**	**48**

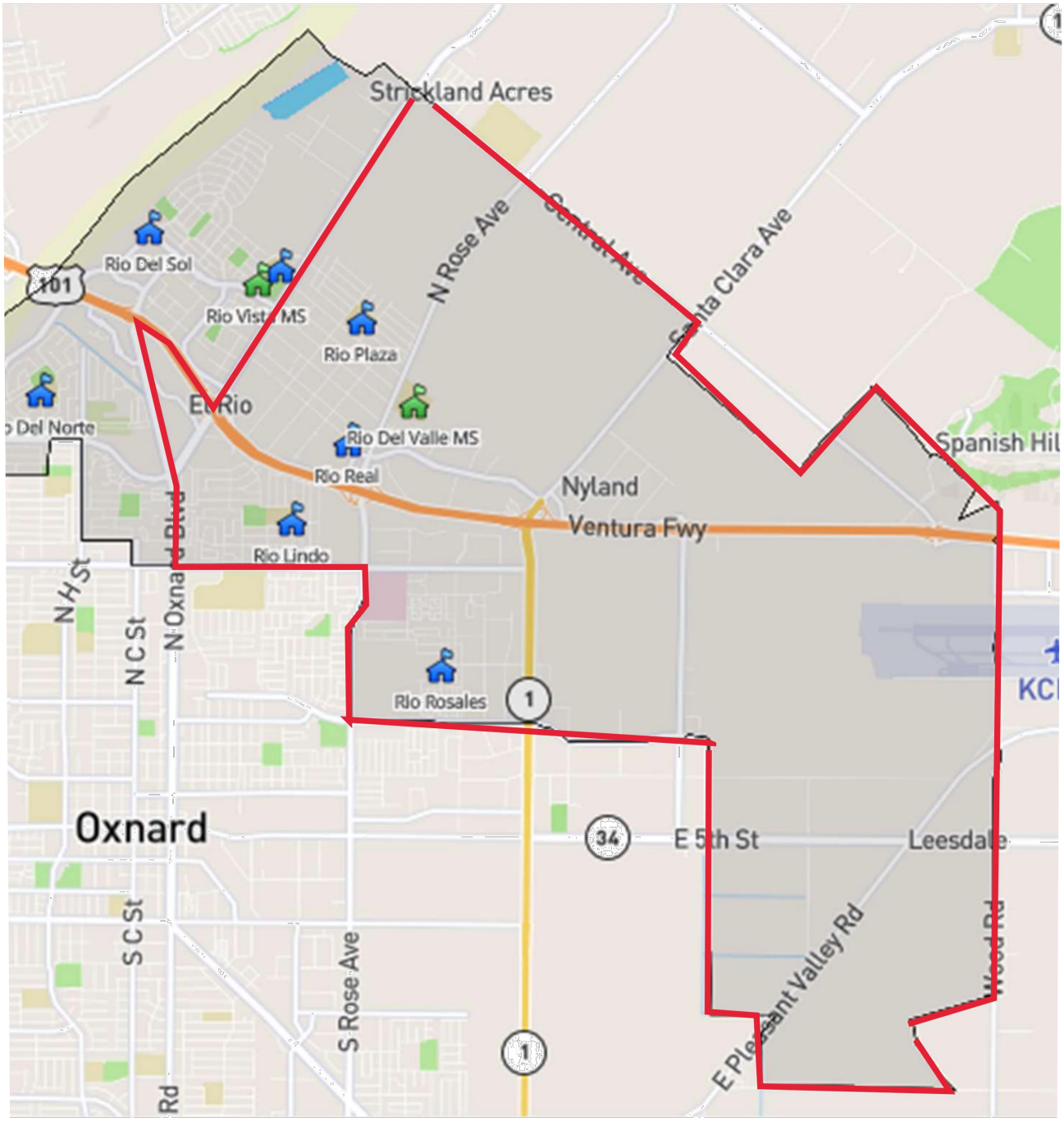
Bell schedule for a normal school day is 8:21 AM to 2:53 PM.
Transportation Facility ADT assumes half of counted vehicles is bus/heavy vehicle (178 ADT x 1.5 = 267 ADT).
Transportation Facility AM and PM PHT assumes 100% of counted vehicles is bus/heavy vehicle (15 AM PHT x 2.0 = 30 AM PHT, 5 PM PHT x 2.0 = 10 PM PHT).

As shown in Table 7, the project is expected to generate 792 ADT, with 198 trips occurring in the AM peak hour and 48 trips occurring in the PM peak hour.

It is noted that the trip generation rate for end of school bell schedule, per ITE hourly distribution data for Land Use #522, is less than half (13.8% of daily trips) of the AM peak hour rate (28.7% of daily trips). The ITE hourly distribution data is included in the Technical Appendix. The end of bell schedule for the Rio del Valle Middle School is at 2:45pm, during which the traffic volume on Rose Avenue is 16% lower (981 vph from 2pm to 3pm) compared to the traffic volume during the start of bell schedule (1,166 vph from 8am to 9am). Therefore, the AM peak hour analysis provides the most conservative evaluation of potential school impacts to study area roadways and intersections.

Project Trip Distribution

The project trip distribution for new students is based on the school's attendance boundary illustrated in Exhibit 6, with a smaller percentage of trips generated from outside the attendance boundary by new school employees. There is no indication that existing bus routes are subject to change, thus the regional distribution of District Transportation and Parking Facility trips would not change except in the immediate vicinity of the school site. The distribution percentages are shown in Exhibit 6. The site access changes (addition of full-access driveway on Collings Street) would result in changes to existing school traffic patterns, where traffic from and to the south now have the option to use the new driveway on Collins Street instead of the existing driveways on Rose Avenue. Exhibit 7 shows the anticipated existing diverted traffic volumes, and Exhibit 8 shows the project-added traffic volumes. Exhibit A in the Technical Appendix shows the separate middle school trips and District maintenance/bus trips.

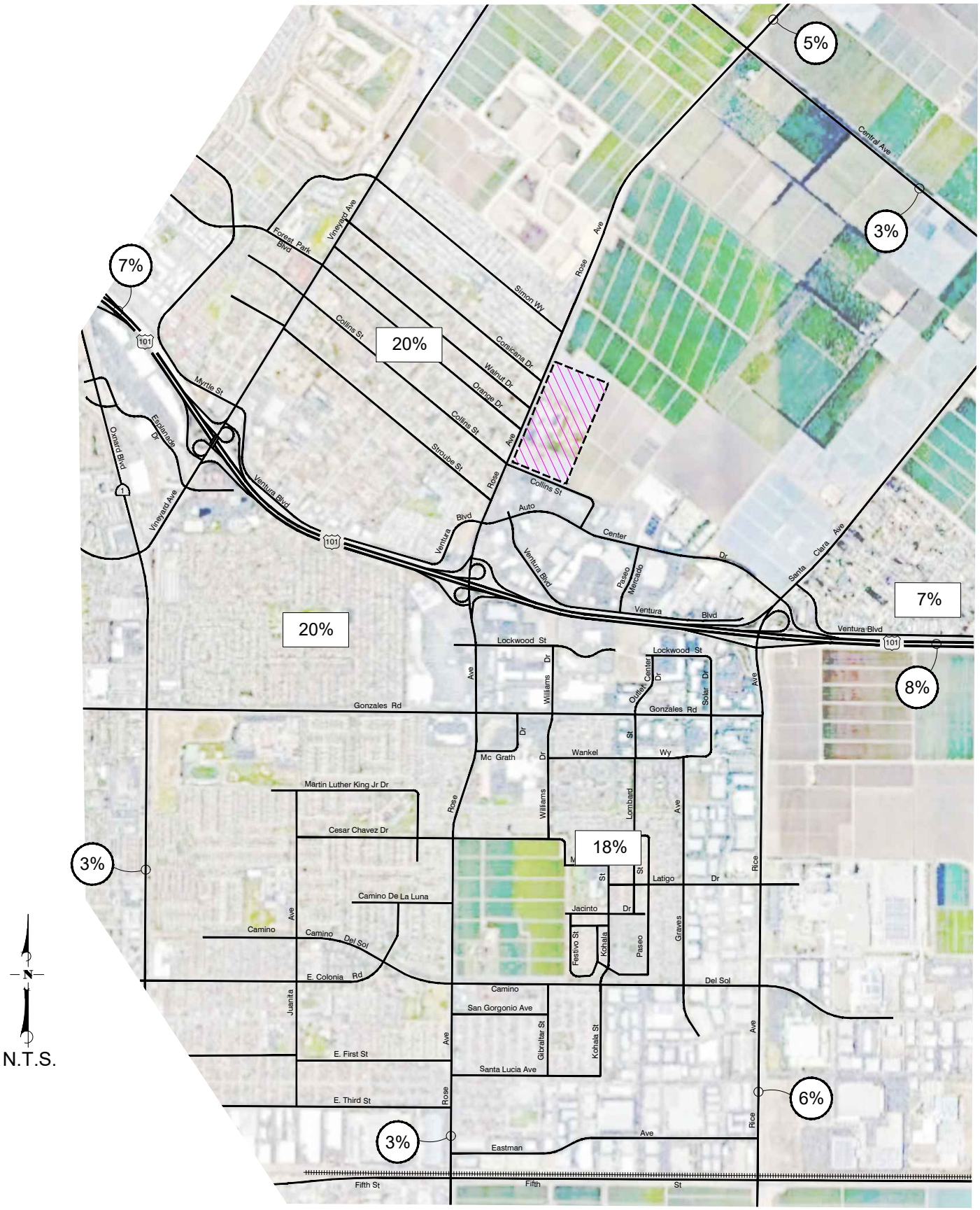


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EXHIBIT 6

RIO DEL VALLE MIDDLE SCHOOL ATTENDANCE BOUNDARY



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LEGEND

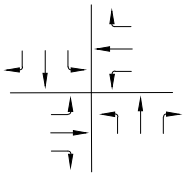
- Project Site

10% - Trip Distribution Percentage

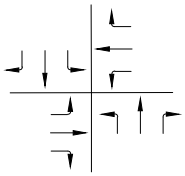
EXHIBIT 7

PROJECT TRIP DISTRIBUTION PERCENTAGES

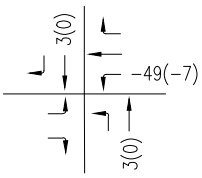
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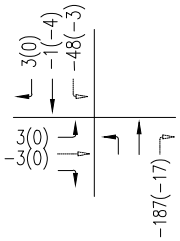
2. Rose Ave & Simon Wy



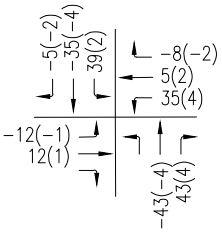
3. Rose Ave & Walnut Dr



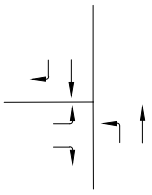
4. Rose Ave & Orange Dr



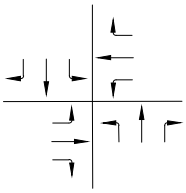
5. Rose Ave & Collins St



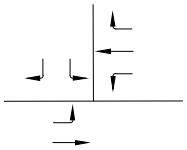
6. Rose Ave & Stroube St



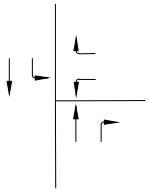
7. Rose Ave & Ventura Blvd



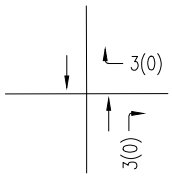
8. Auto Center Dr & Collins St



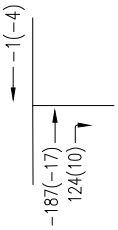
9. Santa Clara Ave & Ventura Blvd



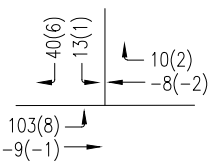
A. Rose Ave & School Lot C



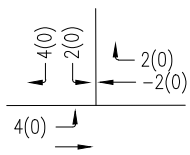
B. Rose Ave & School Lot A/Drop-Off Loop

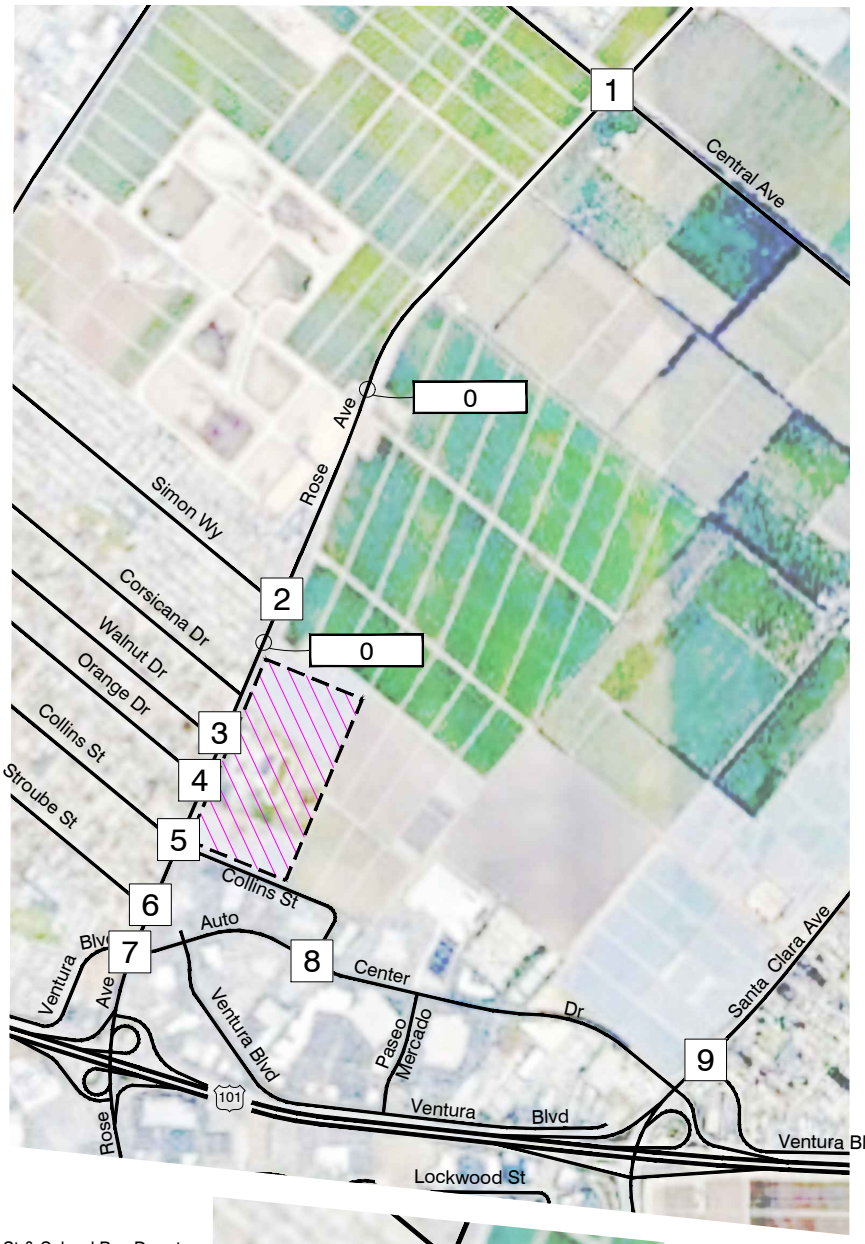


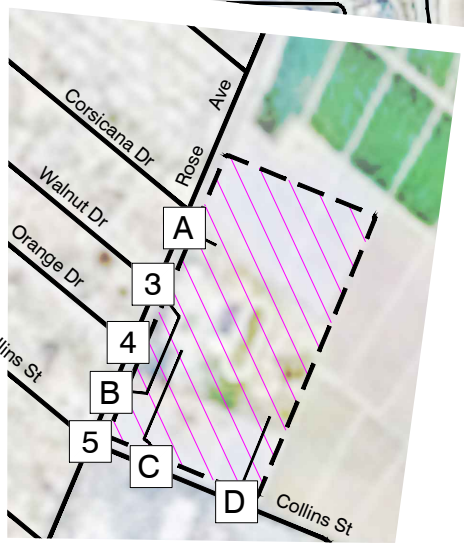
C. Collins St & School Lot A



D. Collins St & School Bus Depot







LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

N.T.S.

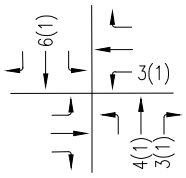
EXHIBIT 8

EXISTING DIVERTED MIDDLE SCHOOL TRAFFIC VOLUMES

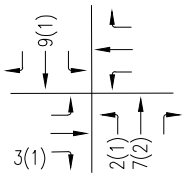
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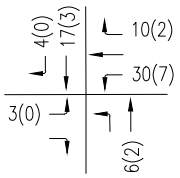
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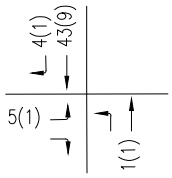
2. Rose Ave & Simon Wy



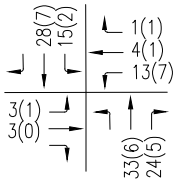
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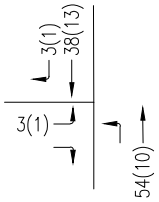
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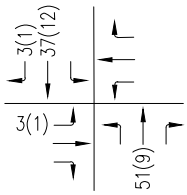
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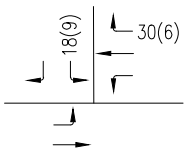
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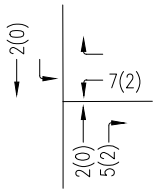
7. Rose Ave & Ventura Blvd



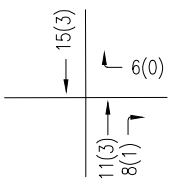
8. Auto Center Dr & Collins St



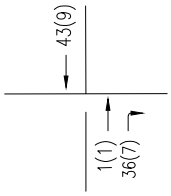
9. Santa Clara Ave & Ventura Blvd



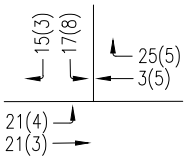
A. Rose Ave & School Lot C



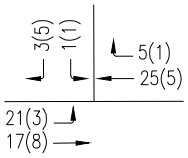
B. Rose Ave & Drop-Off Loop

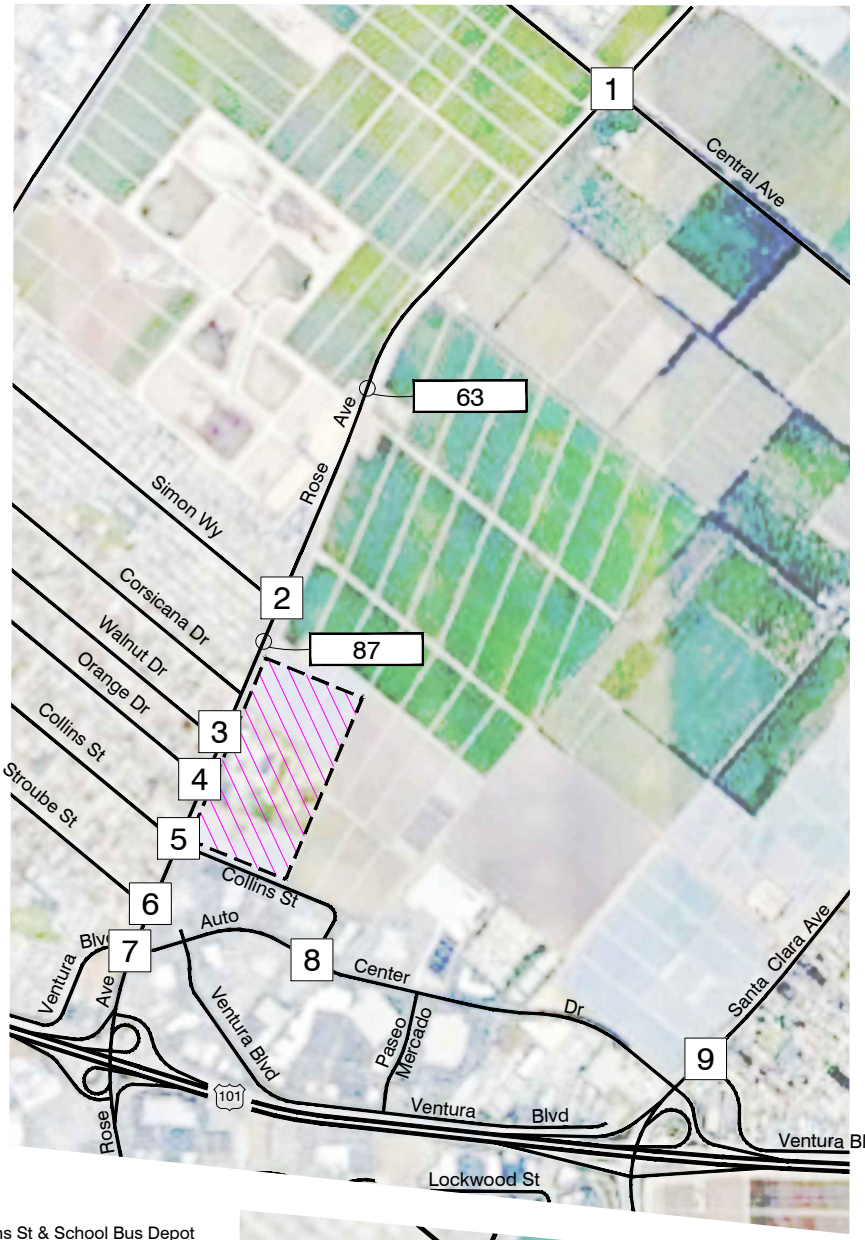


C. Collins St & School Lot A



D. Collins St & School Bus Depot







LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

N

N.T.S.

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EXHIBIT 9
PROJECT-ADDED TRAFFIC VOLUMES

Cumulative plus Project Roadway and Intersection Operations

Project generated traffic was added to the cumulative peak hour traffic volumes and levels of service were recalculated for cumulative plus project conditions. The cumulative plus project traffic volumes are illustrated in Exhibit 10. Tables 8 and 9 summarize the level of service calculations for cumulative plus project conditions.

Table 8: Cumulative + Project Roadway Levels of Service

Roadway Segment	Classification	Number of Lanes	Existing + Project ADT	LOS C Threshold	Existing LOS
Rose Ave n/o Simon Way	Class I	4 lanes	13,263 ADT	38,000 ADT	LOS A
Rose Ave n/o Walnut Dr	Class I	4 lanes	15,987 ADT	38,000 ADT	LOS A

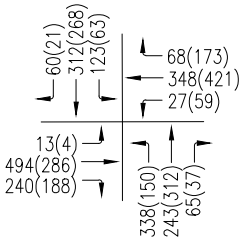
Table 9 - Cumulative + Project AM and PM Peak Hour Intersection Levels of Service

	AM Peak Hour		PM Peak Hour	
Intersection	V/C / LOS	Delay / LOS	V/C / LOS	Delay / LOS
1. Rose Ave/Central Ave	0.65/LOS B	-	0.55/LOS A	-
2. Rose Ave/Simon Wy	0.38/LOS A	-	0.33/LOS A	-
3. Rose Ave/Walnut Dr	-	9.8 sec/LOS A	-	4.5 sec/LOS A
4. Rose Ave/Orange Dr [1]	-	18.8 sec/LOS C	-	12.3 sec/LOS B
5. Rose Ave/Collins St	-	23.2 sec/LOS C	-	19.8 sec/LOS B
6. Rose Ave/Stroube St [1]	-	24.9 sec/LOS C	-	14.5 sec/LOS B
7. Rose Ave/Auto Cntr Dr	-	29.8 sec/LOS C	-	33.9 sec/LOS C
8. Auto Center Dr/Collins St [1]	-	15.2 sec/LOS B	-	*31.8 sec/LOS D*
9. Santa Clara Ave/Ventura Blvd	-	12.0 sec/LOS B	-	12.0 sec/LOS B

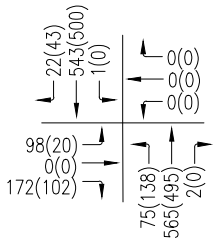
[1] Unsignalized intersection: level of service based on seconds of delay on minor street.

Table 8 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under cumulative plus project conditions. Table 9 indicates that the study-area intersections would operate in the LOS A-C range under cumulative conditions, except the Auto Center Dr/Collins St intersections, which would operate below the City of Oxnard LOS C standard.

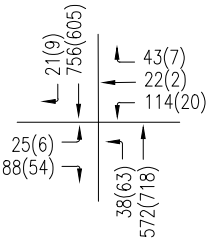
1. Rose Ave & Central Ave



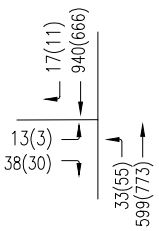
2. Rose Ave & Simon Wy



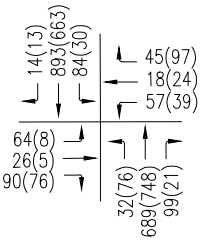
3. Rose Ave & Walnut Dr



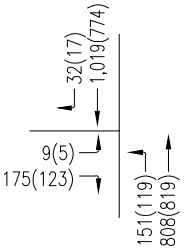
4. Rose Ave & Orange Dr



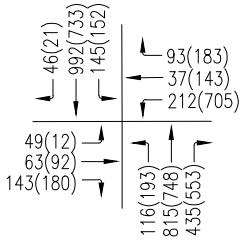
5. Rose Ave & Collins St



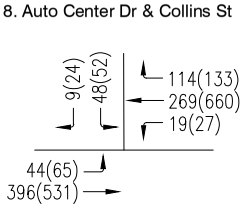
6. Rose Ave & Stroube St



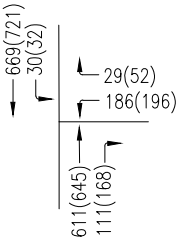
7. Rose Ave & Ventura Blvd



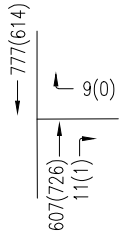
8. Auto Center Dr & Collins St



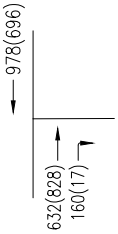
9. Santa Clara Ave & Ventura Blvd



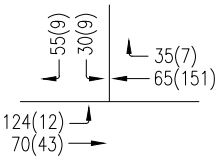
A. Rose Ave & School Lot C



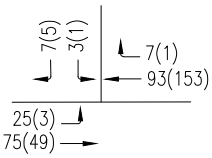
B. Rose Ave & School Lot A/Drop-Off Loop

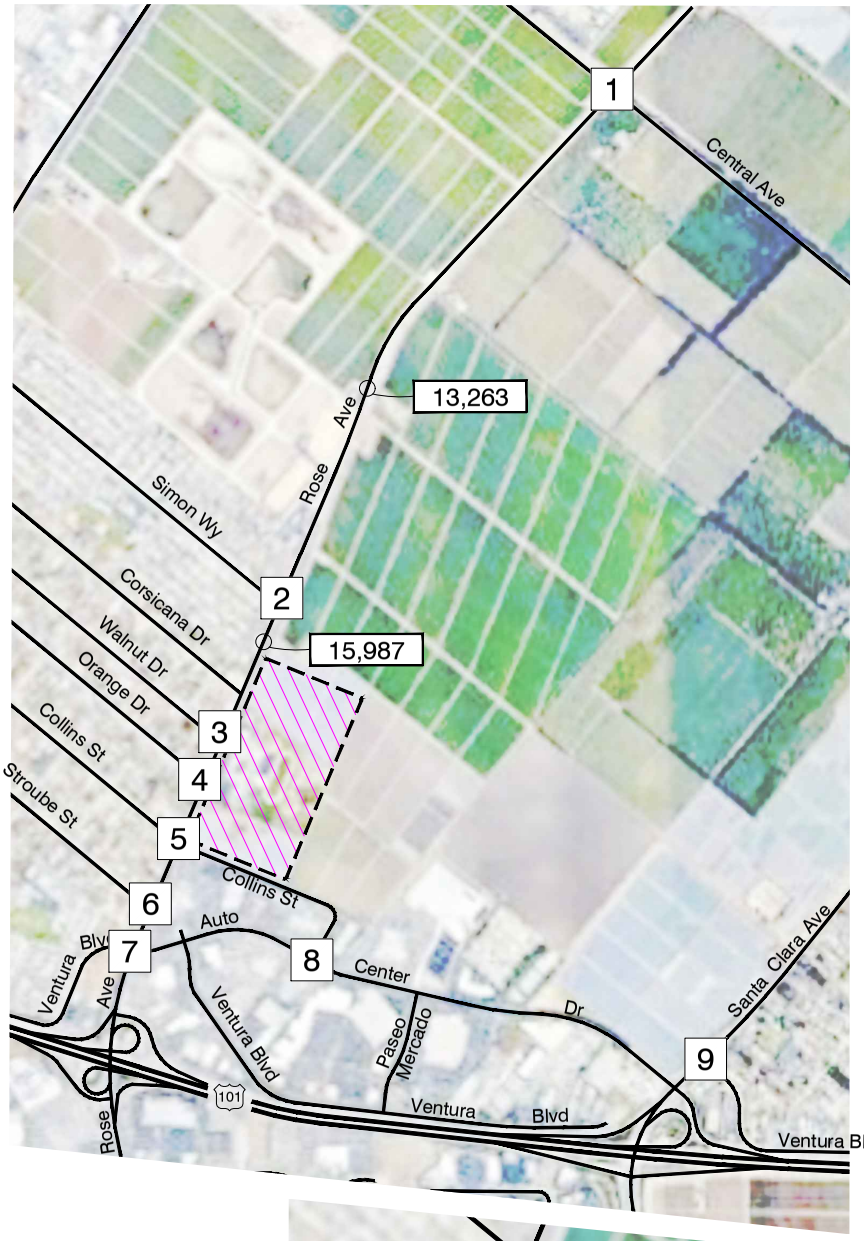


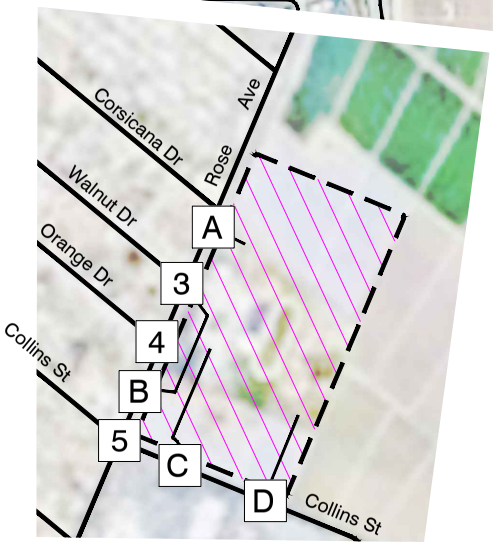
C. Collins St & School Lot A



D. Collins St & School Bus Depot







N.T.S.

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

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EXHIBIT 10
CUMULATIVE + PROJECT TRAFFIC VOLUMES

YEAR 2030 CONDITIONS

Year 2030 Traffic Volumes

Since the project is part of a General Plan Amendment, the project is analyzed under City of Oxnard General Plan Buildout (Year 2030) conditions. Year 2030 traffic volumes are derived from the *City of Oxnard 2030 General Plan*[5] and the *2030 General Plan Final Traffic Study*[6]. The *General Plan Final Traffic Study* includes intersection turning volumes for City intersections only. Stantec developed buildout volumes for the intersections currently located in the County by extrapolating buildout additions through the study area corridors: buildout traffic additions at the Rose Ave/Auto Center Drive intersection were applied along Rose Avenue to the north, and buildout traffic additions at the Santa Clara Ave/Auto Center Drive intersection were applied along Santa Clara Avenue to the north. In addition, traffic volumes generated by the Del Sol High School and the Urban Village (East Village)[7] was added to the buildout volumes, as these developments are general plan amendments.

Year 2030 plus Project Roadway and Intersection Operations

Exhibit 11 shows the Year 2030 traffic volumes and Exhibit 12 shows the Year 2030 plus project traffic volumes. Roadway and intersection levels of service were recalculated assuming Year 2030 and Year 2030 plus project conditions. Tables 10 and 11 summarize the calculation results.

Table 10: Year 2030 + Project Roadway Levels of Service

Roadway Segment	Cumulative ADT	Cumulative + Project ADT	LOS C Threshold	Existing LOS
Rose Ave n/o Simon Way	15,300 ADT	15,363 ADT	38,000 ADT	LOS A
Rose Ave n/o Walnut Dr	18,000 ADT	18,087 ADT	38,000 ADT	LOS A

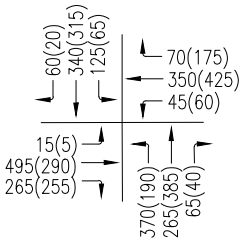
Table 11: Year 2030 + Project AM and PM Peak Hour Intersection Levels of Service

Intersection	AM Peak Hour		PM Peak Hour	
	Year 2030	Year 2030 + Project	Year 2030	Year 2030 + Project
1. Rose Ave/Central Ave	0.65/LOS B	0.65/LOS B	0.56/LOS A	0.56/LOS A
2. Rose Ave/Simon Wy	0.38/LOS A	0.39/LOS A	0.33/LOS A	0.33/LOS A
3. Rose Ave/Walnut Dr	10.7 sec/LOS B	10.4 sec/LOS A	4.9 sec/LOS A	4.9 sec/LOS A
4. Rose Ave/Orange Dr [1]	*30.7 sec/LOS D*	21.9 sec/LOS C	17.5 sec/LOS C	16.3 sec/LOS C
5. Rose Ave/Collins St	23.8 sec/LOS C	26.9 sec/LOS C	21.6 sec/LOS B	23.9 sec/LOS C
6. Rose Ave/Stroube St [1]	*35.0 sec/LOS E*	*>50.0sec/LOS F*	17.9 sec/LOS C	19.1 sec/LOS C
7. Rose Ave/Auto Cntr Dr	*39.1 sec./LOS D*	*41.2 sec/LOS D*	*72.6 sec/LOS E*	*74.2 sec/LOS E*
8. Auto Center Dr/Collins St [1]	16.2 sec/LOS C	18.2 sec/LOS C	*>50.0 sec/LOS F*	*>50.0 sec/LOS F*
9. Santa Clara Ave/Ventura Blvd	12.5 sec/LOS B	12.7 sec/LOS B	12.6 sec/LOS B	14.5 sec/LOS B

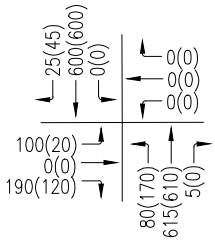
[1] Unsignalized intersection: level of service based on seconds of delay on minor street.

[5] City of Oxnard 2030 General Plan, Adopted October 2011, with Amendments through December 2022.
[6] Traffic and Circulation Study, City of Oxnard, 2020 General Plan Update/EIR, Final Report April 2008.
[7] traffic and circulation study for the OUHSD High School no. 8, Stantec, July 2019.

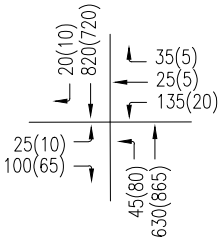
1. Rose Ave & Central Ave



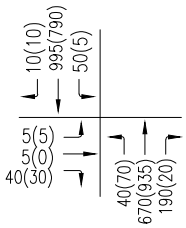
2. Rose Ave & Simon Wy



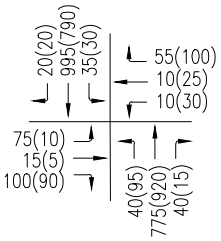
3. Rose Ave & Walnut Dr



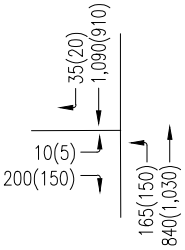
4. Rose Ave & Orange Dr



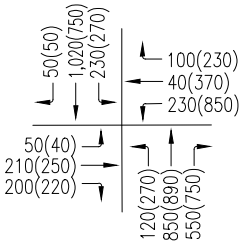
5. Rose Ave & Collins St



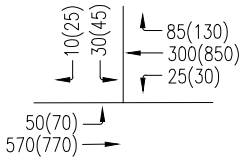
6. Rose Ave & Stroube St



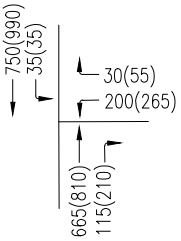
7. Rose Ave & Ventura Blvd

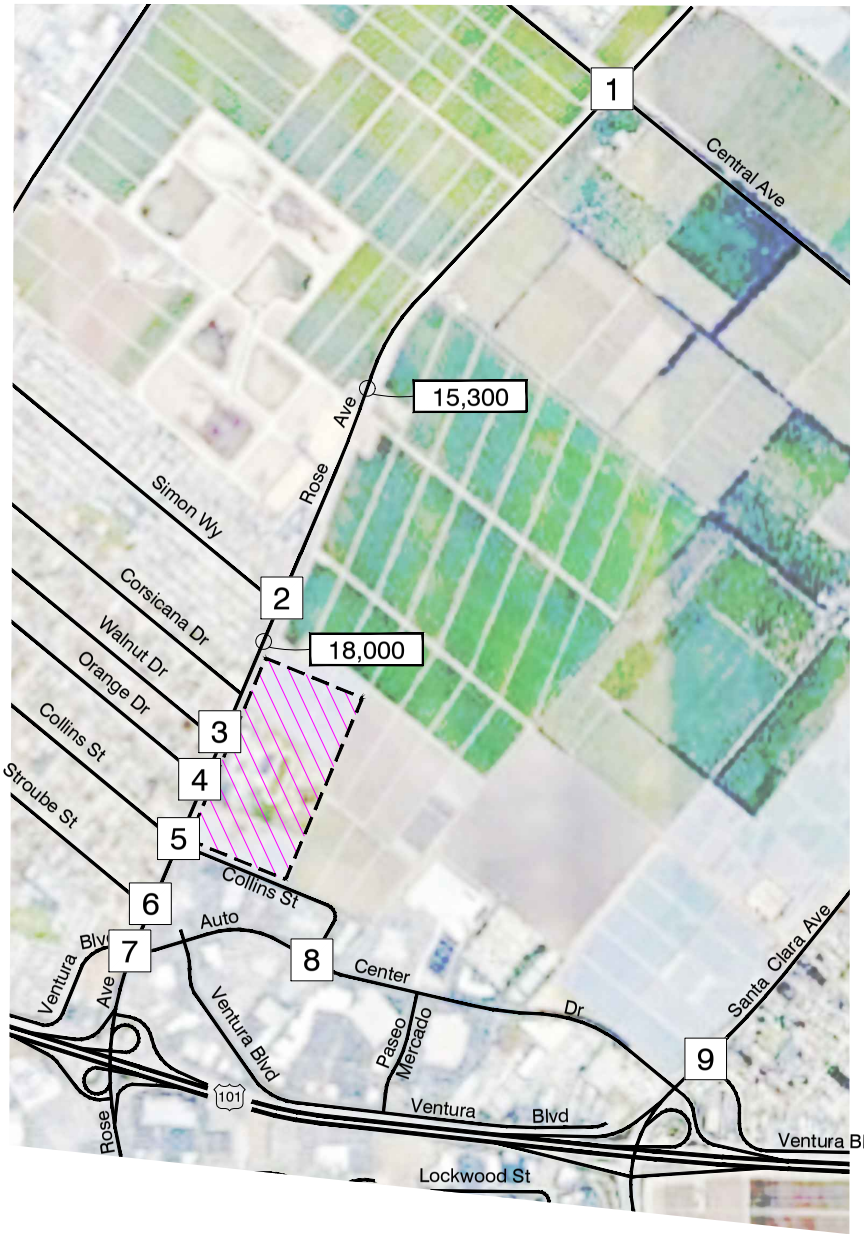


8. Auto Center Dr & Collins St



9. Santa Clara Ave & Ventura Blvd





LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

N

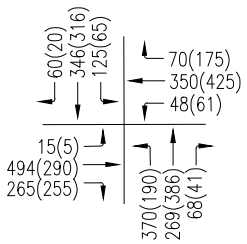
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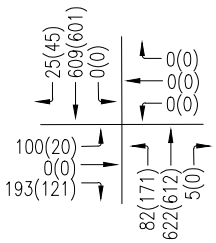
200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

EXHIBIT 11
YEAR 2030 TRAFFIC VOLUMES

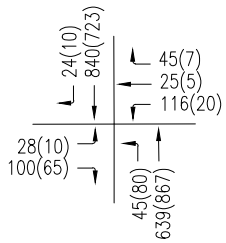
1. Rose Ave & Central Ave



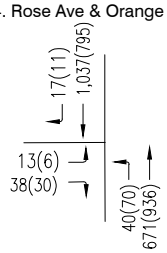
2. Rose Ave & Simon Wy



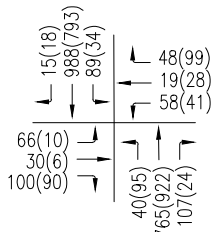
3. Rose Ave & Walnut Dr



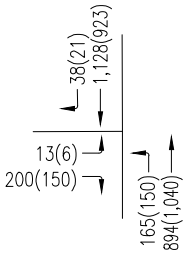
4. Rose Ave & Orange Dr



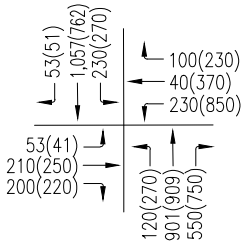
5. Rose Ave & Collins St



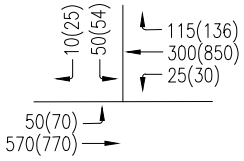
6. Rose Ave & Stroube St



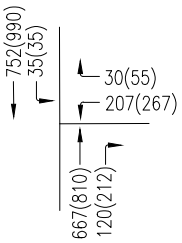
7. Rose Ave & Ventura Blvd



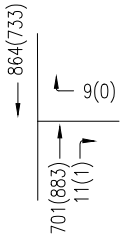
8. Auto Center Dr & Collins St



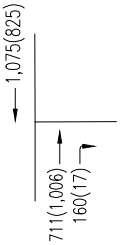
9. Santa Clara Ave & Ventura Blvd



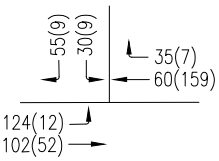
A. Rose Ave & School Lot C



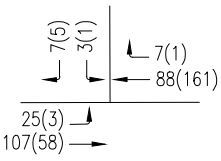
B. Rose Ave & School Lot A/Drop-Off Loop

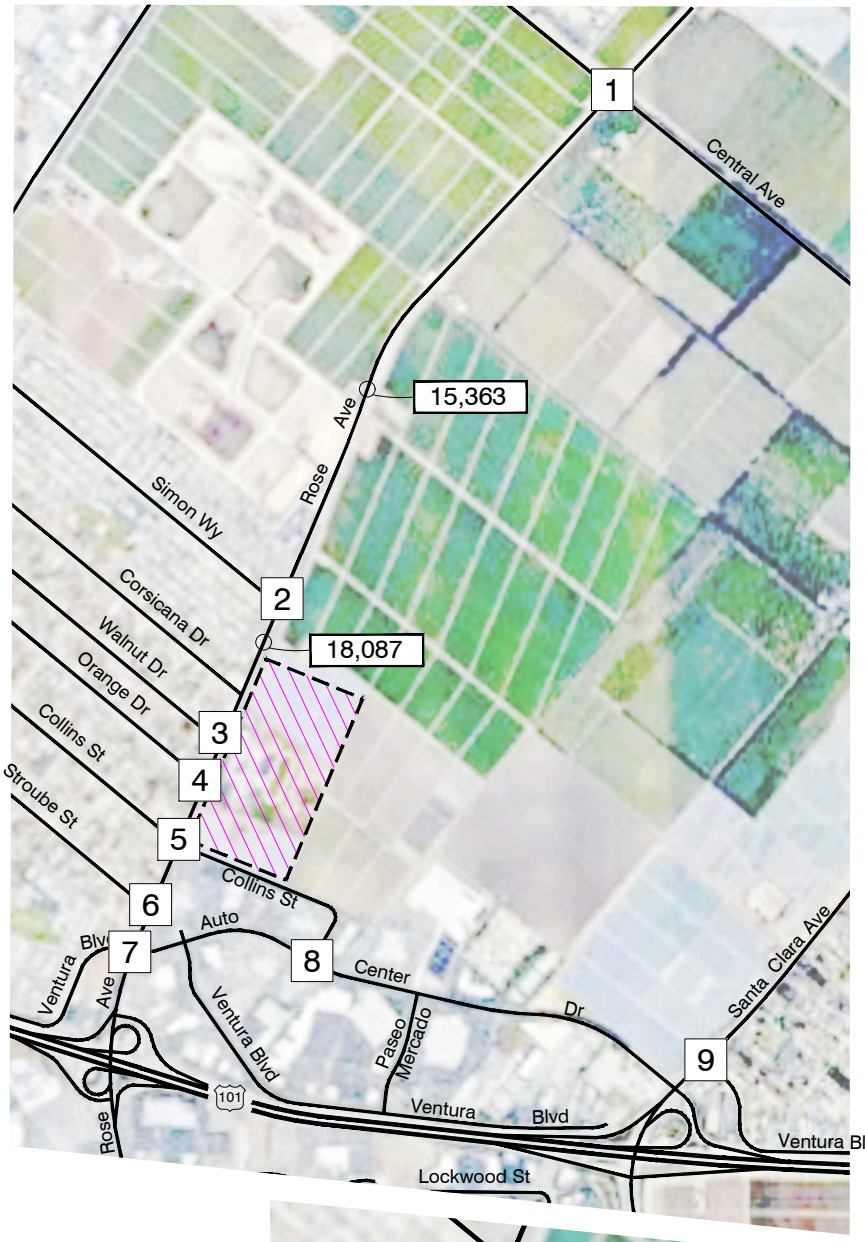


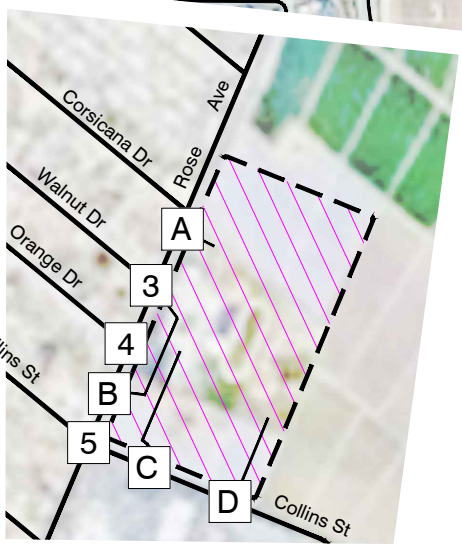
C. Collins St & School Lot A



D. Collins St & School Bus Depot







N.T.S.

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

EXHIBIT 12

YEAR 2030 + PROJECT TRAFFIC VOLUMES

Stantec

200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

Table 10 indicates that the four-lane segment of Rose Avenue between Walnut Drive and Central Avenue would continue to operate in the LOS A range under Year 2030 plus project conditions. Table 11 indicates that most study-area intersections would continue to operate at LOS C or better under Year 2030 plus project conditions. The intersections of Rose Avenue with Stroube Street and with Auto Center Drive, and the Auto Center Dr/Collins St intersections, are expected to operate below the LOS C standard.

SITE ACCESS AND CIRCULATION

As illustrated in Exhibit 2, student and staff access is proposed via a new ingress only driveway on Rose Avenue south of Orange Drive and the existing egress only driveway on Rose Avenue opposite Walnut Drive. The existing driveways to parking lot "B" on Rose Avenue to the north will remain, and the existing ingress only driveway opposite Orange Drive will be removed. Two new driveways are proposed on Collins Drive. The western driveway provides access to parking lot "A" and the school bus drop-off/pick-up lane. The eastern driveway will provide access to the District Transportation and Parking Facility.

Field review of school traffic during the morning commute period indicated that the existing drop-off loop system with ingress from the Rose Ave/Orange Dr intersection backs up during brief periods, and student drop-offs occur along the northbound shoulder of Rose Avenue south of the existing school boundary. Congestion occurs during the period prior to start of bell schedule and is associated with peak drop-off traffic and arrival of school busses, which use the same drop-off area.

The relocation of the ingress only driveway from Orange Drive to the south, along with turning restrictions (northbound right-turn only ingress), will improve operations on Rose Avenue and expand the student drop-off/pick-up loop system to increase on-site vehicle queuing capacity. The construction of a full-access driveway on Collins Street, a separate school bus drop-off area and additional parking areas will improve access and on-site circulation for the school. School busses will now enter and exit via Collins Street with minimal delay or conflict with other vehicles.

Off-site improvements include a dedicated northbound right-turn lane that extends approximately 200 feet from Collins Street to the ingress only driveway that provide access to the student drop-off/pickup loop. The driveway has two ingress travel lanes that connect to the drop-off/pickup area. The curbside drop-off/pickup lane provides approximately 500 feet of vehicle storage, with two additional lanes to facilitate parking maneuvers and egress traffic.

A continuous sidewalk is provided along the east side of Rose Avenue from Auto Center Drive to the middle school that connects to the school's internal pedestrian facilities. Crosswalks are provided at the signalized intersections at Collins Street and Walnut Drive. As discussed, the County's 2023-2027 CIP includes several projects in de El Rio neighborhood that will improve pedestrian and bicycle access to the middle school. The *Rio Del Valle SRTS* assessment identified locations for construction of (infill) sidewalks, intersection curb extensions and traffic calming measures along students walking corridors to promote walking to school. A new sidewalk will be constructed along the project frontage on Collins Street that connects to an ADA pedestrian sidewalk system on the school site.

The *Rose Avenue Bike Lanes* project will provide Class II (on-street striped) bike lanes on Rose Avenue from Collins Street to Simon Way. The project will provide a continuous bike lane from Ventura Boulevard to Simon Way in the northbound direction and from Simon Way to Collins Street in the southbound direction. The SRTS improvement exhibit and Rose Avenue Bike Lanes project exhibits are included in the Technical Appendix.

While the conceptual on-site circulation plan appears to adequately accommodate vehicular and pedestrian traffic, it is recommended that the District develop a school traffic management plan (TMP) to document and implement measures to promote travel mode shifts, optimize on-site circulation and provide safety for students, parents and staff (education, traffic control, potential traffic calming measures such as speed humps).

Rose Avenue/Walnut Drive Intersection

The intersection is controlled by a traffic signal with permissive phasing (green ball) on all approaches, and detection (loops) on the east and west approaches.. The northbound approach on Rose Avenue contains a separate left-turn lane and two through lanes, the southbound approach contains a through lane and a shared through/right-turn lane, the eastbound approach (Walnut Drive) has one shared left/right-turn lane and the westbound approach is the middle school exit driveway with one shared left-turn/through/right-turn lane. School crosswalks are provided on the west and north side of the intersection (ladder crosswalks) and on the east side (basic stripe). Advanced school speed limit signage with speed feedback sign and overhead flashing beacons are provided on Rose Avenue in both directions.

Review of the intersection recent five-year collision history (2017 – 2021) shows a total of nine ((9) collisions with several correctable accidents: three broadsides, three rear-ends and an improper turn. One pedestrian right-of-way violation was reported in 2021 (eastbound right-turn vs. southbound pedestrian in crosswalk).

The County's *Local Roadway Safety Plan* provides several general countermeasures focused on making the path of travel clearer, including installation of retroreflective backplates and a yellow-change and all-red clearance interval update, and painting directional arrows on the eastbound approach (Walnut Drive). As discussed previously, the *Rose Avenue Bike Lanes* (Collins-Simon) project will install Class II bike lanes on Rose Avenue, which would improve bicycle traffic conditions.

Additional traffic signal improvements at the Rose Ave/Walnut Dr intersection may include provision of a protected left-turn signal head for the northbound left-turn movement, which will require a longer mast arm, and replacing the green ball of the signal face for the no.1 southbound through lane with a green directional arrow to emphasize the through-only movement. Additional improvements may include the realignment of the crosswalk on the north side of the intersection to provide for shorter crossing times. This may require modifications to the to the northeast corner (ADA improvements, installation of pedestrian push button post).

Collins Street Access

Collins Street is a two-lane roadway that carries approximately 3,000 ADT. The project's western driveway would be located approximately 315 feet from the Rose Ave/Collins St intersection. The 95th percentile queue for the westbound approach of the Rose Ave/Collins St intersection is shown as 110 feet under Year 2030 plus project conditions, with the existing split phasing of east and west approaches and the existing shared left/through/right approach lane. The 95th percentile queue for the eastbound left-turn lane at the Collins St/Dwy C intersection is shown as (less than) one vehicle. Sufficient spacing is therefore provided between Rose Avenue and the proposed western driveway to allow for left-turn queuing at both intersections. The final cross section of Collins Street shall be consistent with *City of Oxnard Standard Plate No. 100; Minor Residential Street*, with a roadway width of 36 feet.

IMPROVEMENT MEASURES

Cumulative plus Project Improvements

Auto Center Dr/Collins St intersection. The cumulative plus project analysis indicated that the project would contribute to the delays experienced the Auto Center Dr/Collins St intersection, which would operate below the LOS C standard in the PM peak hour. Review of collision data provided by the City (included in the Technical Appendix) indicates that the collision history does not satisfy the *CAMUTCD Traffic Signal Warrant 7 – Crash Experience Warrant*[8] of 5 or more crashes reported in a 12-month period that are susceptible to correction by a traffic signal. In addition, the low side street volumes (76 peak hour trips in the PM peak hour) and delays would not satisfy any other traffic signal warrants.

City staff have indicated a safety concern at this intersection due to the crossing length for southbound left-turn traffic onto eastbound Auto Center Drive, and corner sight distance constraints to vehicles approaching from the east on Auto Center Drive. Review indicates that corner sight distance requirements for 40mph speeds are not satisfied. Per City direction, at a minimum southbound left-turn restrictions should be implemented by installing a raised median and appropriate signage. With this restriction, the intersection would operate at LOS B or better.

Table 12: Cumulative + Project Mitigated Intersection Levels of Service

Intersection	AM Peak Hour Delay / LOS	PM Peak Hour Delay / LOS
Auto Center Dr/Collins St	9.8 sec/LOS A	11.9 sec/LOS B

Unsignalized intersection: level of service based on seconds of delay on minor street.

The turning restriction may result in the diversion of southbound left-turn traffic (maximum 50 AM PHT and 54 PM PHT) to the Rose Ave/Collins St intersection (westbound left-turn movement). With the restripe of the westbound approach to a separate left-turn lane and a shared through/right-turn lane, as shown in Exhibit 2, no adverse impacts to level of service or queue lengths will occur. The final cross section of Collins Street shall be consistent with *City of Oxnard Standard Plate No. 100; Minor Residential Street*, with a roadway width of 36 feet.

Rose Ave/Walnut Dr intersection. Several general countermeasures have been identified by the County for the Rose Ave/Walnut Dr intersection, including installation of retroreflective backplates and a yellow-change and all-red clearance interval update, and painting directional arrows on the eastbound approach (Walnut Drive). Additional traffic signal improvements may include provision of a protected left-turn signal head for the northbound left-turn movement and replacing the green ball of the signal face for the no.1 southbound through lane with a green directional arrow to emphasize the through-only movement. Additional improvements may include the realignment of the crosswalk on the north side of the intersection to provide for shorter crossing times, including ADA improvements and installation of pedestrian push button post on the northeast corner.

School TMP. It was recommended that the District develop a school traffic management plan (TMP) to document and implement measures to promote travel mode shifts, optimize on-site circulation and provide safety for students, parents and staff (education, traffic control, physical measures such as speed humps).

[8] 2014 California Manual on Uniform Traffic Control Devices, Revision 8, Caltrans, January 2024.

Year 2030 plus Project Improvements

Rose Ave/Stroube St intersection. The Year 2030 analysis indicated that the project would contribute to the delays experienced the unsignalized intersection, which would operate below the LOS C standard in the AM peak hour with and without project traffic. Stroube Street is a minor residential street with a right-of-way of 62 feet. The existing 24-foot wide pavement section can be widened to the ultimate width of 36 feet to provide separate eastbound left-turn and right-turn lanes. Alternatively, eastbound left-turn restrictions could be implemented. This would affect 13 vehicles in the AM peak hour and 6 vehicles in the PM peak hour.

Rose Ave/Auto Center Dr intersection. The Year 2030 analysis indicated that the project would contribute to the delays experienced the unsignalized intersection, which would operate below the LOS C standard in the AM and PM peak hours without and with project traffic. The eastbound approach (Ventura Bvd) could be widened to install a second through lane to provide for acceptable operations during the AM peak hour, however the intersection would continue to operate in the LOS E range during the PM peak hour. Additional widening of the westbound approach (Auto Center Dr) to either provide dual left-turn/shared left-through/through/right-turn (E/W split-phased) configuration or provide a triple left-turn/through/right-turn (E/W protected left-turns) configuration would result in LOS D operations (51 sec. delay and 46 sec. delay, respectively. Some widening on the west side will also be required to either provide two receiving westbound lanes or to align with a new separate through lane.

Auto Center Dr/Collins St intersection. The Year 2030 analysis indicated that the Auto Center Dr/Collins St intersection would operate below the LOS C standard without and with project traffic. Similarly to cumulative plus project conditions, southbound left-turn restrictions would result in LOS B or better.

Table 13: Year 2030 + Project Mitigated Intersection Levels of Service

Intersection	AM Peak Hour Delay / LOS	PM Peak Hour Delay / LOS
Auto Center Dr/Collins St	9.9 sec/LOS A	13.0 sec/LOS B
Rose Ave/Stroube St	23.2 sec/LOS C	16.5 sec/LOS C
Rose Ave/Auto Center Dr	33.4 sec/LOS C	*65.1 sec/LOS E*

■ ■ ■

TECHNICAL APPENDIX

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Appendix 1 – Exhibits A & B

Appendix 2 – SRTS Improvement Exhibit and Rose Avenue Bike Lanes Exhibits

Appendix 3 – County and City Cumulative Projects Lists and Trip Generation Worksheet

Appendix 4 – Roadway and Intersection Counts

Appendix 5 – Ventura County Transportation Commission (VCTC) level of service criteria

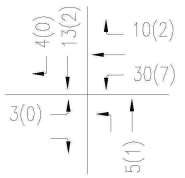
Appendix 6 – Intersection Level of Service Calculation Worksheets

- Existing AM and PM Peak Hour
- Cumulative & Cumulative + Project AM and PM Peak Hour
- Year 2030 & Year 2030 + Project AM and PM Peak Hour

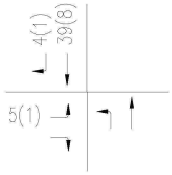
Appendix 7 – Auto Center Dr/Collins St Collision Data

Appendix 1
Exhibits A & B

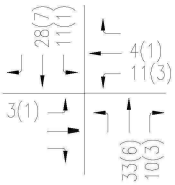
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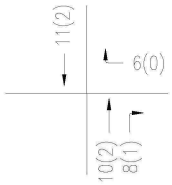
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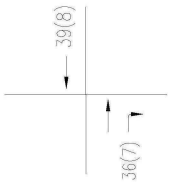
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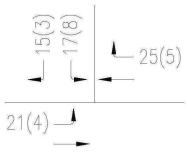
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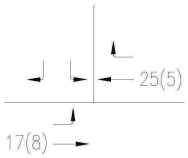
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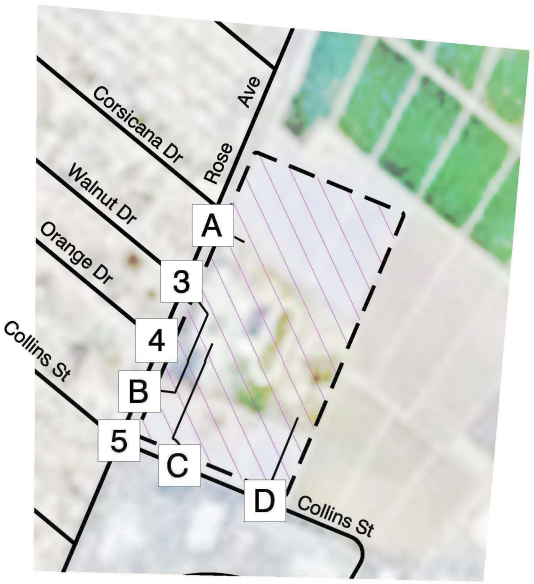


C. Collins St & School Lot A



D. Collins St & School Bus Depot

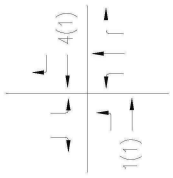




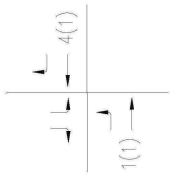
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Middle School Trips

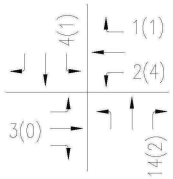
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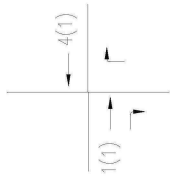
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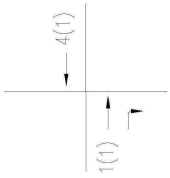
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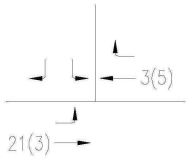
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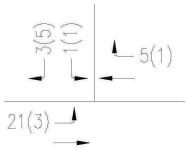
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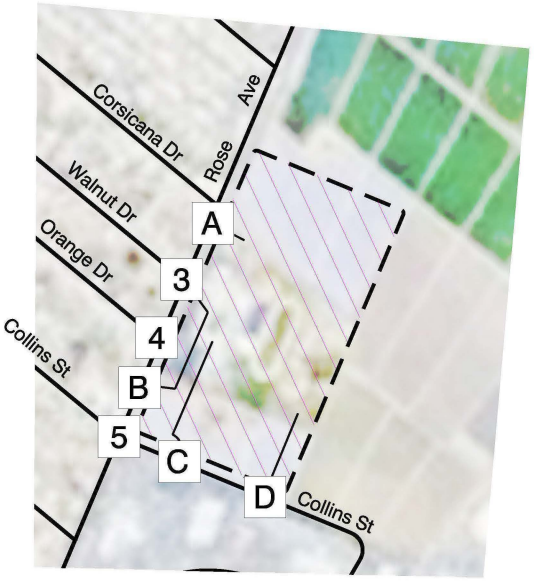


C. Collins St & School Lot A



D. Collins St & School Bus Depot





District Maintenance Facility/Bus Depot Trips

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

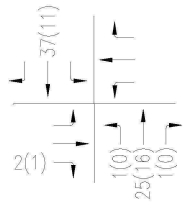
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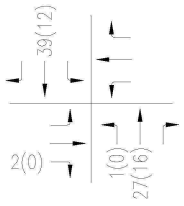
200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

EXHIBIT A
PROJECT TRAFFIC VOLUMES

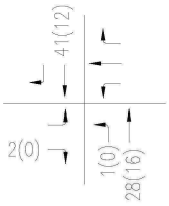
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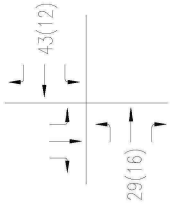
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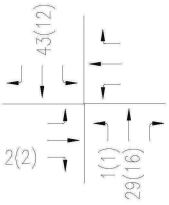
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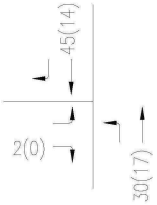
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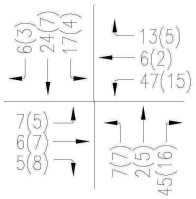
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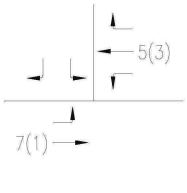
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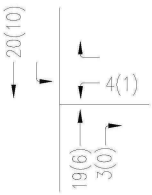
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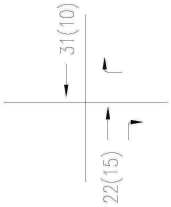
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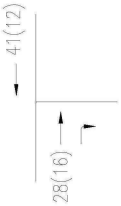
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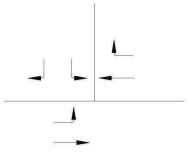
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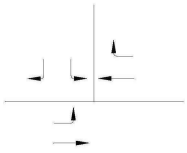
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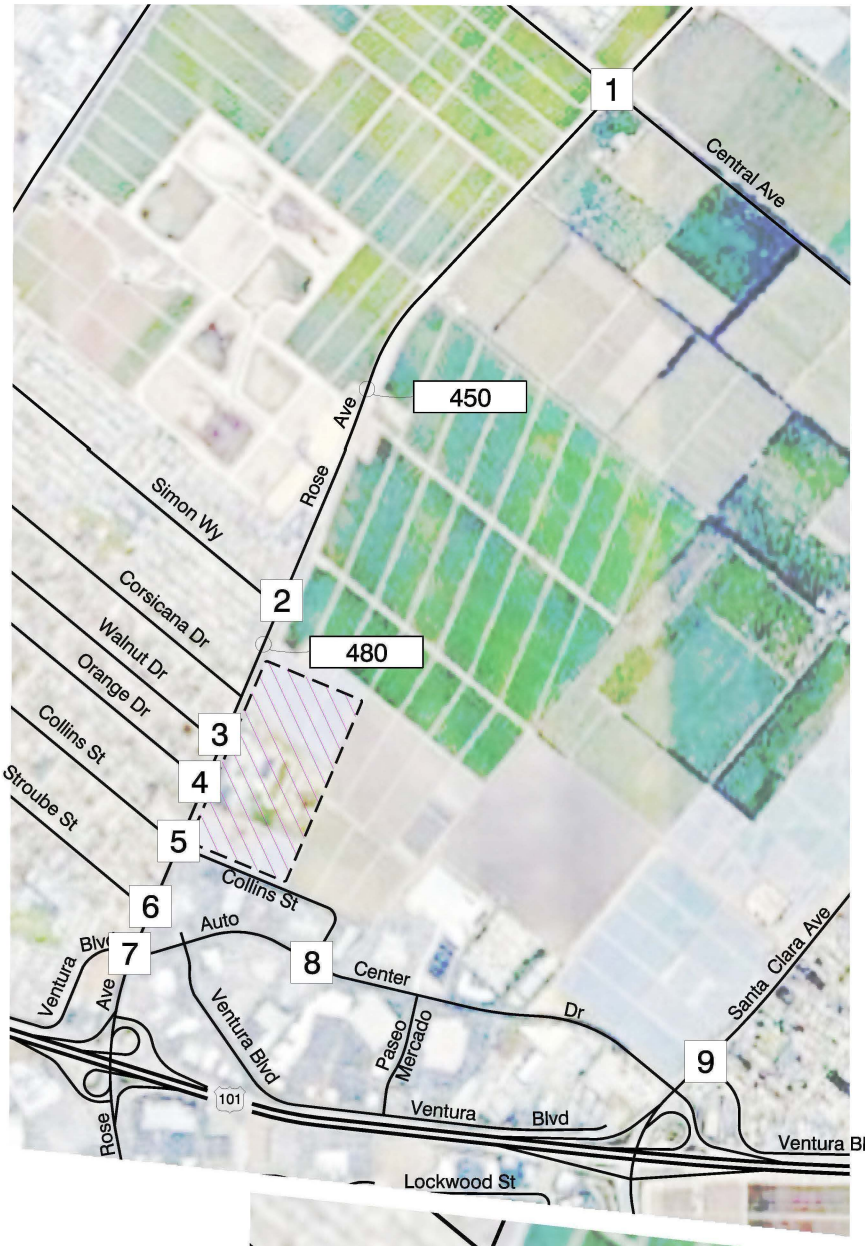


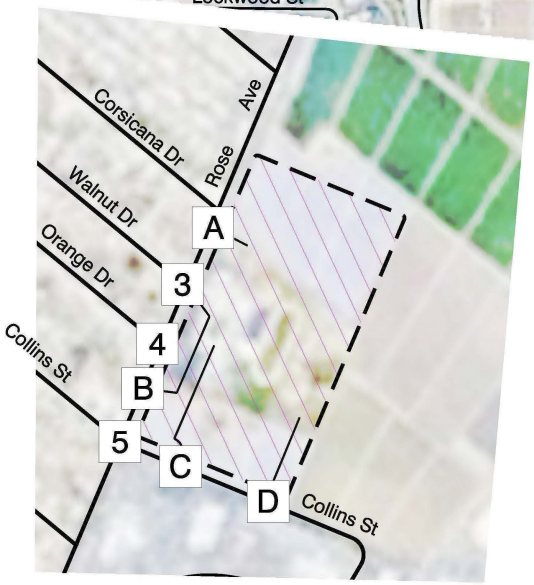
C. Collins St & School Lot A



D. Collins St & School Bus Depot







N.T.S.

LEGEND

XX(XX) - AM(PM) Peak Hour Volume

- Traffic Direction

XX - Average Daily Traffic Volume

Stantec

200 East Carrillo Street, Santa Barbara, CA 93101
Phone: (805) 963-9532

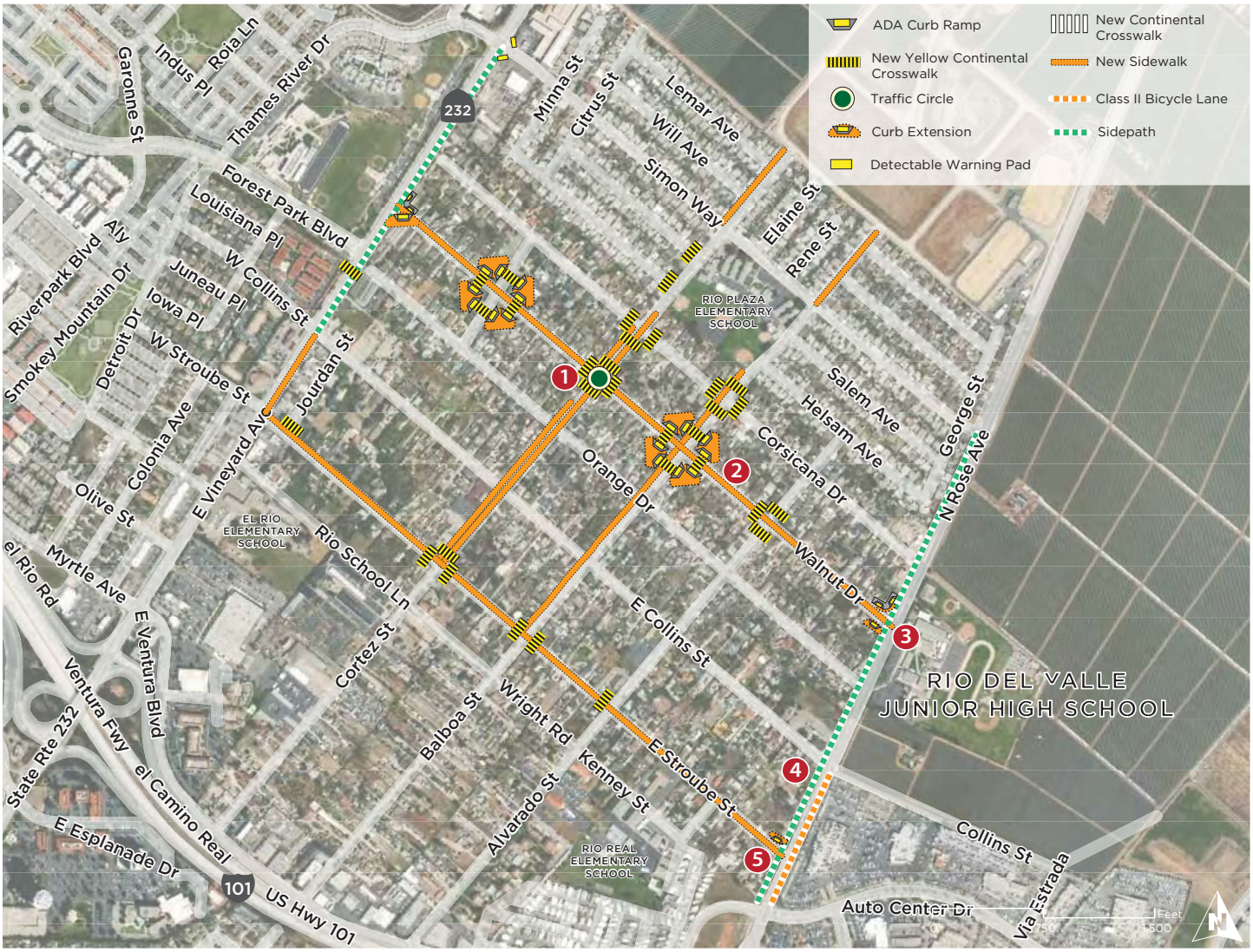
EXHIBIT B

CUMULATIVE- ADDED TRAFFIC VOLUMES

Appendix 2

SRTS Improvement Exhibit and Rose Avenue Bike Lanes Exhibits

RIO DEL VALLE JUNIOR HIGH SCHOOL
RECOMMENDED IMPROVEMENTS MAP



Priority Long-Term Engineering Recommendations

1 Walnut Drive and Alvarado Street
Mini roundabout

2 Walnut Drive from Vineyard Boulevard to Rose Avenue
Sidewalks (both sides of street)

3 Rose Avenue and Walnut Drive
Curb extensions (NW and SW corners)

4 Rose Avenue and Collins Street
Curb extensions

5 Rose Avenue and Stroube Street
Curb extensions (NW and SW corners)

CONSTRUCTION NOTES:

1. INSTALL WHITE BIKE LANE LINE DETAIL 39 PER CALTRANS STD. PLAN A20D.
2. INSTALL YELLOW MEDIAN ISLAND DETAIL 29 PER CALTRANS STD. PLAN A20B.
3. INSTALL YELLOW TWO-WAY LEFT TURN DETAIL 32 PER CALTRANS STD. PLAN A20B.
4. INSTALL WHITE STOP PAVEMENT MARKING PER CALTRANS STD. PLAN A24D.
5. INSTALL WHITE BIKE LANE SYMBOL WITH PERSON PER CALTRANS STD. PLAN A24C AND WHITE BIKE LANE ARROW PER CALTRANS STD. PLAN A24A).
6. INSTALL WHITE BIKE LANE INTERSECTION LINE DETAIL 39A PER CALTRANS STD. PLAN A20D.
7. INSTALL WHITE RIGHT EDGELINE DETAIL 27B PER CALTRANS STD. PLAN A20B.
8. INSTALL WHITE LANELINE DETAIL 12 INSTALL PER CALTRANS STD. PLAN A20A.
9. INSTALL WHITE CHANNELIZING LINE DETAIL 38 PER CALTRANS STD. PLAN A20D.
10. INSTALL WHITE LIMIT LINE (STOP LINE) PER CALTRANS STD. PLAN A24E.
11. INSTALL WHITE TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A.
12. INSTALL WHITE TYPE IV (R) ARROW PER CALTRANS STD. PLAN A24A.
13. INSTALL TRAFFIC SIGNAL LOOPS, CONNECT TO TRAFFIC SIGNAL BOX PER PROJECT SPECIAL PROVISIONS.
14. INSTALL RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS PER DETAIL 27C CALTRANS STD. PLAN A20B.
15. INSTALL LANE LINE EXTENSION THROUGH INTERSECTIONS PER DETAIL 40 CALTRANS STD. PLAN A20D.
16. INSTALL VENTURA COUNTY BIKE ROUTE SIGN D11-1 MODIFIED AS SHOWN PER DETAIL HEREON.
17. REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL BOX
18. REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL CABINET.
19. REMOVE AND RELOCATE EXISTING TRAFFIC SIGNAL / TRAFFIC SIGNAL ARM.
20. REMOVE AND RELOCATE EXITING SIGNAL MESSAGE BOARD AND FLASHING BEACONS.
21. INSTALL 4" THICK LEAD LINE.
22. INSTALL LADDER CROSSWALK PER CALTRANS STD. PLAN A24F.
23. INSTALL WHITE SIGNAL AHEAD PAVEMENT MARKING PER CALTRANS STD. PLAN A24D.
24. INSTALL WHITE TYPE VII (R) ARROW PER CALTRANS STD. PLAN A24A.

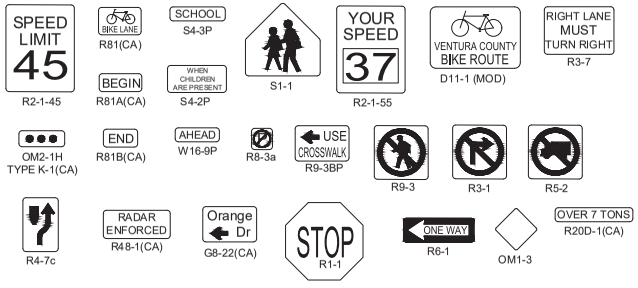
LEGEND

- (IS) INSTALL NEW SIGN
- (E) EXISTING SIGN TO REMAIN IN PLACE
- (RR) REMOVE AND REPLACE WITH NEW SIGN
- (R) REMOVE EXISTING SIGN
- 12' NEW LANE WIDTH

SIGNING AND STRIPING GENERAL NOTES:

1. INSTALLATION OF ALL SIGNING, STRIPING AND PAVEMENT MARKERS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. ALL SIGNING AND STRIPING SHALL CONFORM TO 2015 CALTRANS STANDARD PLANS AND SPECIFICATIONS AND THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD).
3. NOTIFY COUNTY TRAFFIC ENGINEER AT (805) 654-2063 FOR APPROVAL OF MARK-OUT. A MINIMUM OF 48 HOURS PRIOR NOTICE IS REQUIRED.
4. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING STRIPING, PAVEMENT MARKINGS AND LEGENDS BY SANDBLASTING AND/OR GRINDING. ANY DEBRIS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
5. SIGN POSTS SHALL BE INSTALLED WITH SQUARE PERFORATED STEEL TUBING WITH A BREAKAWAY BASE PER COUNTY OF VENTURA ROAD STANDARDS SIGN POST INSTALLATION PLATE F-3.
6. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLANS SHALL BE NEW SIGNS PROVIDED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR EXISTING SIGNS SPECIFICALLY INDICATED TO BE RELOCATED OR REMAIN.
7. NEW STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

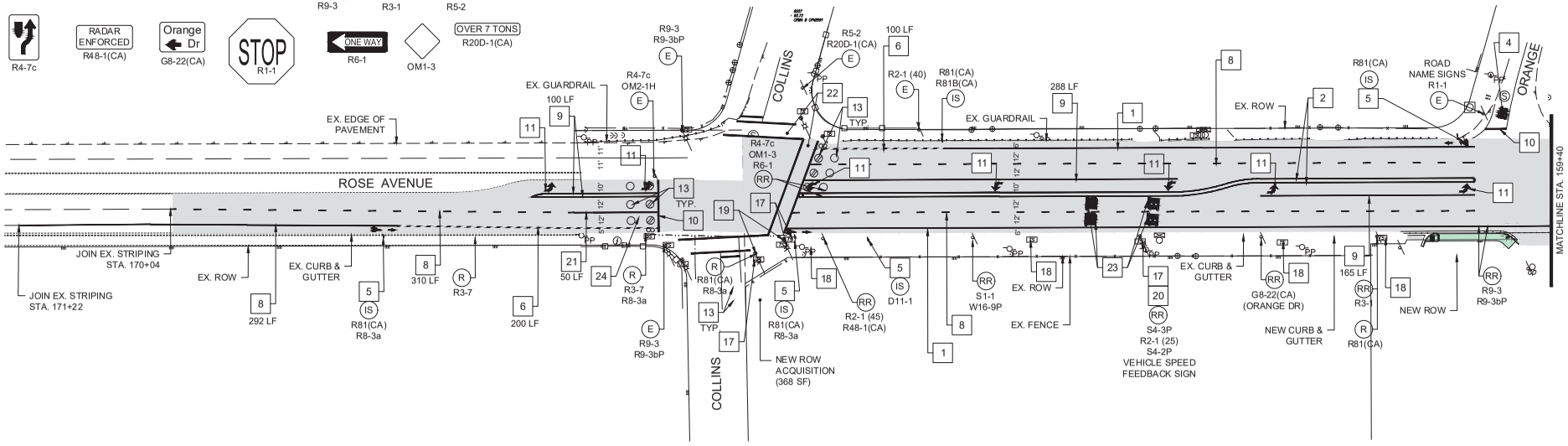
SIGN LEGEND



GRAPHIC SCALE

0 20 40 80

1 inch = 40 ft.



D			
C			
B			
A			
△	REVISION DESCRIPTION	APP.	DATE

DESIGNED JH
DRAWN JH
CHECKED GF
APPROVED

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

SPEC NO. RD24-XX
PROJ. NO. 50621

ROSE AVENUE
BIKE LANES PHASE II
SIGNING AND STRIPING PLAN
STA. 171+22 TO STA. 159+40

SHEET 9
OF 10
XXXXX

CONSTRUCTION NOTES:

1. INSTALL WHITE BIKE LANE LINE DETAIL 39 PER CALTRANS STD. PLAN A20D.
2. INSTALL YELLOW MEDIAN ISLAND DETAIL 29 PER CALTRANS STD. PLAN A20B.
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20. REMOVE AND RELOCATE EXITING SIGNAL MESSAGE BOARD AND FLASHING BEACONS.
21. INSTALL 4" THICK LEAD LINE.
22. INSTALL LADDER CROSSWALK PER CALTRANS STD. PLAN A24F.

LEGEND

- (IS) INSTALL NEW SIGN
- (E) EXISTING SIGN TO REMAIN IN PLACE
- (RR) REMOVE AND REPLACE WITH NEW SIGN
- (R) REMOVE EXISTING SIGN
- 12' NEW LANE WIDTH

SIGN LEGEND

SPEED LIMIT 45 R2-1-45 | BIKE LANE R81(CA) | SCHOOL S4-3P | WHEN CHILDREN ARE PRESENT S4-2P | S1-1 | YOUR SPEED 37 R2-1-55 | STOP R1-1

AHEAD W16-9P | NO PED CROSSING USE CROSSWALK R49(CA) | R9-3 | USE CROSSWALK R9-3BP | R3-1

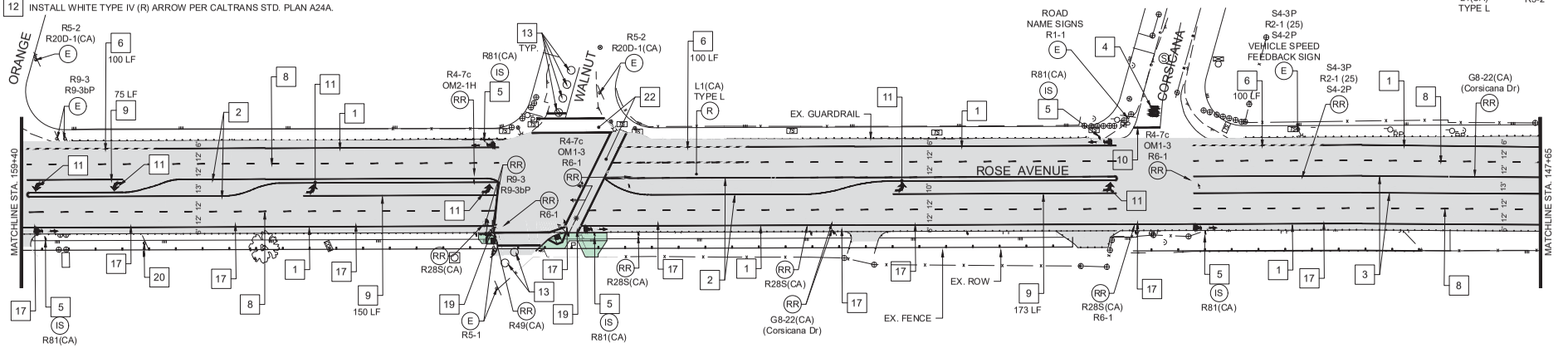
NO STOPPING ANY TIME R28S(CA) | W3-3 | Corsicana Dr G8-22(CA) | DO NOT ENTER R5-1 | ONE WAY R6-1 | END R81B(CA)

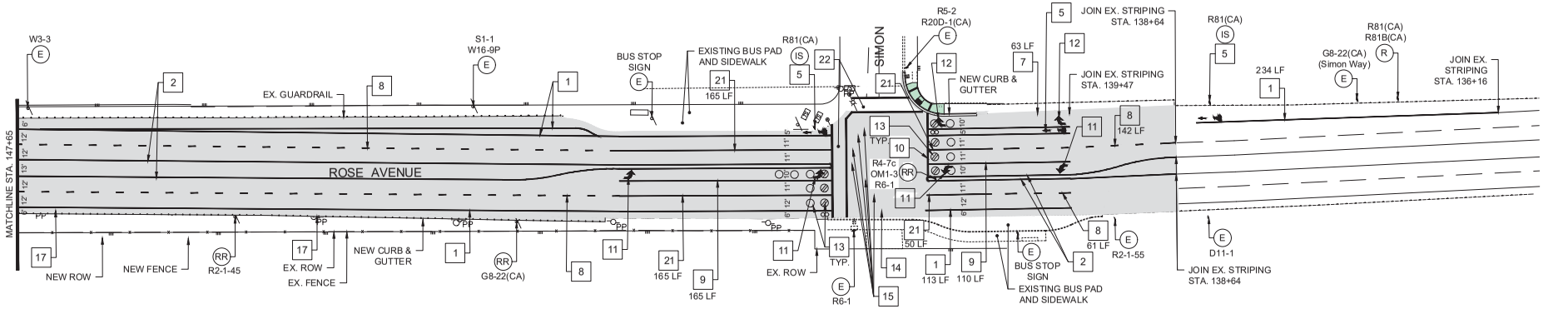
R4-7c | OM1-3 | VENTURA COUNTY BIKE ROUTE D11-1 (MOD) | OVER 7 TONS R20D-1(CA) | L1(CA) TYPE L | R5-2

GRAPHIC SCALE

0 20 40 80

1 inch = 40 ft.





REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			
△			

DESIGNED JH
DRAWN JH
CHECKED GF
APPROVED

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

SPEC NO. RD24-XX
PROJ. NO. 50621

ROSE AVENUE BIKE LANES PHASE II

SIGNING AND STRIPING PLAN
STA. 159+40 TO STA.138+64

SHEET 10
OF 10
XXXXX

Appendix 3

County and City Cumulative Projects Lists and Trip Generation Worksheet

DEL VALLE MIDDLE SCHOOL
APPROVED & PENDING PROJECTS TRIP GENERATION - CITY OF OXNARD

City of Oxnard ID	Land Use	Size		Pass-by Factor	ADT Rate	ADT Trips	A.M. Rate	A.M. Trips	A.M. In %	A.M. Trips	A.M. Out %	A.M. Trips	P.M. Rate	P.M. Trips	P.M. In %	P.M. Trips	P.M. Out %	P.M. Trips
Institutional																		
Del Sol H.S.	High School	2,500	Stu.	1.00	2.03	5,075	0.52	1,300	0.67	871	0.34	429	0.14	350	0.48	168	0.52	182
	Total					***5,075***		***1,300***		***871***		***429***		***350***		***168***		***182***
Industrial																		
13 22-200-03	Self Storage	99,945	S.F.	1.00	1.45	145	0.09	9	59%	5	41%	4	0.15	15	47%	7	53%	8
	Total					***145***		***9***		***5***		***4***		***15***		***7***		***8***
Commercial																		
4 21-500-03	Commercial (Apparel)	-7,080	S.F.	0.60	66.40	-283	1.00	-5	80%	-4	20%	-1	4.12	-17	51%	-9	49%	-8
	Coffee Shop (Drive-Thru)	1,800	S.F.	0.60	533.60	576	85.88	93	51%	47	49%	46	38.99	42	50%	21	50%	21
5 21-500-04	Commercial (Strip Retail Plaza)	-18,000	S.F.	0.60	54.45	-588	2.36	-25	60%	-15	40%	-10	6.59	-71	50%	-36	50%	-35
	Fast-Food Restaurant (Drive-Thru)	3,885	S.F.	0.60	467.48	1,091	44.61	104	51%	53	49%	51	33.03	77	52%	40	48%	37
18 19-500-01	Car Rental	25,000	S.F.	1.00	12.70	318	0.50	13	54%	7	46%	6	1.00	25	50%	12	50%	13
22 18-530-02	Cell Tower	N/A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total					***1,114***		***180***		***88***		***92***		***56***		***28***		***28***
Residential																		
	Total					***0***		***0***		***0***		***0***		***0***		***0***		***0***
	Cumulative Projects Total:					**6,334**		**1,489**		**964**		**525**		**421**		**203**		**218**

DESCRIPTION

New rental office, auto carwash, and lot for 40+ rental vehicles. Located NW Rose Ave & Ventura Blvd Oxnard CA

SQF (Net)

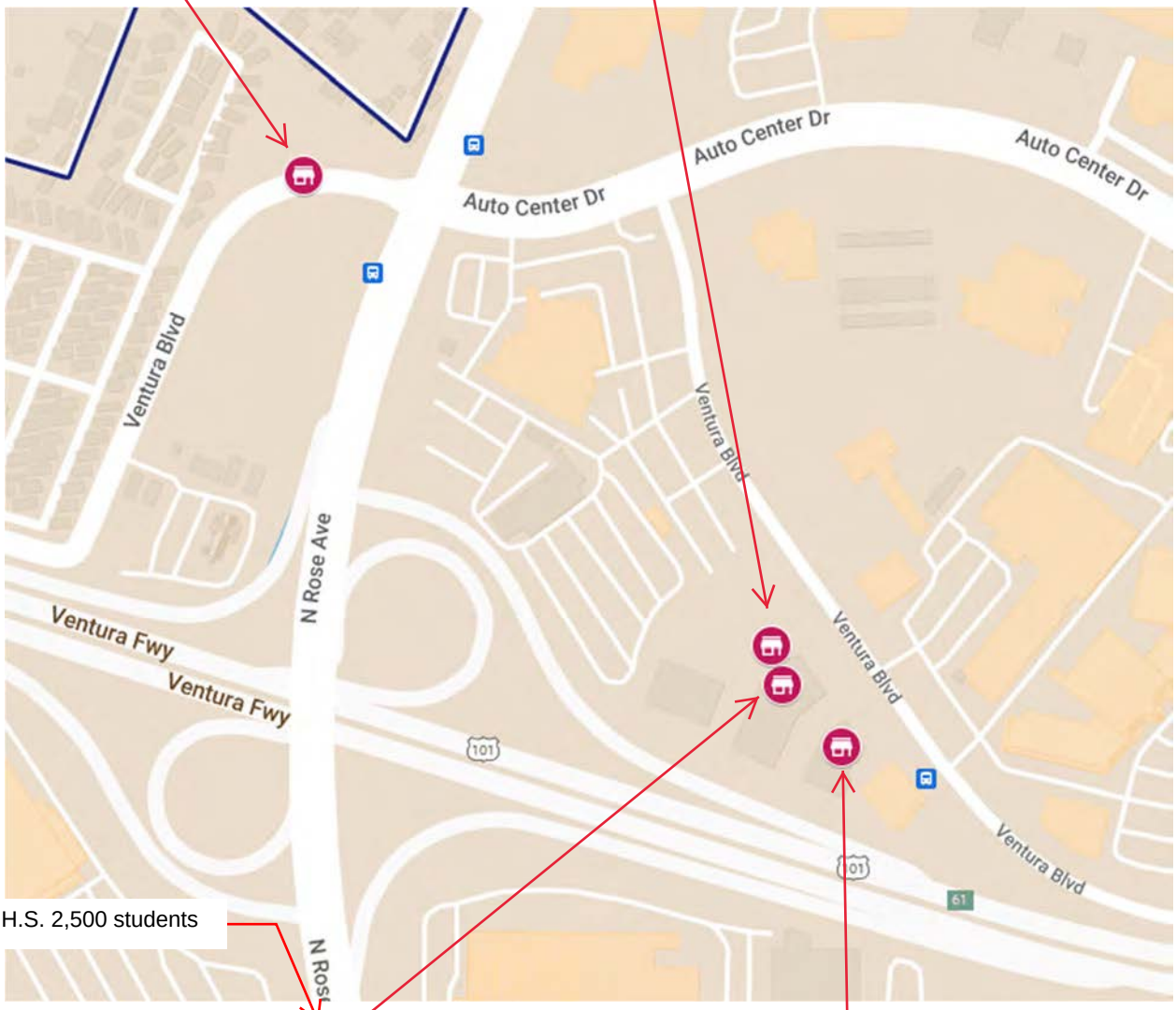
1600

DESCRIPTION

Construction of a wireless communications facility designed as a 40 foot tall faux eucalyptus tree with associated ground mounted equipment. APN: 144-0-134-065

SQF (Net)

540



Del Sol H.S. 2,500 students

DESCRIPTION

Demolition of existing 18,000 square foot commercial structure and site improvements to construct a new 3,885 square foot, In-N-Out Burger drive-thru restaurant with 23 car stacking lane and 74 parking spaces on a 1.47 acre lot in the Rose-Santa Clara Specific Plan area.

DESCRIPTION

Demolition of existing 7,080 square foot commercial structure and construct a new 1,800 square foot Starbucks Coffee with drive-thru and 15 car stacking lane and 27 parking spaces on an 0.85 acre lot in the Rose-Santa Clara Specific Plan area.

City of Oxnard Current Development Projects
(Updated 7/9/2024)

13

ID
13

DEVELOPER
Trojan Storage of Oxnard II, 1732 Aviation Blvd, Suite 217, Redondo Beach, CA 90278

PROJECT
Trojan Storage of Oxnard

Location
2111 Auto Center Drive

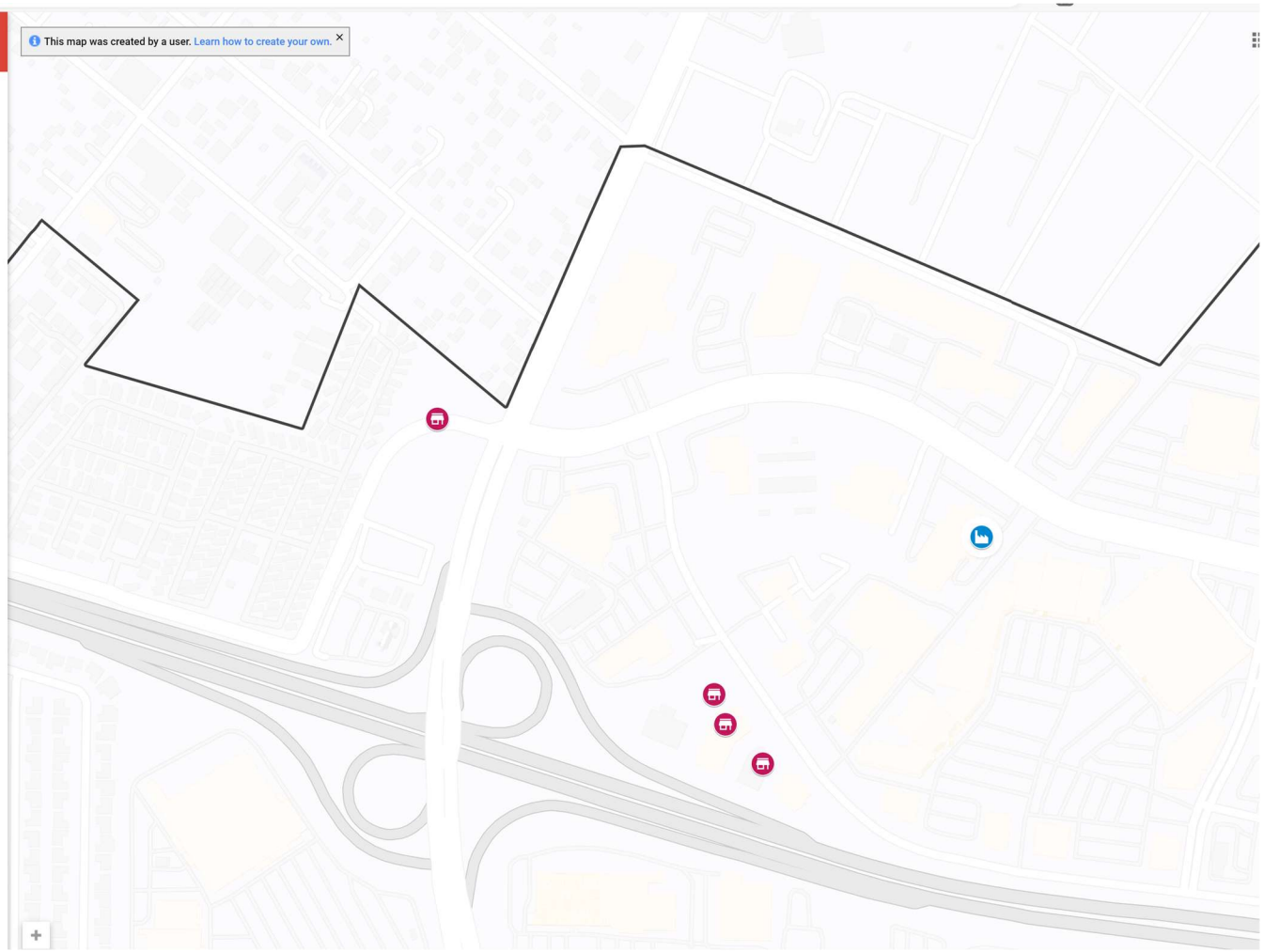
STATUS
Approved

PZ Permit
22-200-03

PLNR
JCT

DESCRIPTION
The construction of a new self-storage facality within an existing 2.34 acre site consisting of a single-story buidling and three-story building with an office/retail area and manager's residential unit. The proposed self-storage facility includes 20 parking spaces, 3 loading spaces, landscaping, and a perimeter wrought iron fence along the westerly and easterly sides, and adjacent with the fornt of the building.

SQF
99945

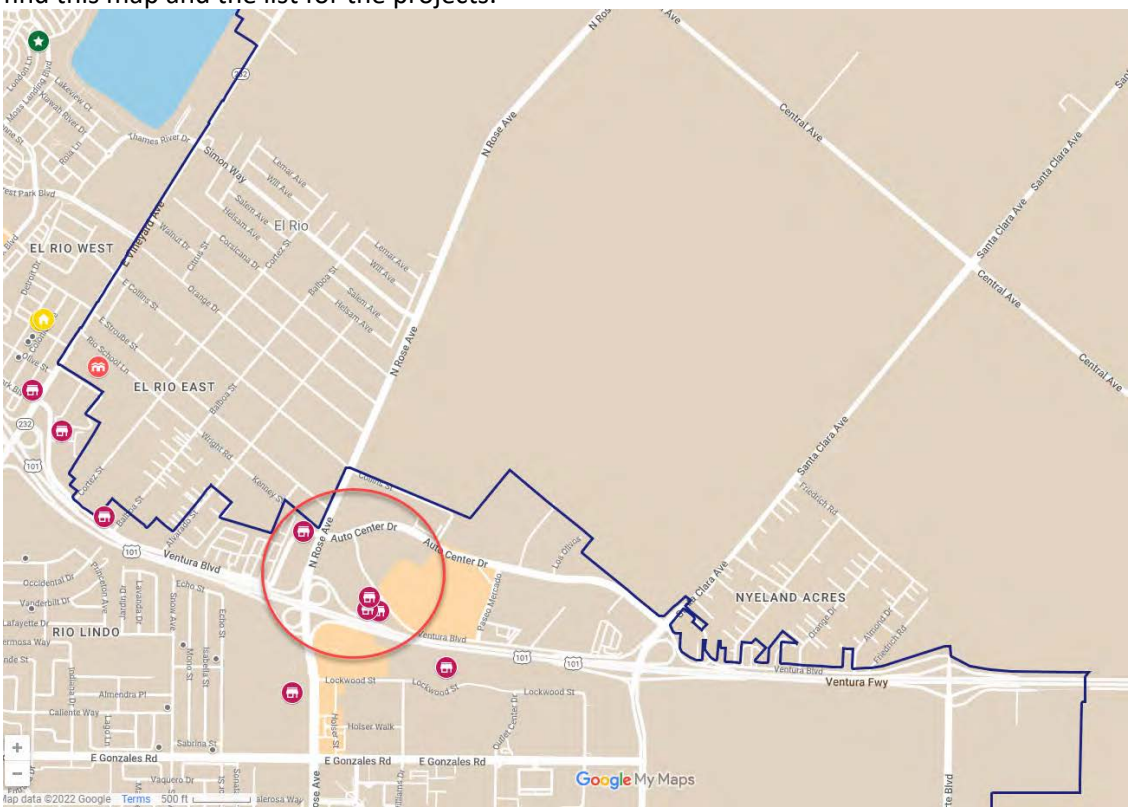


Lammers, Dennis

From: Rivera, Jose <jose.rivera@oxnard.org>
Sent: Wednesday, March 9, 2022 2:19 PM
To: Lammers, Dennis
Cc: Bihis, Earnel
Subject: Re: Del Sol Middle School traffic study

Hi Dennis,

Attacched is the map showing four commercial projects near to your project site. I also attached the link where you can find this map and the list for the projects.



https://www.oxnard.org/city-department/development-services/project-list/

Project IDs:
2, 3, 11, 15.

Please let me know if you have any questions.

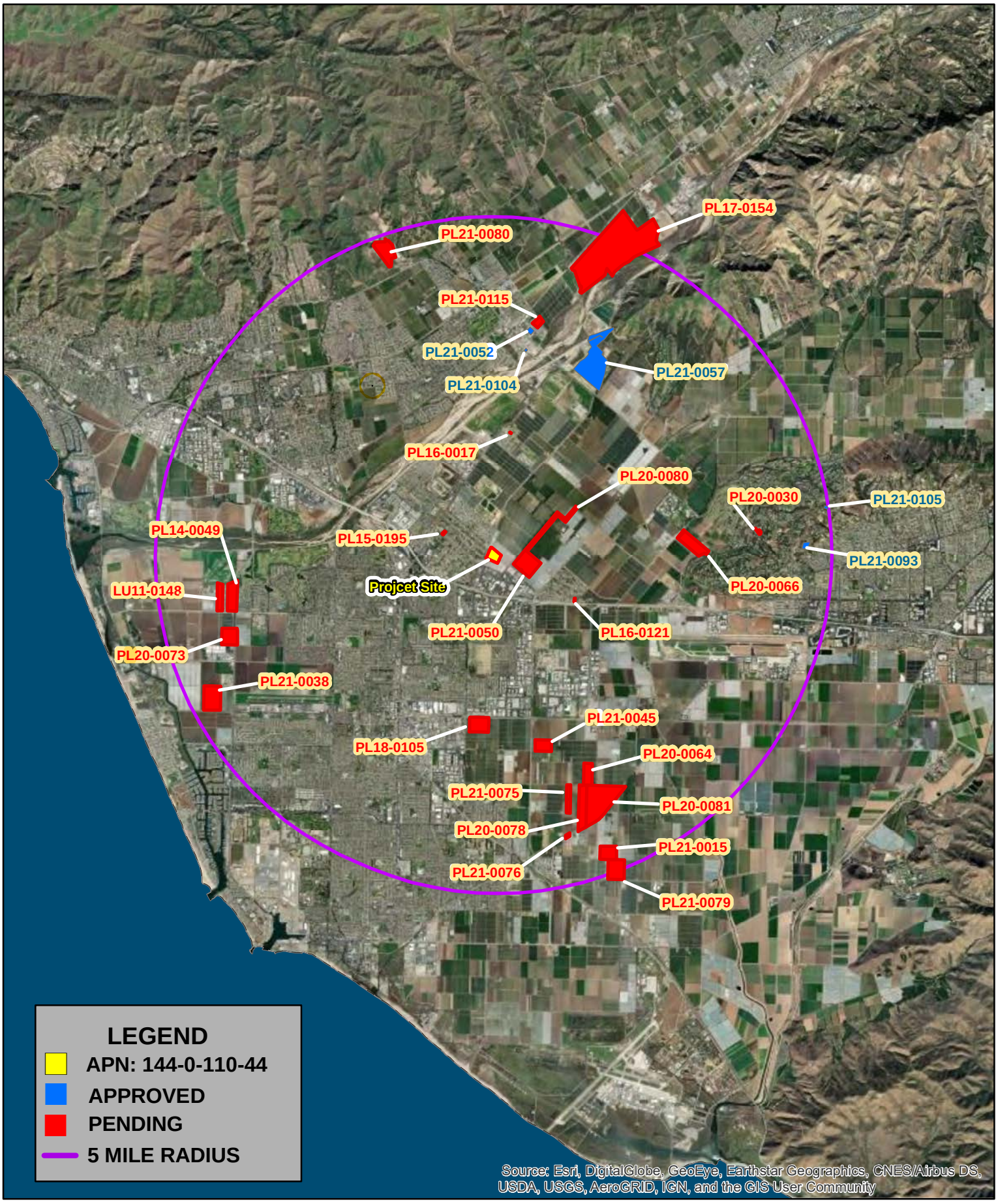
Thanks,

Jose Rivera - Assistant Transportation Engineer
Public Works Department, Transportation & Mobility
214 South C Street, Service Center, North Wing
Oxnard, California 93030
O: 805.385.7873 C: 805.612.6653
www.oxnard.org

DEL VALLE MIDDLE SCHOOL
APPROVED & PENDING PROJECTS TRIP GENERATION - COUNTY OF VENTURA

County of Ventura ID	Land Use	Size	Pass-by Factor	ADT Rate	ADT Trips	A.M. Rate	A.M. Trips	A.M. In %	A.M. In Trips	A.M. Out %	A.M. Out Trips	P.M. Rate	P.M. Trips	P.M. In %	P.M. In Trips	P.M. Out %	P.M. Out Trips
Institutional																	
PL15-0195	Assembly Use	3,128 S.F	1.00	7.6	24	0.32	1	62%	1	38%	0	0.49	2	44%	1	56%	1
PL16-0121***	Project data not available	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL16-0017	Mutual Water Co. infrastructure Impr.	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0057	UWCD Recharge Basin	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total				***24***		***1***		***1***		***0***		***2***		***1***		***1***
Industrial																	
PL18-0105	Oil/Gas Facility CUP Extension	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0119	Contractor Yards CUP Ext.	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL23-0134	Oil/Gas Facility CUP Extension	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL24-0024	BESS Facility	n/a	1.00		0		0		0		0		0		0		0
	Total				***0***		***0***		***0***		***0***		***0***		***0***		***0***
Commercial																	
PL14-0049	See LU11-0049		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LU11-0148*	Greenhouse CUP Mod.	96 Empl.	1.00	3.1	248	0.69	55	85%	47	15%	8	49%	39	20%	8	80%	31
PL17--0154**	Compost facility	52 Empl.	-	-	656	-	33	-	18	-	15	-	10	-	23	-	33
PL20-0030	Lot Line Adjustment		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL20-0066	New 10-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL20-0073	New 10-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL20-0078	New 20-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL20-0080	New 10-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL20-0081	New 20-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0015	Ex. Ag. Storage Facility CUP	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0038	Ag. Facility Continued PD	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0045	Ag. Facility Site Improvements	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0050	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0052***	Project data not available	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0064	New 10-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0076	New 20-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0079	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0080	New 10-year LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0093***	ITO Bros Inc/project data n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0104***	Project data not available	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL21-0105	Ex. Facilities Permitting	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0021	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0054	Wireless Communication Tower	n/a	1.00		0		0		0		0		0		0		0
PL22-0085	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0086	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0108	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL22-0116	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL23-0021	Wireless Communication Tower	n/a	1.00		0		0		0		0		0		0		0
PL23-0088	Wireless Communication Tower	n/a	1.00		0		0		0		0		0		0		0
PL23-0097	CUP Ex. Animal Kennel/Rescue	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL23-0101	Wireless Communication Tower	n/a	1.00		0		0		0		0		0		0		0
PL23-0118	CUP Ex. AG/Farmstand Uses	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL24-0024	See LU11-0148		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL24-0072	New LCA Contract	no change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total				***904***		***88***		***65***		***23***		***49***		***31***		***64***
Residential																	
	Total				***0***		***0***		***0***		***0***		***0***		***0***		***0***
	Cumulative Projects Total:				**928**		**89**		**66**		**23**		**51**		**32**		**65**

* Rates from ITE #110 - General Light Industrial (96 employees minus 16 farmhouse occupancy = 80 commuting employees).
** Trip generation derived from Traffic Study, ATE 02/23/2017



Ventura County,California
Resource Management Agency
GIS Development & Mapping Services
Map Created on 04-11-2022
This aerial imagery is under the copyrights of Pictometry
Source: Vexcel 2020

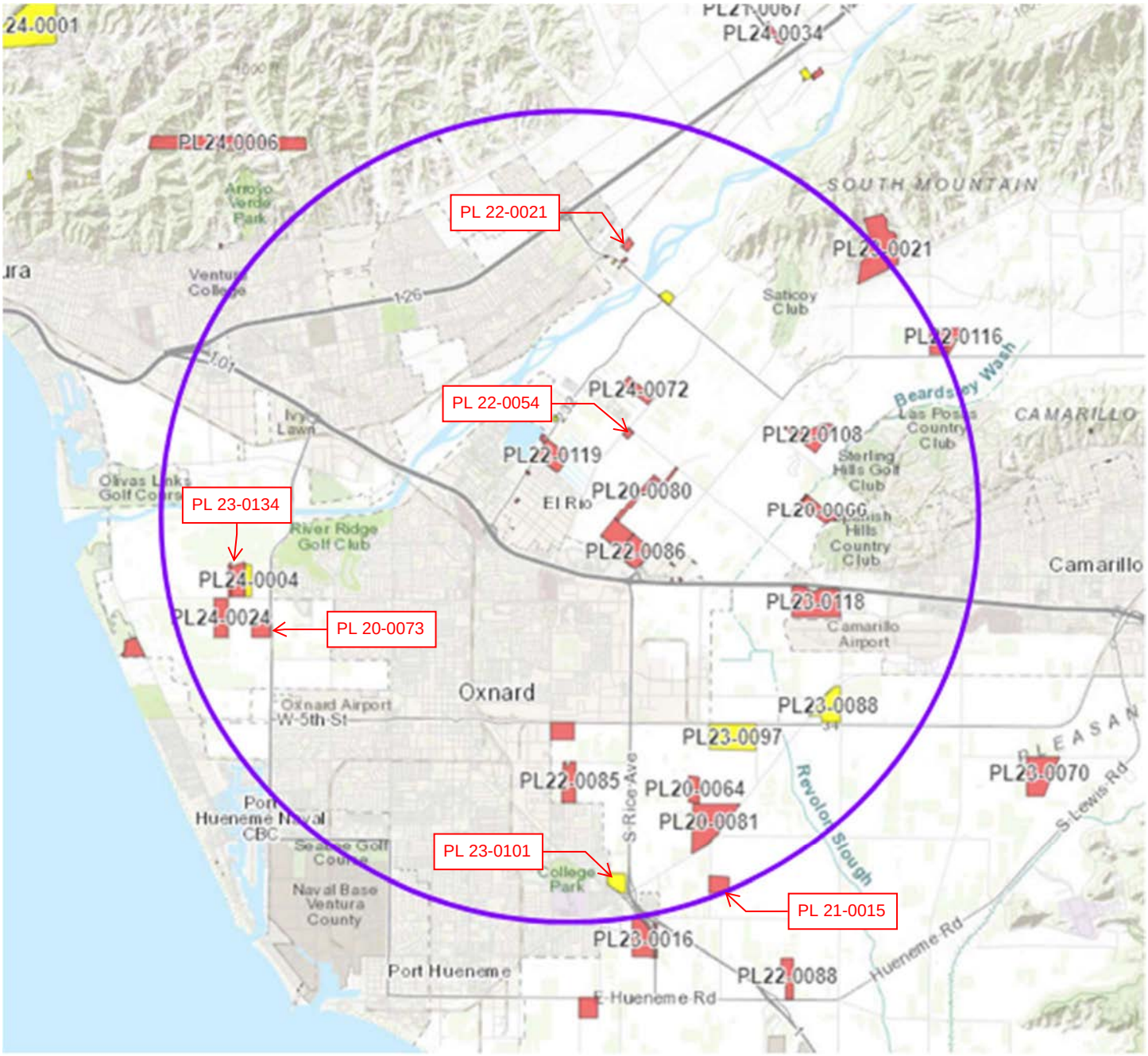
5 Miles Radius Map of parcel
APN: 144-0-110-44
Project: Site Place
June 2022

0 1 2 Miles

Disclaimer: This Map was created by the Ventura County Resource Management Agency, Mapping Services - GIS which is designed and operated solely for the convenience of the County and related public agencies. The County does no twarrant the accuracy of this mapand no decision involving a risk of economic loss or physical injury should be made in reliance thereon.

RH

Ventura County RMA
Approved & Pending Projects Interactive Map (August 2024)
5-Miles Radius Map



Appendix 4
Roadway and Intersection Counts

Prepared by National Data & Surveying Services

VOLUME

Rose Ave N/O Simon Way

Day: Tuesday
Date: 3/1/2022

City: Oxnard
Project #: CA22_050012_001

DAILY TOTALS	NB	SB	EB	WB	Total
	6,448	6,363	0	0	12,811

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	10		4				14		12:00	60		109				169	
00:15	9		5				14		12:15	90		122				212	
00:30	10		3				13		12:30	83		132				215	
00:45	4	33	8	20			12	53	12:45	74	307	106	469			180	776
01:00	4		0				4		13:00	86		188				274	
01:15	2		1				3		13:15	102		144				246	
01:30	2		2				4		13:30	89		90				179	
01:45	2	10	3	6			5	16	13:45	78	355	91	513			169	868
02:00	4		0				4		14:00	88		71				159	
02:15	3		7				10		14:15	90		78				168	
02:30	3		9				12		14:30	120		74				194	
02:45	3	13	4	20			7	33	14:45	120	418	132	355			252	773
03:00	4		2				6		15:00	134		136				270	
03:15	8		1				9		15:15	126		123				249	
03:30	3		3				6		15:30	160		130				290	
03:45	2	17	15	21			17	38	15:45	147	567	255	644			402	1211
04:00	12		8				20		16:00	132		196				328	
04:15	14		12				26		16:15	124		102				226	
04:30	25		9				34		16:30	106		128				234	
04:45	27	78	20	49			47	127	16:45	114	476	98	524			212	1000
05:00	32		31				63		17:00	130		121				251	
05:15	47		40				87		17:15	117		106				223	
05:30	92		49				141		17:30	114		114				228	
05:45	126	297	71	191			197	488	17:45	87	448	91	432			178	880
06:00	191		50				241		18:00	98		97				195	
06:15	257		64				321		18:15	84		74				158	
06:30	248		93				341		18:30	82		79				161	
06:45	90	786	101	308			191	1094	18:45	75	339	64	314			139	653
07:00	70		96				166		19:00	66		41				107	
07:15	78		104				182		19:15	67		54				121	
07:30	106		129				235		19:30	60		31				91	
07:45	128	382	111	440			239	822	19:45	39	232	33	159			72	391
08:00	192		129				321		20:00	40		21				61	
08:15	192		151				343		20:15	41		25				66	
08:30	58		160				218		20:30	30		23				53	
08:45	61	503	116	556			177	1059	20:45	46	157	16	85			62	242
09:00	51		81				132		21:00	48		27				75	
09:15	58		82				140		21:15	19		27				46	
09:30	61		84				145		21:30	19		9				28	
09:45	67	237	89	336			156	573	21:45	21	107	17	80			38	187
10:00	72		94				166		22:00	16		28				44	
10:15	62		80				142		22:15	17		22				39	
10:30	70		94				164		22:30	16		7				23	
10:45	79	283	118	386			197	669	22:45	8	57	7	64			15	121
11:00	71		87				158		23:00	10		11				21	
11:15	83		92				175		23:15	9		10				19	
11:30	69		103				172		23:30	11		3				14	
11:45	85	308	76	358			161	666	23:45	8	38	9	33			17	71
TOTALS		2947		2691				**5638**	**TOTALS**		3501		3672				**7173**
SPLIT %		52.3%		47.7%				**44.0%**	**SPLIT %**		48.8%		51.2%				**56.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	6,448	6,363	0	0	12,811

AM Peak Hour	05:45	08:00				**07:30**	**PM Peak Hour**	15:00	15:15				**15:15**
AM Pk Volume	822	556				**1138**	**PM Pk Volume**	567	704				**1269**
Pk Hr Factor	0.800	0.869				**0.829**	**Pk Hr Factor**	0.886	0.690				**0.789**
7 - 9 Volume	885	996	0	0		**1881**	**4 - 6 Volume**	924	956	0	0		**1880**
7 - 9 Peak Hour	07:30	08:00				**07:30**	**4 - 6 Peak Hour**	16:00	16:00				**16:00**
7 - 9 Pk Volume	618	556	0	0		**1138**	**4 - 6 Pk Volume**	476	524	0	0		**1000**
Pk Hr Factor	0.805	0.869	0.000	0.000		**0.829**	**Pk Hr Factor**	0.902	0.668	0.000	0.000		**0.762**

Prepared by National Data & Surveying Services

VOLUME

Rose Ave S/O Simon Way

Day: Tuesday
Date: 3/1/2022

City: Oxnard
Project #: CA22_050012_002

DAILY TOTALS	NB	SB	EB	WB	Total
	7,636	7,864	0	0	15,500

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	10		7				17		12:00	79		131				210	
00:15	14		7				21		12:15	109		144				253	
00:30	14		3				17		12:30	104		147				251	
00:45	5	43	8	25			13	68	12:45	86	378	141	563			227	941
01:00	7		1				8		13:00	126		225				351	
01:15	4		2				6		13:15	129		168				297	
01:30	3		4				7		13:30	102		115				217	
01:45	2	16	2	9			4	25	13:45	112	469	110	618			222	1087
02:00	3		0				3		14:00	104		87				191	
02:15	3		8				11		14:15	125		103				228	
02:30	6		10				16		14:30	140		109				249	
02:45	3	15	7	25			10	40	14:45	149	518	164	463			313	981
03:00	5		5				10		15:00	149		161				310	
03:15	7		2				9		15:15	161		135				296	
03:30	3		7				10		15:30	170		147				317	
03:45	2	17	22	36			24	53	15:45	160	640	255	698			415	1338
04:00	10		11				21		16:00	150		200				350	
04:15	16		15				31		16:15	152		118				270	
04:30	26		18				44		16:30	130		132				262	
04:45	26	78	35	79			61	157	16:45	149	581	136	586			285	1167
05:00	32		36				68		17:00	151		142				293	
05:15	49		53				102		17:15	148		135				283	
05:30	91		79				170		17:30	149		134				283	
05:45	146	318	103	271			249	589	17:45	115	563	116	527			231	1090
06:00	197		72				269		18:00	119		127				246	
06:15	250		96				346		18:15	130		88				218	
06:30	270		122				392		18:30	107		100				207	
06:45	105	822	127	417			232	1239	18:45	99	455	77	392			176	847
07:00	67		118				185		19:00	85		57				142	
07:15	98		143				241		19:15	92		63				155	
07:30	110		167				277		19:30	74		52				126	
07:45	126	401	165	593			291	994	19:45	56	307	52	224			108	531
08:00	178		158				336		20:00	60		35				95	
08:15	182		182				364		20:15	55		36				91	
08:30	79		182				261		20:30	34		41				75	
08:45	66	505	139	661			205	1166	20:45	55	204	26	138			81	342
09:00	64		102				166		21:00	62		31				93	
09:15	73		107				180		21:15	35		28				63	
09:30	68		97				165		21:30	31		16				47	
09:45	88	293	120	426			208	719	21:45	28	156	27	102			55	258
10:00	90		108				198		22:00	24		30				54	
10:15	75		95				170		22:15	27		32				59	
10:30	81		116				197		22:30	21		12				33	
10:45	83	329	139	458			222	787	22:45	12	84	10	84			22	168
11:00	92		98				190		23:00	15		13				28	
11:15	103		116				219		23:15	18		12				30	
11:30	88		126				214		23:30	14		3				17	
11:45	106	389	93	433			199	822	23:45	8	55	8	36			16	91
TOTALS		3226		3433				**6659**	**TOTALS**		4410		4431				**8841**
SPLIT %		48.4%		51.6%				**43.0%**	**SPLIT %**		49.9%		50.1%				**57.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	7,636	7,864	0	0	15,500

AM Peak Hour	05:45	07:45					**07:30**		**PM Peak Hour**	15:15	15:15					**15:15**		
AM Pk Volume	863	687					**1268**		**PM Pk Volume**	641	737					**1378**		
Pk Hr Factor	0.799	0.944					**0.871**		**Pk Hr Factor**	0.943	0.723					**0.830**		
7 - 9 Volume	906	1254	0	0			**2160**		**4 - 6 Volume**	1144	1113	0	0			**2257**		
7 - 9 Peak Hour	07:30	07:45					**07:30**		**4 - 6 Peak Hour**	16:45	16:00					**16:00**		
7 - 9 Pk Volume	596	687	0	0			**1268**		**4 - 6 Pk Volume**	597	586	0	0			**1167**		
Pk Hr Factor	0.819	0.944	0.000	0.000			**0.871**		**Pk Hr Factor**	0.988	0.733	0.000	0.000			**0.834**		

National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Central Ave
City: Oxnard
Control: Signalized

Project ID: 22-050013-002
Date: 3/1/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Central Ave				Central Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	49	9	0	18	60	1	0	1	84	30	0	3	34	11	0	303
7:15 AM	22	49	6	0	20	73	2	0	1	103	39	0	3	50	17	0	385
7:30 AM	44	42	13	0	32	73	2	0	1	120	45	0	4	69	23	0	468
7:45 AM	60	43	27	0	31	60	4	0	7	138	57	0	5	66	14	0	512
8:00 AM	112	51	11	0	32	75	13	0	2	111	54	0	9	101	20	0	591
8:15 AM	121	78	10	0	28	61	41	0	3	125	82	0	6	112	11	0	678
8:30 AM	30	38	3	0	24	56	4	0	4	142	87	0	3	51	24	0	466
8:45 AM	17	38	6	0	24	87	2	0	2	74	28	0	3	37	13	0	331
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	409	388	85	0	209	545	69	0	21	897	422	0	36	520	133	0	3734
APPROACH %'s :	46.37%	43.99%	9.64%	0.00%	25.39%	66.22%	8.38%	0.00%	1.57%	66.94%	31.49%	0.00%	5.22%	75.47%	19.30%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	337	214	61	0	123	269	60	0	13	494	238	0	24	348	68	0	2249
PEAK HR FACTOR :	0.696	0.686	0.565	0.000	0.961	0.897	0.366	0.000	0.464	0.895	0.726	0.000	0.667	0.777	0.739	0.000	0.829
	0.732				0.869				0.887				0.846				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	47	75	13	0	21	75	2	0	0	84	76	0	21	83	53	0	550
4:15 PM	40	65	8	0	12	51	7	0	0	59	37	0	19	124	31	0	453
4:30 PM	39	78	9	0	18	73	9	0	2	81	50	0	3	94	28	0	484
4:45 PM	24	77	6	0	12	57	3	0	2	62	24	0	15	120	61	0	463
5:00 PM	32	95	13	0	10	75	6	0	0	86	31	0	7	107	43	0	505
5:15 PM	30	84	6	0	11	61	3	0	2	75	37	0	16	109	34	0	468
5:30 PM	32	74	5	0	13	59	2	0	0	67	39	0	18	124	33	0	466
5:45 PM	19	72	1	0	8	65	2	0	0	49	29	0	8	92	34	0	379
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	263	620	61	0	105	516	34	0	6	563	323	0	107	853	317	0	3768
APPROACH %'s :	27.86%	65.68%	6.46%	0.00%	16.03%	78.78%	5.19%	0.00%	0.67%	63.12%	36.21%	0.00%	8.38%	66.80%	24.82%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	150	295	36	0	63	256	21	0	4	286	187	0	58	421	173	0	1950
PEAK HR FACTOR :	0.798	0.946	0.692	0.000	0.750	0.853	0.583	0.000	0.500	0.851	0.615	0.000	0.690	0.849	0.709	0.000	0.886
	0.891				0.850				0.745				0.832				

Prepared by National Data & Surveying Services

Rose Ave & Central Ave

Peak Hour Turning Movement Count

ID: 22-050013-002
City: Oxnard

Day: Tuesday
Date: 3/1/2022

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:00 PM - 05:00 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	60	269	123	0	295	AM
NOON	0	0	0	0	0	NOON
PM	21	256	63	0	472	PM
	0	2	1	0		

EASTBOUND (Central Ave)

AM	NOON	PM	
745	0	592	
0	0	0	0
13	0	4	1
494	0	286	1
238	0	187	1

WESTBOUND (Central Ave)

	PM	NOON	AM
0	173	0	68
1	421	0	348
1	58	0	24
0	0	0	0
	385	0	678

NORTHBOUND (Rose Ave)

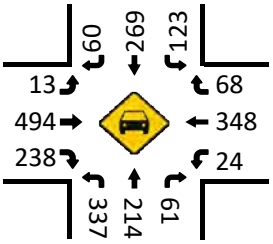
PM	501	0	150	295	36	PM
NOON	0	0	0	0	0	NOON
AM	531	0	337	214	61	AM
		0	1	2	0	

CONTROL

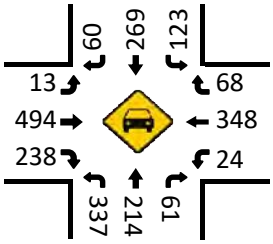
Signalized

TEV	2249 AM	0 NOON	1950 PM
PHF	0.83		0.89

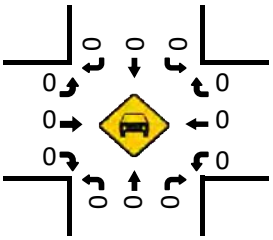
Totals (AM)



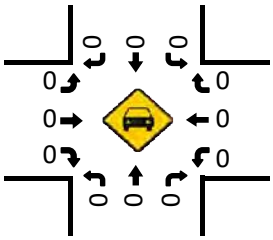
Totals (AM)



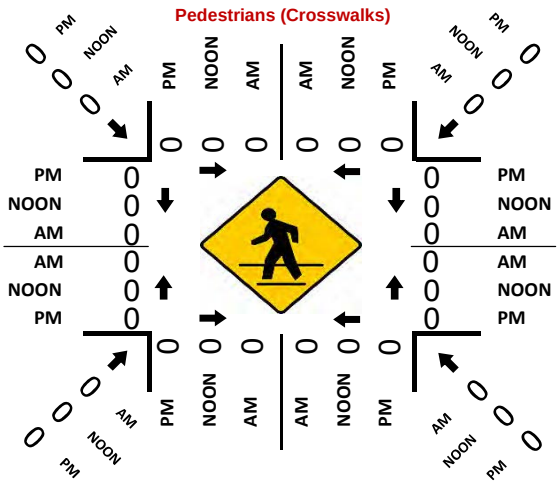
Totals (NOON)



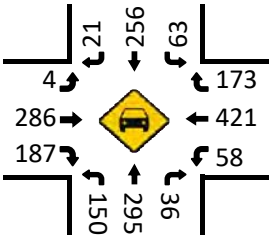
Totals (NOON)



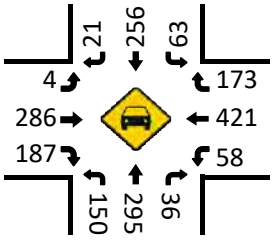
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Simon Way
City: Oxnard
Control: Signalized

Project ID: 22-050013-001
Date: 3/1/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Simon Way				Simon Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	62	1	0	0	95	3	0	4	0	23	0	0	0	1	0	196
7:15 AM	9	79	0	0	0	108	2	0	0	0	40	0	0	0	0	0	238
7:30 AM	12	98	0	0	0	126	2	0	11	0	42	0	0	0	0	0	291
7:45 AM	18	106	1	1	0	108	7	0	20	0	58	0	0	0	0	0	319
8:00 AM	26	160	1	0	0	121	6	0	40	0	35	0	0	0	0	0	389
8:15 AM	15	167	0	0	1	140	7	0	27	0	32	0	0	0	0	0	389
8:30 AM	15	57	1	0	0	153	7	0	3	0	30	0	1	0	0	0	267
8:45 AM	17	54	0	0	0	114	2	0	6	0	24	0	0	0	0	0	217
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	119	783	4	1	1	965	36	0	111	0	284	0	1	0	1	0	2306
APPROACH %'s :	13.12%	86.33%	0.44%	0.11%	0.10%	96.31%	3.59%	0.00%	28.10%	0.00%	71.90%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	71	531	2	1	1	495	22	0	98	0	167	0	0	0	0	0	1388
PEAK HR FACTOR :	0.683	0.795	0.500	0.250	0.250	0.884	0.786	0.000	0.613	0.000	0.720	0.000	0.000	0.000	0.000	0.000	0.892
	0.809				0.875				0.849								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	1	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	40	128	0	0	0	182	13	0	9	0	24	0	0	0	0	0	396
4:15 PM	33	121	0	0	0	92	15	0	6	0	22	0	0	0	0	0	289
4:30 PM	27	109	0	0	0	113	8	0	2	0	19	0	0	0	0	0	278
4:45 PM	37	119	0	0	0	100	7	0	3	0	36	0	0	0	0	0	302
5:00 PM	38	128	0	0	0	105	8	0	6	0	36	0	0	0	0	0	321
5:15 PM	24	113	0	0	0	110	7	0	4	0	27	0	0	0	0	0	285
5:30 PM	44	117	0	0	0	105	16	0	2	0	34	0	0	0	0	0	318
5:45 PM	40	88	0	0	0	86	6	0	3	0	30	0	0	0	0	0	253
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	283	923	0	0	0	893	80	0	35	0	228	0	0	0	0	0	2442
APPROACH %'s :	23.47%	76.53%	0.00%	0.00%	0.00%	91.78%	8.22%	0.00%	13.31%	0.00%	86.69%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	137	477	0	0	0	487	43	0	20	0	101	0	0	0	0	0	1265
PEAK HR FACTOR :	0.856	0.932	0.000	0.000	0.000	0.669	0.717	0.000	0.556	0.000	0.701	0.000	0.000	0.000	0.000	0.000	0.799
	0.914				0.679				0.776								

Prepared by National Data & Surveying Services

Rose Ave & Simon Way

Peak Hour Turning Movement Count

ID: 22-050013-001
City: Oxnard

Day: Tuesday
Date: 3/1/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	22	495	1	0	629	AM
NOON	0	0	0	0	0	NOON
PM	43	487	0	0	497	PM

EASTBOUND (Simon Way)

AM	NOON	PM	
93	0	180	
0	0	0	0
98	0	20	0
0	0	0	1
167	0	101	0
AM	NOON	PM	

WESTBOUND (Simon Way)

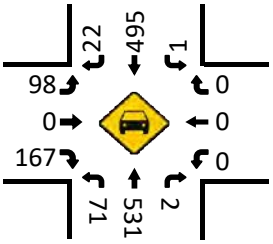
PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	3	
PM	NOON	AM	

NORTHBOUND (Rose Ave)

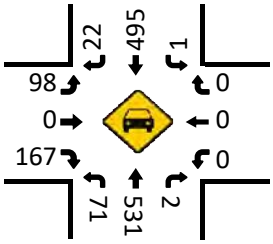
PM	588	0	137	477	0	PM
NOON	0	0	0	0	0	NOON
AM	663	1	71	531	2	AM

CONTROL			
Signalized			
TEV	1388	0	1265
	AM	NOON	PM
PHF	0.89		0.80

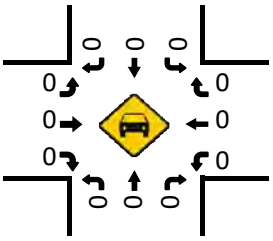
Totals (AM)



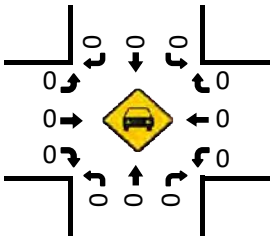
Totals (AM)



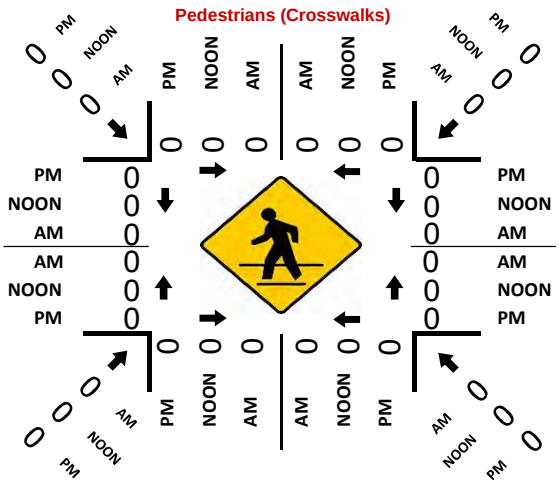
Totals (NOON)



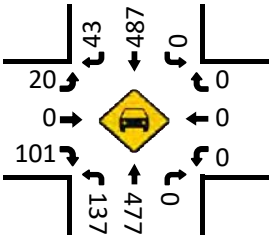
Totals (NOON)



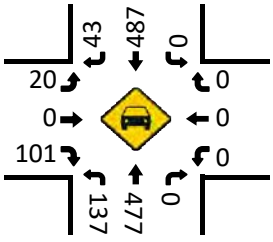
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Walnut Dr
City: Oxnard
Control: Signalized

Project ID: 22-050004-001
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Walnut Dr				Walnut Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	65	0	0	0	116	0	0	1	0	11	0	1	0	0	0	196
7:15 AM	5	101	0	0	0	143	3	0	2	0	16	0	0	2	1	0	273
7:30 AM	4	89	0	0	0	174	1	0	5	0	19	0	6	0	3	0	301
7:45 AM	16	143	0	0	0	186	5	0	5	0	17	0	28	10	3	0	413
8:00 AM	6	170	0	0	0	162	7	0	6	0	31	1	48	7	16	0	454
8:15 AM	11	133	0	0	0	173	4	0	6	0	19	0	51	5	11	0	413
8:30 AM	7	75	0	1	0	176	3	0	3	0	16	0	8	2	3	0	294
8:45 AM	1	56	0	0	0	124	0	0	1	0	8	0	0	1	0	0	191
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	832	0	1	0	1254	23	0	29	0	137	1	142	27	37	0	2535
APPROACH %'s :	5.88%	94.01%	0.00%	0.11%	0.00%	98.20%	1.80%	0.00%	17.37%	0.00%	82.04%	0.60%	68.93%	13.11%	17.96%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	37	535	0	0	0	695	17	0	22	0	86	1	133	22	33	0	1581
PEAK HR FACTOR :	0.578	0.787	0.000	0.000	0.000	0.934	0.607	0.000	0.917	0.000	0.694	0.250	0.652	0.550	0.516	0.000	0.871
	0.813				0.932				0.717				0.662				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	158	0	0	0	183	2	0	3	0	11	0	5	0	0	0	377
4:15 PM	12	156	0	0	0	168	2	0	1	0	7	0	9	1	1	0	357
4:30 PM	21	145	0	0	0	155	1	0	1	0	17	0	5	0	2	0	347
4:45 PM	19	171	0	0	0	139	0	0	3	0	7	0	9	2	2	0	352
5:00 PM	10	188	0	0	0	136	1	0	1	0	16	0	3	0	1	0	356
5:15 PM	16	165	0	0	0	147	0	0	1	0	17	0	4	0	1	0	351
5:30 PM	18	176	0	0	0	168	8	0	1	0	14	0	4	0	1	0	390
5:45 PM	11	137	0	0	0	124	0	0	2	0	14	0	3	1	0	0	292
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	122	1296	0	0	0	1220	14	0	13	0	103	0	42	4	8	0	2822
APPROACH %'s :	8.60%	91.40%	0.00%	0.00%	0.00%	98.87%	1.13%	0.00%	11.21%	0.00%	88.79%	0.00%	77.78%	7.41%	14.81%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	63	700	0	0	0	590	9	0	6	0	54	0	20	2	5	0	1449
PEAK HR FACTOR :	0.829	0.931	0.000	0.000	0.000	0.878	0.281	0.000	0.500	0.000	0.794	0.000	0.556	0.250	0.625	0.000	0.929
	0.963				0.851				0.833				0.519				

Prepared by National Data & Surveying Services

Rose Ave & Walnut Dr

Peak Hour Turning Movement Count

ID: 22-050004-001
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

	L	T	R	U	Total	
AM	17	695	0	0	590	AM
NOON	0	0	0	0	0	NOON
PM	9	590	0	0	711	PM

EASTBOUND (Walnut Dr)

AM	NOON	PM		
77	0	74		
1	0	0	0	
22	0	6	0	
0	0	0	1	
86	0	54	0	
AM	NOON	PM		

WESTBOUND (Walnut Dr)

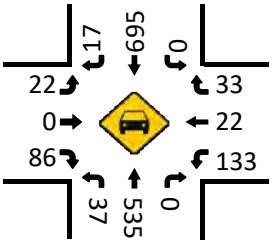
PM	NOON	AM		
5	0	33	0	
2	0	22	1	
20	0	133	0	
0	0	0	0	
0	0	0		
PM	NOON	AM		

NORTHBOUND (Rose Ave)

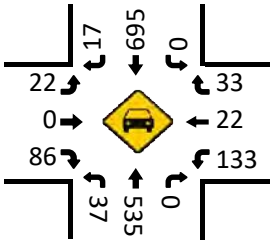
	L	T	R	U	Total	
PM	664	0	63	700	0	PM
NOON	0	0	0	0	0	NOON
AM	914	0	37	535	0	AM

CONTROL			
Signalized			
TEV	1581 AM	0 NOON	1449 PM
PHF	0.87		0.93

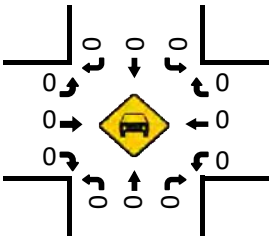
Totals (AM)



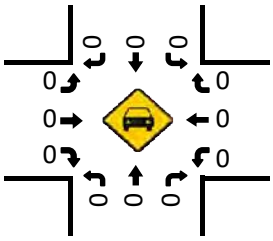
Total (AM)



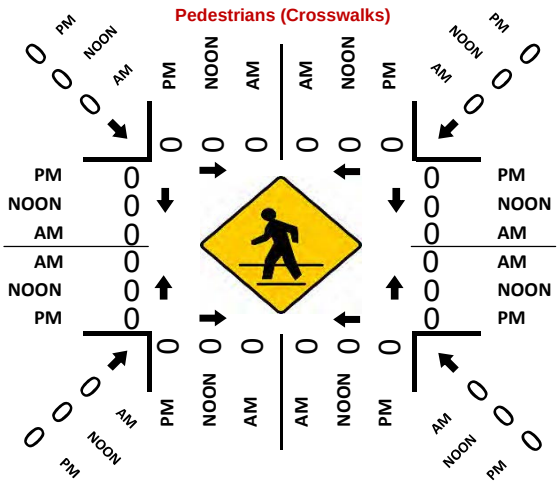
Totals (NOON)



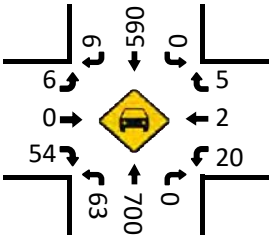
Total (NOON)



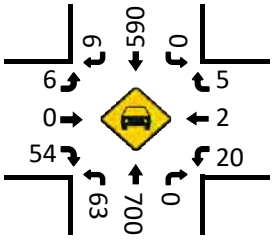
Pedestrians (Crosswalks)



Totals (PM)



Total (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Orange Dr
City: Oxnard
Control: 1-Way Stop(EB)

Project ID: 22-050004-002
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Orange Dr				Orange Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	57	3	0	1	123	0	2	1	0	9	0	0	0	0	0	196
7:15 AM	2	106	8	0	2	159	0	0	0	0	7	0	0	0	0	0	284
7:30 AM	3	98	16	0	7	188	0	0	2	0	6	0	0	0	0	0	320
7:45 AM	13	151	46	1	16	216	0	0	2	1	18	0	0	0	0	0	464
8:00 AM	10	187	93	5	13	227	3	0	1	0	5	0	0	0	0	0	544
8:15 AM	7	133	32	2	11	224	7	1	0	2	9	0	0	0	0	0	428
8:30 AM	3	83	12	0	4	190	1	0	0	0	10	0	0	0	0	0	303
8:45 AM	2	55	4	0	0	137	1	0	1	0	9	0	0	0	0	0	209
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	40	870	214	8	54	1464	12	3	7	3	73	0	0	0	0	0	2748
APPROACH %'s :	3.53%	76.86%	18.90%	0.71%	3.52%	95.50%	0.78%	0.20%	8.43%	3.61%	87.95%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	33	569	187	8	47	855	10	1	5	3	38	0	0	0	0	0	1756
PEAK HR FACTOR :	0.635	0.761	0.503	0.400	0.734	0.942	0.357	0.250	0.625	0.375	0.528	0.000	0.000	0.000	0.000	0.000	0.807
	0.675				0.939				0.548								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	10	172	4	0	2	193	3	1	0	0	7	0	0	0	0	0	392
4:15 PM	12	172	3	0	2	178	1	0	0	0	6	0	0	0	0	0	374
4:30 PM	8	165	4	0	0	174	1	0	1	0	10	0	0	0	0	0	363
4:45 PM	12	189	5	0	0	156	3	0	0	0	8	0	0	0	0	0	373
5:00 PM	13	194	6	0	0	145	4	0	1	0	8	0	0	0	0	0	371
5:15 PM	12	197	1	0	1	170	1	0	1	0	5	0	0	0	0	0	388
5:30 PM	18	176	5	0	2	178	2	0	0	0	9	0	0	0	0	0	390
5:45 PM	15	153	1	0	2	143	0	0	0	0	8	0	0	0	0	0	322
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	100	1418	29	0	9	1337	15	1	3	0	61	0	0	0	0	0	2973
APPROACH %'s :	6.46%	91.66%	1.87%	0.00%	0.66%	98.16%	1.10%	0.07%	4.69%	0.00%	95.31%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	55	756	17	0	3	649	10	0	2	0	30	0	0	0	0	0	1522
PEAK HR FACTOR :	0.764	0.959	0.708	0.000	0.375	0.912	0.625	0.000	0.500	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.976
	0.972				0.909				0.889								

Prepared by National Data & Surveying Services

Rose Ave & Orange Dr

Peak Hour Turning Movement Count

ID: 22-050004-002
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	10	855	47	1	575	AM
NOON	0	0	0	0	0	NOON
PM	10	649	3	0	758	PM

EASTBOUND (Orange Dr)

AM	NOON	PM	
43	0	65	
0	0	0	0
5	0	2	0
3	0	0	1
38	0	30	0

WESTBOUND (Orange Dr)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
20	0	237	

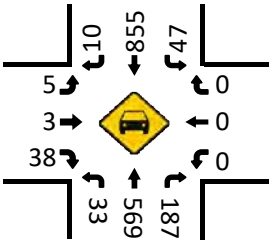
NORTHBOUND (Rose Ave)

PM	679	0	55	756	17	PM
NOON	0	0	0	0	0	NOON
AM	901	8	33	569	187	AM

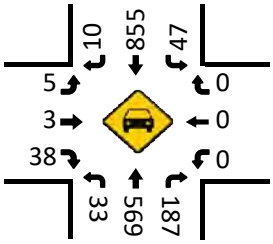
CONTROL: 1-Way Stop(EB)

TEV	1756 AM	0 NOON	1522 PM
PHF	0.81		0.98

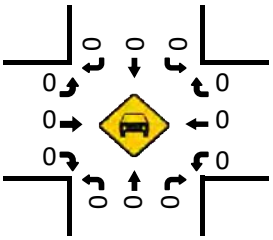
Totals (AM)



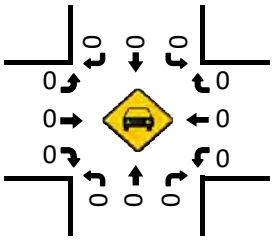
Total (AM)



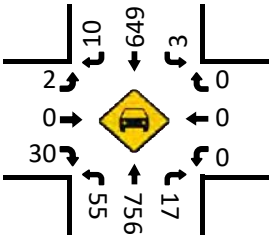
Totals (NOON)



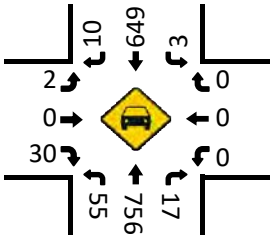
Total (NOON)



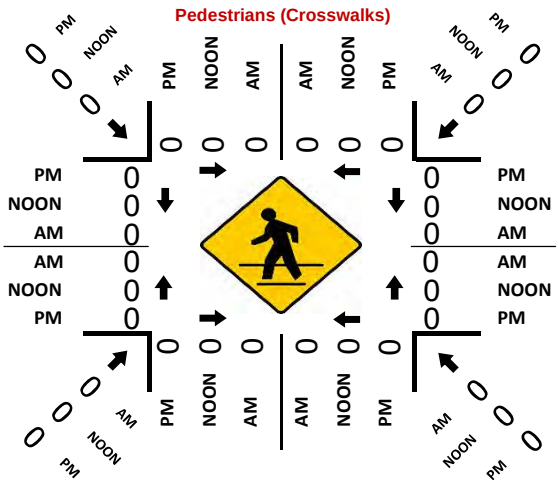
Totals (PM)



Total (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Collins Dr
City: Oxnard
Control: Signalized

Project ID: 22-050004-003
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Collins Dr				Collins Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	61	4	0	6	123	1	0	3	0	15	0	0	0	2	0	222
7:15 AM	2	105	7	1	7	145	0	0	1	0	17	0	1	0	6	0	292
7:30 AM	6	102	8	0	9	194	1	0	10	2	17	0	3	2	4	0	358
7:45 AM	7	164	14	0	8	205	3	0	22	3	35	0	4	3	19	0	487
8:00 AM	7	255	7	0	5	236	9	1	28	2	18	0	2	2	15	0	587
8:15 AM	11	149	3	0	7	222	6	0	13	4	18	0	0	2	14	0	449
8:30 AM	8	88	4	1	10	191	3	0	1	2	11	0	2	1	5	0	327
8:45 AM	6	56	8	0	8	133	2	0	0	0	10	0	0	1	5	0	229
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	54	980	55	2	60	1449	25	1	78	13	141	0	12	11	70	0	2951
APPROACH %'s :	4.95%	89.83%	5.04%	0.18%	3.91%	94.40%	1.63%	0.07%	33.62%	5.60%	60.78%	0.00%	12.90%	11.83%	75.27%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	31	670	32	0	29	857	19	1	73	11	88	0	9	9	52	0	1881
PEAK HR FACTOR :	0.705	0.657	0.571	0.000	0.806	0.908	0.528	0.250	0.652	0.688	0.629	0.000	0.563	0.750	0.684	0.000	0.801
	0.681				0.902				0.717				0.673				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	23	165	0	0	5	187	6	0	3	1	20	0	5	5	18	0	438
4:15 PM	23	159	4	0	2	185	4	0	3	2	17	0	3	4	23	0	429
4:30 PM	15	152	1	0	6	173	4	0	0	1	20	0	6	11	17	0	406
4:45 PM	13	186	2	0	2	162	4	0	3	2	21	0	5	5	23	0	428
5:00 PM	26	186	3	1	5	149	4	0	3	1	13	0	11	5	28	0	435
5:15 PM	18	171	4	0	7	166	2	0	1	0	20	0	8	8	26	0	431
5:30 PM	15	187	3	2	12	171	5	0	1	1	20	0	4	3	21	0	445
5:45 PM	15	136	1	1	4	141	3	0	3	1	9	0	3	3	26	0	346
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	148	1342	18	4	43	1334	32	0	17	9	140	0	45	44	182	0	3358
APPROACH %'s :	9.79%	88.76%	1.19%	0.26%	3.05%	94.68%	2.27%	0.00%	10.24%	5.42%	84.34%	0.00%	16.61%	16.24%	67.16%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	72	730	12	3	26	648	15	0	8	4	74	0	28	21	98	0	1739
PEAK HR FACTOR :	0.692	0.976	0.750	0.375	0.542	0.947	0.750	0.000	0.667	0.500	0.881	0.000	0.636	0.656	0.875	0.000	0.977
	0.946				0.916				0.827				0.835				

Prepared by National Data & Surveying Services

Rose Ave & Collins Dr

Peak Hour Turning Movement Count

ID: 22-050004-003
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	19	857	29	1	796	AM
NOON	0	0	0	0	0	NOON
PM	15	648	26	0	836	PM

EASTBOUND (Collins Dr)

AM	NOON	PM	
59	0	108	
0	0	0	0
73	0	8	0
11	0	4	1
88	0	74	0

WESTBOUND (Collins Dr)

PM	NOON	AM	
98	0	52	0
21	0	9	1
28	0	9	0
0	0	0	0
42	0	72	

NORTHBOUND (Rose Ave)

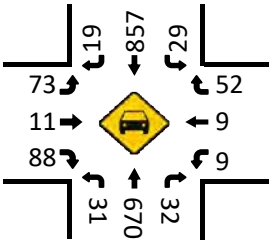
PM	753	3	72	730	12	PM
NOON	0	0	0	0	0	NOON
AM	954	0	31	670	32	AM

CONTROL

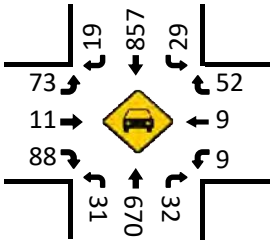
Signalized

TEV	1881	0	1739
	AM	NOON	PM
PHF	0.80		0.98

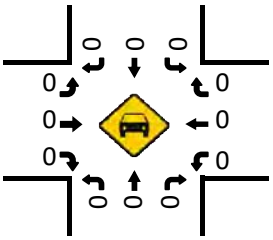
Totals (AM)



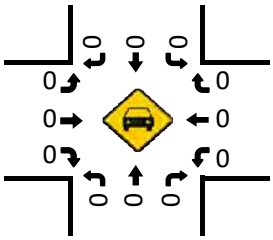
Total (AM)



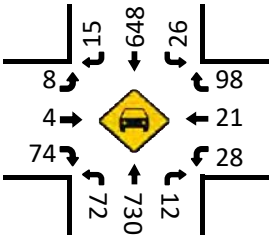
Totals (NOON)



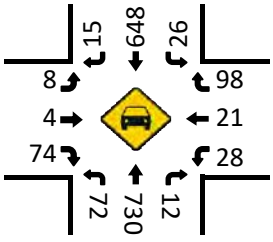
Total (NOON)



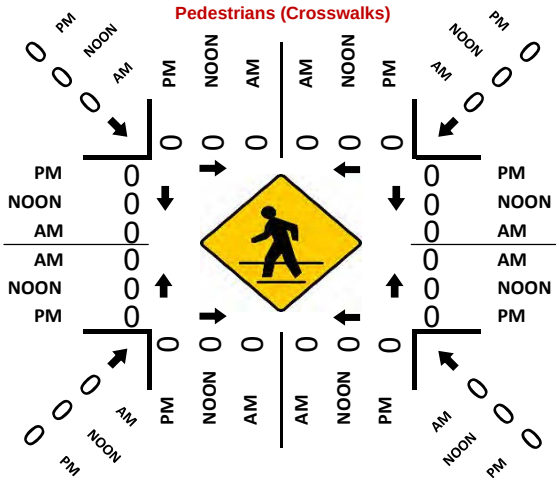
Totals (PM)



Total (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Stroube St
City: Oxnard
Control: 1-Way Stop(EB)

Project ID: 22-050004-004
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Stroube St				Stroube St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	18	69	0	1	0	138	2	0	1	0	12	0	0	0	0	0	241
7:15 AM	30	116	0	0	0	157	4	1	0	0	31	0	0	0	0	0	339
7:30 AM	83	117	0	0	0	210	10	1	1	0	56	0	0	0	0	0	478
7:45 AM	42	204	0	0	0	241	9	0	2	0	68	0	0	0	0	0	566
8:00 AM	14	244	0	0	0	245	4	0	3	0	31	0	0	0	0	0	541
8:15 AM	12	159	0	0	0	240	6	2	0	0	18	0	0	0	0	0	437
8:30 AM	7	108	0	0	0	202	3	0	0	0	10	0	0	0	0	0	330
8:45 AM	9	66	0	0	0	144	1	0	0	0	12	0	0	0	0	0	232
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	215	1083	0	1	0	1577	39	4	7	0	238	0	0	0	0	0	3164
APPROACH %'s :	16.55%	83.37%	0.00%	0.08%	0.00%	97.35%	2.41%	0.25%	2.86%	0.00%	97.14%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	151	724	0	0	0	936	29	3	6	0	173	0	0	0	0	0	2022
PEAK HR FACTOR :	0.455	0.742	0.000	0.000	0.000	0.955	0.725	0.375	0.500	0.000	0.636	0.000	0.000	0.000	0.000	0.000	0.893
	0.848				0.968				0.639								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	190	0	0	0	208	4	0	0	0	29	0	0	0	0	0	446
4:15 PM	25	186	0	0	0	198	6	0	0	0	26	0	0	0	0	0	441
4:30 PM	25	178	0	0	0	194	7	0	1	0	34	0	0	0	0	0	439
4:45 PM	37	193	0	0	0	189	4	0	0	0	26	0	0	0	0	0	449
5:00 PM	29	213	0	0	0	175	1	0	1	0	40	1	0	0	0	0	460
5:15 PM	28	207	0	1	0	189	4	0	1	0	23	0	0	0	0	0	453
5:30 PM	17	192	0	4	0	193	2	0	0	0	27	0	0	0	0	0	435
5:45 PM	23	158	0	1	0	153	0	0	0	0	27	0	0	0	0	0	362
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	199	1517	0	6	0	1499	28	0	3	0	232	1	0	0	0	0	3485
APPROACH %'s :	11.56%	88.10%	0.00%	0.35%	0.00%	98.17%	1.83%	0.00%	1.27%	0.00%	98.31%	0.42%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	119	791	0	1	0	747	16	0	3	0	123	1	0	0	0	0	1801
PEAK HR FACTOR :	0.804	0.928	0.000	0.250	0.000	0.963	0.571	0.000	0.750	0.000	0.769	0.250	0.000	0.000	0.000	0.000	0.979
	0.941				0.949				0.756								

Prepared by National Data & Surveying Services

Rose Ave & Stroube St

Peak Hour Turning Movement Count

ID: 22-050004-004
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	29	936	0	3	733	AM
NOON	0	0	0	0	0	NOON
PM	16	747	0	0	794	PM

EASTBOUND (Stroube St)

AM	NOON	PM	
180	0	136	
0	0	1	0
6	0	3	0
0	0	0	1
173	0	123	0

WESTBOUND (Stroube St)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

NORTHBOUND (Rose Ave)

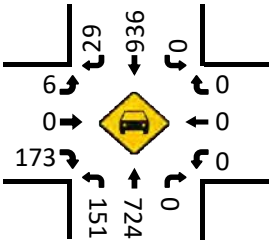
PM	871	1	119	791	0	PM
NOON	0	0	0	0	0	NOON
AM	1109	0	151	724	0	AM

CONTROL

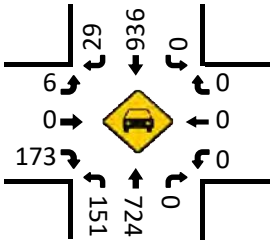
1-Way Stop(EB)

TEV	2022 AM	0 NOON	1801 PM
PHF	0.89		0.98

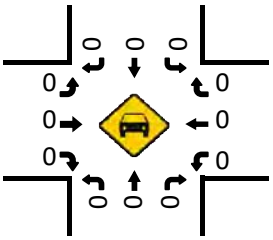
Totals (AM)



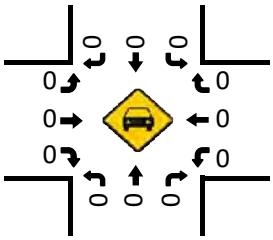
Total (AM)



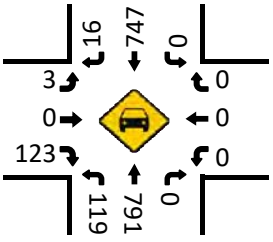
Totals (NOON)



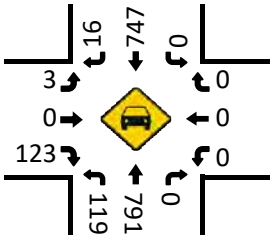
Total (NOON)



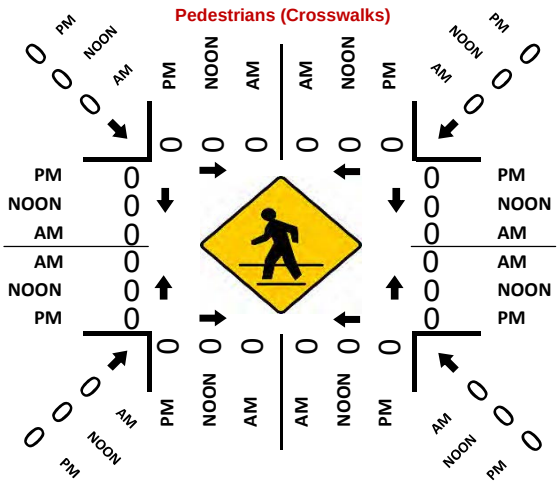
Totals (PM)



Total (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Rose Ave & Auto Center Dr
City: Oxnard
Control: Signalized

Project ID: 22-050004-005
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Rose Ave				Rose Ave				Auto Center Dr				Auto Center Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	2	0	1	2	0	0	1	1	1	0	2.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	20	74	57	0	8	139	0	0	1	8	19	0	13	5	12	0	356
7:15 AM	27	132	73	0	22	164	1	0	3	8	35	0	29	4	18	0	516
7:30 AM	20	170	80	0	28	235	8	0	4	7	32	0	36	2	26	0	648
7:45 AM	35	218	112	0	35	263	10	0	6	12	50	0	32	4	23	0	800
8:00 AM	32	221	109	0	37	213	10	0	19	16	27	0	48	13	16	0	761
8:15 AM	25	147	88	0	28	220	9	0	10	22	29	0	49	12	15	0	654
8:30 AM	29	95	117	1	40	181	8	0	3	24	42	0	66	15	16	0	637
8:45 AM	37	63	104	0	25	127	2	0	3	13	34	0	70	12	11	0	501
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	225	1120	740	1	223	1542	48	0	49	110	268	0	343	67	137	0	4873
APPROACH %'s :	10.79%	53.69%	35.47%	0.05%	12.30%	85.05%	2.65%	0.00%	11.48%	25.76%	62.76%	0.00%	62.71%	12.25%	25.05%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	112	756	389	0	128	931	37	0	39	57	138	0	165	31	80	0	2863
PEAK HR FACTOR :	0.800	0.855	0.868	0.000	0.865	0.885	0.925	0.000	0.513	0.648	0.690	0.000	0.842	0.596	0.769	0.000	0.895
	0.861				0.890				0.860				0.896				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	2	0	1	2	0	0	1	1	1	0	2.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	56	152	136	0	44	177	12	0	4	29	31	0	196	33	44	0	914
4:15 PM	55	172	117	0	43	168	12	0	5	25	39	0	152	33	34	0	855
4:30 PM	43	176	155	0	42	181	10	0	1	21	49	0	173	29	38	0	918
4:45 PM	46	172	131	0	31	175	3	0	2	14	37	0	167	49	47	0	874
5:00 PM	42	188	142	0	39	175	3	0	1	28	49	0	193	29	51	0	940
5:15 PM	55	195	108	0	36	182	1	0	2	22	37	0	157	34	42	0	871
5:30 PM	51	171	133	0	31	172	8	0	4	25	39	0	172	36	40	0	882
5:45 PM	47	146	113	0	36	154	0	0	1	17	40	0	153	32	34	0	773
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	395	1372	1035	0	302	1384	49	0	20	181	321	0	1363	275	330	0	7027
APPROACH %'s :	14.10%	48.97%	36.94%	0.00%	17.41%	79.77%	2.82%	0.00%	3.83%	34.67%	61.49%	0.00%	69.26%	13.97%	16.77%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	186	731	536	0	148	713	17	0	6	85	172	0	690	141	178	0	3603
PEAK HR FACTOR :	0.845	0.937	0.865	0.000	0.881	0.979	0.425	0.000	0.750	0.759	0.878	0.000	0.894	0.719	0.873	0.000	0.958
	0.971				0.942				0.843				0.924				

Prepared by National Data & Surveying Services

Rose Ave & Auto Center Dr

Peak Hour Turning Movement Count

ID: 22-050004-005
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Rose Ave)

AM	37	931	128	0	875	AM
NOON	0	0	0	0	0	NOON
PM	17	713	148	0	915	PM

EASTBOUND (Auto Center Dr)

AM	NOON	PM		
180	0	344		
0	0	0	0	
39	0	6	1	
57	0	85	1	
138	0	172	1	
AM	NOON	PM		

WESTBOUND (Auto Center Dr)

PM	NOON	AM		
178	0	80	1	
141	0	31	0.5	
690	0	165	2.5	
0	0	0	0	
769	0	574		
PM	NOON	AM		

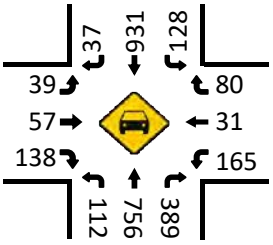
NORTHBOUND (Rose Ave)

PM	1575	0	186	731	536	PM
NOON	0	0	0	0	0	NOON
AM	1234	0	112	756	389	AM

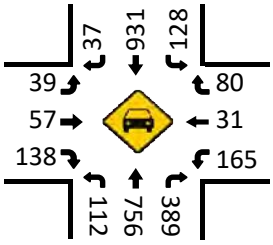
	0	1	2	2

CONTROL			
Signalized			
TEV	2863 AM	0 NOON	3603 PM
PHF	0.89		0.96

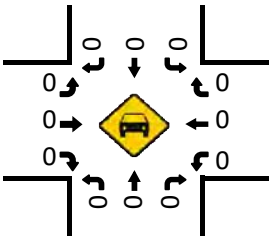
Totals (AM)



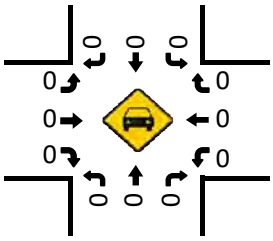
Total (AM)



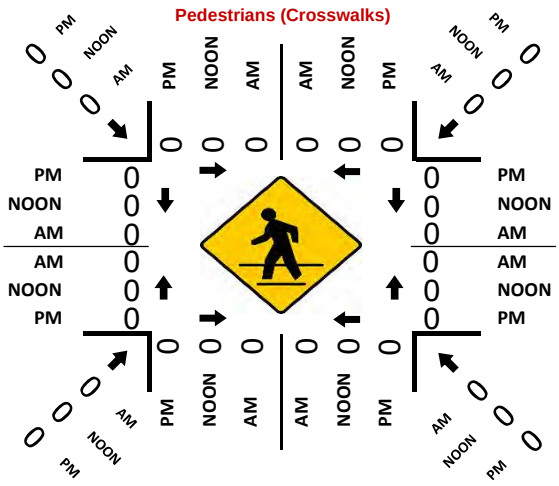
Totals (NOON)



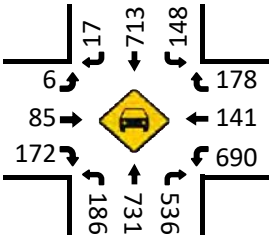
Total (NOON)



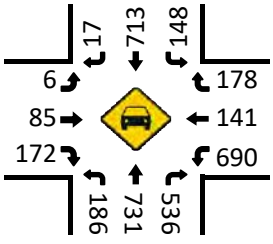
Pedestrians (Crosswalks)



Totals (PM)



Total (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Collins Dr & Auto Center Dr
City: Oxnard
Control: 1-Way Stop(SB)

Project ID: 22-050004-006
Date: 1/26/2022

Data - Totals

NS/EW Streets:	Collins Dr				Collins Dr				Auto Center Dr				Auto Center Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	6	0	0	0	2	50	0	1	0	28	5	1	93
7:15 AM	0	0	0	0	5	0	1	0	0	69	0	1	0	46	13	2	137
7:30 AM	0	0	0	0	4	0	1	0	7	83	0	0	0	68	12	2	177
7:45 AM	0	0	0	0	8	0	4	0	6	102	0	5	0	58	30	4	217
8:00 AM	0	0	0	0	6	0	1	0	8	99	0	0	0	67	26	5	212
8:15 AM	0	0	0	0	9	0	1	0	4	77	0	4	0	65	19	7	186
8:30 AM	0	0	0	0	5	0	3	0	9	111	0	8	0	74	9	3	222
8:45 AM	0	0	0	0	7	0	5	0	8	75	0	4	0	63	11	4	177
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	50	0	16	0	44	666	0	23	0	469	125	28	1421
APPROACH %'s :					75.76%	0.00%	24.24%	0.00%	6.00%	90.86%	0.00%	3.14%	0.00%	75.40%	20.10%	4.50%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	28	0	9	0	27	389	0	17	0	264	84	19	837
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.778	0.000	0.563	0.000	0.750	0.876	0.000	0.531	0.000	0.892	0.700	0.679	0.943
					0.771				0.846				0.936				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	14	0	1	0	3	129	0	6	0	179	39	4	375
4:15 PM	0	0	0	0	16	0	7	0	5	146	0	2	0	170	36	6	388
4:30 PM	0	0	0	0	7	0	2	0	11	133	0	9	0	141	26	4	333
4:45 PM	0	0	0	0	7	0	7	0	8	124	0	7	0	178	35	4	370
5:00 PM	0	0	0	0	13	0	8	1	5	127	0	18	0	168	30	13	383
5:15 PM	0	0	0	0	12	0	15	0	3	127	0	12	0	148	27	9	353
5:30 PM	0	0	0	0	13	0	4	0	1	126	0	10	0	162	25	3	344
5:45 PM	0	0	0	0	8	0	6	0	2	118	0	8	0	136	30	7	315
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	90	0	50	1	38	1030	0	72	0	1282	248	50	2861
APPROACH %'s :					63.83%	0.00%	35.46%	0.71%	3.33%	90.35%	0.00%	6.32%	0.00%	81.14%	15.70%	3.16%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	43	0	24	1	29	530	0	36	0	657	127	27	1474
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.672	0.000	0.750	0.250	0.659	0.908	0.000	0.500	0.000	0.923	0.882	0.519	0.950
					0.739				0.972				0.934				

Prepared by National Data & Surveying Services

Collins Dr & Auto Center Dr

Peak Hour Turning Movement Count

ID: 22-050004-006
City: Oxnard

Day: Wednesday
Date: 1/26/2022

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	7:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Collins Dr)

AM	9	0	28	0	111	AM
NOON	0	0	0	0	0	NOON
PM	24	0	43	1	157	PM

EASTBOUND (Auto Center Dr)

AM	NOON	PM		
290	0	717		
17	0	36	0	
27	0	29	1	
389	0	530	2	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Auto Center Dr)

PM	NOON	AM		
127	0	84	0	
657	0	264	2	
0	0	0	1	
27	0	19	0	
600	0	436		
PM	NOON	AM		

NORTHBOUND (Collins Dr)

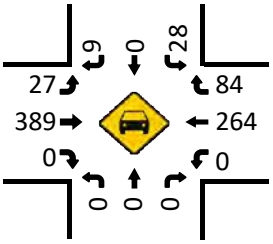
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

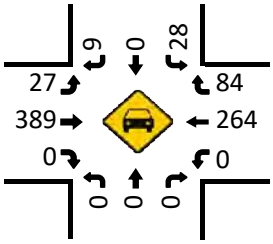
1-Way Stop(SB)

	AM	NOON	PM
TEV	837	0	1474
PHF	0.94		0.95

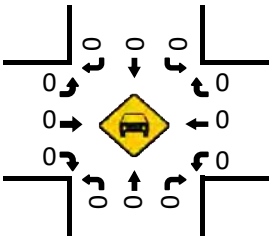
Totals (AM)



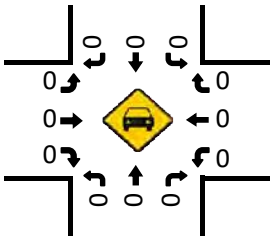
Total (AM)



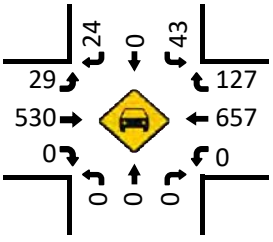
Totals (NOON)



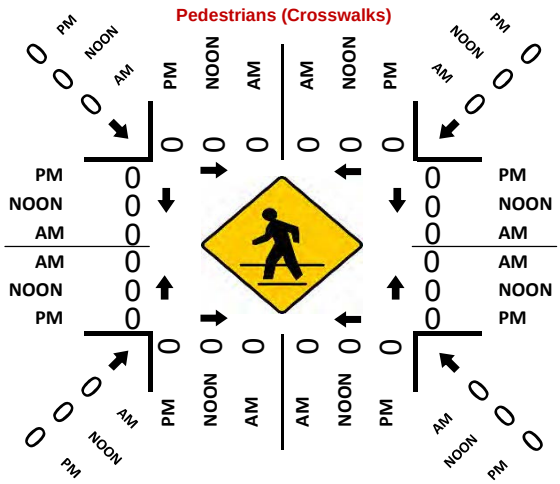
Total (NOON)



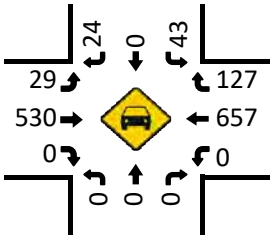
Totals (PM)



Pedestrians (Crosswalks)



Total (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Santa Clara Ave & Ventura Blvd
City: Oxnard
Control: Signalized

Project ID: 22-050013-003
Date: 3/1/2022

Data - Totals

NS/EW Streets:	Santa Clara Ave				Santa Clara Ave				Ventura Blvd				Ventura Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	1	3	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	93	13	0	8	113	0	0	0	0	0	0	24	0	6	0	257
7:15 AM	0	132	16	0	5	137	0	0	0	0	0	0	28	0	8	0	326
7:30 AM	0	125	23	0	3	131	0	0	0	0	0	0	55	0	4	0	341
7:45 AM	0	174	23	0	12	183	0	0	0	0	0	0	59	0	10	0	461
8:00 AM	0	184	31	0	7	151	0	0	0	0	0	0	36	0	9	0	418
8:15 AM	0	107	26	0	8	182	0	0	0	0	0	0	25	0	6	0	354
8:30 AM	0	93	31	0	10	142	0	0	0	0	0	0	25	0	7	0	308
8:45 AM	0	81	19	0	8	152	0	0	0	0	0	0	22	0	7	0	289
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	989	182	0	61	1191	0	0	0	0	0	0	274	0	57	0	2754
APPROACH %'s :	0.00%	84.46%	15.54%	0.00%	4.87%	95.13%	0.00%	0.00%					82.78%	0.00%	17.22%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	590	103	0	30	647	0	0	0	0	0	0	175	0	29	0	1574
PEAK HR FACTOR :	0.000	0.802	0.831	0.000	0.625	0.884	0.000	0.000	0.000	0.000	0.000	0.000	0.742	0.000	0.725	0.000	0.854
		0.806				0.868								0.739			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	1	3	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	157	47	0	6	176	0	0	0	0	0	0	41	0	10	0	437
4:15 PM	0	159	34	0	7	207	0	0	0	0	0	0	50	0	3	0	460
4:30 PM	0	159	49	0	6	191	0	0	0	0	0	0	44	0	16	0	465
4:45 PM	0	150	45	0	9	143	0	0	0	0	0	0	42	0	18	0	407
5:00 PM	0	171	38	0	10	170	0	0	0	0	0	0	57	0	15	0	461
5:15 PM	0	157	48	0	7	146	0	0	0	0	0	0	42	0	17	0	417
5:30 PM	0	156	38	0	3	158	0	0	0	0	0	0	41	0	5	0	401
5:45 PM	0	126	33	0	8	166	0	0	0	0	0	0	49	0	10	0	392
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1235	332	0	56	1357	0	0	0	0	0	0	366	0	94	0	3440
APPROACH %'s :	0.00%	78.81%	21.19%	0.00%	3.96%	96.04%	0.00%	0.00%					79.57%	0.00%	20.43%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	639	166	0	32	711	0	0	0	0	0	0	193	0	52	0	1793
PEAK HR FACTOR :	0.000	0.934	0.847	0.000	0.800	0.859	0.000	0.000	0.000	0.000	0.000	0.000	0.846	0.000	0.722	0.000	0.964
		0.963				0.868								0.851			

Prepared by National Data & Surveying Services

Santa Clara Ave & Ventura Blvd

Peak Hour Turning Movement Count

ID: 22-050013-003
City: Oxnard

Day: Tuesday
Date: 3/1/2022

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:15 PM - 05:15 PM

COUNT PERIODS

AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM

SOUTHBOUND (Santa Clara Ave)

AM	0	647	30	0	619	AM
NOON	0	0	0	0	0	NOON
PM	0	711	32	0	691	PM

EASTBOUND (Ventura Blvd)

AM	NOON	PM	
0	0	0	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
0	0	0	↴ 0
AM	NOON	PM	

0 3 1 0

CONTROL

Signalized

TEV	1574 AM	0 NOON	1793 PM
PHF	0.85		0.96

WESTBOUND (Ventura Blvd)

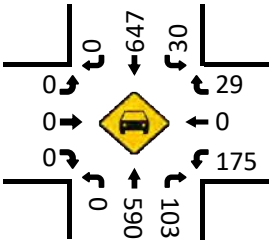
PM	NOON	AM	
52	0	29	1 ↰
0	0	0	0 ←
193	0	175	1 ↩
0	0	0	0 ↷
198	0	133	⇨
PM	NOON	AM	

0 0 2 1

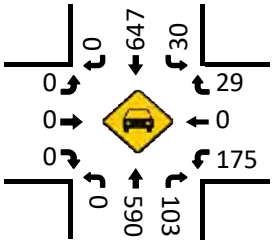
NORTHBOUND (Santa Clara Ave)

PM	904	0	0	639	166	PM
NOON	0	0	0	0	0	NOON
AM	822	0	0	590	103	AM

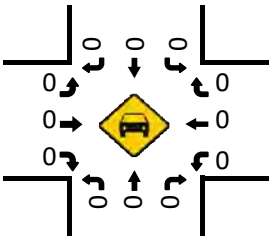
Totals (AM)



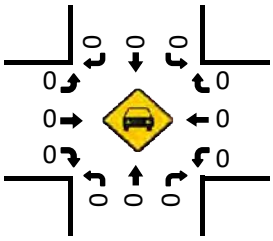
Totals (AM)



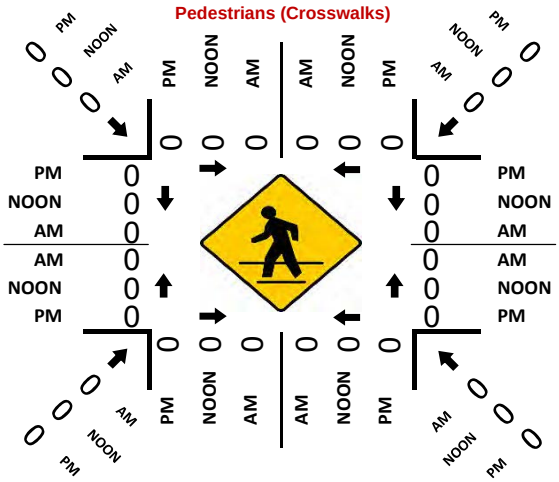
Totals (NOON)



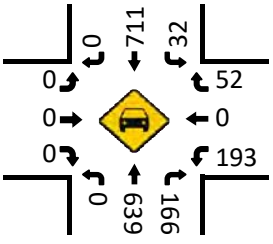
Totals (NOON)



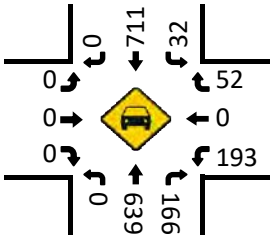
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



Appendix 5

Appendix 1 – Ventura County Transportation Commission (VCTC) CMP level of service criteria

Ventura County Initial Study Assessment Guidelines

2. Typical Content of Traffic Impact Studies (TIS):
3.c.2. The LOS for signalized intersections shall be based on the Intersection Capacity Utilization (ICU) method and the service flow rates adopted by the Ventura County Transportation Commission for the Congestion Management Plan.

Exhibit 14
Guidance for Calculating Level of Service (LOS)

Level of Service (LOS) for signalized intersections on the CMP network shall be calculated using the Intersection Capacity Utilization (ICU) method. LOS on freeway and select road segments will be measured using methods described in the Highway Capacity Manual.

The ICU method includes a number of variables which, depending on the value assigned to each, can have a dramatic effect on LOS. For CMP monitoring purposes, the following guidelines are to be used to calculate LOS using the ICU method:

Phasing/split phasing: Shared left/through lanes will be treated as split phased.

Right-turn overlap: The overlapping left-turn volume will be subtracted from the right-turn volume and then compared to the opposing through volume to determine the critical move.

Right-turn on Red: An average of 40% right-turns on red should be used for LOS calculations. If a separate right-turn lane is provided, the through lane should be used as the critical movement even if the right-turn volume is higher. Where a right-turn overlap phase is provided, the overlapping left-turn volume should be subtracted from the right-turn volume and then the remaining right-turn volume would be compared to the through volume per lane to determine the critical movement.

Lane Distribution: It should be assumed that traffic is evenly distributed among all the lanes.

Split Phasing: When an intersection approach has a shared left/through lane, it should be treated as having split phasing for the purpose of calculating LOS.

LOS threshold: LOS will be calculated to 2 decimal points.

Intersection proximity: Each intersection will be analyzed separately.

Multiple left-turn lanes: Assume uniform lane distribution.

Saturation flow rate: 1,850 vehicles per lane per hour with an adjustment factor of 14%-15% (the adjustment factor represents a combination of start-up delay, unequal lane distribution, and lost time during clearance. Application of this factor effectively reduces the saturation flow rate to approximately 1,600 vehicles per lane per hour).

ICU	LOS
0 to 60%	A
>60% to 70%	B
>70% to 80%	C
>80% to 90%	D
>90% to 100%	E
>100% to 110%	F
>110% to 120%	G
>120%	H

Appendix 6
Intersection Level of Service Calculation Worksheets

Existing AM and PM Peak Hour

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Existing Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound				Westbound		
	L	T	R	L	T	R	L		T	R	L	T	R
AM Peak	337	214	61	123	269	60	13	**0**	494	238	24	348	68
Project Trips	0	0	3	0	0	0	0		0	0	0	0	0
GEOMETRY	L	T TR		L	T TR		L		T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Existing	**V/C Ratio** Existing
NBL	1.0	1,600	337	0.21 *
NBT	2.0	3,200	214	0.09
NBR	0.0	0	61	0.00
SBL	1.0	1,600	123	0.08
SBT	2.0	3,200	269	0.10 *
SBR	0.0	0	60	0.00
EBL	1.0	1,600	13	0.01
EBT	1.0	1,600	494	0.31 *
EBR	1.0	1,600	238	0.15
WBL	1.0	1,600	24	0.02 *
WBT	1.0	1,600	348	0.26
WBR	0.0	0	68	0.00
N/S Critical Movements				0.31
E/W Critical Movements				0.33
Clearance Interval				0.00
ICU				0.64 0.00
Level of Service (LOS)				B A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Existing Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound				Westbound		
	L	T	R	L	T	R	L		T	R	L	T	R
AM Peak	150	295	36	63	256	21	4	**0**	286	187	58	421	173
Project Trips	0	0	0	0	0	0	0		0	0	0	0	0
GEOMETRY	L	T TR		L	T TR		L		T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Existing	**V/C Ratio** Existing
NBL	1.0	1,600	150	0.09 *
NBT	2.0	3,200	295	0.10
NBR	0.0	0	36	0.00
SBL	1.0	1,600	63	0.04
SBT	2.0	3,200	256	0.09 *
SBR	0.0	0	21	0.00
EBL	1.0	1,600	4	0.00 *
EBT	1.0	1,600	286	0.18
EBR	1.0	1,600	187	0.12
WBL	1.0	1,600	58	0.04
WBT	1.0	1,600	421	0.37 *
WBR	0.0	0	173	0.00
N/S Critical Movements				0.18
E/W Critical Movements				0.37
Clearance Interval				0.00
ICU				0.55 0.00
Level of Service (LOS)				A A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Existing Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound				Westbound		
	L	T	R	L	T	R	L		T	R	L	T	R
AM Peak	72	531	2	1	495	22	98	**0**	0	167	0	0	0
Project Trips													
GEOMETRY	L	T	TR	L	TT	R	LTR				LTR		

Move-ment	Lanes Lane	Capacity	Volume Existing	V/C Ratio Existing	
			Level of Service Calculations		
NBL	1.0	1,600	72	0.05 *	
NBT	2.0	3,200	531	0.17	
NBR	0.0	0	2	0.00	
SBL	1.0	1,600	1	0.00	
SBT	2.0	3,200	495	0.15 *	
SBR	1.0	1,600	22	0.01	
EBL	0.0	0	98	0.00	
EBT	1.0	1,600	0	0.17 *	
EBR	0.0	0	167	0.00	
WBL	0.0	0	0	0.00 *	
WBT	1.0	1,600	0	0.00	
WBR	0.0	0	0	0.00	
N/S Critical Movements				0.20	0.00
E/W Critical Movements				0.17	0.00
Clearance Interval				0.00	0.00
ICU				0.37	0.00
Level of Service (LOS)				A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Existing Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound				Westbound		
	L	T	R	L	T	R	L		T	R	L	T	R
AM Peak	137	477	0	0	487	43	20	**0**	0	101	0	0	0
Project Trips													
GEOMETRY	L	T	TR	L	TT	R	LTR				LTR		

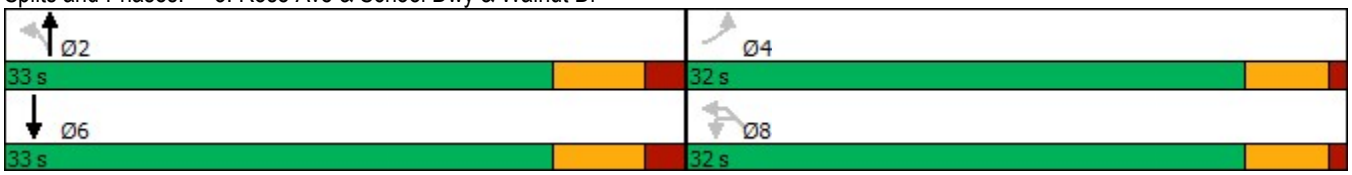
	Level of Service Calculations				
Move-ment	**Lanes** Lane	Capacity	**Volume** Existing	**V/C Ratio** Existing	
NBL	1.0	1,600	137	0.09	*
NBT	2.0	3,200	477	0.15	
NBR	0.0	0	0	0.00	
SBL	1.0	1,600	0	0.00	
SBT	2.0	3,200	487	0.15	*
SBR	1.0	1,600	43	0.03	
EBL	0.0	0	20	0.00	
EBT	1.0	1,600	0	0.08	*
EBR	0.0	0	101	0.00	
WBL	0.0	0	0	0.00	*
WBT	1.0	1,600	0	0.00	
WBR	0.0	0	0	0.00	
N/S Critical Movements				0.24	
E/W Critical Movements				0.08	
Clearance Interval				0.00	
ICU				0.32	0.00
Level of Service (LOS)				A	A

Notes: V/C - Volume to Capacity Ratio

Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	22	0	86	37	535	0	0	695	17	133	22	33
Future Volume (vph)	22	0	86	37	535	0	0	695	17	133	22	33
Satd. Flow (prot)	1647	0	0	1770	3539	0	0	3529	0	0	1745	0
Flt Permitted	0.913			0.353							0.960	
Satd. Flow (perm)	1519	0	0	658	3539	0	0	3529	0	0	1745	0
Satd. Flow (RTOR)	93							4			59	
Lane Group Flow (vph)	117	0	0	40	582	0	0	773	0	0	285	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	12.3			27.7	27.7			27.7			12.3	
Actuated g/C Ratio	0.24			0.54	0.54			0.54			0.24	
v/c Ratio	0.27			0.11	0.31			0.41			0.62	
Control Delay	7.3			8.2	7.8			8.4			19.5	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	7.3			8.2	7.8			8.4			19.5	
LOS	A			A	A			A			B	
Approach Delay	7.3				7.8			8.4			19.5	
Approach LOS	A				A			A			B	
Queue Length 50th (ft)	5			5	43			62			58	
Queue Length 95th (ft)	35			22	88			121			73	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	843			353	1901			1897			946	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.14			0.11	0.31			0.41			0.30	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 51.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

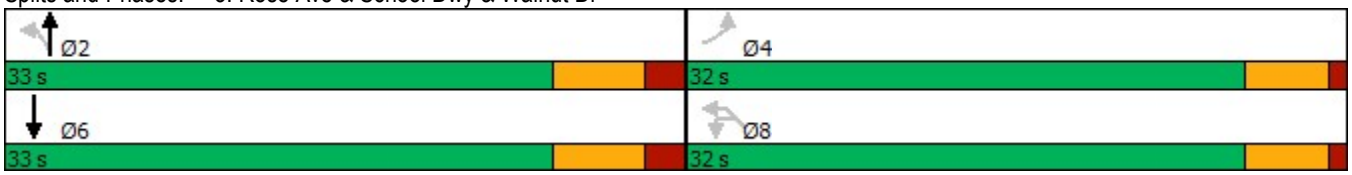
Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	6	0	54	63	700	5	0	590	9	20	2	5
Future Volume (vph)	6	0	54	63	700	5	0	590	9	20	2	5
Satd. Flow (prot)	1629	0	0	1770	3536	0	0	3532	0	0	1744	0
Flt Permitted	0.956			0.404							0.961	
Satd. Flow (perm)	1565	0	0	753	3536	0	0	3532	0	0	1744	0
Satd. Flow (RTOR)	59				1			3			59	
Lane Group Flow (vph)	66	0	0	68	766	0	0	651	0	0	41	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	9.1			38.0	38.0			38.0			9.1	
Actuated g/C Ratio	0.18			0.76	0.76			0.76			0.18	
v/c Ratio	0.20			0.12	0.29			0.24			0.11	
Control Delay	8.4			5.1	4.3			4.1			5.0	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.4			5.1	4.3			4.1			5.0	
LOS	A			A	A			A			A	
Approach Delay	8.4				4.4			4.1			5.0	
Approach LOS	A				A			A			A	
Queue Length 50th (ft)	2			8	52			42			0	
Queue Length 95th (ft)	25			22	78			65			7	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	875			571	2684			2681			972	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.08			0.12	0.29			0.24			0.04	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 50.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 4.4	Intersection LOS: A
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



HCS7 Two-Way Stop-Control Report

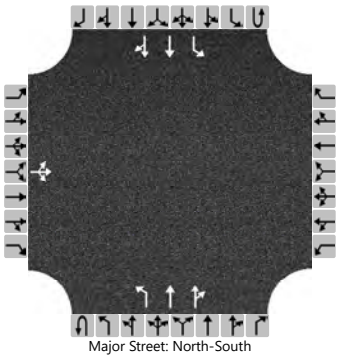
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		5	3	38					0	33	569	187	0	48	855	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			46							33				48		
Capacity, c (veh/h)			298							767				844		
v/c Ratio			0.15							0.04				0.06		
95% Queue Length, Q_{95} (veh)			0.5							0.1				0.2		
Control Delay (s/veh)			19.3							9.9				9.5		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)		19.3								0.4				0.5		
Approach LOS		C														

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HCS7 Two-Way Stop-Control Report

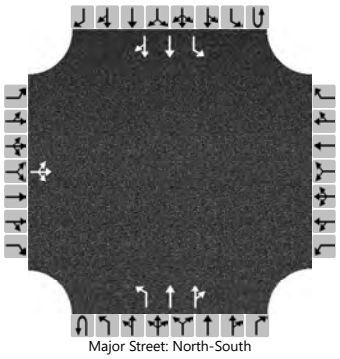
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		2	0	30					0	55	756	17	0	3	649	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			32							55				3		
Capacity, c (veh/h)			542							918				832		
v/c Ratio			0.06							0.06				0.00		
95% Queue Length, Q_{95} (veh)			0.2							0.2				0.0		
Control Delay (s/veh)			12.1							9.2				9.3		
Level of Service (LOS)			B							A				A		
Approach Delay (s/veh)		12.1								0.6				0.0		
Approach LOS		B														

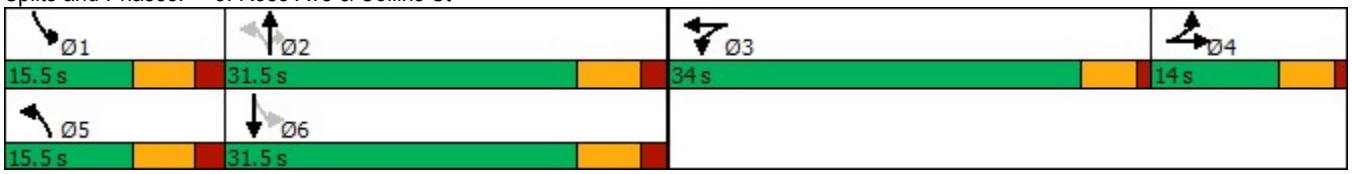
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	11	88	9	9	52	31	670	32	30	857	19
Future Volume (vph)	73	11	88	9	9	52	31	670	32	30	857	19
Satd. Flow (prot)	0	1698	0	0	1666	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.979			0.994		0.187			0.302		
Satd. Flow (perm)	0	1698	0	0	1666	0	348	3539	1583	563	3529	0
Satd. Flow (RTOR)		44			57				155		2	
Lane Group Flow (vph)	0	187	0	0	77	0	34	728	35	33	953	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.2		31.5	28.4	28.4	31.5	28.4	
Actuated g/C Ratio		0.13			0.18		0.46	0.42	0.42	0.46	0.42	
v/c Ratio		0.70			0.22		0.10	0.49	0.05	0.08	0.65	
Control Delay		40.1			13.9		10.7	18.9	0.1	10.5	21.8	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		40.1			13.9		10.7	18.9	0.1	10.5	21.8	
LOS		D			B		B	B	A	B	C	
Approach Delay		40.1			13.9			17.7			21.4	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)		51			6		8	105	0	7	150	
Queue Length 95th (ft)		#175			45		21	215	0	20	#325	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		266			754		352	1479	752	423	1476	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.70			0.10		0.10	0.49	0.05	0.08	0.65	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 67.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 21.4 — Intersection LOS: C
Intersection Capacity Utilization 52.0% — ICU Level of Service A
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

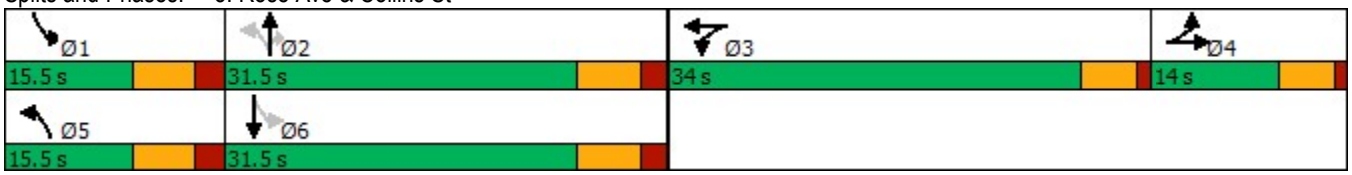
Splits and Phases: 5: Rose Ave & Collins St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	4	4	28	21	98	75	730	12	26	648	15
Future Volume (vph)	8	4	4	28	21	98	75	730	12	26	648	15
Satd. Flow (prot)	0	1756	0	0	1680	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.974			0.991		0.280			0.331		
Satd. Flow (perm)	0	1756	0	0	1680	0	522	3539	1583	617	3529	0
Satd. Flow (RTOR)		4			107				155		2	
Lane Group Flow (vph)	0	17	0	0	160	0	82	793	13	28	720	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.2		38.2	34.8	34.8	35.5	28.4	
Actuated g/C Ratio		0.14			0.18		0.57	0.52	0.52	0.53	0.42	
v/c Ratio		0.07			0.41		0.18	0.43	0.01	0.06	0.48	
Control Delay		25.2			14.0		7.9	13.9	0.0	7.4	17.5	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		25.2			14.0		7.9	13.9	0.0	7.4	17.5	
LOS		C			B		A	B	A	A	B	
Approach Delay		25.3			14.0			13.2			17.1	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		5			18		10	65	0	4	108	
Queue Length 95th (ft)		24			76		41	242	0	18	215	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		241			793		467	1842	898	483	1496	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.07			0.20		0.18	0.43	0.01	0.06	0.48	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 66.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 52.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Rose Ave & Collins St



HCS7 Two-Way Stop-Control Report

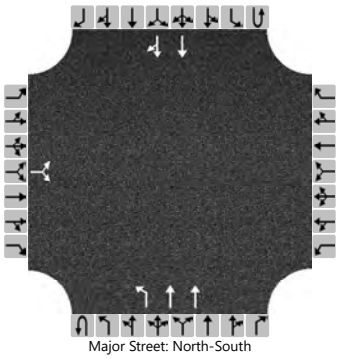
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		6		173					0	151	724				936	29
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			179							151						
Capacity, c (veh/h)			437							703						
v/c Ratio			0.41							0.21						
95% Queue Length, Q_{95} (veh)			2.0							0.8						
Control Delay (s/veh)			18.9							11.5						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		18.9								2.0						
Approach LOS		C														

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HCS7 Two-Way Stop-Control Report

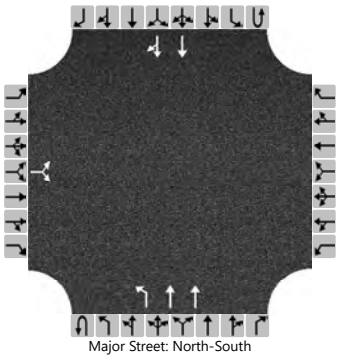
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		4		123					0	119	791				747	16
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			127							119						
Capacity, c (veh/h)			539							839						
v/c Ratio			0.24							0.14						
95% Queue Length, Q_{95} (veh)			0.9							0.5						
Control Delay (s/veh)			13.7							10.0						
Level of Service (LOS)			B							B						
Approach Delay (s/veh)		13.7								1.3						
Approach LOS		B														

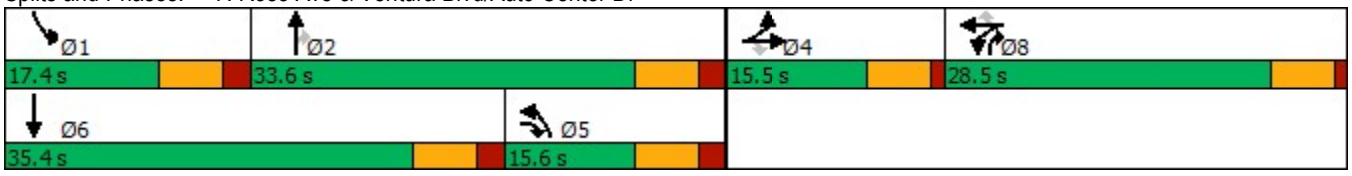
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	138	165	31	80	112	756	389	128	931	37
Future Volume (vph)	39	57	138	165	31	80	112	756	389	128	931	37
Satd. Flow (prot)	1770	1863	1583	3221	1651	1583	1770	3539	2787	1770	3518	0
Flt Permitted	0.950			0.950	0.974		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1651	1583	1770	3539	2787	1770	3518	0
Satd. Flow (RTOR)			178			253			423		4	
Lane Group Flow (vph)	42	62	150	141	72	87	122	822	423	139	1052	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	15.6	28.5	28.5	28.5	15.6	33.6	28.5	17.4	35.4	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	21.1	12.2	12.2	12.2	9.2	28.0	42.5	10.4	29.2	
Actuated g/C Ratio	0.12	0.12	0.26	0.15	0.15	0.15	0.11	0.34	0.52	0.13	0.36	
v/c Ratio	0.19	0.27	0.28	0.29	0.29	0.19	0.61	0.67	0.25	0.61	0.83	
Control Delay	37.0	38.2	4.1	33.2	35.1	0.9	51.3	27.7	1.0	48.1	32.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.0	38.2	4.1	33.2	35.1	0.9	51.3	27.7	1.0	48.1	32.3	
LOS	D	D	A	C	D	A	D	C	A	D	C	
Approach Delay		17.9			24.3			21.5			34.1	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	20	30	0	37	38	0	62	194	0	69	262	
Queue Length 95th (ft)	53	71	31	64	80	0	#146	290	10	#152	#425	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	220	231	542	922	472	633	200	1218	1982	240	1268	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.27	0.28	0.15	0.15	0.14	0.61	0.67	0.21	0.58	0.83	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 81.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 26.3 — Intersection LOS: C
Intersection Capacity Utilization 60.1% — ICU Level of Service B
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	85	172	690	141	178	186	731	536	148	713	17
Future Volume (vph)	6	85	172	690	141	178	186	731	536	148	713	17
Satd. Flow (prot)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3529	0
Flt Permitted	0.950			0.950	0.976		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3529	0
Satd. Flow (RTOR)			178			253			481		2	
Lane Group Flow (vph)	7	92	187	600	303	193	202	795	583	161	793	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	19.0	28.5	28.5	28.5	19.0	32.4	28.5	18.6	32.0	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	24.1	22.0	22.0	22.0	12.3	26.6	51.0	11.5	25.8	
Actuated g/C Ratio	0.11	0.11	0.27	0.24	0.24	0.24	0.14	0.29	0.56	0.13	0.28	
v/c Ratio	0.04	0.44	0.34	0.77	0.76	0.34	0.85	0.77	0.33	0.72	0.79	
Control Delay	38.8	47.3	6.6	40.2	46.3	3.1	70.7	36.6	1.7	58.7	38.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	38.8	47.3	6.6	40.2	46.3	3.1	70.7	36.6	1.7	58.7	38.0	
LOS	D	D	A	D	D	A	E	D	A	E	D	
Approach Delay		20.5			35.3			28.1			41.5	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	4	53	4	185	186	0	121	236	7	95	236	
Queue Length 95th (ft)	17	103	53	252	#320	23	#246	#313	21	#186	#329	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	197	208	557	826	424	594	246	1038	1810	239	1005	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.04	0.44	0.34	0.73	0.71	0.32	0.82	0.77	0.32	0.67	0.79	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 90.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 32.8 — Intersection LOS: C
Intersection Capacity Utilization 67.8% — ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



HCS7 Two-Way Stop-Control Report

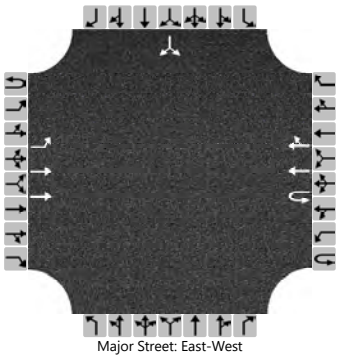
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	2022
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	44	389		19		264	84						28		9
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		44			19										37	
Capacity, c (veh/h)		1200			809										447	
v/c Ratio		0.04			0.02										0.08	
95% Queue Length, Q_{95} (veh)		0.1			0.1										0.3	
Control Delay (s/veh)		8.1			9.6										13.8	
Level of Service (LOS)		A			A										B	
Approach Delay (s/veh)	0.8				0.5								13.8			
Approach LOS													B			

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HCS7 Two-Way Stop-Control Report

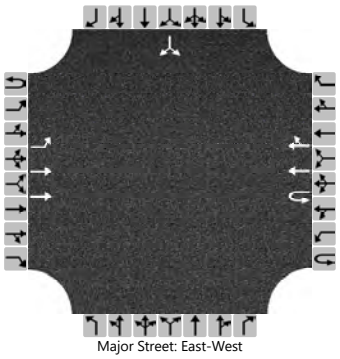
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	2022
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	65	530		27		657	127						43		24
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

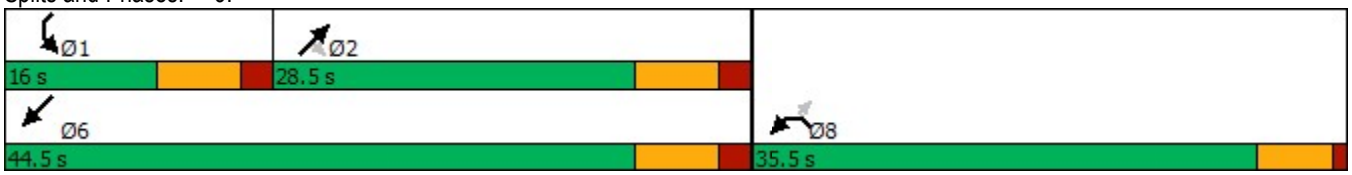
Flow Rate, v (veh/h)		65			27										67	
Capacity, c (veh/h)		824			658										221	
v/c Ratio		0.08			0.04										0.30	
95% Queue Length, Q_{95} (veh)		0.3			0.1										1.3	
Control Delay (s/veh)		9.7			10.7										28.4	
Level of Service (LOS)		A			B										D	
Approach Delay (s/veh)	1.1				0.4								28.4			
Approach LOS													D			

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	175	29	590	103	30	647
Future Volume (vph)	175	29	590	103	30	647
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		32		112		
Lane Group Flow (vph)	190	32	641	112	33	703
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.4	13.4	24.8	24.8	9.2	30.4
Actuated g/C Ratio	0.24	0.24	0.44	0.44	0.16	0.54
v/c Ratio	0.45	0.08	0.41	0.15	0.11	0.26
Control Delay	23.2	8.7	14.1	4.5	24.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	8.7	14.1	4.5	24.0	7.3
LOS	C	A	B	A	C	A
Approach Delay	21.1		12.7			8.0
Approach LOS	C		B			A
Queue Length 50th (ft)	41	0	53	0	7	38
Queue Length 95th (ft)	120	18	160	30	35	66
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	962	875	1553	757	288	3455
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.04	0.41	0.15	0.11	0.20

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			

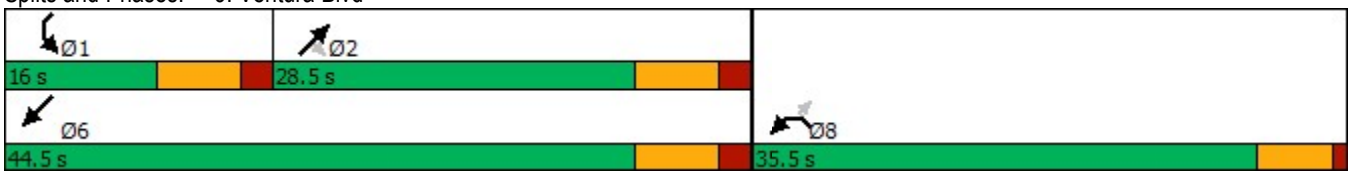
Splits and Phases: 9:



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	193	52	639	166	32	711
Future Volume (vph)	193	52	639	166	32	711
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		57		180		
Lane Group Flow (vph)	210	57	695	180	35	773
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.8	13.8	24.6	24.6	9.2	30.1
Actuated g/C Ratio	0.24	0.24	0.43	0.43	0.16	0.53
v/c Ratio	0.49	0.13	0.45	0.23	0.12	0.29
Control Delay	23.5	7.3	14.8	4.0	24.4	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	7.3	14.8	4.0	24.4	7.7
LOS	C	A	B	A	C	A
Approach Delay	20.0		12.6			8.4
Approach LOS	C		B			A
Queue Length 50th (ft)	46	0	60	0	8	44
Queue Length 95th (ft)	132	24	180	39	37	76
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	959	884	1534	788	287	3446
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.06	0.45	0.23	0.12	0.22

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 47.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Ventura Blvd



Cumulative AM and PM Peak Hour

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Cumulative Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	338	239	62	123	306	60	13	494	240	24	348	68
Project Trips	0	0	0	0	0	0	0	0	0	0	0	0
GEOMETRY	L	T TR		L	T TR		L	T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Cumulative	**V/C Ratio** Cumulative
NBL	1.0	1,600	338	0.21 *
NBT	2.0	3,200	239	0.09
NBR	0.0	0	62	0.00
SBL	1.0	1,600	123	0.08
SBT	2.0	3,200	306	0.11 *
SBR	0.0	0	60	0.00
EBL	1.0	1,600	13	0.01
EBT	1.0	1,600	494	0.31 *
EBR	1.0	1,600	240	0.15
WBL	1.0	1,600	24	0.02 *
WBT	1.0	1,600	348	0.26
WBR	0.0	0	68	0.00
N/S Critical Movements				0.31
E/W Critical Movements				0.33
Clearance Interval				0.00
ICU				0.64 0.00
Level of Service (LOS)				B A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Cumulative Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	150	311	36	63	267	21	4	286	188	58	421	173
Project Trips												
GEOMETRY	L	T	TR	L	T	TR	L	T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Cumulative	**V/C Ratio** Cumulative
NBL	1.0	1,600	150	0.09 *
NBT	2.0	3,200	311	0.11
NBR	0.0	0	36	0.00
SBL	1.0	1,600	63	0.04
SBT	2.0	3,200	267	0.09 *
SBR	0.0	0	21	0.00
EBL	1.0	1,600	4	0.00 *
EBT	1.0	1,600	286	0.18
EBR	1.0	1,600	188	0.12
WBL	1.0	1,600	58	0.04
WBT	1.0	1,600	421	0.37 *
WBR	0.0	0	173	0.00
N/S Critical Movements				0.18
E/W Critical Movements				0.37
Clearance Interval				0.00
ICU				0.55 0.00
Level of Service (LOS)				A A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Cumulative Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak Project Trips	73	558	2	1	534	22	98	0	169	0	0	0
GEOMETRY	L	T	TR	L	TT	R	LTR			LTR		

Movement	Lanes		Volume	V/C Ratio	
	Lane	Capacity	Cumulative	Cumulative	
	Level of Service Calculations				
NBL	1.0	1,600	73	0.05	*
NBT	2.0	3,200	558	0.18	
NBR	0.0	0	2	0.00	
SBL	1.0	1,600	1	0.00	
SBT	2.0	3,200	534	0.17	*
SBR	1.0	1,600	22	0.01	
EBL	0.0	0	98	0.00	
EBT	1.0	1,600	0	0.17	*
EBR	0.0	0	169	0.00	
WBL	0.0	0	0	0.00	*
WBT	1.0	1,600	0	0.00	
WBR	0.0	0	0	0.00	
N/S Critical Movements				0.20	
E/W Critical Movements				0.17	
Clearance Interval				0.00	
ICU				0.37	0.00
Level of Service (LOS)				A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Cumulative Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	137	493	0	0	499	43	20	0	101	0	0	0
Project Trips												
GEOMETRY	L	T	TR	L	TT	R	LTR			LTR		

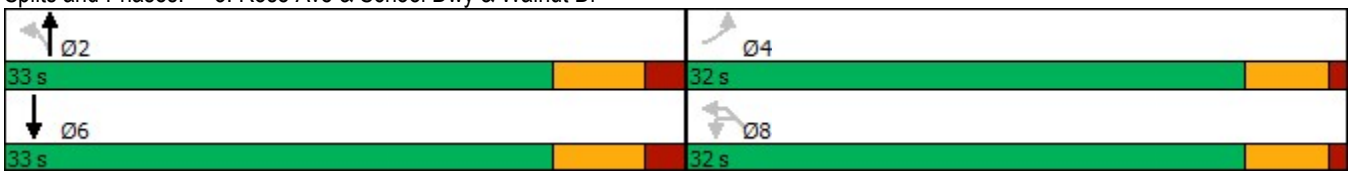
Movement	Lanes		Volume	V/C Ratio	
	Lane	Capacity	Cumulative	Cumulative	
	Level of Service Calculations				
NBL	1.0	1,600	137	0.09	*
NBT	2.0	3,200	493	0.15	
NBR	0.0	0	0	0.00	
SBL	1.0	1,600	0	0.00	
SBT	2.0	3,200	499	0.16	*
SBR	1.0	1,600	43	0.03	
EBL	0.0	0	20	0.00	
EBT	1.0	1,600	0	0.08	*
EBR	0.0	0	101	0.00	
WBL	0.0	0	0	0.00	*
WBT	1.0	1,600	0	0.00	
WBR	0.0	0	0	0.00	
N/S Critical Movements				0.24	
E/W Critical Movements				0.08	
Clearance Interval				0.00	
ICU				0.32	0.00
Level of Service (LOS)				A	A

Notes: V/C - Volume to Capacity Ratio

Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	22	0	88	38	563	0	0	736	17	133	22	33
Future Volume (vph)	22	0	88	38	563	0	0	736	17	133	22	33
Satd. Flow (prot)	1645	0	0	1770	3539	0	0	3529	0	0	1745	0
Flt Permitted	0.915			0.331							0.960	
Satd. Flow (perm)	1520	0	0	617	3539	0	0	3529	0	0	1745	0
Satd. Flow (RTOR)	80							4			59	
Lane Group Flow (vph)	120	0	0	41	612	0	0	818	0	0	285	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	12.3			27.6	27.6			27.6			12.3	
Actuated g/C Ratio	0.24			0.54	0.54			0.54			0.24	
v/c Ratio	0.28			0.12	0.32			0.43			0.62	
Control Delay	8.6			8.4	7.9			8.6			19.5	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.6			8.4	7.9			8.6			19.5	
LOS	A			A	A			A			B	
Approach Delay	8.6				7.9			8.6			19.5	
Approach LOS	A				A			A			B	
Queue Length 50th (ft)	9			5	46			66			58	
Queue Length 95th (ft)	39			22	93			129			73	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	838			331	1900			1896			946	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.14			0.12	0.32			0.43			0.30	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 51.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

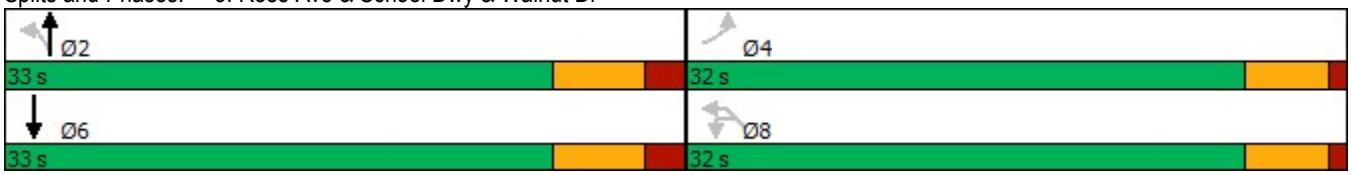
Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	6	0	54	63	716	5	0	602	9	20	2	5
Future Volume (vph)	6	0	54	63	716	5	0	602	9	20	2	5
Satd. Flow (prot)	1629	0	0	1770	3536	0	0	3532	0	0	1744	0
Flt Permitted	0.956			0.399							0.961	
Satd. Flow (perm)	1565	0	0	743	3536	0	0	3532	0	0	1744	0
Satd. Flow (RTOR)	59				1			3			59	
Lane Group Flow (vph)	66	0	0	68	783	0	0	664	0	0	41	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	9.1			38.0	38.0			38.0			9.1	
Actuated g/C Ratio	0.18			0.76	0.76			0.76			0.18	
v/c Ratio	0.20			0.12	0.29			0.25			0.11	
Control Delay	8.4			5.1	4.3			4.1			5.0	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.4			5.1	4.3			4.1			5.0	
LOS	A			A	A			A			A	
Approach Delay	8.4				4.4			4.1			5.0	
Approach LOS	A				A			A			A	
Queue Length 50th (ft)	2			8	53			43			0	
Queue Length 95th (ft)	25			22	81			66			7	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	875			564	2684			2681			972	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.08			0.12	0.29			0.25			0.04	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 50.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 4.5	Intersection LOS: A
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



HCS Two-Way Stop-Control Report

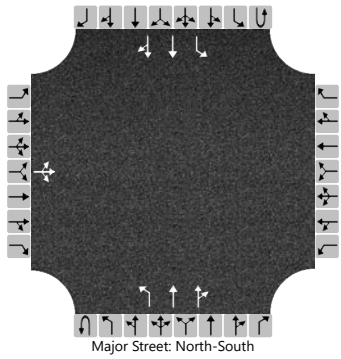
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUMU
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		5	3	38					0	33	598	187	0	48	898	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			46							33				48		
Capacity, c (veh/h)			260							739				823		
v/c Ratio			0.18							0.04				0.06		
95% Queue Length, Q_{95} (veh)			0.6							0.1				0.2		
Control Delay (s/veh)			21.8							10.1				9.6		
Level of Service (LOS)			C							B				A		
Approach Delay (s/veh)		21.8								0.4				0.5		
Approach LOS		C								A				A		

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HCS Two-Way Stop-Control Report

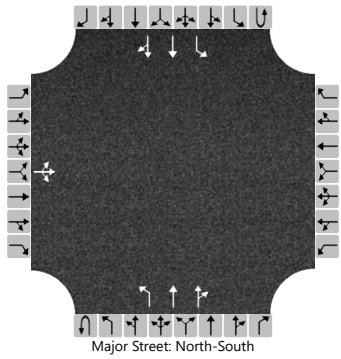
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUMU
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		2	0	30					0	55	772	17	0	3	661	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

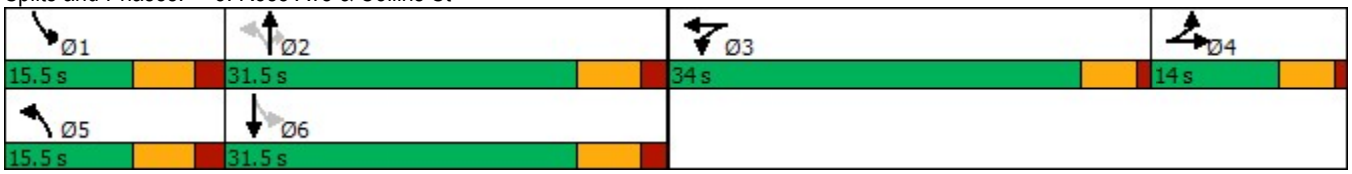
Flow Rate, v (veh/h)			32							55				3		
Capacity, c (veh/h)			530							909				820		
v/c Ratio			0.06							0.06				0.00		
95% Queue Length, Q_{95} (veh)			0.2							0.2				0.0		
Control Delay (s/veh)			12.2							9.2				9.4		
Level of Service (LOS)			B							A				A		
Approach Delay (s/veh)		12.2								0.6				0.0		
Approach LOS		B								A				A		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	11	90	9	9	52	32	699	32	30	900	19
Future Volume (vph)	73	11	90	9	9	52	32	699	32	30	900	19
Satd. Flow (prot)	0	1698	0	0	1666	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.980			0.994		0.166			0.283		
Satd. Flow (perm)	0	1698	0	0	1666	0	309	3539	1583	527	3529	0
Satd. Flow (RTOR)		45			57				155		2	
Lane Group Flow (vph)	0	189	0	0	77	0	35	760	35	33	999	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.2		31.4	28.3	28.3	31.4	28.3	
Actuated g/C Ratio		0.13			0.18		0.46	0.42	0.42	0.46	0.42	
v/c Ratio		0.71			0.22		0.10	0.51	0.05	0.08	0.68	
Control Delay		40.2			13.9		10.8	19.2	0.1	10.5	22.6	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		40.2			13.9		10.8	19.2	0.1	10.5	22.6	
LOS		D			B		B	B	A	B	C	
Approach Delay		40.2			13.9			18.1			22.2	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)		52			6		8	111	0	7	160	
Queue Length 95th (ft)		#177			45		21	226	0	20	#353	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		267			756		340	1477	751	411	1474	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.71			0.10		0.10	0.51	0.05	0.08	0.68	

Intersection Summary		
Cycle Length: 95		
Actuated Cycle Length: 67.8		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.71		
Intersection Signal Delay: 21.9	Intersection LOS: C	
Intersection Capacity Utilization 53.0%	ICU Level of Service A	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

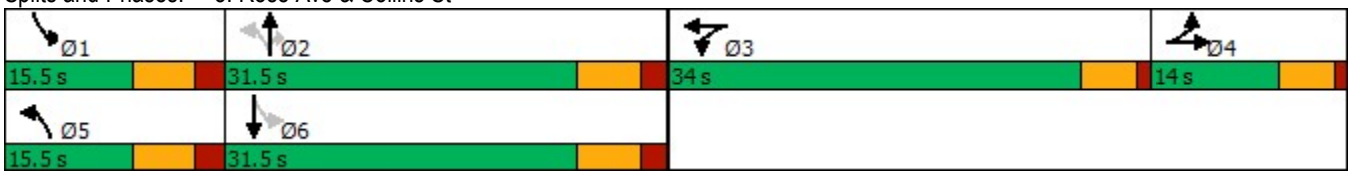
Splits and Phases: 5: Rose Ave & Collins St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	4	76	28	21	98	76	746	12	26	660	15
Future Volume (vph)	8	4	76	28	21	98	76	746	12	26	660	15
Satd. Flow (prot)	0	1637	0	0	1680	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.995			0.991		0.263			0.298		
Satd. Flow (perm)	0	1637	0	0	1680	0	490	3539	1583	555	3529	0
Satd. Flow (RTOR)		83			107				155		2	
Lane Group Flow (vph)	0	96	0	0	160	0	83	811	13	28	733	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.2		38.2	34.7	34.7	35.7	28.7	
Actuated g/C Ratio		0.12			0.16		0.51	0.46	0.46	0.47	0.38	
v/c Ratio		0.36			0.44		0.21	0.50	0.02	0.07	0.54	
Control Delay		14.6			16.2		11.2	18.5	0.0	10.0	22.7	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		14.6			16.2		11.2	18.5	0.0	10.0	22.7	
LOS		B			B		B	B	A	B	C	
Approach Delay		14.6			16.2			17.5			22.2	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		6			23		19	121	0	6	158	
Queue Length 95th (ft)		48			76		41	248	0	18	220	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		270			717		402	1632	813	409	1348	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.36			0.22		0.21	0.50	0.02	0.07	0.54	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 75.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Rose Ave & Collins St



HCS Two-Way Stop-Control Report

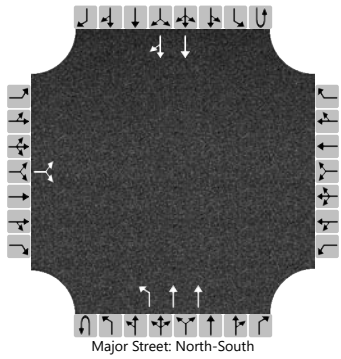
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUMU
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		6		175					0	151	754				981	29
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			181							151						
Capacity, c (veh/h)			417							676						
v/c Ratio			0.43							0.22						
95% Queue Length, Q_{95} (veh)			2.3							0.9						
Control Delay (s/veh)			20.2							11.9						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		20.2								2.0						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

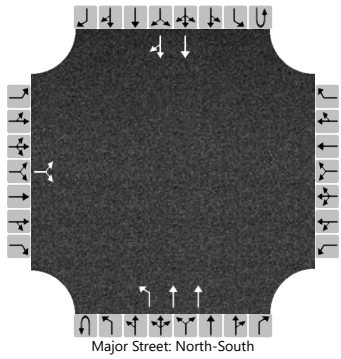
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUMU
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		4		123					0	119	809				761	16
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			127							119						
Capacity, c (veh/h)			531							829						
v/c Ratio			0.24							0.14						
95% Queue Length, Q_{95} (veh)			0.9							0.5						
Control Delay (s/veh)			13.9							10.1						
Level of Service (LOS)			B							B						
Approach Delay (s/veh)		13.9								1.3						
Approach LOS		B								A						

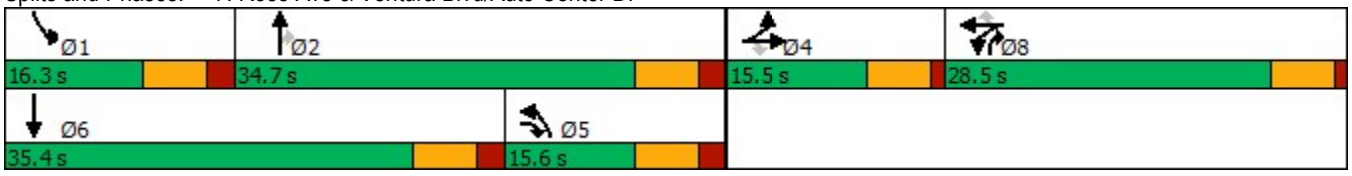
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	63	143	212	37	93	116	764	435	145	955	43
Future Volume (vph)	46	63	143	212	37	93	116	764	435	145	955	43
Satd. Flow (prot)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3518	0
Flt Permitted	0.950			0.950	0.973		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3518	0
Satd. Flow (RTOR)			178			253			473		5	
Lane Group Flow (vph)	50	68	155	179	91	101	126	830	473	158	1085	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	15.6	28.5	28.5	28.5	15.6	34.7	28.5	16.3	35.4	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	21.0	13.6	13.6	13.6	9.2	28.7	44.7	9.8	29.3	
Actuated g/C Ratio	0.12	0.12	0.25	0.16	0.16	0.16	0.11	0.35	0.54	0.12	0.35	
v/c Ratio	0.23	0.30	0.29	0.34	0.34	0.21	0.64	0.68	0.27	0.75	0.87	
Control Delay	39.0	40.1	4.6	33.0	35.1	1.0	54.5	28.1	1.0	61.4	35.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.0	40.1	4.6	33.0	35.1	1.0	54.5	28.1	1.0	61.4	35.8	
LOS	D	D	A	C	D	A	D	C	A	E	D	
Approach Delay		19.7			24.8			21.5			39.1	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	25	34	0	47	48	0	66	200	0	83	285	
Queue Length 95th (ft)	63	79	35	78	95	0	#161	304	10	#203	#475	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	216	228	535	907	464	627	197	1225	1993	212	1249	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.23	0.30	0.29	0.20	0.20	0.16	0.64	0.68	0.24	0.75	0.87	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 82.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 28.3 — Intersection LOS: C
Intersection Capacity Utilization 61.9% — ICU Level of Service B
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	92	180	705	143	183	193	739	553	152	721	20
Future Volume (vph)	11	92	180	705	143	183	193	739	553	152	721	20
Satd. Flow (prot)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3525	0
Flt Permitted	0.950			0.950	0.976		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3525	0
Satd. Flow (RTOR)			178			253			432		3	
Lane Group Flow (vph)	12	100	196	613	308	199	210	803	601	165	806	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	19.0	28.5	28.5	28.5	19.0	33.0	28.5	18.0	32.0	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	24.4	22.1	22.1	22.1	12.5	27.2	51.7	11.0	25.7	
Actuated g/C Ratio	0.11	0.11	0.27	0.24	0.24	0.24	0.14	0.30	0.57	0.12	0.28	
v/c Ratio	0.06	0.48	0.35	0.78	0.77	0.34	0.86	0.76	0.34	0.77	0.81	
Control Delay	39.3	48.6	7.3	41.0	47.1	3.3	73.3	35.8	2.2	64.7	38.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.3	48.6	7.3	41.0	47.1	3.3	73.3	35.8	2.2	64.7	38.9	
LOS	D	D	A	D	D	A	E	D	A	E	D	
Approach Delay		21.9			36.0			28.2			43.2	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	7	58	8	190	190	0	127	237	12	98	241	
Queue Length 95th (ft)	24	110	58	258	#328	26	#259	310	26	#201	#338	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	196	207	556	822	422	593	245	1060	1799	226	1000	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.06	0.48	0.35	0.75	0.73	0.34	0.86	0.76	0.33	0.73	0.81	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 90.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 33.5 — Intersection LOS: C
Intersection Capacity Utilization 68.9% — ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



HCS Two-Way Stop-Control Report

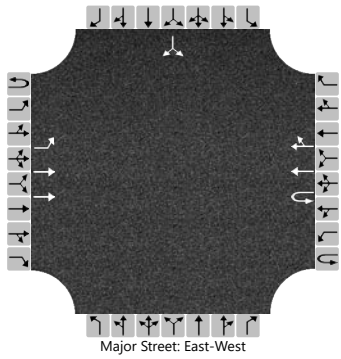
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	Cumu
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	44	396		19		269	84						28		9
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		44			19										37	
Capacity, c (veh/h)		1195			801										442	
v/c Ratio		0.04			0.02										0.08	
95% Queue Length, Q_{95} (veh)		0.1			0.1										0.3	
Control Delay (s/veh)		8.1			9.6										13.9	
Level of Service (LOS)		A			A										B	
Approach Delay (s/veh)	0.8				0.5								13.9			
Approach LOS	A				A								B			

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HCS Two-Way Stop-Control Report

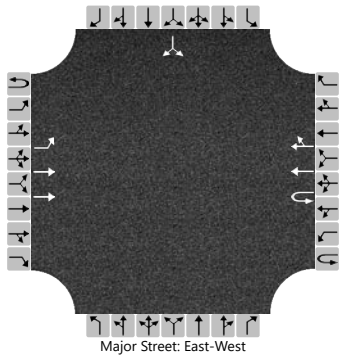
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	CUMU
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	65	531		27		660	127						43		24
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

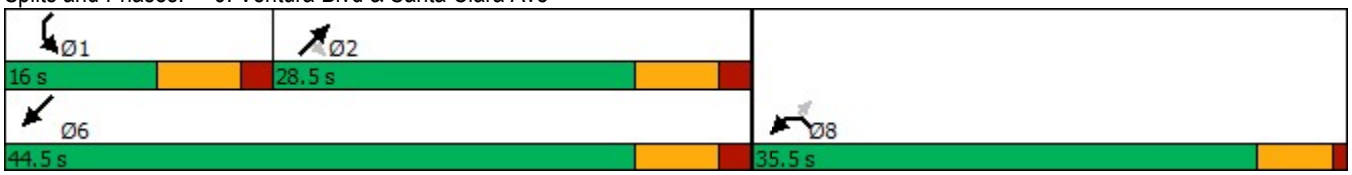
Flow Rate, v (veh/h)		65			27										67	
Capacity, c (veh/h)		822			657										220	
v/c Ratio		0.08			0.04										0.31	
95% Queue Length, Q_{95} (veh)		0.3			0.1										1.3	
Control Delay (s/veh)		9.8			10.7										28.5	
Level of Service (LOS)		A			B										D	
Approach Delay (s/veh)	1.1				0.4								28.5			
Approach LOS	A				A								D			

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	179	29	609	106	30	667
Future Volume (vph)	179	29	609	106	30	667
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		32		115		
Lane Group Flow (vph)	195	32	662	115	33	725
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.5	13.5	24.9	24.9	9.2	30.4
Actuated g/C Ratio	0.24	0.24	0.44	0.44	0.16	0.54
v/c Ratio	0.47	0.08	0.43	0.15	0.11	0.27
Control Delay	23.3	8.7	14.3	4.5	24.1	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	8.7	14.3	4.5	24.1	7.3
LOS	C	A	B	A	C	A
Approach Delay	21.3		12.8			8.1
Approach LOS	C		B			A
Queue Length 50th (ft)	43	0	55	0	7	39
Queue Length 95th (ft)	123	18	167	31	35	68
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	961	874	1551	758	288	3452
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.04	0.43	0.15	0.11	0.21

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			

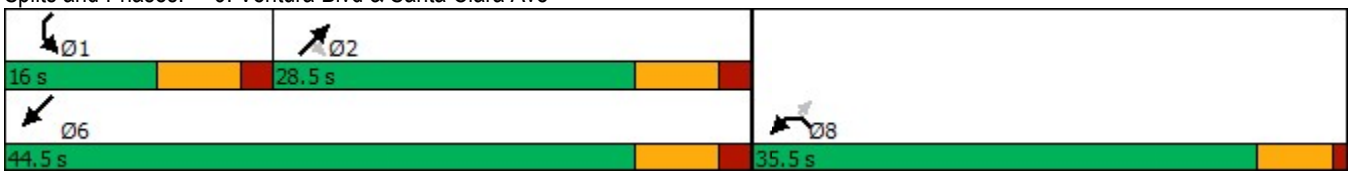
Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	194	52	645	166	32	721
Future Volume (vph)	194	52	645	166	32	721
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		57		180		
Lane Group Flow (vph)	211	57	701	180	35	784
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.9	13.9	24.6	24.6	9.2	30.1
Actuated g/C Ratio	0.24	0.24	0.43	0.43	0.16	0.53
v/c Ratio	0.49	0.13	0.46	0.23	0.12	0.29
Control Delay	23.5	7.3	14.9	4.0	24.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	7.3	14.9	4.0	24.5	7.8
LOS	C	A	B	A	C	A
Approach Delay	20.0		12.7			8.5
Approach LOS	C		B			A
Queue Length 50th (ft)	47	0	61	0	8	45
Queue Length 95th (ft)	132	24	182	39	37	77
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	960	884	1530	786	287	3447
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.06	0.46	0.23	0.12	0.23

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Cumulative + Project AM and PM Peak Hour

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Cumulative Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	338	239	62	123	306	60	13	494	240	24	348	68
Project Trips	0	0	3	0	6	0	0	0	0	3	0	0
GEOMETRY	L	T	TR	L	T	TR	L	T	R	L	TR	

	Level of Service Calculations					
Move-	**Lanes**		**Volume**		**V/C Ratio**	
ment	Lane	Capacity	Cumulative	Project	Cumulative	Cumu+Pr
NBL	1.0	1,600	338	338	0.21 *	0.21 *
NBT	2.0	3,200	239	239	0.09	0.10
NBR	0.0	0	62	65	0.00	0.00
SBL	1.0	1,600	123	123	0.08	0.08
SBT	2.0	3,200	306	312	0.11 *	0.12 *
SBR	0.0	0	60	60	0.00	0.00
EBL	1.0	1,600	13	13	0.01	0.01
EBT	1.0	1,600	494	494	0.31 *	0.31 *
EBR	1.0	1,600	240	240	0.15	0.15
WBL	1.0	1,600	24	27	0.02 *	0.02 *
WBT	1.0	1,600	348	348	0.26	0.26
WBR	0.0	0	68	68	0.00	0.00
N/S Critical Movements					0.31	0.31
E/W Critical Movements					0.33	0.33
Clearance Interval					0.00	0.00
ICU					0.64	0.64
Level of Service (LOS)					B	B

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Cumulative Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	150	311	36	63	267	21	4	286	188	58	421	173
Project Trips	0	1	1	0	1	0	0	0	0	1	0	0
GEOMETRY	L	T TR		L	T TR		L	T	R	L	TR	

	Level of Service Calculations					
Move-	**Lanes**		**Volume**		**V/C Ratio**	
ment	Lane	Capacity	Cumulative	Project	Cumulative	Cumu+Pr
NBL	1.0	1,600	150	150	0.09 *	0.09 *
NBT	2.0	3,200	311	312	0.11	0.11
NBR	0.0	0	36	37	0.00	0.00
SBL	1.0	1,600	63	63	0.04	0.04
SBT	2.0	3,200	267	268	0.09 *	0.09 *
SBR	0.0	0	21	21	0.00	0.00
EBL	1.0	1,600	4	4	0.00 *	0.00 *
EBT	1.0	1,600	286	286	0.18	0.18
EBR	1.0	1,600	188	188	0.12	0.12
WBL	1.0	1,600	58	59	0.04	0.04
WBT	1.0	1,600	421	421	0.37 *	0.37 *
WBR	0.0	0	173	173	0.00	0.00
N/S Critical Movements					0.18	0.18
E/W Critical Movements					0.37	0.37
Clearance Interval					0.00	0.00
ICU					0.55	0.55
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Cumulative Conditions
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	73	558	2	1	534	22	98	0	169	0	0	0
Project Trips	2	7	0	0	9	0	0	0	3	0	0	0
GEOMETRY	L	T TR		L	TT	R	LTR			LTR		

Movement	**Level of Service Calculations**					
	Lanes		**Volume**		**V/C Ratio**	
	Lane	Capacity	Cumulative	Project	Cumulative	Cumu+Pr
NBL	1.0	1,600	73	75	0.05 *	0.05 *
NBT	2.0	3,200	558	565	0.18	0.18
NBR	0.0	0	2	2	0.00	0.00
SBL	1.0	1,600	1	1	0.00	0.00
SBT	2.0	3,200	534	543	0.17 *	0.17 *
SBR	1.0	1,600	22	22	0.01	0.01
EBL	0.0	0	98	98	0.00	0.00
EBT	1.0	1,600	0	0	0.17 *	0.17 *
EBR	0.0	0	169	172	0.00	0.00
WBL	0.0	0	0	0	0.00 *	0.00 *
WBT	1.0	1,600	0	0	0.00	0.00
WBR	0.0	0	0	0	0.00	0.00
N/S Critical Movements					0.20	0.21
E/W Critical Movements					0.17	0.17
Clearance Interval					0.00	0.00
ICU					0.37	0.38
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Cumulative Conditions
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	137	493	0	0	499	43	20	0	101	0	0	0
Project Trips	1	2	0	0	1	0	0	0	1	0	0	0
GEOMETRY	L	T TR		L	TT	R	LTR			LTR		

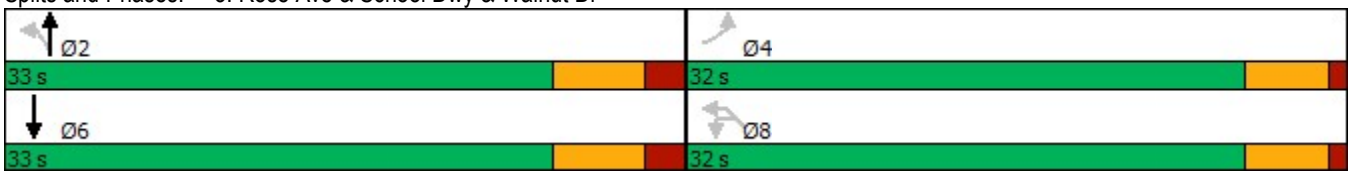
Movement	**Level of Service Calculations**					
	Lanes		**Volume**		**V/C Ratio**	
	Lane	Capacity	Cumulative	Project	Cumulative	Cumu+Pr
NBL	1.0	1,600	137	138	0.09 *	0.09 *
NBT	2.0	3,200	493	495	0.15	0.15
NBR	0.0	0	0	0	0.00	0.00
SBL	1.0	1,600	0	0	0.00	0.00
SBT	2.0	3,200	499	500	0.16 *	0.16 *
SBR	1.0	1,600	43	43	0.03	0.03
EBL	0.0	0	20	20	0.00	0.00
EBT	1.0	1,600	0	0	0.08 *	0.08 *
EBR	0.0	0	101	102	0.00	0.00
WBL	0.0	0	0	0	0.00 *	0.00 *
WBT	1.0	1,600	0	0	0.00	0.00
WBR	0.0	0	0	0	0.00	0.00
N/S Critical Movements					0.24	0.24
E/W Critical Movements					0.08	0.08
Clearance Interval					0.00	0.00
ICU					0.32	0.32
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	25	0	88	38	572	0	0	756	21	114	22	43
Future Volume (vph)	25	0	88	38	572	0	0	756	21	114	22	43
Satd. Flow (prot)	1649	0	0	1770	3539	0	0	3525	0	0	1736	0
Flt Permitted	0.905			0.320							0.963	
Satd. Flow (perm)	1509	0	0	596	3539	0	0	3525	0	0	1736	0
Satd. Flow (RTOR)	74							5			59	
Lane Group Flow (vph)	123	0	0	41	622	0	0	845	0	0	271	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	11.9			27.8	27.8			27.8			11.9	
Actuated g/C Ratio	0.23			0.54	0.54			0.54			0.23	
v/c Ratio	0.30			0.13	0.32			0.44			0.60	
Control Delay	9.5			8.3	7.7			8.5			19.1	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	9.5			8.3	7.7			8.5			19.1	
LOS	A			A	A			A			B	
Approach Delay	9.5				7.7			8.5			19.1	
Approach LOS	A				A			A			B	
Queue Length 50th (ft)	11			5	46			67			54	
Queue Length 95th (ft)	43			22	93			131			69	
Internal Link Dist (ft)	270				320			328			80	
Turn Bay Length (ft)				150								
Base Capacity (vph)	831			323	1918			1913			944	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.15			0.13	0.32			0.44			0.29	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 51.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.8	Intersection LOS: A
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

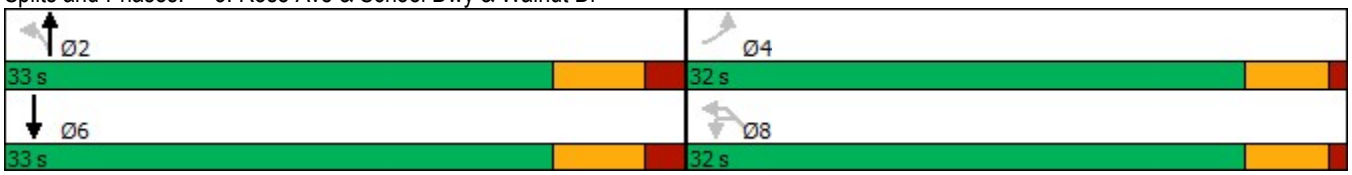
Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	6	0	54	63	718	0	0	605	9	20	2	7
Future Volume (vph)	6	0	54	63	718	0	0	605	9	20	2	7
Satd. Flow (prot)	1629	0	0	1770	3539	0	0	3532	0	0	1735	0
Flt Permitted	0.955			0.398							0.964	
Satd. Flow (perm)	1564	0	0	741	3539	0	0	3532	0	0	1735	0
Satd. Flow (RTOR)	59							3			59	
Lane Group Flow (vph)	66	0	0	68	780	0	0	668	0	0	44	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	9.0			37.7	37.7			37.7			9.0	
Actuated g/C Ratio	0.18			0.76	0.76			0.76			0.18	
v/c Ratio	0.20			0.12	0.29			0.25			0.12	
Control Delay	8.3			5.1	4.4			4.2			5.4	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.3			5.1	4.4			4.2			5.4	
LOS	A			A	A			A			A	
Approach Delay	8.3				4.4			4.2			5.4	
Approach LOS	A				A			A			A	
Queue Length 50th (ft)	2			8	53			43			0	
Queue Length 95th (ft)	25			22	81			67			7	
Internal Link Dist (ft)	270				320			328			82	
Turn Bay Length (ft)				150								
Base Capacity (vph)	878			561	2681			2676			971	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.08			0.12	0.29			0.25			0.05	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 49.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 4.5	Intersection LOS: A
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



HCS Two-Way Stop-Control Report

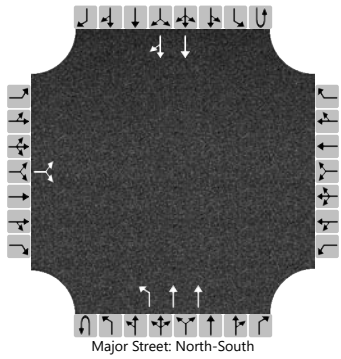
General Information

Analyst	04-DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUPR
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Oxnard
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		13		38					0	33	599				940	17
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			51							33						
Capacity, c (veh/h)			312							708						
v/c Ratio			0.16							0.05						
95% Queue Length, Q_{95} (veh)			0.6							0.1						
Control Delay (s/veh)			18.8							10.3						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		18.8								0.5						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

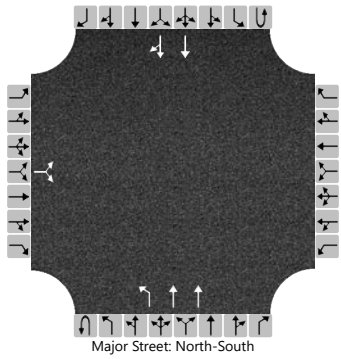
General Information

Analyst	04-DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUPR
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		3		30					0	55	773				666	11
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

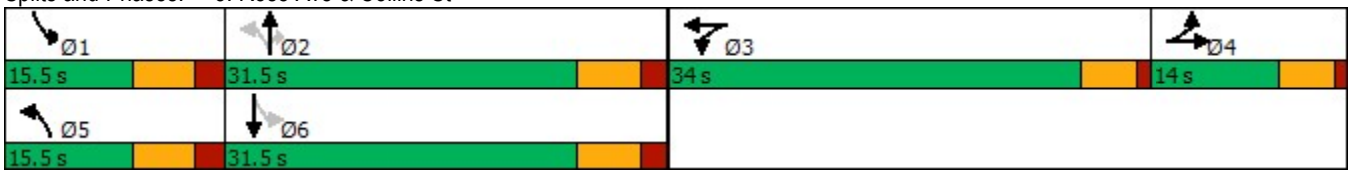
Flow Rate, v (veh/h)			33							55						
Capacity, c (veh/h)			523							904						
v/c Ratio			0.06							0.06						
95% Queue Length, Q_{95} (veh)			0.2							0.2						
Control Delay (s/veh)			12.3							9.2						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)		12.3								0.6						
Approach LOS		B								A						

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	26	90	57	18	45	32	689	99	84	893	14
Future Volume (vph)	64	26	90	57	18	45	32	689	99	84	893	14
Satd. Flow (prot)	0	1705	0	0	1729	0	1770	3539	1583	1770	3532	0
Flt Permitted		0.982			0.977		0.206			0.250		
Satd. Flow (perm)	0	1705	0	0	1729	0	384	3539	1583	466	3532	0
Satd. Flow (RTOR)		42			33				155		2	
Lane Group Flow (vph)	0	196	0	0	131	0	35	749	108	91	986	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.4			12.9		33.1	26.4	26.4	35.5	32.2	
Actuated g/C Ratio		0.13			0.18		0.46	0.37	0.37	0.49	0.45	
v/c Ratio		0.76			0.39		0.10	0.58	0.16	0.23	0.63	
Control Delay		48.2			27.1		10.6	23.5	2.1	11.6	21.3	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		48.2			27.1		10.6	23.5	2.1	11.6	21.3	
LOS		D			C		B	C	A	B	C	
Approach Delay		48.2			27.1			20.4			20.5	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		74			43		8	163	0	21	156	
Queue Length 95th (ft)		#193			94		22	231	16	46	#361	
Internal Link Dist (ft)		364			1129			567			222	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		258			745		356	1298	678	399	1577	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.76			0.18		0.10	0.58	0.16	0.23	0.63	

Intersection Summary			
Cycle Length: 95			
Actuated Cycle Length: 72.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 23.2		Intersection LOS: C	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

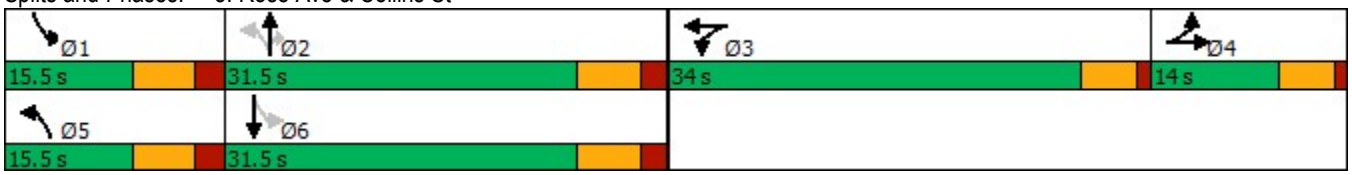
Splits and Phases: 5: Rose Ave & Collins St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	4	76	39	24	97	76	748	21	30	663	13
Future Volume (vph)	8	4	76	39	24	97	76	748	21	30	663	13
Satd. Flow (prot)	0	1637	0	0	1689	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.995			0.988		0.259			0.297		
Satd. Flow (perm)	0	1637	0	0	1689	0	482	3539	1583	553	3529	0
Satd. Flow (RTOR)		83			84				155		2	
Lane Group Flow (vph)	0	96	0	0	173	0	83	813	23	33	735	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.6		37.8	34.4	34.4	35.3	28.4	
Actuated g/C Ratio		0.12			0.17		0.50	0.46	0.46	0.47	0.38	
v/c Ratio		0.35			0.49		0.21	0.50	0.03	0.08	0.55	
Control Delay		14.7			21.5		11.6	18.9	0.0	10.5	23.1	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		14.7			21.5		11.6	18.9	0.0	10.5	23.1	
LOS		B			C		B	B	A	B	C	
Approach Delay		14.7			21.5			17.7			22.6	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		6			39		19	121	0	7	158	
Queue Length 95th (ft)		49			97		43	258	0	22	229	
Internal Link Dist (ft)		364			1129			567			215	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		271			709		397	1616	807	406	1333	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.35			0.24		0.21	0.50	0.03	0.08	0.55	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 75.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Rose Ave & Collins St



HCS Two-Way Stop-Control Report

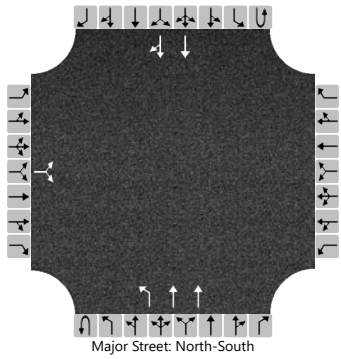
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUPR
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		9		175					0	151	808				1019	32
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			184							151						
Capacity, c (veh/h)			364							652						
v/c Ratio			0.51							0.23						
95% Queue Length, Q_{95} (veh)			3.0							0.9						
Control Delay (s/veh)			24.9							12.2						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		24.9								1.9						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

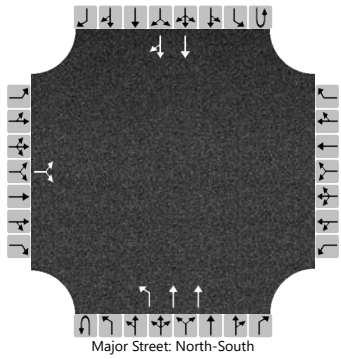
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	CUPR
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		5		123					0	119	819				774	17
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			128							119						
Capacity, c (veh/h)			508							819						
v/c Ratio			0.25							0.15						
95% Queue Length, Q_{95} (veh)			1.0							0.5						
Control Delay (s/veh)			14.5							10.1						
Level of Service (LOS)			B							B						
Approach Delay (s/veh)		14.5								1.3						
Approach LOS		B								A						

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	63	143	212	37	93	116	815	435	145	992	46
Future Volume (vph)	49	63	143	212	37	93	116	815	435	145	992	46
Satd. Flow (prot)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Flt Permitted	0.950			0.950	0.973		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Satd. Flow (RTOR)			178			253			473		5	
Lane Group Flow (vph)	53	68	155	179	91	101	126	886	473	158	1128	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	15.6	28.5	28.5	28.5	15.6	35.0	28.5	16.0	35.4	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	21.1	13.6	13.6	13.6	9.2	28.9	44.9	9.6	29.3	
Actuated g/C Ratio	0.12	0.12	0.26	0.16	0.16	0.16	0.11	0.35	0.54	0.12	0.35	
v/c Ratio	0.25	0.30	0.29	0.34	0.34	0.21	0.64	0.72	0.27	0.77	0.91	
Control Delay	39.2	40.1	4.6	33.0	35.1	1.0	54.4	29.1	1.0	63.7	39.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.2	40.1	4.6	33.0	35.1	1.0	54.4	29.1	1.0	63.7	39.1	
LOS	D	D	A	C	D	A	D	C	A	E	D	
Approach Delay		20.0			24.8			22.3			42.1	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	26	34	0	47	48	0	66	217	0	83	301	
Queue Length 95th (ft)	66	79	35	78	95	0	#161	327	9	#207	#506	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	216	228	535	907	464	627	197	1235	1999	206	1246	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.25	0.30	0.29	0.20	0.20	0.16	0.64	0.72	0.24	0.77	0.91	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 82.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 29.8 — Intersection LOS: C
Intersection Capacity Utilization 63.0% — ICU Level of Service B
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr

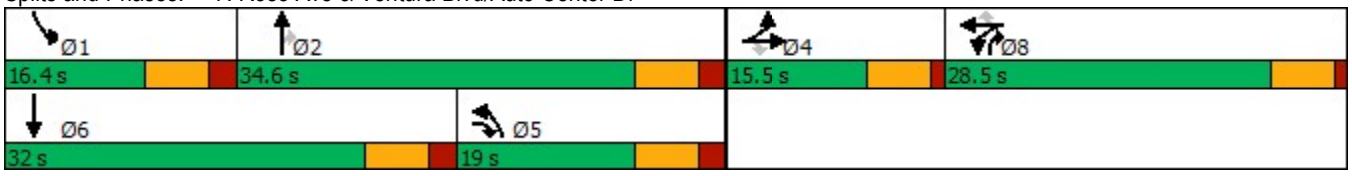


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	92	180	705	143	183	193	748	553	152	733	21
Future Volume (vph)	12	92	180	705	143	183	193	748	553	152	733	21
Satd. Flow (prot)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3525	0
Flt Permitted	0.950			0.950	0.976		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1654	1583	1770	3539	2787	1770	3525	0
Satd. Flow (RTOR)			178			253			399		3	
Lane Group Flow (vph)	13	100	196	613	308	199	210	813	601	165	820	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	15.5	15.5	19.0	28.5	28.5	28.5	19.0	34.6	28.5	16.4	32.0	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.1	10.1	24.5	22.1	22.1	22.1	12.6	28.4	52.8	10.0	25.7	
Actuated g/C Ratio	0.11	0.11	0.27	0.24	0.24	0.24	0.14	0.31	0.58	0.11	0.28	
v/c Ratio	0.07	0.49	0.35	0.78	0.77	0.35	0.86	0.74	0.34	0.85	0.82	
Control Delay	39.3	48.6	7.3	41.1	47.2	3.3	72.1	33.9	2.4	78.5	39.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	39.3	48.6	7.3	41.1	47.2	3.3	72.1	33.9	2.4	78.5	39.7	
LOS	D	D	A	D	D	A	E	C	A	E	D	
Approach Delay		22.0			36.1			27.2			46.2	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	7	58	8	190	190	0	127	234	13	100	246	
Queue Length 95th (ft)	25	110	58	258	#328	26	#259	306	26	#220	#349	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	196	206	556	821	421	592	245	1102	1813	194	998	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.07	0.49	0.35	0.75	0.73	0.34	0.86	0.74	0.33	0.85	0.82	

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 91
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 33.9 — Intersection LOS: C
Intersection Capacity Utilization 69.2% — ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



HCS Two-Way Stop-Control Report

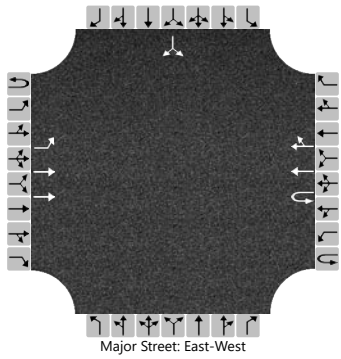
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	CuPr
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	44	396		19		269	114						48		9
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		44			19										57	
Capacity, c (veh/h)		1165			801										410	
v/c Ratio		0.04			0.02										0.14	
95% Queue Length, Q_{95} (veh)		0.1			0.1										0.5	
Control Delay (s/veh)		8.2			9.6										15.2	
Level of Service (LOS)		A			A										C	
Approach Delay (s/veh)	0.8				0.5								15.2			
Approach LOS	A				A								C			

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HCS Two-Way Stop-Control Report

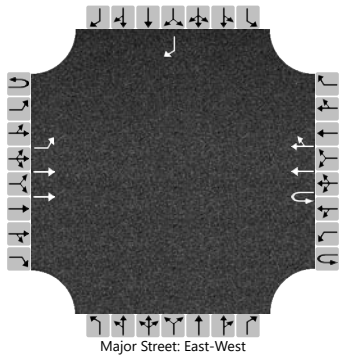
General Information

Analyst	08_Mitigated
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	CuPr
Time Analyzed	AM Peak Hour - Mitigated
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	0	1
Configuration		L	T		U		T	TR								R
Volume (veh/h)	0	44	396		19		269	114								57
Percent Heavy Vehicles (%)	3	3			3											3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4											6.9
Critical Headway (sec)		4.16			6.46											6.96
Base Follow-Up Headway (sec)		2.2			2.5											3.3
Follow-Up Headway (sec)		2.23			2.53											3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		44			19											57
Capacity, c (veh/h)		1165			801											815
v/c Ratio		0.04			0.02											0.07
95% Queue Length, Q_{95} (veh)		0.1			0.1											0.2
Control Delay (s/veh)		8.2			9.6											9.8
Level of Service (LOS)		A			A											A
Approach Delay (s/veh)	0.8				0.5								9.8			
Approach LOS	A				A								A			

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HCS Two-Way Stop-Control Report

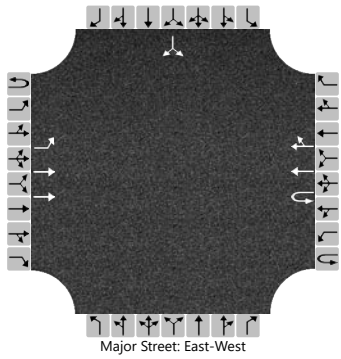
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	CUPR
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	65	531		27		660	133						52		24
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		65			27										76	
Capacity, c (veh/h)		817			657										210	
v/c Ratio		0.08			0.04										0.36	
95% Queue Length, Q_{95} (veh)		0.3			0.1										1.7	
Control Delay (s/veh)		9.8			10.7										31.8	
Level of Service (LOS)		A			B										D	
Approach Delay (s/veh)	1.1				0.4								31.8			
Approach LOS	A				A								D			

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HCS Two-Way Stop-Control Report

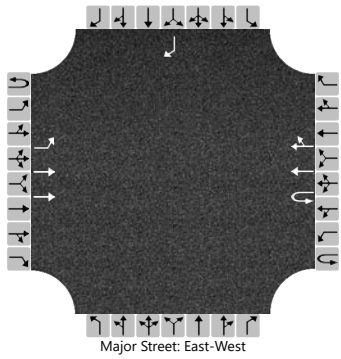
General Information

Analyst	08_DJL_MIT
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	CUPR
Time Analyzed	PM Peak Hour - Mitigated
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	0	1
Configuration		L	T		U		T	TR								R
Volume (veh/h)	0	65	531		27		660	133								76
Percent Heavy Vehicles (%)	3	3			3											3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4											6.9
Critical Headway (sec)		4.16			6.46											6.96
Base Follow-Up Headway (sec)		2.2			2.5											3.3
Follow-Up Headway (sec)		2.23			2.53											3.33

Delay, Queue Length, and Level of Service

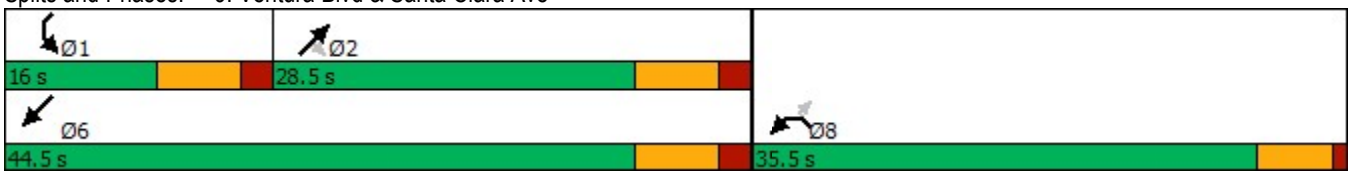
Flow Rate, v (veh/h)		65			27											76
Capacity, c (veh/h)		817			657											600
v/c Ratio		0.08			0.04											0.13
95% Queue Length, Q_{95} (veh)		0.3			0.1											0.4
Control Delay (s/veh)		9.8			10.7											11.9
Level of Service (LOS)		A			B											B
Approach Delay (s/veh)	1.1				0.4								11.9			
Approach LOS	A				A								B			

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	186	29	611	111	30	669
Future Volume (vph)	186	29	611	111	30	669
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		32		121		
Lane Group Flow (vph)	202	32	664	121	33	727
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.6	13.6	24.9	24.9	9.3	30.4
Actuated g/C Ratio	0.24	0.24	0.44	0.44	0.16	0.53
v/c Ratio	0.48	0.08	0.43	0.16	0.11	0.27
Control Delay	23.5	8.6	14.4	4.4	24.3	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	8.6	14.4	4.4	24.3	7.4
LOS	C	A	B	A	C	A
Approach Delay	21.5		12.9			8.2
Approach LOS	C		B			A
Queue Length 50th (ft)	44	0	55	0	7	39
Queue Length 95th (ft)	127	18	169	32	35	70
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	959	872	1548	760	288	3445
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.04	0.43	0.16	0.11	0.21

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.9			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

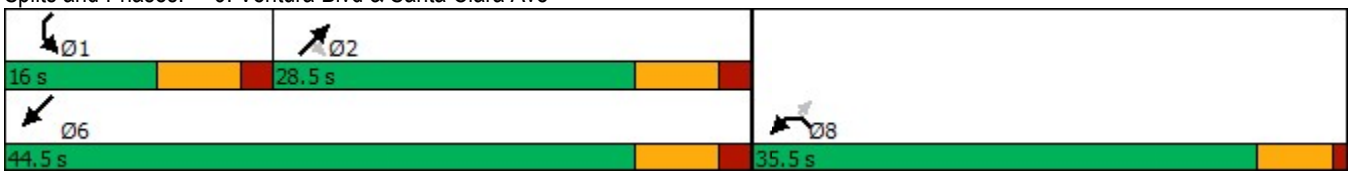
Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	196	52	645	168	32	721
Future Volume (vph)	196	52	645	168	32	721
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		57		183		
Lane Group Flow (vph)	213	57	701	183	35	784
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	13.9	13.9	24.5	24.5	9.2	30.0
Actuated g/C Ratio	0.24	0.24	0.43	0.43	0.16	0.53
v/c Ratio	0.49	0.13	0.46	0.23	0.12	0.29
Control Delay	23.5	7.3	15.0	4.0	24.5	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	7.3	15.0	4.0	24.5	7.8
LOS	C	A	B	A	C	A
Approach Delay	20.1		12.7			8.5
Approach LOS	C		B			A
Queue Length 50th (ft)	47	0	61	0	8	45
Queue Length 95th (ft)	133	24	182	39	37	78
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	960	885	1528	787	288	3449
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.06	0.46	0.23	0.12	0.23

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 47.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Year 2030 AM and PM Peak Hour

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Year 2030
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	370	265	65	125	340	60	15	495	265	45	350	70
Project Trips												
GEOMETRY	L	T	TR	L	T	TR	L	T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Year 2030	**V/C Ratio** Cumulative
NBL	1.0	1,600	370	0.23 *
NBT	2.0	3,200	265	0.10
NBR	0.0	0	65	0.00
SBL	1.0	1,600	125	0.08
SBT	2.0	3,200	340	0.13 *
SBR	0.0	0	60	0.00
EBL	1.0	1,600	15	0.01
EBT	1.0	1,600	495	0.31 *
EBR	1.0	1,600	265	0.17
WBL	1.0	1,600	45	0.03 *
WBT	1.0	1,600	350	0.26
WBR	0.0	0	70	0.00
N/S Critical Movements				0.31
E/W Critical Movements				0.34
Clearance Interval				0.00
ICU				0.65 0.00
Level of Service (LOS)				B A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Year 2030
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	190	385	40	65	315	20	5	290	255	60	425	175
Project Trips												
GEOMETRY	L	T	TR	L	T	TR	L	T	R	L	TR	

	Level of Service Calculations			
Move-ment	**Lanes** Lane	Capacity	**Volume** Year 2030	**V/C Ratio** Cumulative
NBL	1.0	1,600	190	0.12 *
NBT	2.0	3,200	385	0.13
NBR	0.0	0	40	0.00
SBL	1.0	1,600	65	0.04
SBT	2.0	3,200	315	0.10 *
SBR	0.0	0	20	0.00
EBL	1.0	1,600	5	0.00 *
EBT	1.0	1,600	290	0.18
EBR	1.0	1,600	255	0.16
WBL	1.0	1,600	60	0.04
WBT	1.0	1,600	425	0.38 *
WBR	0.0	0	175	0.00
N/S Critical Movements				0.18
E/W Critical Movements				0.38
Clearance Interval				0.00
ICU				0.56 0.00
Level of Service (LOS)				A A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Year 2030
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak Project Trips	80	615	5	0	600	25	100	0	190	0	0	0
GEOMETRY	L	T TR		L	TT	R	LTR			LTR		

Movement	Lanes Lane	Lanes Capacity	Volume Year 2030	V/C Ratio Year 2030	
	Level of Service Calculations				
NBL	1.0	1,600	80	0.05	*
NBT	2.0	3,200	615	0.19	
NBR	0.0	0	5	0.00	
SBL	1.0	1,600	0	0.00	
SBT	2.0	3,200	600	0.19	*
SBR	1.0	1,600	25	0.02	
EBL	0.0	0	100	0.00	
EBT	1.0	1,600	0	0.18	*
EBR	0.0	0	190	0.00	
WBL	0.0	0	0	0.00	*
WBT	1.0	1,600	0	0.00	
WBR	0.0	0	0	0.00	
N/S Critical Movements				0.20	
E/W Critical Movements				0.18	
Clearance Interval				0.00	
ICU				0.38	0.00
Level of Service (LOS)				A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Year 2030
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	170	610	0	0	600	45	20	0	120	0	0	0
Project Trips												
GEOMETRY	L	T	TR	L	TT	R	LTR			LTR		

Movement	**Level of Service Calculations**			
	Lanes		**Volume**	**V/C Ratio**
	Lane	Capacity	Year 2030	Year 2030
NBL	1.0	1,600	170	0.11 *
NBT	2.0	3,200	610	0.19
NBR	0.0	0	0	0.00
SBL	1.0	1,600	0	0.00
SBT	2.0	3,200	600	0.19 *
SBR	1.0	1,600	45	0.03
EBL	0.0	0	20	0.00
EBT	1.0	1,600	0	0.09 *
EBR	0.0	0	120	0.00
WBL	0.0	0	0	0.00 *
WBT	1.0	1,600	0	0.00
WBR	0.0	0	0	0.00
N/S Critical Movements				0.24
E/W Critical Movements				0.09
Clearance Interval				0.00
ICU				0.33
Level of Service (LOS)				A

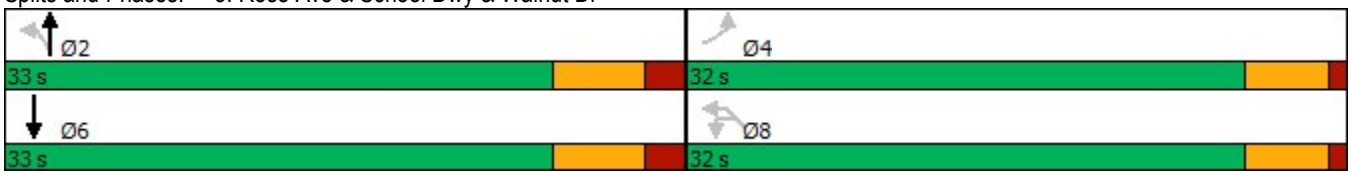
	0.00
	A

Notes: V/C - Volume to Capacity Ratio

Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	25	0	100	45	630	0	0	820	20	135	25	35
Future Volume (vph)	25	0	100	45	630	0	0	820	20	135	25	35
Satd. Flow (prot)	1645	0	0	1770	3539	0	0	3525	0	0	1747	0
Flt Permitted	0.912			0.286							0.961	
Satd. Flow (perm)	1515	0	0	533	3539	0	0	3525	0	0	1747	0
Satd. Flow (RTOR)	59							4			59	
Lane Group Flow (vph)	136	0	0	49	685	0	0	913	0	0	296	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	12.6			27.3	27.3			27.3			12.6	
Actuated g/C Ratio	0.25			0.53	0.53			0.53			0.25	
v/c Ratio	0.33			0.17	0.36			0.49			0.63	
Control Delay	11.6			9.6	8.4			9.4			19.7	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	11.6			9.6	8.4			9.4			19.7	
LOS	B			A	A			A			B	
Approach Delay	11.6				8.4			9.4			19.7	
Approach LOS	B				A			A			B	
Queue Length 50th (ft)	18			7	54			78			61	
Queue Length 95th (ft)	52			27	108			152			76	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	826			282	1877			1872			948	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.16			0.17	0.36			0.49			0.31	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 51.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

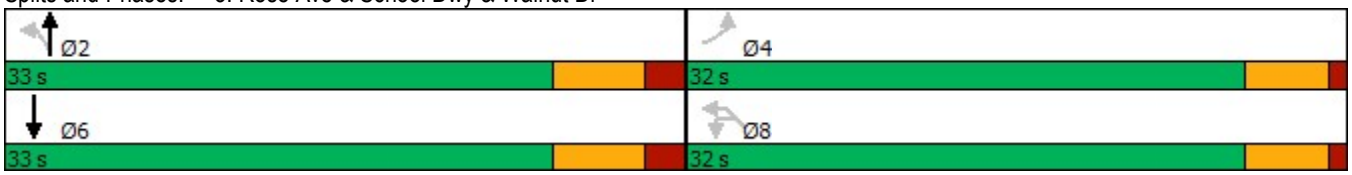
Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	10	0	65	80	865	0	0	720	10	20	5	5
Future Volume (vph)	10	0	65	80	865	0	0	720	10	20	5	5
Satd. Flow (prot)	1633	0	0	1770	3539	0	0	3532	0	0	1747	0
Flt Permitted	0.944			0.351							0.960	
Satd. Flow (perm)	1553	0	0	654	3539	0	0	3532	0	0	1747	0
Satd. Flow (RTOR)	71							3			59	
Lane Group Flow (vph)	82	0	0	87	940	0	0	794	0	0	46	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	9.0			36.7	36.7			36.7			9.0	
Actuated g/C Ratio	0.18			0.75	0.75			0.75			0.18	
v/c Ratio	0.24			0.18	0.35			0.30			0.12	
Control Delay	8.4			5.9	4.8			4.5			5.6	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.4			5.9	4.8			4.5			5.6	
LOS	A			A	A			A			A	
Approach Delay	8.4				4.9			4.5			5.6	
Approach LOS	A				A			A			A	
Queue Length 50th (ft)	3			10	68			54			0	
Queue Length 95th (ft)	29			29	101			82			8	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	891			491	2656			2651			993	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.09			0.18	0.35			0.30			0.05	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 48.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



HCS Two-Way Stop-Control Report

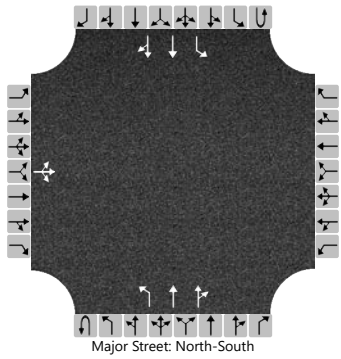
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2030
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		5	5	40					0	40	670	190	0	50	995	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			50							40				50		
Capacity, c (veh/h)			190							679				771		
v/c Ratio			0.26							0.06				0.06		
95% Queue Length, Q_{95} (veh)			1.1							0.2				0.2		
Control Delay (s/veh)			30.7							10.6				10.0		
Level of Service (LOS)			D							B				A		
Approach Delay (s/veh)		30.7								0.5				0.5		
Approach LOS		D								A				A		

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HCS Two-Way Stop-Control Report

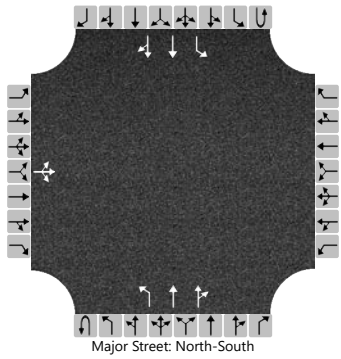
General Information

Analyst	4. DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2030
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	1	2	0
Configuration			LTR							L	T	TR		L	T	TR
Volume (veh/h)		5	0	30					0	70	935	20	0	5	790	10
Percent Heavy Vehicles (%)		3	3	3					3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9						4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96						4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3						2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33						2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			35							70				5		
Capacity, c (veh/h)			324							812				709		
v/c Ratio			0.11							0.09				0.01		
95% Queue Length, Q_{95} (veh)			0.4							0.3				0.0		
Control Delay (s/veh)			17.5							9.9				10.1		
Level of Service (LOS)			C							A				B		
Approach Delay (s/veh)		17.5								0.7				0.1		
Approach LOS		C								A				A		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	15	100	10	10	55	40	775	40	30	995	20
Future Volume (vph)	75	15	100	10	10	55	40	775	40	30	995	20
Satd. Flow (prot)	0	1698	0	0	1667	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.981			0.993		0.138			0.247		
Satd. Flow (perm)	0	1698	0	0	1667	0	257	3539	1583	460	3529	0
Satd. Flow (RTOR)		43			60				140		2	
Lane Group Flow (vph)	0	207	0	0	82	0	43	842	43	33	1104	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	16.0	16.0		34.0	34.0		15.5	39.5	39.5	15.5	39.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		11.2			12.3		40.1	35.3	35.3	40.1	35.3	
Actuated g/C Ratio		0.14			0.15		0.50	0.44	0.44	0.50	0.44	
v/c Ratio		0.75			0.27		0.14	0.54	0.06	0.09	0.71	
Control Delay		47.3			16.8		10.7	20.7	0.1	10.0	24.2	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		47.3			16.8		10.7	20.7	0.1	10.0	24.2	
LOS		D			B		B	C	A	A	C	
Approach Delay		47.3			16.8			19.2			23.8	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)		90			11		10	197	0	8	287	
Queue Length 95th (ft)		#209			51		25	261	0	21	372	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		276			657		304	1567	779	383	1563	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.75			0.12		0.14	0.54	0.06	0.09	0.71	

Intersection Summary		
Cycle Length: 105		
Actuated Cycle Length: 79.6		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.75		
Intersection Signal Delay: 23.8	Intersection LOS: C	
Intersection Capacity Utilization 60.6%	ICU Level of Service B	
Analysis Period (min) 15		

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

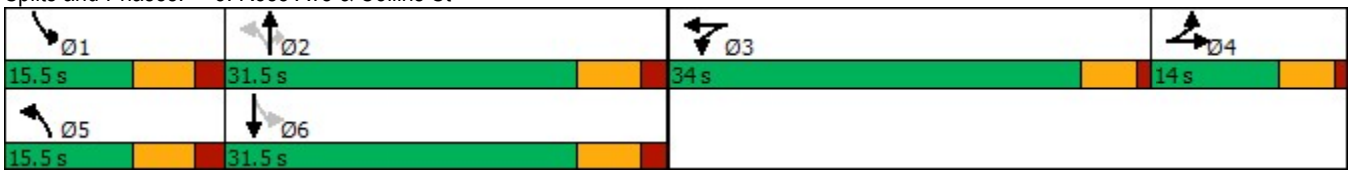
Splits and Phases: 5: Rose Ave & Collins St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	5	90	30	25	100	95	920	15	30	790	20
Future Volume (vph)	10	5	90	30	25	100	95	920	15	30	790	20
Satd. Flow (prot)	0	1638	0	0	1684	0	1770	3539	1583	1770	3525	0
Flt Permitted		0.995			0.990		0.189			0.202		
Satd. Flow (perm)	0	1638	0	0	1684	0	352	3539	1583	376	3525	0
Satd. Flow (RTOR)		98			99				155		3	
Lane Group Flow (vph)	0	114	0	0	169	0	103	1000	16	33	881	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.1			12.5		37.1	33.7	33.7	34.6	27.8	
Actuated g/C Ratio		0.12			0.17		0.50	0.45	0.45	0.47	0.37	
v/c Ratio		0.40			0.46		0.30	0.62	0.02	0.10	0.67	
Control Delay		14.6			18.5		12.6	21.4	0.1	10.5	25.3	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		14.6			18.5		12.6	21.4	0.1	10.5	25.3	
LOS		B			B		B	C	A	B	C	
Approach Delay		14.6			18.5			20.2			24.8	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		7			30		24	160	0	7	201	
Queue Length 95th (ft)		54			87		50	#365	0	21	279	
Internal Link Dist (ft)		364			1129			567			468	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		287			727		349	1603	802	346	1318	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.40			0.23		0.30	0.62	0.02	0.10	0.67	

Intersection Summary			
Cycle Length: 95			
Actuated Cycle Length: 74.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 21.6		Intersection LOS: C	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: Rose Ave & Collins St



HCS Two-Way Stop-Control Report

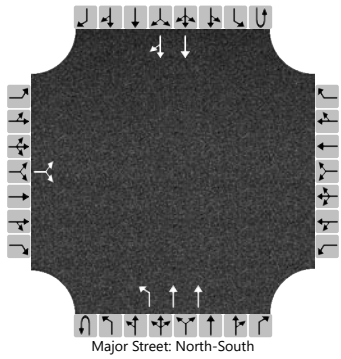
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2030
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		10		200					0	165	840				1090	35
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			210							165						
Capacity, c (veh/h)			328							611						
v/c Ratio			0.64							0.27						
95% Queue Length, Q_{95} (veh)			4.9							1.1						
Control Delay (s/veh)			35.0							13.1						
Level of Service (LOS)			E							B						
Approach Delay (s/veh)		35.0								2.1						
Approach LOS		E								A						

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HCS Two-Way Stop-Control Report

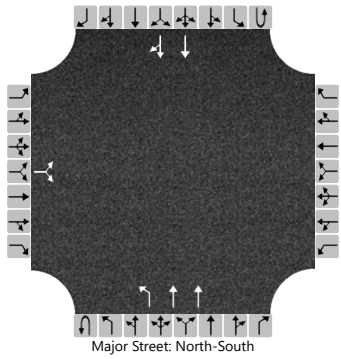
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	2030
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		5		150					0	150	1030				910	20
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			155							150						
Capacity, c (veh/h)			433							725						
v/c Ratio			0.36							0.21						
95% Queue Length, Q_{95} (veh)			1.7							0.8						
Control Delay (s/veh)			17.9							11.3						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		17.9								1.4						
Approach LOS		C								A						

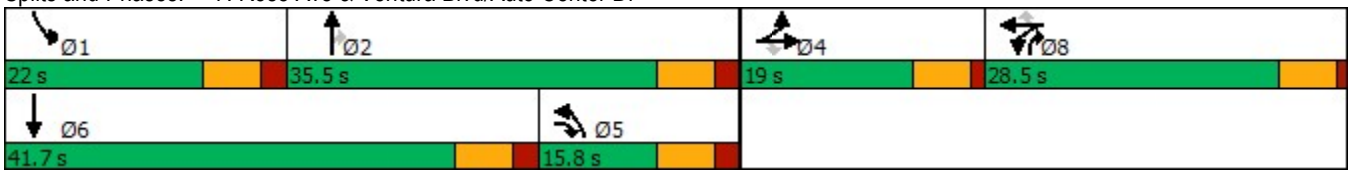
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	210	200	230	40	100	120	850	550	230	1020	50
Future Volume (vph)	50	210	200	230	40	100	120	850	550	230	1020	50
Satd. Flow (prot)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Flt Permitted	0.950			0.950	0.973		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Satd. Flow (RTOR)			161			229			194		5	
Lane Group Flow (vph)	54	228	217	195	98	109	130	924	598	250	1163	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	19.0	19.0	15.8	28.5	28.5	28.5	15.8	35.5	28.5	22.0	41.7	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	13.5	13.5	28.4	15.2	15.2	15.2	9.3	29.1	45.3	15.5	35.3	
Actuated g/C Ratio	0.14	0.14	0.29	0.16	0.16	0.16	0.10	0.30	0.47	0.16	0.36	
v/c Ratio	0.22	0.88	0.38	0.39	0.38	0.25	0.77	0.88	0.43	0.89	0.91	
Control Delay	41.6	76.1	10.9	38.7	40.7	1.3	73.7	43.9	6.5	73.4	42.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	41.6	76.1	10.9	38.7	40.7	1.3	73.7	43.9	6.5	73.4	42.2	
LOS	D	E	B	D	D	A	E	D	A	E	D	
Approach Delay		44.0			29.1			32.7			47.7	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	30	140	25	60	60	0	80	282	40	152	352	
Queue Length 95th (ft)	72	#304	92	95	113	0	#193	#447	59	#325	#555	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	245	258	575	762	390	549	169	1055	1607	282	1275	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.22	0.88	0.38	0.26	0.25	0.20	0.77	0.88	0.37	0.89	0.91	

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 97.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 39.1 — Intersection LOS: D
Intersection Capacity Utilization 76.7% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr

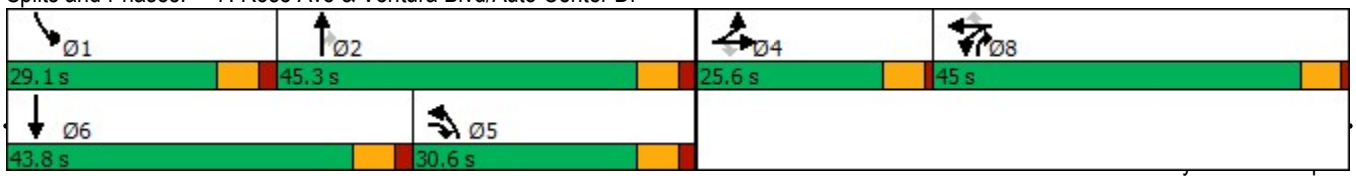


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	250	220	850	370	230	270	890	750	270	750	50
Future Volume (vph)	40	250	220	850	370	230	270	890	750	270	750	50
Satd. Flow (prot)	1770	1863	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Flt Permitted	0.950			0.950	0.991		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Satd. Flow (RTOR)			117			166			149		4	
Lane Group Flow (vph)	43	272	239	832	494	250	293	967	815	293	869	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	25.6	25.6	30.6	45.0	45.0	45.0	30.6	45.3	45.0	29.1	43.8	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	20.1	20.1	49.7	39.5	39.5	39.5	24.1	38.8	79.3	22.6	37.3	
Actuated g/C Ratio	0.14	0.14	0.34	0.27	0.27	0.27	0.17	0.27	0.55	0.16	0.26	
v/c Ratio	0.18	1.05	0.39	0.95	1.08	0.45	1.00	1.02	0.51	1.07	0.96	
Control Delay	57.3	129.3	19.8	71.8	114.5	17.5	111.2	86.6	9.5	129.3	74.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.3	129.3	19.8	71.8	114.5	17.5	111.2	86.6	9.5	129.3	74.3	
LOS	E	F	B	E	F	B	F	F	A	F	E	
Approach Delay		76.5			76.6			59.8			88.2	
Approach LOS		E			E			E			F	
Queue Length 50th (ft)	36	~280	83	425	~571	61	280	~508	101	~304	427	
Queue Length 95th (ft)	76	#464	160	#562	#816	146	#476	#645	130	#494	#564	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	245	258	619	877	457	552	294	946	1591	275	905	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.18	1.05	0.39	0.95	1.08	0.45	1.00	1.02	0.51	1.07	0.96	

Intersection Summary

Cycle Length: 145
Actuated Cycle Length: 145
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 72.6 Intersection LOS: E
Intersection Capacity Utilization 94.9% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



HCS Two-Way Stop-Control Report

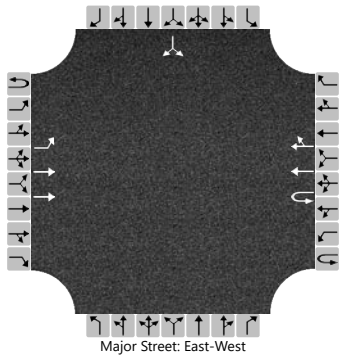
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	2030
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	50	570		25		300	85						30		10
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		50			25										40	
Capacity, c (veh/h)		1163			621										361	
v/c Ratio		0.04			0.04										0.11	
95% Queue Length, Q_{95} (veh)		0.1			0.1										0.4	
Control Delay (s/veh)		8.2			11.0										16.2	
Level of Service (LOS)		A			B										C	
Approach Delay (s/veh)	0.7				0.7								16.2			
Approach LOS	A				A								C			

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HCS Two-Way Stop-Control Report

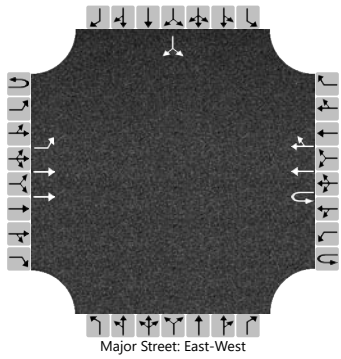
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	2030
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	70	770		30		850	130						45		25
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

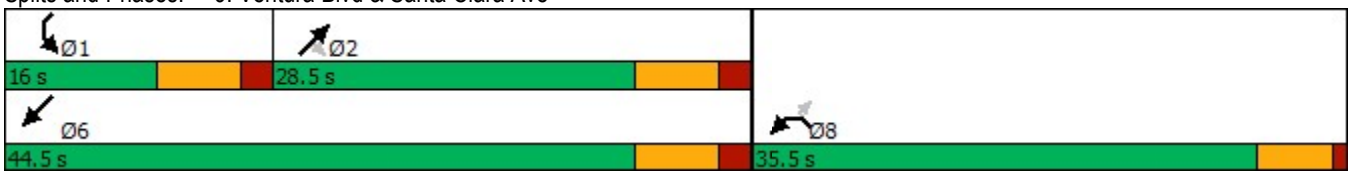
Flow Rate, v (veh/h)		70			30										70	
Capacity, c (veh/h)		694			463										133	
v/c Ratio		0.10			0.06										0.53	
95% Queue Length, Q_{95} (veh)		0.3			0.2										3.0	
Control Delay (s/veh)		10.8			13.3										61.3	
Level of Service (LOS)		B			B										F	
Approach Delay (s/veh)	0.9				0.4								61.3			
Approach LOS	A				A								F			

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	200	30	665	115	35	750
Future Volume (vph)	200	30	665	115	35	750
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		33		125		
Lane Group Flow (vph)	217	33	723	125	38	815
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	14.0	14.0	24.4	24.4	9.2	29.8
Actuated g/C Ratio	0.25	0.25	0.43	0.43	0.16	0.53
v/c Ratio	0.50	0.08	0.48	0.17	0.13	0.30
Control Delay	23.5	8.4	15.2	4.5	24.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	8.4	15.2	4.5	24.7	7.9
LOS	C	A	B	A	C	A
Approach Delay	21.5		13.6			8.7
Approach LOS	C		B			A
Queue Length 50th (ft)	48	0	64	0	9	47
Queue Length 95th (ft)	135	19	190	33	39	82
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	961	874	1521	751	288	3452
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.04	0.48	0.17	0.13	0.24

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

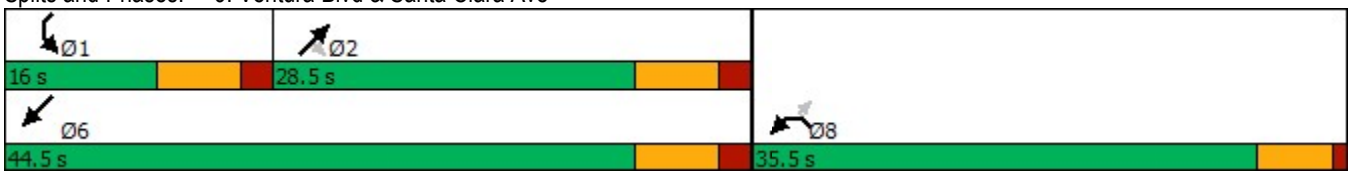
Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	200	55	810	210	35	990
Future Volume (vph)	200	55	810	210	35	990
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		60		212		
Lane Group Flow (vph)	217	60	880	228	38	1076
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	14.0	14.0	24.4	24.4	9.2	29.8
Actuated g/C Ratio	0.25	0.25	0.43	0.43	0.16	0.53
v/c Ratio	0.50	0.14	0.58	0.28	0.13	0.40
Control Delay	23.5	7.1	16.8	4.6	24.7	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	7.1	16.8	4.6	24.7	8.6
LOS	C	A	B	A	C	A
Approach Delay	19.9		14.3			9.1
Approach LOS	B		B			A
Queue Length 50th (ft)	48	0	82	2	9	67
Queue Length 95th (ft)	135	25	241	49	39	111
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	961	887	1521	801	288	3452
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.07	0.58	0.28	0.13	0.31

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



Year 2030 + Project AM and PM Peak Hour

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Year 2030
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	370	265	65	125	340	60	15	495	265	45	350	70
Project Trips	0	4	3	0	6	0	0	0	0	3	0	0
GEOMETRY	L	T TR		L	T TR		L	T	R	L	TR	

	Level of Service Calculations					
Move-	**Lanes**		**Volume**		**V/C Ratio**	
ment	Lane	Capacity	Year 2030	Project	Cumulative	2030+Pr
NBL	1.0	1,600	370	370	0.23 *	0.23 *
NBT	2.0	3,200	265	269	0.10	0.11
NBR	0.0	0	65	68	0.00	0.00
SBL	1.0	1,600	125	125	0.08	0.08
SBT	2.0	3,200	340	346	0.13 *	0.13 *
SBR	0.0	0	60	60	0.00	0.00
EBL	1.0	1,600	15	15	0.01	0.01
EBT	1.0	1,600	495	495	0.31 *	0.31 *
EBR	1.0	1,600	265	265	0.17	0.17
WBL	1.0	1,600	45	48	0.03 *	0.03 *
WBT	1.0	1,600	350	350	0.26	0.26
WBR	0.0	0	70	70	0.00	0.00
N/S Critical Movements					0.31	0.31
E/W Critical Movements					0.34	0.34
Clearance Interval					0.00	0.00
ICU					0.65	0.65
Level of Service (LOS)					B	B

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 1
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Central Ave
SCENARIO: Year 2030
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	190	385	40	65	315	20	5	290	255	60	425	175
Project Trips	0	1	1	0	1	0	0	0	0	1	0	0
GEOMETRY	L	T TR		L	T TR		L	T	R	L	TR	

	Level of Service Calculations					
Move-	**Lanes**		**Volume**		**V/C Ratio**	
ment	Lane	Capacity	Year 2030	Project	Cumulative	2030+Pr
NBL	1.0	1,600	190	190	0.12 *	0.12 *
NBT	2.0	3,200	385	386	0.13	0.13
NBR	0.0	0	40	41	0.00	0.00
SBL	1.0	1,600	65	65	0.04	0.04
SBT	2.0	3,200	315	316	0.10 *	0.11 *
SBR	0.0	0	20	20	0.00	0.00
EBL	1.0	1,600	5	5	0.00 *	0.00 *
EBT	1.0	1,600	290	290	0.18	0.18
EBR	1.0	1,600	255	255	0.16	0.16
WBL	1.0	1,600	60	61	0.04	0.04
WBT	1.0	1,600	425	425	0.38 *	0.38 *
WBR	0.0	0	175	175	0.00	0.00
N/S Critical Movements					0.18	0.18
E/W Critical Movements					0.38	0.38
Clearance Interval					0.00	0.00
ICU					0.56	0.56
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Year 2030
TIME PERIOD: AM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	80	615	5	0	600	25	100	0	190	0	0	0
Project Trips	2	7	0	0	9	0	0	0	3	0	0	0
GEOMETRY	L	T TR		L	TT	R	LTR			LTR		

Movement	Lanes		Volume		V/C Ratio	
	Lane	Capacity	Year 2030	Project	Year 2030	2030+Pr
	Level of Service Calculations					
NBL	1.0	1,600	80	82	0.05 *	0.05 *
NBT	2.0	3,200	615	622	0.19	0.20
NBR	0.0	0	5	5	0.00	0.00
SBL	1.0	1,600	0	0	0.00	0.00
SBT	2.0	3,200	600	609	0.19 *	0.19 *
SBR	1.0	1,600	25	25	0.02	0.02
EBL	0.0	0	100	100	0.00	0.00
EBT	1.0	1,600	0	0	0.18 *	0.18 *
EBR	0.0	0	190	193	0.00	0.00
WBL	0.0	0	0	0	0.00 *	0.00 *
WBT	1.0	1,600	0	0	0.00	0.00
WBR	0.0	0	0	0	0.00	0.00
N/S Critical Movements					0.20	0.21
E/W Critical Movements					0.18	0.18
Clearance Interval					0.00	0.00
ICU					0.38	0.39
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NUMBER: 2
NORTH/SOUTH STREET: Rose Ave
EAST/WEST STREET: Simon Wy
SCENARIO: Year 2030
TIME PERIOD: PM Peak Hour
COUNT DATE: 3/1/22
WORK ORDER #: 2042625101

VOLUMES	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Peak	170	610	0	0	600	45	20	0	120	0	0	0
Project Trips	1	2	0	0	1	0	0	0	1	0	0	0
GEOMETRY	L	T TR		L	TT	R	LTR			LTR		

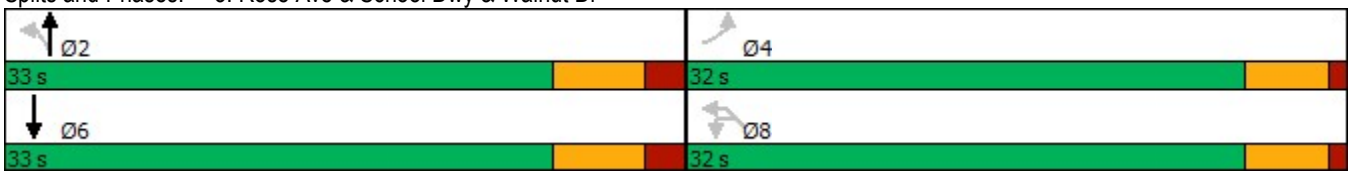
Movement	**Level of Service Calculations**					
	Lanes		**Volume**		**V/C Ratio**	
	Lane	Capacity	Year 2030	Project	Year 2030	2030+Pr
NBL	1.0	1,600	170	171	0.11 *	0.11 *
NBT	2.0	3,200	610	612	0.19	0.19
NBR	0.0	0	0	0	0.00	0.00
SBL	1.0	1,600	0	0	0.00	0.00
SBT	2.0	3,200	600	601	0.19 *	0.19 *
SBR	1.0	1,600	45	45	0.03	0.03
EBL	0.0	0	20	20	0.00	0.00
EBT	1.0	1,600	0	0	0.09 *	0.09 *
EBR	0.0	0	120	121	0.00	0.00
WBL	0.0	0	0	0	0.00 *	0.00 *
WBT	1.0	1,600	0	0	0.00	0.00
WBR	0.0	0	0	0	0.00	0.00
N/S Critical Movements					0.24	0.24
E/W Critical Movements					0.09	0.09
Clearance Interval					0.00	0.00
ICU					0.33	0.33
Level of Service (LOS)					A	A

Notes: V/C - Volume to Capacity Ratio

Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	28	0	100	45	639	0	0	840	24	116	25	45
Future Volume (vph)	28	0	100	45	639	0	0	840	24	116	25	45
Satd. Flow (prot)	1647	0	0	1770	3539	0	0	3525	0	0	1735	0
Flt Permitted	0.902			0.277							0.963	
Satd. Flow (perm)	1502	0	0	516	3539	0	0	3525	0	0	1735	0
Satd. Flow (RTOR)	59							5			59	
Lane Group Flow (vph)	139	0	0	49	695	0	0	939	0	0	282	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	12.2			27.4	27.4			27.4			12.2	
Actuated g/C Ratio	0.24			0.54	0.54			0.54			0.24	
v/c Ratio	0.34			0.18	0.37			0.50			0.61	
Control Delay	12.1			9.5	8.2			9.2			19.4	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	12.1			9.5	8.2			9.2			19.4	
LOS	B			A	A			A			B	
Approach Delay	12.1				8.2			9.2			19.4	
Approach LOS	B				A			A			B	
Queue Length 50th (ft)	19			6	54			80			57	
Queue Length 95th (ft)	53			27	107			153			72	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	822			276	1895			1889			945	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.17			0.18	0.37			0.50			0.30	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 51.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

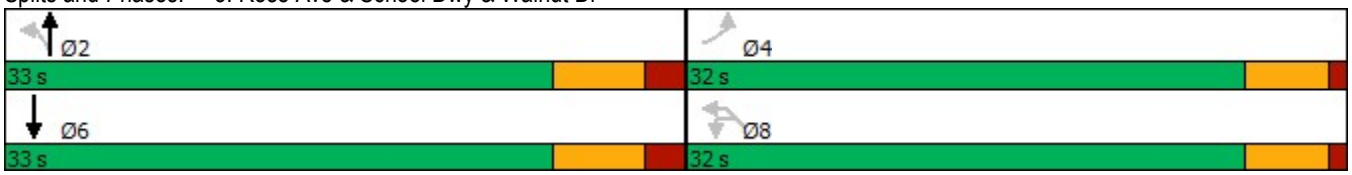
Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



Lane Group	EBL	EBR	EBR2	NBL	NBT	NBR	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations												
Traffic Volume (vph)	10	0	65	80	867	0	0	723	10	20	5	7
Future Volume (vph)	10	0	65	80	867	0	0	723	10	20	5	7
Satd. Flow (prot)	1633	0	0	1770	3539	0	0	3532	0	0	1740	0
Flt Permitted	0.943			0.350							0.963	
Satd. Flow (perm)	1551	0	0	652	3539	0	0	3532	0	0	1740	0
Satd. Flow (RTOR)	71							3			59	
Lane Group Flow (vph)	82	0	0	87	942	0	0	797	0	0	49	0
Turn Type	Perm			Perm	NA			NA		Perm	Perm	
Protected Phases					2			6				
Permitted Phases	4			2						8	8	
Total Split (s)	32.0			33.0	33.0			33.0		32.0	32.0	
Total Lost Time (s)	5.0			6.5	6.5			6.5			5.0	
Act Effct Green (s)	9.0			36.5	36.5			36.5			9.0	
Actuated g/C Ratio	0.18			0.75	0.75			0.75			0.18	
v/c Ratio	0.24			0.18	0.36			0.30			0.13	
Control Delay	8.4			5.9	4.8			4.5			6.0	
Queue Delay	0.0			0.0	0.0			0.0			0.0	
Total Delay	8.4			5.9	4.8			4.5			6.0	
LOS	A			A	A			A			A	
Approach Delay	8.4				4.9			4.5			6.0	
Approach LOS	A				A			A			A	
Queue Length 50th (ft)	3			10	68			54			0	
Queue Length 95th (ft)	29			29	102			82			9	
Internal Link Dist (ft)	270				320			328			113	
Turn Bay Length (ft)				150								
Base Capacity (vph)	892			488	2652			2647			992	
Starvation Cap Reductn	0			0	0			0			0	
Spillback Cap Reductn	0			0	0			0			0	
Storage Cap Reductn	0			0	0			0			0	
Reduced v/c Ratio	0.09			0.18	0.36			0.30			0.05	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 48.7	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Rose Ave & School Dwy & Walnut Dr



HCS Two-Way Stop-Control Report

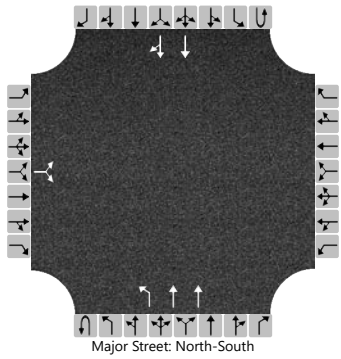
General Information

Analyst	DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		13		38					0	40	671				1037	11
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			51							40						
Capacity, c (veh/h)			264							654						
v/c Ratio			0.19							0.06						
95% Queue Length, Q_{95} (veh)			0.7							0.2						
Control Delay (s/veh)			21.9							10.9						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		21.9								0.6						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

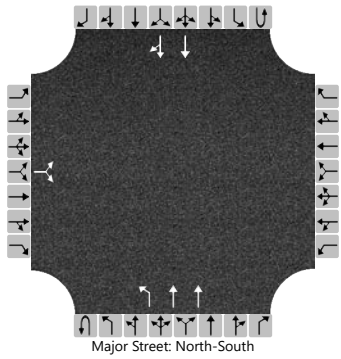
General Information

Analyst	4. DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	4. Rose Ave/Orange St
Jurisdiction	Ventura County
East/West Street	Orange St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		6		30					0	70	936				795	11
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			36							70						
Capacity, c (veh/h)			354							808						
v/c Ratio			0.10							0.09						
95% Queue Length, Q_{95} (veh)			0.3							0.3						
Control Delay (s/veh)			16.3							9.9						
Level of Service (LOS)			C							A						
Approach Delay (s/veh)		16.3								0.7						
Approach LOS		C								A						

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	30	100	58	19	48	40	765	107	89	988	15
Future Volume (vph)	66	30	100	58	19	48	40	765	107	89	988	15
Satd. Flow (prot)	0	1705	0	0	1725	0	1770	3539	1583	1770	3532	0
Flt Permitted		0.983			0.977		0.139			0.222		
Satd. Flow (perm)	0	1705	0	0	1725	0	259	3539	1583	414	3532	0
Satd. Flow (RTOR)		40			29				140		1	
Lane Group Flow (vph)	0	214	0	0	136	0	43	832	116	97	1090	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	16.0	16.0		34.0	34.0		15.5	39.5	39.5	15.5	39.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		11.1			12.9		40.2	33.2	33.2	41.5	36.3	
Actuated g/C Ratio		0.13			0.15		0.47	0.39	0.39	0.48	0.42	
v/c Ratio		0.84			0.48		0.15	0.61	0.17	0.28	0.73	
Control Delay		60.0			33.4		11.3	24.4	3.0	12.6	26.0	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		60.0			33.4		11.3	24.4	3.0	12.6	26.0	
LOS		E			C		B	C	A	B	C	
Approach Delay		60.0			33.4			21.3			24.9	
Approach LOS		E			C			C			C	
Queue Length 50th (ft)		96			56		10	195	0	24	282	
Queue Length 95th (ft)		#235			111		27	273	24	51	#396	
Internal Link Dist (ft)		364			1129			567			222	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		255			606		281	1371	699	343	1493	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.84			0.22		0.15	0.61	0.17	0.28	0.73	

Intersection Summary			
Cycle Length: 105			
Actuated Cycle Length: 85.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 26.9		Intersection LOS: C	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

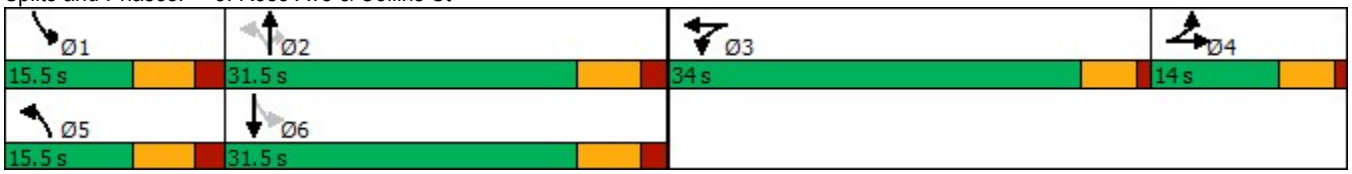
Splits and Phases: 5: Rose Ave & Collins St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	6	90	41	28	99	95	922	24	34	793	18
Future Volume (vph)	10	6	90	41	28	99	95	922	24	34	793	18
Satd. Flow (prot)	0	1642	0	0	1693	0	1770	3539	1583	1770	3529	0
Flt Permitted		0.995			0.988		0.190			0.170		
Satd. Flow (perm)	0	1642	0	0	1693	0	354	3539	1583	317	3529	0
Satd. Flow (RTOR)		98			79				155		2	
Lane Group Flow (vph)	0	116	0	0	183	0	103	1002	26	37	882	0
Turn Type	Split	NA		Split	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases							2		2	6		
Total Split (s)	14.0	14.0		34.0	34.0		15.5	31.5	31.5	15.5	31.5	
Total Lost Time (s)		5.0			5.0		6.5	6.5	6.5	6.5	6.5	
Act Effct Green (s)		9.2			13.0		35.5	30.4	30.4	34.2	27.4	
Actuated g/C Ratio		0.12			0.17		0.48	0.41	0.41	0.46	0.37	
v/c Ratio		0.40			0.51		0.30	0.69	0.04	0.11	0.68	
Control Delay		15.1			23.1		13.1	25.3	0.1	11.1	26.1	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		15.1			23.1		13.1	25.3	0.1	11.1	26.1	
LOS		B			C		B	C	A	B	C	
Approach Delay		15.1			23.1			23.6			25.5	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)		8			46		24	240	0	8	201	
Queue Length 95th (ft)		56			107		53	#382	0	24	#292	
Internal Link Dist (ft)		364			1129			567			209	
Turn Bay Length (ft)							90		140	175		
Base Capacity (vph)		288			720		343	1446	738	324	1302	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.40			0.25		0.30	0.69	0.04	0.11	0.68	

Intersection Summary			
Cycle Length: 95			
Actuated Cycle Length: 74.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 64.5%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 5: Rose Ave & Collins St



HCS Two-Way Stop-Control Report

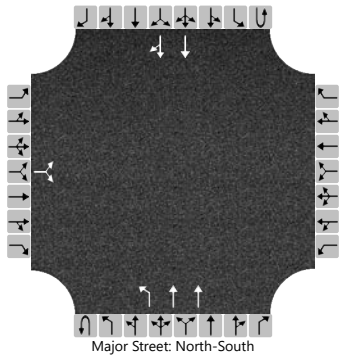
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		13		200					0	165	894				1128	38
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			213							165						
Capacity, c (veh/h)			283							589						
v/c Ratio			0.75							0.28						
95% Queue Length, Q_{95} (veh)			7.5							1.2						
Control Delay (s/veh)			53.6							13.5						
Level of Service (LOS)			F							B						
Approach Delay (s/veh)		53.6								2.1						
Approach LOS		F								A						

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HCS Two-Way Stop-Control Report

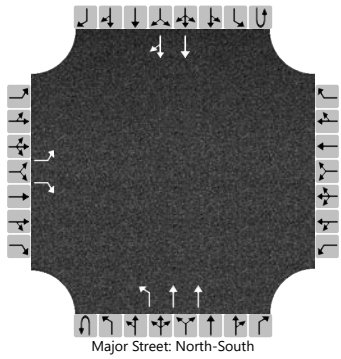
General Information

Analyst	06_DJL_MIT
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St - Mitigated
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	2	0	0	0	2	0
Configuration		L		R						L	T				T	TR
Volume (veh/h)		13		200					0	165	894				1128	38
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		6.9		6.9						4.1						
Critical Headway (sec)		6.26		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		13		200						165						
Capacity, c (veh/h)		58		453						589						
v/c Ratio		0.23		0.44						0.28						
95% Queue Length, Q_{95} (veh)		0.8		2.3						1.2						
Control Delay (s/veh)		85.6		19.2						13.5						
Level of Service (LOS)		F		C						B						
Approach Delay (s/veh)		23.2								2.1						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

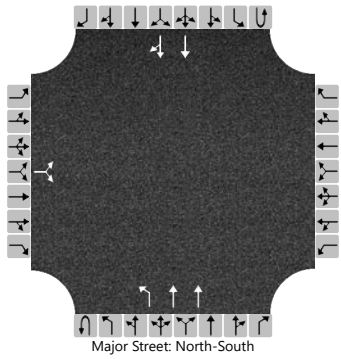
General Information

Analyst	06_DJL
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	2	0	0	0	2	0
Configuration			LR							L	T				T	TR
Volume (veh/h)		6		150					0	150	1040				923	21
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			156							150						
Capacity, c (veh/h)			410							716						
v/c Ratio			0.38							0.21						
95% Queue Length, Q_{95} (veh)			1.8							0.8						
Control Delay (s/veh)			19.1							11.4						
Level of Service (LOS)			C							B						
Approach Delay (s/veh)		19.1								1.4						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

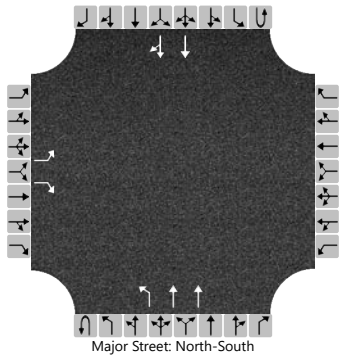
General Information

Analyst	06_DJL_MIT
Agency/Co.	Stantec
Date Performed	4/8/2022
Analysis Year	30PR
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Del Valle Middle School

Site Information

Intersection	6. Rose Ave/Stroube St - Mitigated
Jurisdiction	Ventura County
East/West Street	Stroube St
North/South Street	Rose Ave
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	2	0	0	0	2	0
Configuration		L		R						L	T				T	TR
Volume (veh/h)		6		150					0	150	1040				923	21
Percent Heavy Vehicles (%)		3		3					3	3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		150						150						
Capacity, c (veh/h)		60		536						716						
v/c Ratio		0.10		0.28						0.21						
95% Queue Length, Q_{95} (veh)		0.3		1.2						0.8						
Control Delay (s/veh)		71.9		14.3						11.4						
Level of Service (LOS)		F		B						B						
Approach Delay (s/veh)		16.5								1.4						
Approach LOS		C								A						

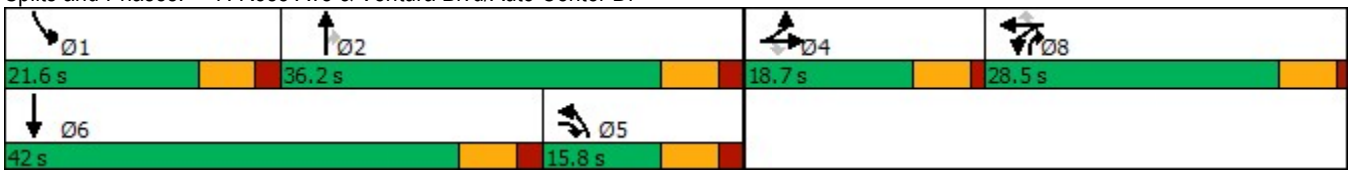
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	210	200	230	40	100	120	901	550	230	1057	53
Future Volume (vph)	53	210	200	230	40	100	120	901	550	230	1057	53
Satd. Flow (prot)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Flt Permitted	0.950			0.950	0.973		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Satd. Flow (RTOR)			161			229			183		5	
Lane Group Flow (vph)	58	228	217	195	98	109	130	979	598	250	1207	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	18.7	18.7	15.8	28.5	28.5	28.5	15.8	36.2	28.5	21.6	42.0	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	13.2	13.2	28.1	15.2	15.2	15.2	9.3	29.8	46.0	15.1	35.6	
Actuated g/C Ratio	0.14	0.14	0.29	0.16	0.16	0.16	0.10	0.31	0.47	0.16	0.37	
v/c Ratio	0.24	0.90	0.38	0.39	0.38	0.25	0.77	0.91	0.42	0.91	0.94	
Control Delay	42.2	80.2	11.0	38.7	40.7	1.3	73.7	46.2	6.5	78.5	45.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	42.2	80.2	11.0	38.7	40.7	1.3	73.7	46.2	6.5	78.5	45.3	
LOS	D	F	B	D	D	A	E	D	A	E	D	
Approach Delay		46.0			29.1			34.4			51.0	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	32	140	25	60	60	0	80	302	40	153	370	
Queue Length 95th (ft)	75	#307	92	95	113	0	#193	#481	59	#329	#586	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	240	252	570	762	390	549	169	1081	1621	274	1286	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.24	0.90	0.38	0.26	0.25	0.20	0.77	0.91	0.37	0.91	0.94	

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 97.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 41.2 — Intersection LOS: D
Intersection Capacity Utilization 77.8% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr

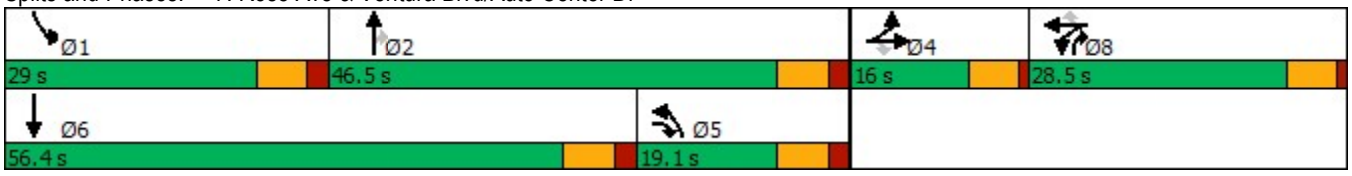


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	210	200	230	40	100	120	901	550	230	1057	53
Future Volume (vph)	53	210	200	230	40	100	120	901	550	230	1057	53
Satd. Flow (prot)	1770	3539	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Flt Permitted	0.950			0.950	0.973		0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	3221	1649	1583	1770	3539	2787	1770	3514	0
Satd. Flow (RTOR)			141			200			245		5	
Lane Group Flow (vph)	58	228	217	195	98	109	130	979	598	250	1207	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	16.0	16.0	19.1	28.5	28.5	28.5	19.1	46.5	28.5	29.0	56.4	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	10.4	10.4	27.6	15.8	15.8	15.8	11.7	42.2	59.0	19.5	50.0	
Actuated g/C Ratio	0.09	0.09	0.25	0.14	0.14	0.14	0.10	0.38	0.53	0.17	0.45	
v/c Ratio	0.35	0.69	0.44	0.43	0.42	0.28	0.71	0.73	0.38	0.81	0.77	
Control Delay	56.2	62.1	16.6	46.7	49.4	1.7	70.7	35.5	5.4	65.5	30.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.2	62.1	16.6	46.7	49.4	1.7	70.7	35.5	5.4	65.5	30.9	
LOS	E	E	B	D	D	A	E	D	A	E	C	
Approach Delay		41.8			35.2			27.6			36.9	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	40	85	43	71	72	0	92	325	43	173	381	
Queue Length 95th (ft)	88	#146	122	110	129	0	#189	452	67	#302	523	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	166	332	473	663	339	484	199	1332	1748	356	1572	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.35	0.69	0.46	0.29	0.29	0.23	0.65	0.73	0.34	0.70	0.77	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 112	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



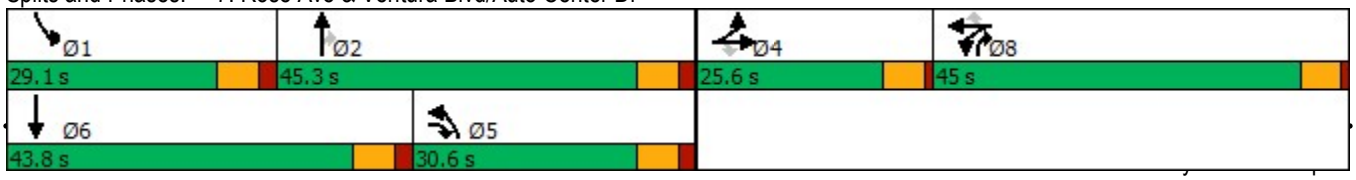
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	250	220	850	370	230	270	909	750	270	762	51
Future Volume (vph)	41	250	220	850	370	230	270	909	750	270	762	51
Satd. Flow (prot)	1770	1863	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Flt Permitted	0.950			0.950	0.991		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Satd. Flow (RTOR)			117			166			149		4	
Lane Group Flow (vph)	45	272	239	832	494	250	293	988	815	293	883	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	25.6	25.6	30.6	45.0	45.0	45.0	30.6	45.3	45.0	29.1	43.8	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	20.1	20.1	49.7	39.5	39.5	39.5	24.1	38.8	79.3	22.6	37.3	
Actuated g/C Ratio	0.14	0.14	0.34	0.27	0.27	0.27	0.17	0.27	0.55	0.16	0.26	
v/c Ratio	0.18	1.05	0.39	0.95	1.08	0.45	1.00	1.04	0.51	1.07	0.98	
Control Delay	57.5	129.3	19.8	71.8	114.5	17.5	111.2	92.3	9.5	129.3	77.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.5	129.3	19.8	71.8	114.5	17.5	111.2	92.3	9.5	129.3	77.4	
LOS	E	F	B	E	F	B	F	F	A	F	E	
Approach Delay		76.4			76.6			62.7			90.3	
Approach LOS		E			E			E			F	
Queue Length 50th (ft)	38	~280	83	425	~571	61	280	~530	101	~304	436	
Queue Length 95th (ft)	78	#464	160	#562	#816	146	#476	#667	130	#494	#578	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	245	258	619	877	457	552	294	946	1591	275	905	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.18	1.05	0.39	0.95	1.08	0.45	1.00	1.04	0.51	1.07	0.98	

Intersection Summary	
Cycle Length: 145	
Actuated Cycle Length: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 74.2	Intersection LOS: E
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	250	220	850	370	230	270	909	750	270	762	51
Future Volume (vph)	41	250	220	850	370	230	270	909	750	270	762	51
Satd. Flow (prot)	1770	3539	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Flt Permitted	0.950			0.950	0.991		0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	3221	1680	1583	1770	3539	2787	1770	3507	0
Satd. Flow (RTOR)			117			166			149		4	
Lane Group Flow (vph)	45	272	239	832	494	250	293	988	815	293	883	0
Turn Type	Split	NA	pm+ov	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4	5	8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Total Split (s)	25.6	25.6	30.6	45.0	45.0	45.0	30.6	45.3	45.0	29.1	43.8	
Total Lost Time (s)	5.5	5.5	6.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5	
Act Effct Green (s)	16.0	16.0	45.6	39.5	39.5	39.5	24.1	38.8	79.3	22.6	37.3	
Actuated g/C Ratio	0.11	0.11	0.32	0.28	0.28	0.28	0.17	0.28	0.56	0.16	0.26	
v/c Ratio	0.23	0.68	0.40	0.92	1.05	0.44	0.97	1.01	0.50	1.04	0.95	
Control Delay	59.3	68.9	20.3	65.6	103.7	17.1	102.1	82.6	8.8	119.2	70.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.3	68.9	20.3	65.6	103.7	17.1	102.1	82.6	8.8	119.2	70.1	
LOS	E	E	C	E	F	B	F	F	A	F	E	
Approach Delay		47.2			69.9			56.6			82.3	
Approach LOS		D			E			E			F	
Queue Length 50th (ft)	38	127	83	408	~540	59	270	~491	101	~288	419	
Queue Length 95th (ft)	78	177	160	#562	#816	146	#476	#667	130	#494	#578	
Internal Link Dist (ft)		536			506			331			318	
Turn Bay Length (ft)	100		120	200		200	215		240	170		
Base Capacity (vph)	252	505	591	903	470	563	302	974	1633	283	931	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.18	0.54	0.40	0.92	1.05	0.44	0.97	1.01	0.50	1.04	0.95	

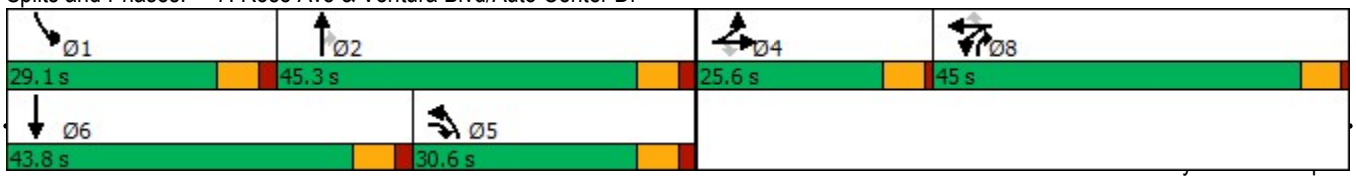
Intersection Summary

Cycle Length: 145
Actuated Cycle Length: 140.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 65.1 — Intersection LOS: E
Intersection Capacity Utilization 90.6% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Rose Ave & Ventura Blvd/Auto Center Dr



HCS Two-Way Stop-Control Report

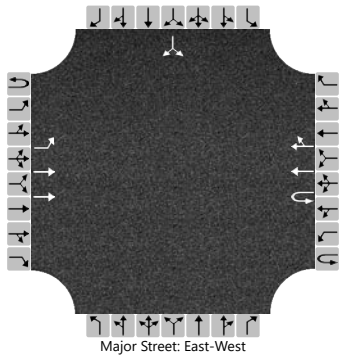
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	1	0
Configuration		L	T		U		T	TR							LR	
Volume (veh/h)	0	50	570		25		300	115						50		10
Percent Heavy Vehicles (%)	3	3			3									3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4									7.5		6.9
Critical Headway (sec)		4.16			6.46									6.86		6.96
Base Follow-Up Headway (sec)		2.2			2.5									3.5		3.3
Follow-Up Headway (sec)		2.23			2.53									3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		50			25										60	
Capacity, c (veh/h)		1133			621										332	
v/c Ratio		0.04			0.04										0.18	
95% Queue Length, Q_{95} (veh)		0.1			0.1										0.7	
Control Delay (s/veh)		8.3			11.0										18.2	
Level of Service (LOS)		A			B										C	
Approach Delay (s/veh)	0.7				0.6								18.2			
Approach LOS	A				A								C			

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HCS Two-Way Stop-Control Report

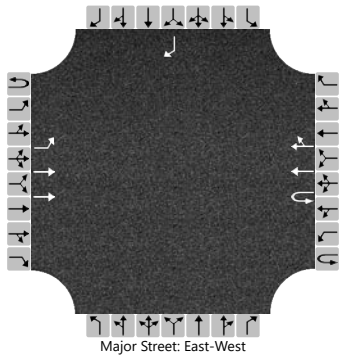
General Information

Analyst	08_DJL_Mitigated
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	8. Auto Center Dr/Collins St - Mitigated
Jurisdiction	Oxnard
East/West Street	Auto Center Dr
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	0	1
Configuration		L	T		U		T	TR								R
Volume (veh/h)	0	50	570		25		300	115								60
Percent Heavy Vehicles (%)	3	3			3											3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4											6.9
Critical Headway (sec)		4.16			6.46											6.96
Base Follow-Up Headway (sec)		2.2			2.5											3.3
Follow-Up Headway (sec)		2.23			2.53											3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		50			25											60
Capacity, c (veh/h)		1133			621											796
v/c Ratio		0.04			0.04											0.08
95% Queue Length, Q_{95} (veh)		0.1			0.1											0.2
Control Delay (s/veh)		8.3			11.0											9.9
Level of Service (LOS)		A			B											A
Approach Delay (s/veh)	0.7				0.6								9.9			
Approach LOS	A				A								A			

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HCS Two-Way Stop-Control Report

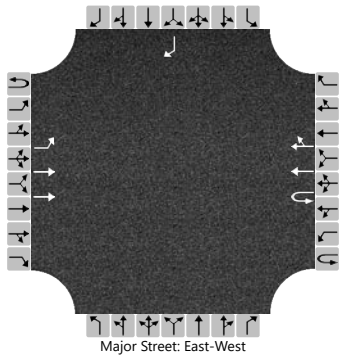
General Information

Analyst	08_DJL
Agency/Co.	Stantec
Date Performed	4/11/2022
Analysis Year	2030
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	Auto Center Dr/Collins St
Jurisdiction	Oxnard
East/West Street	Auro Center DR
North/South Street	Collins St
Peak Hour Factor	1.00
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	1	0	2	0		0	0	0		0	0	1
Configuration		L	T		U		T	TR								R
Volume (veh/h)	0	70	770		30		850	130								70
Percent Heavy Vehicles (%)	3	3			3											3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1			6.4											6.9
Critical Headway (sec)		4.16			6.46											6.96
Base Follow-Up Headway (sec)		2.2			2.5											3.3
Follow-Up Headway (sec)		2.23			2.53											3.33

Delay, Queue Length, and Level of Service

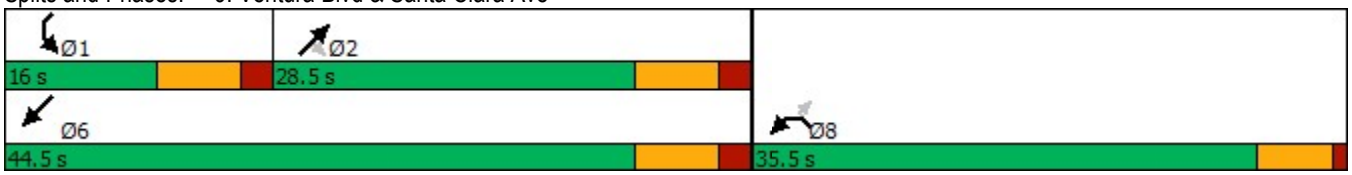
Flow Rate, v (veh/h)		70			30											70
Capacity, c (veh/h)		694			463											521
v/c Ratio		0.10			0.06											0.13
95% Queue Length, Q_{95} (veh)		0.3			0.2											0.5
Control Delay (s/veh)		10.8			13.3											13.0
Level of Service (LOS)		B			B											B
Approach Delay (s/veh)	0.9				0.4								13.0			
Approach LOS	A				A								B			

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	207	30	667	120	35	752
Future Volume (vph)	207	30	667	120	35	752
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		33		130		
Lane Group Flow (vph)	225	33	725	130	38	817
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	14.2	14.2	24.1	24.1	9.2	29.5
Actuated g/C Ratio	0.25	0.25	0.43	0.43	0.16	0.52
v/c Ratio	0.51	0.08	0.48	0.17	0.13	0.31
Control Delay	23.5	8.3	15.5	4.5	24.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	8.3	15.5	4.5	24.9	8.1
LOS	C	A	B	A	C	A
Approach Delay	21.6		13.8			8.8
Approach LOS	C		B			A
Queue Length 50th (ft)	50	0	65	0	9	48
Queue Length 95th (ft)	140	18	192	33	40	83
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	964	877	1506	748	289	3461
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.04	0.48	0.17	0.13	0.24

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.6			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Ventura Blvd & Santa Clara Ave

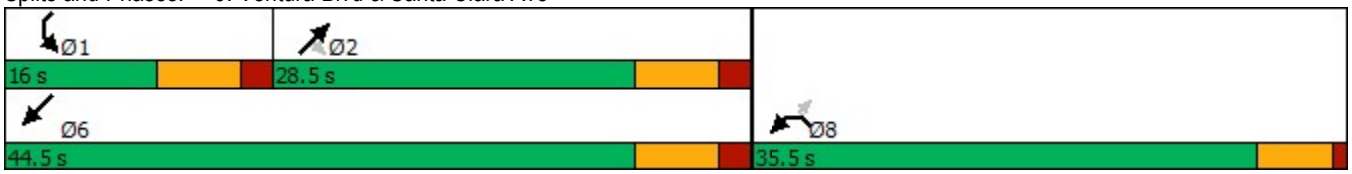


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	267	55	810	212	35	990
Future Volume (vph)	267	55	810	212	35	990
Satd. Flow (prot)	1770	1583	3539	1583	1770	5085
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3539	1583	1770	5085
Satd. Flow (RTOR)		60		214		
Lane Group Flow (vph)	290	60	880	230	38	1076
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	35.5	35.5	28.5	28.5	16.0	44.5
Total Lost Time (s)	5.5	5.5	7.0	7.0	7.0	7.0
Act Effct Green (s)	16.0	16.0	22.6	22.6	9.3	27.8
Actuated g/C Ratio	0.28	0.28	0.40	0.40	0.16	0.49
v/c Ratio	0.58	0.12	0.62	0.30	0.13	0.43
Control Delay	24.0	6.5	19.4	5.1	26.5	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	6.5	19.4	5.1	26.5	10.1
LOS	C	A	B	A	C	B
Approach Delay	21.0		16.4			10.6
Approach LOS	C		B			B
Queue Length 50th (ft)	68	0	95	2	9	76
Queue Length 95th (ft)	178	24	#290	52	42	130
Internal Link Dist (ft)	488		279			160
Turn Bay Length (ft)	185			150	145	
Base Capacity (vph)	970	895	1410	759	291	3485
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.07	0.62	0.30	0.13	0.31

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 56.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Ventura Blvd & Santa Clara Ave



HCS Two-Way Stop-Control Report

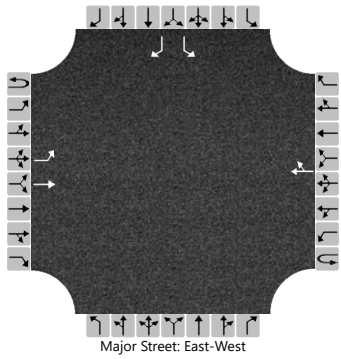
General Information

Analyst	C - DJL
Agency/Co.	Stantec
Date Performed	9/11/2024
Analysis Year	30PR
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	C. Collins St/W. Dwy
Jurisdiction	Oxnard
East/West Street	Collins Street
North/South Street	MS Western Dwy
Peak Hour Factor	0.66
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
Configuration		L	T					TR						L		R
Volume (veh/h)		124	102				60	35						30		55
Percent Heavy Vehicles (%)		10												10		6
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.20												6.50		6.26
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.29												3.59		3.35

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		188												45		83
Capacity, c (veh/h)		1391												366		924
v/c Ratio		0.14												0.12		0.09
95% Queue Length, Q_{95} (veh)		0.5												0.4		0.3
Control Delay (s/veh)		8.0												16.2		9.3
Level of Service (LOS)		A												C		A
Approach Delay (s/veh)		4.4												11.7		
Approach LOS		A												B		

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HCS Two-Way Stop-Control Report

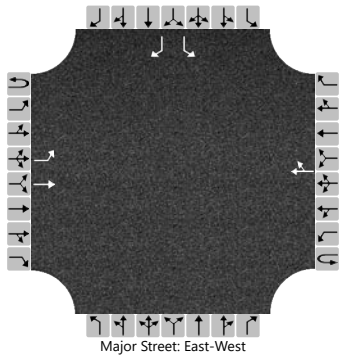
General Information

Analyst	C - DJL
Agency/Co.	Stantec
Date Performed	9/11/2024
Analysis Year	30PR
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Del Valle MS

Site Information

Intersection	C. Collins St/W. Dwy
Jurisdiction	Oxnard
East/West Street	Collins Street
North/South Street	MS Western Dwy
Peak Hour Factor	0.66
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	1	0	0	0	1	0		0	0	0		1	0	1
Configuration		L	T					TR						L		R
Volume (veh/h)		12	52				159	7						9		9
Percent Heavy Vehicles (%)		10												10		6
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type | Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.20												6.50		6.26
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.29												3.59		3.35

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		18												14		14
Capacity, c (veh/h)		1269												613		783
v/c Ratio		0.01												0.02		0.02
95% Queue Length, Q_{95} (veh)		0.0												0.1		0.1
Control Delay (s/veh)		7.9												11.0		9.7
Level of Service (LOS)		A												B		A
Approach Delay (s/veh)		1.5												10.3		
Approach LOS		A												B		

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Appendix 7
Auto Center Dr/Collins St Collision Data

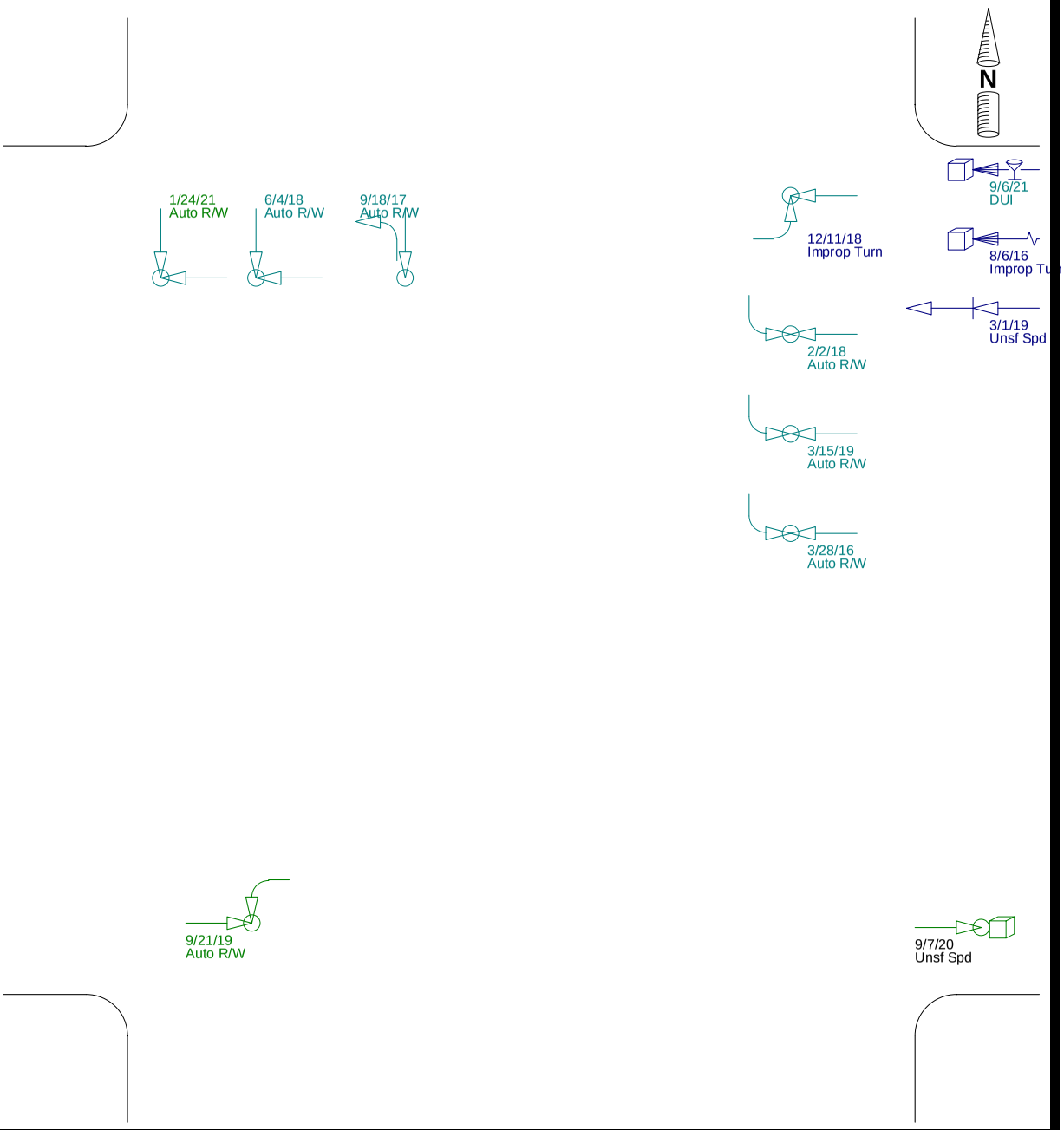
Collision Diagram

Horizontal Street: AUTO CENTER DR

Vertical Street: VIA ESTRADA ST

From: 1/1/2016 **To:** 6/15/2022

Date Prepared: 8/11/2022



Number of Collisions

3	Property Damage Only
9	Injury Collisions
0	Fatal Collisions
12	Total Collisions

Legend

- Moving Vehicle
- Stopped Vehicle
- Backing Vehicle
- Ran Off Road
- Movement Unknown
- Right Turn
- Left Turn
- Sideswipe
- Day
- Night
- Pedestrian
- Fixed Object
- Bicycle
- DUI
- Injury
- Fatal

Color Legend - Highest Degree of Injury

Maroon = Fatal

Purple = Severe Injury

Green = Other Visible Injury

Teal = Complaint of Pain

Dark Blue = Property Damage Only

City of Oxnard
Traffic Engineering

From 1/1/2016 to 6/15/2022

Total Collisions: 12

Injury Collisions: 9

Fatal Collisions: 0

Collision Summary Report

8/11/22

AUTO CENTER DR & VIA ESTRADA ST

8555066 **3/28/2016** **17:05** Monday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21802A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0

Party 1 Driver South Making Left Turn Female Age: 17 2000 CHEVROLET No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated
Party 2 Driver West Proceeding Straight Female Age: 53 2004 TOYOTA Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated

2016-00081660 **8/6/2016** **01:40** Saturday AUTO CENTER DR - VIA ESTRADA ST 100' Direction: East Dark - Street Lig Clear Pty at Fault:0
Hit Object Fixed Object Improper Turning 22107 Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0

Party 1 Driver West Ran Off Road Female Age: 20 2015 HONDA Passenger Car, Station Wagon, Jeep
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: None Apparent Lap/Shoulder Harness Used Cell Phone Not In Use

8601546 **9/18/2017** **07:30** Monday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Sideswipe Other Motor Vehicle Auto R/W Violation 21801A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0

Party 1 Driver North Making U Turn Female Age: 47 2015 VOLKSWAGEN No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated
Party 2 Driver South Proceeding Straight Female Age: 30 2013 NISSAN Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

8599134 **2/2/2018** **16:04** Friday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21801A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0

Party 1 Driver South Making Left Turn Male Age: 30 2000 FORD No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated
Party 2 Driver West Proceeding Straight Male Age: 42 2005 NISSAN Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

8653134 **6/4/2018** **12:49** Monday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21802A Hit & Run: Felony Complaint of Pain # Inj: 2 # Killed: 0

Party 1 Driver South Proceeding Straight Not Sta Age: 2002 FORD No Injury
Veh Type: Passenger Car Sobriety: Impairment Not Kno Assoc Factor: Not Stated Not Stated Not Stated
Party 2 Driver West Proceeding Straight Male Age: 46 2005 FORD Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

8776231 **12/11/2018** **13:06** Tuesday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Improper Turning 22107 Hit & Run: No Complaint of Pain # Inj: 2 # Killed: 0

Party 1 Driver East Making Left Turn Female Age: 38 2018 NISSAN Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated

Party 2 Driver West Proceeding Straight Male Age: 63 2017 KIA Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated

8819590 **3/1/2019** **14:30** Friday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Cloudy Pty at Fault:1
Rear-End Other Motor Vehicle Unsafe Speed 22350 Hit & Run: Misde Property Damage Only # Inj: 0 # Killed: 0

Party 1 Driver West Proceeding Straight Not Sta Age: 2018 TOYOTA No Injury
Veh Type: Passenger Car Sobriety: HBD Impairment Un Assoc Factor: Not Stated Not Stated Not Stated
Party 2 Driver West Stopped in Road Female Age: 58 2016 ACURA No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

8819019 **3/15/2019** **16:53** Friday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21801B Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0

Party 1 Driver South Making Left Turn Female Age: 79 2019 TOYOTA No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated
Party 2 Driver West Proceeding Straight Female Age: 23 2014 JEEP Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

8950218 **9/21/2019** **10:33** Saturday AUTO CENTER DR - VIA ESTRADA ST 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21801A Hit & Run: No Other Visible Injury # Inj: 2 # Killed: 0

Party 1 Driver West Making U Turn Male Age: 24 2018 AUDI Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated
Party 2 Driver East Proceeding Straight Female Age: 38 2013 HYUNDAI Other Visible Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Deployed Not Stated

9168190 **9/7/2020** **15:36** Monday AUTO CENTER DR - VIA ESTRADA ST 50' Direction: East Daylight Clear Pty at Fault:1
Hit Object Fixed Object Unsafe Speed 22350 Hit & Run: No Other Visible Injury # Inj: 2 # Killed: 0

Party 1 Driver East Proceeding Straight Male Age: 24 1995 - Other Visible Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

9220554 **1/24/2021** **16:20** Sunday VIA ESTRADA ST - AUTO CENTER DR 0' Direction: Not Stated Daylight Clear Pty at Fault:1
Broadside Other Motor Vehicle Auto R/W Violation 21802A Hit & Run: No Complaint of Pain # Inj: 1 # Killed: 0

Party 1 Driver South Proceeding Straight Male Age: 25 2019 - No Injury
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated
Party 2 Driver West Proceeding Straight Male Age: 35 2005 - Complaint of Pain
Veh Type: Passenger Car Sobriety: HNBD Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

9321979 **9/6/2021** **20:50** Monday AUTO CENTER DR - VIA ESTRADA ST 60' Direction: East Dark - Street Lig Clear Pty at Fault:1
Hit Object Fixed Object Driving Under Influence 23152A Hit & Run: No Property Damage Only # Inj: 0 # Killed: 0

Party 1 Driver West Proceeding Straight Female Age: 50 2003 FORD No Injury
Veh Type: Passenger Car Sobriety: HBD Under Influenc Assoc Factor: Not Stated Air Bag Not Deployed Not Stated

Settings for Query:

Street: AUTO CENTER DR
Cross Street: VIA ESTRADA ST
Intersection Related: True
Sorted By: Date and Time

VMT Analysis Memorandum

Stantec

Memo

To:	Randy Westhaus, P.E. Director Tetra Tech	From:	Daryl Zerfass and Maria Morris Stantec
File:	2042625101	Date:	October 15, 2024

Reference: Rio Del Valle Middle School Project, Rio School District –VMT Analysis

Stantec has prepared a vehicle miles of travel (VMT) analysis for the proposed expansion of the Rio Del Valle Middle School campus (Project) located at 3100 Rose Avenue in unincorporated County of Ventura. The purpose of this memo is to document the findings of a VMT analysis prepared in support of the Project's environmental documentation and complies with the updated California Environmental Quality Act (CEQA) guidelines that incorporate the requirements of Senate Bill 743 (SB 743).

Project Description

The Project expands the existing campus and results in a potential enrollment increase of 250 students over a five-year period once school expansion is completed. In addition, the School District proposes to transfer the existing school bus parking and workroom facilities (District Transportation and Parking Facility) from the current location on E. Vineyard Avenue at Sycamore Street to the Project site. A conceptual site plan illustrating the proposed Project is attached for reference (**Figure 1**). The Rio Del Valle Middle School campus is part of the Rio School District.

Methodology

The Governor's Office of Planning and Research (OPR) Technical Advisory[1] recommends local agencies adopt guidelines appropriate for their jurisdiction. The County of Ventura has developed the Initial Study Assessment Guidelines[2] (referred to here as County Guidelines) that is consistent with the CEQA requirements and includes analysis methodology and significance thresholds for projects in unincorporated County areas. Since the County Guidelines do not include screening criteria, guidance from OPR's Technical Advisory and other local agencies are utilized here for the screening process.

First, a screening process is conducted to identify if the Project can be presumed to have a less than significant impact. If the Project does not meet any of the screening criteria, a full VMT analysis is prepared. For purposes of this analysis, the Project is evaluated as a mixed-use consisting of the school portion and the District Transportation and Parking Facility (DTPF) portion. County Guidelines cite OPR's guidance that "suggests applying the threshold of one (or more) of the land uses"[3] for mixed use projects. OPR's Technical Advisory also suggests "a lead agency may consider only the project's dominant use"[4]. In this instance the school portion of the project is the dominant use since the estimated average daily trips generated by the

[1] Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, State of California, December 2018.
[2] Ventura County Initial Study Assessment Guidelines, https://s29422.pcdn.co/wp-content/uploads/2020/06/VMT-Draft-for-Public-Review-Clean-Version.pdf
[3] Page 2 ibid
[4] Page 31 ibid

school expansion (525 ADT) make up approximately two thirds of the Project's daily trip generation (792 ADT)[5].

Project Screening

OPR's Technical Advisory advises that lead agencies conduct a screening process "to quickly identify when a project should be expected to cause a less than significant impact."[6] As shown in **Table 1**, the screening process considers the project size, low VMT areas, transit availability, affordable housing, and local serving development. If the Project meets one of the criteria, it is presumed to have a less than significant impact.

Table 1 Project Screening Criteria

Category	Criteria/Screening	Threshold	Does Project Meet Screening Criteria?	
			School	DTPF
Small Project	Small projects are presumed to have a less than significant impact	If the Project generates less than 110 net trips per day	No	Yes
Map-based screening	Projects that located in areas with low VMT are presumed to have a less than significant impact	If the Project is in a low VMT area, defined as 15% below the regional average.	No	No
Proximity to transit	Projects in a transit priority area are presumed to have a less than significant impact	If the Project is within ½ mile of a major or high-quality transit stop/corridor	No	No
Affordable residential development	Affordable housing in infill locations are presumed to have a less than significant impact	If the Project is comprised 100% of affordable units	N/A	N/A
Locally serving retail and other local serving uses	Retail projects that are local serving are presumed to have a less than significant impact Other local serving uses approved by the local agency.	Retail that is less than 50,000 square feet Uses approved by local agencies such as a public school.	Yes	Yes

As shown in **Table 1**, the Project meets the locally serving use criteria. The following is a qualitative assessment on how the Project meets the criteria of a local serving use and meets the intent and goals of SB 743.

Local agencies may elect to classify certain uses as local serving if the use is expected to draw users from a relatively small geographic area, leading to short-distance trips, and trips that are linked to other destinations. A neighborhood school primarily draws students from a relatively small geographic area in the vicinity of the school site, which results in short-distance trips. The furthest distance to the school within the attendance boundary is approximately three miles[7] (See attendance boundaries in **Figure 2**). If enrollment at the Rio Del Valle Middle School is at capacity, a student may need to attend the Rio Vista Middle School, which is approximately 1.3 miles from the Project site and 4 to 5 miles from the furthest point of the attendance boundary. Driving to a further school can result in a longer trip length of one to two miles and an increase in VMT. Other agencies in California, such as the County of Sacramento, County of San Diego, City of Irvine,

[5] 250 students = 525 ADT; DTPF = 267 ADT; Source: Rio Del Valle Middle School Project Traffic Impact Study
[6] Page 12 ibid.
[7] Measured from Kohala Street/Camino Del Sol intersection to Rio Del Valle Middle School

and City of Pomona have adopted a public school use as a local serving use as it meets the intent of SB 743. Therefore, based on the locally serving use screening criteria, the VMT generated by the school expansion is less than significant.

The DTPF portion makes up only a third of the Project's trip generation, is not the dominant use, and it meets the small project screening criteria since the facility is being relocated and would have less than 110 net new daily trips. In addition, the DTPF is relocating a short distance from 940 Maulhardt Avenue to the Project site (approximately 2.5 miles), resulting in a nominal change in VMT overall. Importantly, school buses result in an overall reduction in VMT citywide by reducing private vehicle use. Therefore, based on the small project screening criteria and the locally serving use screening criteria, the DTPF portion of the project is less than significant.

Based on the analysis provided above, the Project would have a less than significant impact at the project level.

Cumulative Impact Analysis

Per the OPR Technical Advisory, "a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa"[8]. Therefore, since the Project has a less than significant impact at the project level, the Project has less than significant cumulative impact.

Consistency with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The purpose of the RTP/SCS is to evaluate regional land use patterns and transportation systems to achieve the State's target GHG emissions reduction goals. Ventura County is within the SCAG region and the Project's consistency with the SCAG 2020-2045 RTP/SCS, also known as Connect SoCal, is required. The Project's land uses are consistent with the County's General Plan, specifically with the El Rio/Del Norte Area Plan that designates the site as Institutional and Agricultural, which allows for the proposed uses. Therefore, since the Project is consistent with the County's General Plan, the Project would be consistent with the RTP/SCS.

Active Transportation and Transit

There are existing Class II bike lanes on Rose Avenue and Auto Center Drive. The Project will not block, remove, or restrict existing or future pedestrian and bicycle facilities.

The Project site is accessible by bus transit. There are approximately 9 bus stops around the Project site, serviced by Gold Coast Transit, public transit services in Western Ventura County. The stops provide service to routes 15 (Esplanade – El Rio – St. John's Medical Center) 18G (School Trippers – Local Community and Area High Schools), and 17 (Esplanade – St. John's – Oxnard College). The Project will not block, remove, or restrict existing transit.

[8] Technical Advisory on Evaluating Transportation Impacts in CEQA, page 6, Governor's Office of Planning and Research, State of California, December 2018.

Reference: **Rio Del Valle Middle School Project, Rio School District –VMT Analysis**

Conclusion

A VMT analysis was conducted for the Project. The school portion of the Project is the dominant use and meets the locally serving screening criteria; therefore, the Project is presumed to have a less than significant impact at the project level. Furthermore, the DTPF portion of the project would also be less than significant on a stand-alone basis based on both the small project screening criteria and the locally serving screening criteria. Since the Project would have a less than significant impact at the project level, the Project would have a less than significant impact at the cumulative level per OPR's Technical Advisory. The Project was also determined to be consistent with regional plans and to not impact active transportation or transit use.

Sincerely,

Stantec Consulting Services Inc.

Maria Morris AICP, PTP
Senior Transportation Planner
Phone: 949 923 6072
Maria.Morris@stantec.com

Daryl Zerfass PE, PTP
Principal, Transportation Planning & Traffic Engineering
Phone: 949 302 8995
Daryl.Zerfass@stantec.com

Attachment: Figure 1 Conceptual Site Plan
Figure 2 School Attendance Boundary
Examples of Local Agencies Adopting Public Schools as Local Serving

c.

Reference: **Rio Del Valle Middle School Project, Rio School District –VMT Analysis**

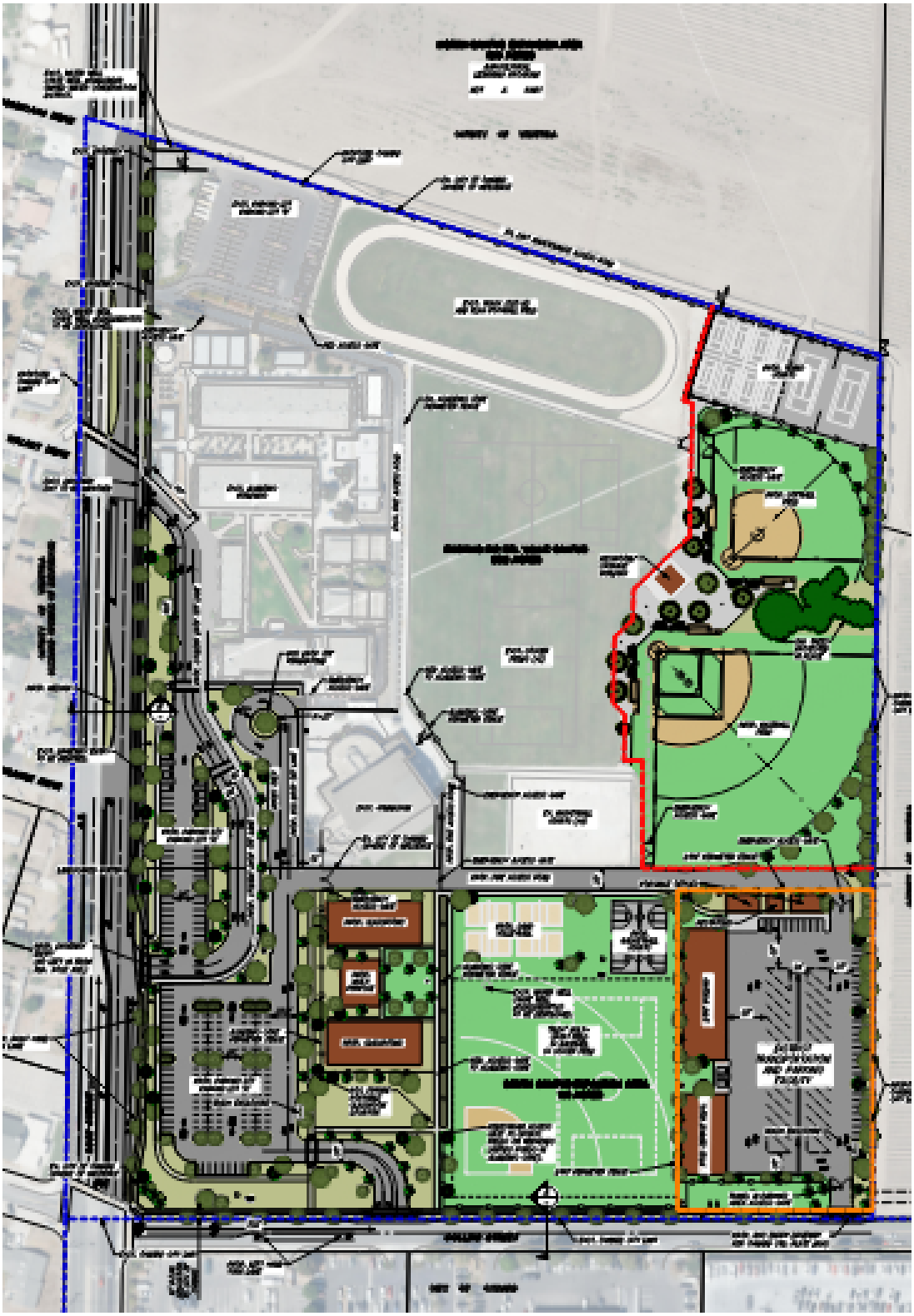


Figure 1: Conceptual Site Plan

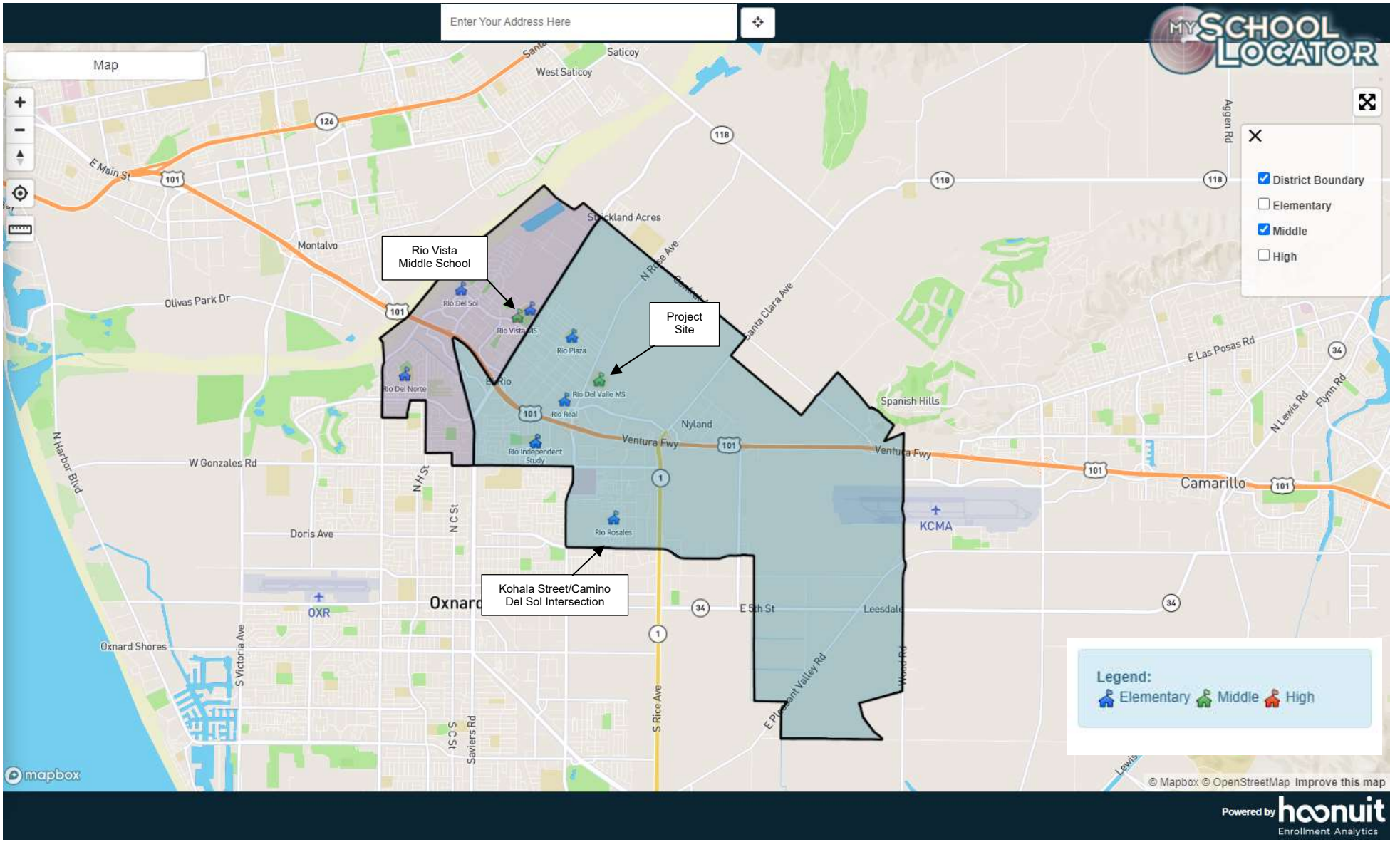


Figure 2: Rio School District Attendance Boundary for Middle Schools

- The project is exempt from CEQA.
- The decision required for the project is not discretionary.
- The project was already analyzed in a prior certified EIR.
- The County's discretionary approval does not involve transportation issues, such as design review.

The County will consider whether a project meets these or other non-VMT CEQA principles on a case-by-case basis.

B. Screening Criteria

A detailed CEQA transportation analysis would not be required if a project meets the County's screening criteria. **Table 3-1** presents the screening criteria for projects that are expected to result in less-than-significant VMT impacts based on project description, characteristics, and/or location. If a component of a mixed-use project meets these screening criteria, only the component, not the entire project, would be screened from CEQA transportation analysis.

Table 3-1
Screening Criteria for CEQA Transportation Analysis for Development Projects

Type	Screening Criteria
1. Small Projects	• Projects generating less than 237 average daily traffic (ADT)
2. Local-Serving Retail[1]	• 125,000 square feet of total gross floor area or less in an infill setting; OR 200,000 square feet of total gross floor area or less in a greenfield setting; OR if supported by a market study with a capture area of 3 miles or less; AND • Local Serving: Project does not have regional-serving uses, as shown in Appendix A.
3. Local-Serving Public Facilities/Services	• Day care center • Public K-12 schools • Neighborhood park (developed or undeveloped) • Community center • Post offices • Police and fire facilities • Libraries • Government offices (primarily serving customers in-person) • Utility, communications, and similar facilities • Water sanitation, waste management, and similar facilities

- Use location-based screening maps (consistent with the project land uses)

3. Locally Serving Retail Projects

- Projects that are 50,000 square feet or less

4. Locally Serving Public Facilities

- Public facilities that serve the local community including transit centers, public schools, libraries, post office, park-and-ride lots, other government offices, parks/trail heads, and passive public uses.

5. Redevelopment Projects with Lower Total VMT

- The proposed project's total daily project VMT is less than the existing land use's total daily VMT.

6. Affordable Housing

- 100% affordable housing

TABLE 2 – TYPE OF LMA BY DAILY PROJECT TRIPS

	Focused LMA	Full LMA
Consistent with General Plan	250-499 Daily Trips	500 or greater Daily Trips
Inconsistent with General Plan	N/A	250 or greater Daily Trips
For purposes of determining the LMA type, trips are based on the number of vehicle trips after any internal capture and alternative modes/location-based adjustments are applied but before adjustments for pass-by are taken.		

Types of LMAs

- **Focused Local Mobility Analysis:** Applies only to a project consistent with the General Plan and forecast to generate 250 to 499 daily trips. A Focused LMA analysis is conducted for such projects to confirm that the project does not have an effect on the safety and operations of the transportation system and does not require a Full LMA.
- **Full Local Mobility Analysis**: Applies to a project consistent with the General Plan and forecast to generate 500 or more daily trips, or a project that is inconsistent with the General Plan and is forecast to generate over 250 daily trips. A Full LMA is required to ensure traffic operations and safety of the roadway network in the proximate area of the project, as well as ensure the local transportation system is adequate to serve the project and is consistent with County General Plan goals and policies.

OPR Guidance Regarding Retail Projects: Because new retail development typically redistributes shopping trips rather than creates new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts. By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant. While the Technical Advisory suggests that retail uses of less than 50,000 square feet should generally be considered locally-serving, it expressly notes that many cities and counties define local-serving and regional-serving retail in their zoning codes and that lead agencies are in the best position to decide when a project will be local-serving.

City of Irvine Recommendation: The City Council has received comments from residents that Irvine is underserved by existing retail development. City Council has therefore adopted a policy to encourage additional retail uses within the City. While the majority of shopping centers within the City are less than 50,000 square feet in size, analysis of existing shopping centers within the City shows that most larger shopping centers are also neighborhood serving. Even shopping centers in the range between 100,000 and 250,000 square feet typically serve the surrounding neighborhoods and are not believed to attract significant volumes of regional traffic. **Table 1** identifies the existing shopping centers in Irvine, with only four shopping centers currently exceeding 250,000 square feet. However, given the location of the shopping centers within the City, even relatively large shopping centers such as Woodbury (315,469 square feet) seem unlikely to draw significant numbers of regional trips. Two large shopping centers, Irvine Spectrum and Irvine Market Place (combined with Tustin Market Place) might be considered regional draws due to both size and adjacency to freeways.

Table 1 - Retail Centers and Existing Square Footage in Irvine

FROM (SF)	TO (SF)	NUMBER OF CENTERS	DESCRIPTION
1	50,000	76	Multiple small retail establishments
50,000	100,000	7	
100,000	120,000	7	Orchard Hills, Northpark Plaza, Harvard Place, Alton Square, Woodbridge, Spectrum Crossroads, Lakeshore Towers
120,000	150,000	5	Northwood, Oak Creek, Quail Hill, Los Olivos, Irvine Concourse
150,000	250,000	7	Cypress Village, Culver Plaza, Heritage Plaza, Westpark Plaza, Crossroads, Von Karman Plaza, Park Place
250,000	500,000	2	Woodbury, Alton Market Place (Costco)
500,000	750,000	1	Irvine Market Place (738,216 SF excludes adjacent Tustin Market Place)
750,000	1,500,000	1	Irvine Spectrum
	Total	**106**	

Source: Citywide Land Use Database/The Irvine Company

Given the need for additional retail development within the City, as well as the fact that neighborhood shopping centers in Irvine tend to attract traffic from their surrounding villages, staff is recommending that all retail projects under 100,000 square feet be considered locally serving. For projects in excess of 100,000 TSF, the question of whether the use is locally serving will be determined by City staff on a case-by-case basis depending on the size and location of the proposed development.

Additionally other locally serving land uses under 50,000 square feet include daycare centers and public schools. For these types of projects in excess of 50,000 square feet, the question of whether the use is locally serving will be determined by City staff on a case-by-case basis, depending on the size and location of the proposed development.

OPR Guidance Regarding Affordable Housing: OPR guidance indicates that adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. Further, "… low-wage workers in particular would be more likely to choose a residential location close to their workplace, if

rather than the Tool). To use the tool for a proposed project, the land use type must be either an existing or future land use within the Tier 1 Traffic Analysis Zone (TAZ) for Total VMT per Service Population, or within the Tier 2 TAZ for Home-based VMT per capita or Home-based Work VMT per employee. Additionally, if using the Total VMT per Service Population metric, the analyst must verify that the project is consistent with the existing land use (i.e. if the project is proposing housing, there should be existing housing within that TAZ) and use professional judgment that there is nothing unique about the project that would otherwise misrepresent utilizing the data from the travel demand model.

Step 3: Project Type Screening

Some project types have been identified as having the presumption of a less than significant impact. The following uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature:

- Local-serving K-12 schools
- Local parks
- Day care centers
- Local-serving retail uses less than 50,000 square feet, including:
    - Gas stations
    - Banks
    - Restaurants
    - Shopping Centers
- Local-serving hotels (e.g. non-destination hotels)
- Local-serving assembly uses (places of worship, community organizations)
- Community institutions (public libraries, fire stations, local government)
- Affordable, supportive, or transitional housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Student housing projects on or adjacent to a college campus
- Other local-serving uses as approved by the City Traffic Engineer, including:
    - Local medical services, such as dental, optometry, etc.
    - Insurance agencies
    - Travel agencies
    - Tax accountants
    - Small appliance repair
    - Other personal services (e.g. hair salons, gyms, laundromats, dry cleaners, tailors)

Appendix D – Historic Resources Report

HISTORIC RESOURCES REPORT

for

2600 North Rose Avenue, Oxnard, California
(APN 144-011-0-059)

Prepared for

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Rio School District (RSD)
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Prepared by

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December 3, 2023

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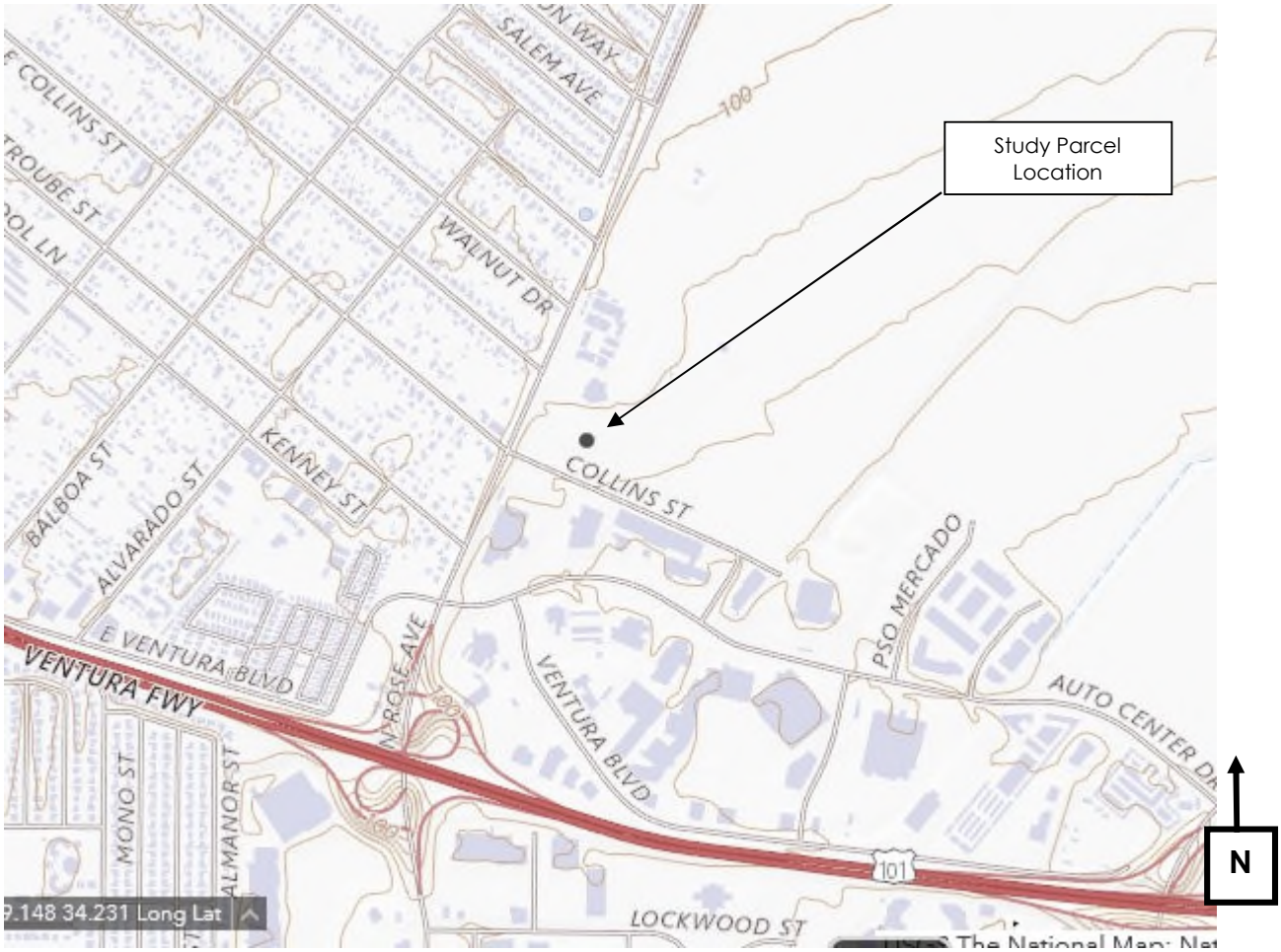
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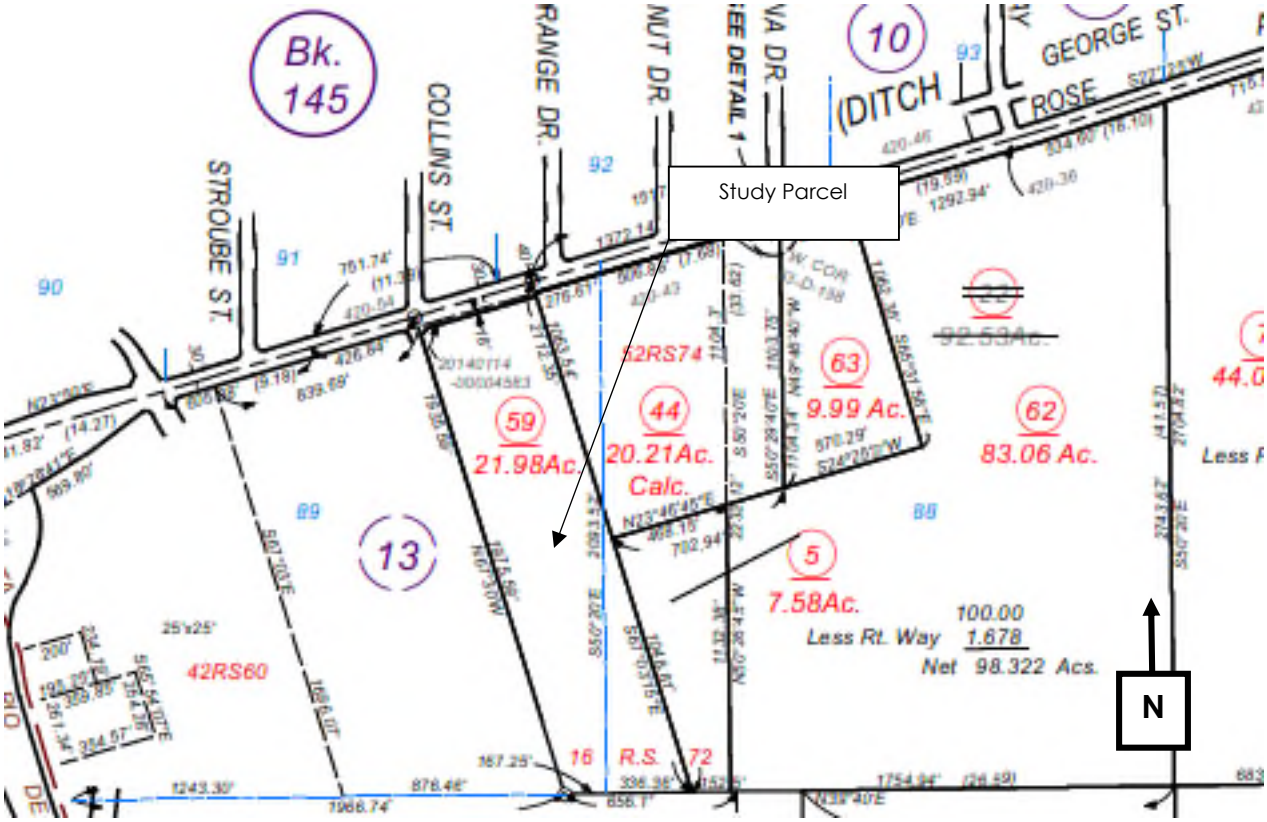
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1.0 INTRODUCTION

This Historic Resource Report is for 2600 North Rose Avenue (APN 144-011-0-059) a 21.98-acre site in Ventura County, California (Figures 1 - 3). The study parcel is delineated its south by Collins Street, on its north by the Rio Del Valle Middle School, on its east by agricultural fields and on its west by North Rose Avenue (see Figure 3). The purpose of the study is to provide information to assist with compliance with the California Environmental Quality Act (CEQA). This study was prepared for the Rio School District by Pamela Post, Ph. D., senior author, and Timothy Hazeltine of Post/Hazeltine Associates. The lead agency for environmental review is the Rio School District.



Location Map 1 (USGS, The National Map)



Location Map 2, Assessor's Parcel Map with Study Parcel outlined in Red



Location Map 3, Aerial Photograph with Study Parcel highlighted in Yellow (please note that most of the hoop houses have been removed)

2.0 SUMMARY OF FINDINGS

Previous Assessments and Designations

The study parcel at 2600 North Rose Avenue has not been previously surveyed for the presence of significant historic resources.

Significance Findings

The house, detached garage and other site improvements at 2600 North Rose Avenue are not significant historic resources for the purposes of environmental review.

3.0 ADMINISTRATIVE SETTING

CEQA Section 15064.5 defines historical resources as follows:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources Commission (State CEQA Guidelines Section 5024.1, Title 14 CCR, Section 4850 et seq.).

There are several ways in which a resource can be listed in the California Register, which are codified under Title 14 CCR, Section 4851.

- A resource can be listed in the California Register by the State Historical Resources Commission.
- If a resource is listed in or determined eligible for listing in the National Register of Historic Places or If a resource is a California State Historical Landmark, from No. 770 onward, it is automatically listed in the California Register.

2. *A resource included in a local register of historical resources, as defined in section 5020.1 (k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.*

The requirements set forth in PRC 5024.1(g) for historical resources surveys are a resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria:

- *The survey has been or will be included in the State Historic Resources Inventory.*
- *The survey and the survey documentation were prepared in accordance with office [of Historic Preservation] procedures and requirements.*
- *The resource is evaluated and determined by the office [of Historic Preservation] to have a significance rating of Category 1 to 5 on DPR Form 523.*
- *If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.*

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852). The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, is not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or is identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1 (j) or 5024.1.

CEQA regulations identify the Secretary of the Interior's Standards as a measure to be used in determinations of whether or not a project of new development or rehabilitation adversely impacts an "historical resource." Section 15064.5(b)(3) states:

"Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource."

Section 15064.5(a)(4) of the CEQA Guidelines *states:*

"The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1."

The California Environmental Quality Act (CEQA) requires an analysis of impacts that may result from project development. These include impacts to listed or potential historic resources. The California Environmental Quality Act (CEQA) mandates that a proposed project's impacts to historic resources be assessed. Historic resources are defined in Public Resource Code as follows:

§5020.1: "*Properties listed in, or determined eligible for listing in the California Register of Historical Resources." In order to be eligible for listing a resource must meet one or more of the following criteria to be eligible for listing: A) Is associated with events that have made a significant contribution to the broad patterns of California's History and Cultural Heritage*. B) *Is associated with the lives of persons important in our past;* C) *Embodies the distinctive characteristics of type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values*; and D) *Has yielded, or may be likely to yield information important to history or prehistory*."

§5021.1(k): Properties included in "local registers of historic resources." According to Section 5021.k local registers include the following: "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution. Generally, local registers can be defined as either properties designated as landmarks per local ordinances (or resolutions) or properties included in a survey of historical resources that meets the standards of the Office of Historic Preservation (SHPO) for such studies.

The property must meet one or more of the following California Register of Historical Resources Criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history (PRC §5024.1(c)).

By definition, the California Register of Historical Resources also includes all "properties formally determined eligible for, or listed in, the National Register of Historic Places," and certain specified State Historical Landmarks.

The register also includes properties that have formally been listed in the National Register of Historic Resources or determined eligible for listing in the National Register of Historic Places. Properties eligible for listing in the National Register must meet one of the following criteria to be eligible for listing:

A) *are associated with events that have made significant contributions to the broad patterns of our history*;
B) *are associated with the lives of persons significant in our past*;
C) *embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguished entity whose components may lack individual distinction*;
D) *have yielded, or may be likely to yield information important in prehistory or history*.

City of Oxnard Significance Criteria

The City of Oxnard adopted Resolution No. 10135 in April of 1991. That resolution adopted the Ventura County Cultural Heritage ordinance (substituting "Oxnard" for "County of Ventura") as the criteria for determining eligibility for listing as historic resources.

Ordinance 4225, Sec.1365-5, Definition and Designation Criteria for Cultural Heritage Sites

For the purposes of the Ordinance, an improvement, natural feature, or site may become a designated Cultural Heritage Site if it meets the following applicable criteria:

a) Landmarks – Satisfy one of the following criteria:

(1) It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural, or natural history;
(2) It is associated with events that have made a significant contribution to the broad patterns of Ventura County or its cities, regional history, or the cultural heritage of California or the United States;
(3) It is associated with the lives of persons important to Ventura County or its cities, California, or national history;
(4) It has yielded, or has the potential to yield, information important to the prehistory or history of Ventura County or its cities, California, or the nation;
(5) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;
(6) Integrity: Establishes the authenticity of the resource's physical identity by evidence of lack of deterioration and significant survival of the characteristics that existed during its period of importance. This shall be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association.

b) Sites of Merit satisfy the following criteria:

(1) Sites of historical, architectural, community, or aesthetic merit which have not been designated as

landmarks or points of interest, but which are deserving of special recognition; and
(2) County approved surveyed site s with a National Register status code of 5 or above.

c) Points of Interest. Satisfy the following criteria:

1) That is a site of a building, structure or object that no longer exists, but was associated with historic events, important persons or embodied a distinctive character or architectural style; or
(2) That it has historical significance, but has been altered to the extent that the integrity of the original workmanship, materials, or style has been substantially compromised; or
(3) That the site of a historic event which has no distinguishable characteristics other than that a historic event occurred at the site and the site is not of sufficient historical significance to justify the establishment of a landmark.

d) District. Meets the criteria below:

(1) Possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.
(2) *Has precisely mapped and defined exterior boundaries, which requires a description of what lies immediately on the edge of the district to allow rational exclusion of adjoining areas.*
(3) Has at least one of the criteria for significance of Section 1365-5a.1-8.
(4) Complies with the criteria for integrity contained in Section 1365-5a.6.

3.1 Lead Agency

The lead agency for the project is the Rio School District.

4.0 HISTORIC CONTEXT

The following section of the report provides a historical context for the study property.

4.1 Regional Context and Historic Themes

Historic context themes for Ventura County are defined in Section 3 of the *County of Ventura Historic Preservation Plan*. The 2014 Historic Context Statement and Reconnaissance Survey for the East Oxnard Plain prepared by San Buenaventura Research Associates includes a detailed Historic Context for the Oxnard Plain. A review of the context statement indicates the study parcel's current improvements, which were built between 1953 and 1959, were built during the Postwar Suburbanization and Cold War era of the County's history, which encompassed the era between 1945 and 1960. This period correlates with the Agricultural and Suburb period (1945 -1965) identified in the San Buenaventura Research Associates 2014 *Historic Context Statement and Reconnaissance Survey for the Eastern Oxnard Plan of Ventura County* (see below). As detailed below, in Section 4.2 of this report, the resource's significant historical associations occurred between the construction of the house in the early to mid-1950s and the death of Louis Doud, a local farmer in 1999.

4.2 Historical Context

Historic context periods and themes for the Eastern Oxnard Plain are explicated in San Buenaventura Research Associates 2014 *Historic Context Statement and Reconnaissance Survey for the Eastern Oxnard Plan of Ventura County*. The study's identified the following six contextual periods for the Eastern Oxnard Plain:

Original Inhabitants (Pre-1769): This period encompasses the occupation of the Oxnard Plain by Native Americans prior to sustained European contact;

Spanish Exploration and Mission (1769-1830): This period encompasses the establishment of Spanish control including early expeditions and the establishment of Mission San Buenaventura in 1782 and the Mexican era (beginning in 1821) up to the secularization of the Missions by Mexico's government in 1833;

Land Grants and Ranchos (1833-1864): This period encompasses the establishment of a pastoral economy based on the herding cattle on large landholdings awarded by the Mexican government to Mexican citizens and the first 16 years of American rule, when cattle-raising continued to dominate the local economy;

Pioneering Settlement (1864-1898): This period encompasses the influx of Euro-American settlers, the imposition of American cultural, political, and spatial forms on the area, the subdivision of several of the Mexican-era land grants and the creation of an agricultural-based economy driven by improvements to the transportation system including the arrival of the Southern Pacific Railroad in 1886-1887 and the development of extensive irrigation systems. It was during this period that immigrant families, primarily from Germany and Ireland created large farming operations. A notable political development was the creation of Ventura County as a separate political unit;

B*eans, Beets, and Industry (1898-1945)*: This period saw further expansion of the agricultural industry, the mono-culture of sugar beets and beans which were integrated into regional and national economies by expansion of transportation systems including ports, railroads and surface roads and the development of regional and national telephone systems. Extractive industries such as petroleum and mining began to play a more important role in the local economy. It was during this period that the Eastern Oxnard Plain developed a rural landscape characterized by an almost orthogonal grid of farms, windrows and road centered on farm complexes. Expansion of local communities, usually at transportation nodes including Oxnard, Camarillo, and Ventura occurred during this period. Smaller communities sometimes racially segregated were the home of agricultural workers, developed within or near these communities.

Agriculture and Suburbs (1945-1965): This period was one of profound change characterized by development of the military-industrial complex, permanent military installations at Port Hueneme, Point Mugu and Camarillo and the growth of defense-related research and development industries. The growth of non-agricultural related industries spurred significant population growth which was accommodated in suburban tract-style housing developments built on agricultural land. Supporting development including retail, commercial and institutional (schools and churches) was a characteristic feature of this period. Improvements in transportation and communication systems including freeways, airports and television more closely tied local and regional communities to the rest of the nation. This is the era during which the house on the study property was built by the Doud family.

The following periods were not encompassed in the 2014 Historic Context Statement but have been included to bring the historical narrative to the present. Please note the Descriptors for these era were defined by Post/Hazeltine Associates:

Suburbanization Era to the End of the Cold War 1965-1991: Like the preceding period, the years between 1965 and 1991 were characterized by an economy that in addition to agriculture, was

centered on defense-related industries, extractive industries and permanent military installations at Port Hueneme and Point Mugu. The population grew substantially and was largely accommodated in suburban tract-style housing and multi-family condominium and apartment developments, which removed more land from agricultural use. The population became ethnically diverse with the growth of the Hispanic community. Shopping malls, a characteristic retail development pattern between the 1960s and 1980s, including the Esplanade and Centerpoint in Oxnard and Pacific View Mall in Ventura were developed. Service industries continued to grow in importance and became an even larger component of the local economy.

Post-Cold War Era 1991-2023: The current period is characterized by a profound transformation of the national economy from one based on manufacturing to a consumption/service-based economy. In the study area, the end of the Cold War reduced defense-related spending including research and development which became a smaller, but still important component of the local economy. Agriculture remained important, but transitioned away from citrus to strawberries and other crops. Population growth continued to spur residential, commercial, and retail development with the continued loss of farmland. Notable nearby developments included mixed use projects such as River Park and Wagon Wheel.

4.2.1 Pre-Contact to 1864 Period

The study parcel is located within the area inhabited by the Chumash, a Native American culture group who lived between Malibu and southern Monterey County for millennia. The Chumash were a semi-sedentary group with a complex social structure, rich material culture and an extensive maritime society. While Europeans had explored the California coast as early as the 16th century, permanent settlement did not occur until 1769 when the Spanish began to establish military outposts to solidify their territorial claims and missions to transform the indigenous inhabitants into loyal subjects of the Spanish Crown. The first permanent settlement in what is now the County of Ventura was in 1782 when Mission San Buenaventura was founded in what is now Ventura. Throughout the Spanish era, the Oxnard plain, which remained largely unsettled, was used to pasture the mission's vast livestock herds. California passed to Mexican control in 1821. In 1832, the Mexican Government instituted a secularization act that stripped the church of its vast landholdings and transferred most of its landholding to Mexican citizens in the form of land grants. Among the land grants on the Oxnard Plain was *Rancho El Rio de Santa Clara o Colonia* granted to eight soldiers from the Santa Barbara Presidio in 1837. Of the rancho's eight grantees, only Rafael Gonzales appears to have lived within the boundaries of their land grant (San Buenaventura Associates 2014: 15 -16). The rancho period of California's history was short, from the mid-1830s until 1848 when California passed to American control after the Mexican-American War. After statehood, the influx of settlers and new political and legal forms would profoundly alter the lives of pre-1848 inhabitants, especially those of Hispanic descent. While the property rights of former Mexican citizens s were protected by the Treaty of Guadalupe-Hidalgo, settlers from the United States, decrying the lack of arable land outside of the land grants, advocated for changes to the policy, which were enacted by the Land Act of 1851, which required Mexican land owners to receive a Federal patent to their properties (San Buenaventura Associates 2014: 16). The process was lengthy and expensive, consequently, most grantees or their descendants sold-off their lands, often before their properties were officially patented by the Federal government and while ranching remained the area's primary industry, farming began to development on a much more extensive scale that the subsistence level agriculture practiced during the Mexican era.

4.2.2 The Pioneering Settlement Period (1864 -1898)

One of Mexican ear land grants that was eventually broken-up into tracts and sold was Santa Clara Del Norte, which, beginning in the late 19th century was subdivided into smaller tracts, which included acreage in El Rio. It is unclear when the study property was first farmed or who owned it during this era. It was during this era that New Jerusalem, a small community founded I circa-1876 was founded near what is now the intersection of North Rose Avenue and the 101 Freeway. The small community encompassed several houses, a church, and several small businesses. In 1880 the Rio School District was founded, one of the first in the area. In 1895 the name of the community was changed to ElRio (one word) (Riverpark Specific Plan Draft EIR, December 2001). By the early teens of the 20th century the town had been superseded by Oxnard as the area's hub of commercial and residential development.

4.2.3 Beans, Beets, and Industry Period (1898-1945)

Between the late 1890s and the early 1920s local agriculture fully transitioned to irrigated row crops including sugar beets. By the early 1940s the cultivation of lemons grew increasingly important as California's citrus industry grew exponentially during this period (San Buenaventura Research Associates 2014: 43). During this era the study property was variously cultivated with irrigated row crops and orchards. Sometime in the late 19th or early 20th century the property was acquired by the Doud family. They were among farmers settling on the Oxnard Plain on subdivided acreage of the Santa Clara del Norte Ranch was James Doud (1873 -1913) who was married to Josephine McGrath (1875 -1914) sometime in the early 20th century. The couple farmed land in the vicinity of El Rio, which encompassed the study property. It is unclear if the study parcel was purchased by the couple or was an inheritance. James and Josephine had five children, including Michael Vincent Doud (1910-1999) who, according to available records, built the house on the study property in the early 1950s.

4.2.4 The Agriculture and Suburbs Phase (1945 – 1965) and Post-1965 Development

Michael, like his father, was a farmer. Michael Vincent (Vince) Doud attended Villanova Preparatory School in Ojai, followed by attendance at St. Mary's College (*Ventura County Star*, May 25, 1999, pg. 45). He also served in the United States Army during World War II (*Ventura County Star*, May 25, 1999, pg. 45). He was married to Mae Chally (Ventura County Star, May 25, 1999: pg. 45).
. One of the Douds' sons, also named Michael, survived a severe bout of Polio in 1955 (*Oxnard Press Courier*, April 29, 1955, pg. 1). In the early 1950s, after his marriage Michale V. Doud built the existing house and detached garage on the study property. While an early house may have existed on the property, records of it do not appear to have survived. The Douds cultivated walnuts, lemons, limes, and beans on their acreage, although it is unclear which of these crops were planted on the study parcel or other acreage they owned or leased (Ventura County Star, May 25, 1999: pg. 45).

By the early 1960s population growth had accelerated dramatically in the Oxnard Plain due to an influx of industries and services, many associated with the expansion of Ventura County's military bases and defense-related research and development industries. By the late 1950s, in addition to commercial and institutional development, residential subdivisions also began to encroach upon the surrounding farmland, gradually replacing the agriculture fields of earlier decades. This type of development has continued throughout the succeeding years, as revealed by a review of aerial photographs taken between the 1950s and the mid-2000s. By the 1990s, the acreage fronting North Rose Avenue had been converted to hoop houses. The Doud family retained the property until its recent sale to the Rio School District.

5.0 DESCRIPTION OF INDENTIFIED AND POTENTIAL HISTORIC RESOURCES

The study property is located on the north side of North Rose Avenue between Rio del Valle Middle School to the northwest and a residential subdivision along Collins Street to the southeast. North Rose Avenue located just southwest of Collins Street links the neighborhood to the surrounding residential and commercial zones, which include Oxnard Auto Center to the southwest. The study property's house is a one-story wood frame house a with a semi-detached garage designed in the California Ranch style. The buildings are surrounded by fallow farm land that extends to North Rose Avenue. Accessory buildings are limited to a number of sheds which appear to be less than 50-years-of-age. Post-World War II development has transformed the surrounding Oxnard Plain, which was first cultivated as farmland from between the early 1870s to the postwar years of the 1950s. Beginning in the 1960s this part of the Oxnard Plain began to change, gradually transforming from an area dominated primarily by agriculture use to what it is today, a moderately dense urban and semi-urban development of single-family houses, condominiums, apartments, commercial, retail, and institutional uses. The study parcel is developed with the following:

Buildings

The one-story California Ranch style house and its adjacent garage.

Hardscape Features

Swimming Pool off the house's northeast elevation.

Plantings/Landscape/Agricultural Features

The original tilled fields were converted to hoop-style cultivation sometime in the 1990s. Recently (post-2020), the hoop houses were removed leaving the land uncultivated. Large specimen trees adjacent to the house include Eucalyptus and Washingtonia palm trees. Several sheds are located west of the house, these appear to have been installed within the last 40 years.

5.1 Description of Surveyed Resources

5.1.1 The House and Semi-Detached Garage (c. 1953 -1959)

The house and its associated features are located at the north end of the parcel. The house is a one-story wood frame building set on a concrete slab foundation. Exterior walls are sheathed in faux board-and-batten wood siding. The roof is a complex hipped and gable type covered in composition shingles. A red-brick chimney is set on the main roof ridge near the east end of the elevation. The roof's shallow eaves feature wood plank fascia. Fenestration is primarily comprised of metal, single-light metal casement or fixed types. The semi-detached garage located off the northeast corner of the house employs a similar range of motifs. The house's plan, materials, and design features identify the house and semi-detached garage as examples of the California Ranch style, an architectural motif that enjoyed widespread popularity in California between the early 1950s and the early-to-mid 1970s.



Figure 1, Looking southwest from the study property towards North Rose Avenue and Rio del Valle Middle School, September 2023



Figure 2, Looking southwest from the house on the study property towards North Rose Avenue and Rio del Valle Middle School, September 2023



Figure 3, Looking north from the rear of the study property to the adjacent farmland, September 2023

The House

North Elevation (Entrance façade)

The north elevation is u-shaped in configuration with a wing extending off its east end (Figures 4 - 6). An open breezeway at the north end of the elevation links the house to the adjacent two-car garage. The elevation's fenestration is comprised of a variety of metal frame window types including casements and triple windows comprised of a central fixed pane flanked by casements. The flush panel entry door is located in the shallow, u-shaped section of the elevation where it is flanked by a four, two-light sliders. The elevation's shallow wings feature triple windows, with the wing at the east end of the elevation capped by a hipped roof and the wing at the west end of the elevation capped by a front gable roof. The breezeway connecting the house to the garage is open and partially clad in faux board-and-batten style siding.



Figure 4, Looking south from the garage towards the house's northwest elevation, September 2023



Figure 5, Looking northeast towards the breezeway linking the house (on the right) and garage (on the left), September 2023



Figure 6, Looking northwest towards the breezeway and the garage's southeast elevation, September 2023

South Elevation (rear elevation)

This elevation has an irregular u-shaped configuration with its two projecting elements capped by front gable roofs (Figures 7 & 8). The wing at the south end of the elevation features a triple window with a horizontal emphasis while the wing at the north end of the elevation features a two-light slider with a vertical emphasis. The recessed central section of the elevation features a shallow porch supported by slender wood posts. Its fenestration is comprised of two, large fixed windows flanked by three-part operable windows. The elevation's recessed east end features a metal frame sliding door opening onto a concrete pool deck.



Figure 7, Looking north towards the house's southeast , September 2023



Figure 8, Looking west towards east end of the southeast elevation, with the swimming pool in the foreground, September 2023

East Elevation

The east elevation is L-shaped in configuration with a projecting element at its north end (Figure 9). Fenestration is comprised of a triple window in the projecting element and a triple window in the recessed south end of the elevation. The triple window is comprised of a central fixed light flanked by casements. The east end of this elevation opens onto the swimming pool's concrete deck.



Figure 9, Looking west towards the house's northeast elevation with the swimming pool in the foreground, September 2023

West Elevation

The west elevation, which faces towards North Rose Avenue, is capped by a side gable roof (Figure 9). Its fenestration is comprised of a two-light window flanked on either side by triple windows.



Figure 10, Looking northeast towards the house's southwest elevation, September 2023

The Semi-Detached Garage

The semi-detached garage is located off the easterly corner of the house (Figures 11 – 13 and see Figure 6). It is connected to the house by an open breezeway capped by a side gable roof supported by wood posts. The northeast side of the breezeway, facing the driveway, is partially clad in board-and-batten style siding with a gate, while its southwest side is open. Wood doors set at the west end of the garage's south elevation and the north end of the house's northwest elevation provide access to the breezeway. The garage is a rectangular building capped by a side gable roof covered in composition shingles. As noted previously, the garage features the same range of architectural motifs as the house with its concrete slab foundation, exterior walls sheathed in faux board-and-batten siding, metal frame window, either fixed or casement and wide board fascia. The garage's paneled metal garage door is located on the building's southwest elevation. The existing garage door is a replacement.



Figure 11, Looking northeast towards the garage's southwest elevation, with the storage shed to the left, September 2023



Figure 12, Looking southwest towards the garage's northeast elevation, with the house to the rear and Rio del Valle Middle School to the right, September 2023



Figure 13, Looking southeast towards the garage's northwest elevation, with the house to the rear and storage shed to the left, September 2023

Building Chronology, Alteration and Modifications

- The house and its semi-detached garage were built in circa 1953 -1959. The designer of the house could not be ascertained; and

- The garage door is a replacement.

5.1.2 The Shed

A small shed with plywood sheet walls with faux battens and a side gable roof is located off the garage's north elevation (see Figures 11 & 13). The building's construction date is not documented. Several sheds near the northwest side of property appear to have been installed over the last few decades when the property was converted to hoophouse cultivation.

5.1.3 The Swimming Pool, Hardscape and Landscaping

A biomorphic-shaped swimming pool is located adjacent to the east corner of the house (see Figures 8 & 9). The swimming pool features a concrete pool deck. The swimming pool is surrounded by chain link fencing. A dirt driveway extends from North Rose Avenue to an asphalt parking area off the garage's southwest elevation (see Figures 1 & 2). Landscaping is minimal in nature and is comprised of specimen shrubs and trees including eucalyptus and Washingtonia Palms. The existing landscaping does not appear to represent the work of a landscape architect or designer.

6.0 IDENTIFICATION OF HISTORIC RESOURCES

The parcel's period of significance (circa 1953 -1959 to 1999) spans the occupancy of James Doud, a local farmer who built the house and farmed the property. Doud (1919-1999) built the house during suburbanization era of Oxnard's history. During this era, housing tracts, institutional development such as Rio del Valle Middle School, and commercial and industrial development replaced large swaths

of the area's farmland. The methodology for determining if the property meets the eligibility requirements for listing as a City of Oxnard Landmark, or Point of Interest, nomination to the California Register of Historic Resources, and the National Register of Historic Places, was based on the application of the City of Oxnard landmark criteria, California Register of Historic Resources criteria and the National Register of Historic Places.

6.1 National Register of Historic Places Criteria

"The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) That are associated with the lives of persons significant in our past, or
(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
(d) That have yielded, or may be likely to yield, information important in prehistory or history."

6.2 Historic Context

Once a potential resource is determined to have met one of the four criteria, its significance should be evaluated within its historic context or historical pattern relevant to a particular geographic area. Historic contexts are found at a variety of geographical levels or scales, specifically the local, state, or national level. The geographic scale selected may relate to a pattern of historical development, a political division, or a cultural area.

6.3 Period of Historic Significance

According to National Register Bulletin 16A, the "period of significance" is defined as "the length of time when a property was associated with important events, activities, or persons, or attained the characteristics that qualify it for National Register listing. Period of significance usually begins with the date when significant activities or events began giving the property its historic significance; this is often a date of construction." There are different guidelines to establish the period of significance for the four criteria of historical significance, as follows:

- Criterion A: For the site of an important event, such as a pivotal five-month labor strike, the period of significance is the time when the event occurred. For properties associated with historic trends, such as commercial development, the period of significance is the span of time when the property actively contributed to the trend.
- Criterion B: The period of significance for a property significant Criterion B is usually the length of time the property was associated with the important person.
- Criterion C: For architecturally significant properties, the period of significance is the date of construction and/or the dates of any significant alterations and additions.
- Criterion D: The period of significance for an archeological site is the estimated time when it was occupied or used for reasons related to its importance, for example, 3000-2500 B.C.

Criteria B and C are applicable to the study parcel because the house was built by and occupied by

Michael Doud, a local farmer, and his family. Under Criterion B, the study parcel's period of significance encompasses the period between circa- 1953 and 1959, which spans the period between the construction of the house and semi-detached garage and the death of James Doud in 1999. During this era, agriculture on the Oxnard Plain and the El Rio area was characterized by irrigated row crops and citrus orchards, which is some areas, including the vicinity of the study parcel were giving way to non-agricultural development. Criteria C is relevant to the house and its semi-detached garage which were designed in the California Ranch style, a near ubiquitous architectural motif in Southern California in the post-World War II era.

6.4 Integrity Considerations

For a structure, building, or property to be eligible for the National Register of Historic Places it must meet at least one of the five National Register criteria, be (in most cases) at least 50 years of age or older and retain its visual and physical integrity. As defined by the National Register criteria, integrity is:

"For a structure, building, or property to be eligible for listing in the National Register of Historic Resources it must meet at least one of the significance criteria, be (in most cases) at least 50 years of age or older, and retain its visual and physical integrity. As defined in the National Register of Historic Places Bulletin 15, integrity is: "the ability of a property to convey its significance." Integrity involves several aspects, including location, design, setting, materials, workmanship, feeling, and association. The seven aspects of integrity are defined below."

6.5 The Seven Aspects of Integrity

1. Location (Location is the place where the historic property was constructed or the place where the historic event occurred)
2. Design (the combination of elements that create the form, plan, and style of a property)
3. Setting (the physical environment of a property)
4. Materials (the physical elements used at a particular period of time to create the property)
5. Workmanship (the physical evidence of craft used to create the property)
6. Feeling (the property's expression of a particular time and place)
7. Association (the link between a significant event or person and the property)

The relevant aspects of integrity depend upon the National Register criteria applied to the property. For example, a property nominated under Criterion A (events), would be likely to convey its significance primarily through integrity of location, setting, and association. A property nominated solely under Criterion C (architecture) would probably rely upon integrity of design, materials, and workmanship.

National Register Bulletin 15, Section VIII provides further information regarding the application of the integrity criteria to a property:

"Historic properties either retain integrity (this is, convey their significance) or they do not. Within the concept of integrity, the National Register criteria recognizes the seven aspects or qualities listed above that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant (National Register Bulletin 15, 1999)."

Because of the overriding presence of land, natural features, and vegetation, the seven qualities of integrity called for in the National Register criteria are applied to rural landscapes in special ways. According to National Register of Historic Places Bulletin 30, Guidelines for Evaluating and Documenting Rural Historic Landscapes, historic integrity is defined as follows:

"Historic integrity is the composite effect of seven qualities: location, design, setting, materials, workmanship, feeling, and association. Decisions about historic integrity require professional judgments about whether a property today reflects the spatial organization, physical components, and historic associations that it attained during the periods of significance. A property's periods of significance becomes the benchmark for measuring whether subsequent changes contribute to its historic evolution or alter its historic integrity.

Historic integrity requires that the various characteristics that shaped the land during the historic period be present today in much the same way they were historically. No landscape will appear exactly as it did fifty or one hundred years ago. Vegetation grows, land use practices change, and structures deteriorate. The general character and feeling of the historic period, however, must be retained for eligibility."

Historic integrity is threatened by single major changes such as large scale farming practices that obliterate historic field patterns, flatten the contours of the land, and erase historic boundary markers, outbuildings, and fences. Integrity may also be lost due to the cumulative effect of relocated and lost historic buildings and structures, interruptions in the natural succession of vegetation, and the disappearance of small-scale features that defined historic land uses.

The following changes, when occurring <u>*after*</u> the periods of significance, may reduce the historic integrity of a rural landscape:

- Changes in land use and management that alter vegetation, change the size and shape of fields, erase boundary demarcations, and flatten the contours of land
- Deterioration, abandonment, and relocation of historic buildings and structures
- Substantial alteration of buildings and structures (remodeling, siding, additions)
- Replacement of structures such as dams, bridges, and barns
- Loss of boundary demarcations and small-scale features (fences, walls, ponds, and paving stones)

The final decision about integrity is based on the condition of the overall property and its ability to convey significance. The strength of historic landscape characteristics and the nature, extent, and impact of changes since the periods of significance are important factors to consider.

<u>The Seven Aspects of Integrity of Rural Landscapes</u>

Assessing the integrity of rural landscapes requires the application of the following criteria enumerated in National Register of Historic Places Bulletin 30:

Location: *"Location is the place where the significant activities that shaped a property took place. Geographical factors, including proximity to natural resources, soil fertility, climate, and accessibility, frequently determined the location of rural settlements. In some places, these factors have continued to spur growth and development. In others, they have insulated communities from change, fostering the preservation of historic characteristics, practices, and traditions. A rural landscape whose characteristics retain their historic location has integrity of location.*

Design: *Design is the composition of natural and cultural elements comprising the form, plan, and spatial organization of a property. Design results from conscious and unconscious decisions over time about where areas of land use, roadways, buildings and structures, and vegetation are located in relationship to natural features and to each other. Design also relates to the functional organization of vegetation, topography, and other characteristics, for example, upland pastures bounded by forested hillsides and windbreaks sheltering fields or orchards.*

New vegetation or reforestation may affect the historic integrity of design. Changes in land use may not seriously alter integrity if historic boundary demarcations, circulation networks, and other components remain in place. Shifts in land use from wheatfield to pasture or the introduction of contour plowing may not seriously affect the overall design, whereas the extensive irrigation and planting of fruit trees on land historically used for cattle grazing would.

Setting: *Setting is the physical environment within and surrounding a property. Large-scale features, such as bodies of water, mountains, rock formations, and woodlands, have a very strong impact on the integrity of setting. Small-scale elements such as individual plants and trees, gateposts, fences, milestones, springs, ponds, and equipment also cumulatively contribute to historic setting.*

Materials: *Materials within a rural property include the construction materials of buildings, outbuildings, roadways, fences, and other structures. The presence of native minerals, stone, and even soil can add substantially to a rural area's sense of time and place. These may be present in natural deposits or built construction.*

Vegetation, as material, presents a complex problem. Plants do not remain static but change over time and have a predictable lifespan. While hardwoods and evergreens thrive for decades, most crops are seasonal and demand rotation. Plants and trees are subject to blights and disease and may be damaged by weather and climatic changes. Furthermore, the relationships among plant species vary over time due to differing growth patterns and lifespans, animal grazing behavior, and changes in soil conditions. Soil exhaustion, erosion, improper crop rotation, availability of water, and pollution may affect soil productivity and alter the succession of vegetation.

Original plant materials may enhance integrity, but their loss does not necessarily destroy it. Vegetation similar to historic species in scale, type, and visual effect will generally convey integrity of setting. Original or in-kind plantings, however, may be necessary for the eligibility of a property significant for specific cultivars, such as a farm noted for experiments in the grafting of fruit trees.

Workmanship: *Workmanship is exhibited in the ways people have fashioned their environment for functional and decorative purposes. It is seen in the ways buildings and fences are constructed, fields are plowed, and crops harvested. The workmanship evident in the carved gravestones of a rural cemetery endures for a long time. Although the workmanship in raising crops is seasonal, it does contribute to a property's historic integrity if it reflects traditional or historic practices.*

Feeling: *Feeling, although intangible, is evoked by the presence of physical characteristics that reflect the historic scene. The cumulative effect of setting, design, materials, and workmanship creates the sense of past time and place. Alterations dating from the historic period add to integrity of feeling while later ones do not.*

Association: *Association is the direct link between a property and the important events or persons that shaped it. Integrity of association requires a property to reflect this relationship. Continued use*

and occupation help maintain a property's historic integrity if traditional practices are carried on. Revived historic practices, traditional ceremonies or festivals, use of traditional methods in new construction, and continuing family ownership, although not historic, similarly reinforce a property's integrity by linking past and present. New technology, practices, and construction, however, often alter a property's ability to reflect historic associations."

The relevant aspects of integrity depend upon the criteria applied to the property. For example, a property nominated under events would convey its significance primarily through integrity of location, setting, and association. A property nominated solely under architecture would rely upon integrity of design, materials, and workmanship.

6.6 Establishing the Resource's Period of Historic Significance

The remaining buildings that comprise the farm complex, were constructed between circa-1953 and 1959. The property's potential period of significance (circa1953-1959 to 1999) spans the occupancy of Michael Doud and his family.

6.7 Identification of Historical Resources under the National Register Criteria

Criterion A *"That are associated with events that have made a significant contribution to the broad patterns of our history"*

The study parcel has an association with the history of the Oxnard Plain's agricultural industry between circa 1953-1959 and 1999 during the occupancy of Michael V. Doud. Michael Doud descendant of one of the European families that settled the Oxnard Plain between the late 1860s and the 1890s. The study parcel and its agricultural land and other improvements do not have a substantive link to historical events associated with farming in the post-World War II era. Therefore, the study property does not meet Criterion A.

Criterion B *"That are associated with the lives of persons significant in our past"*

During their occupancy of the property, Michael V. Doud did not make substantive contributions to the history of agriculture in the post-World War II era (post-1945). Therefore, the study parcel does not meet Criterion B.

Criterion C *"That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction"*

The house and its semi-detached garage do not represent exemplars of their architectural type. Neither can they identified as an important work of a significant architect, designer, or contractor. Therefore, the house and its semi-detached garage do not meet Criterion C.

Criterion D *"That have yielded, or may be likely to yield, information important in prehistory or history"*

Properties within the project area have not been surveyed for archaeological resources.

6.8 Evaluation of the Cultural Landscape

The National Park Service has defined "cultural landscapes" as follows:

A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values (National Park Service 1996: 4)

The following four types of cultural landscapes have been defined by the National Park Service:

1. Historic sites: this category includes landscapes important because of their association with a historic event, activity, or person.

2. Historic designed landscapes: this category includes landscaped that were purposely designed by a professional or amateur. Examples include parks, gardens, and cemeteries.

3. Historic vernacular landscapes: landscapes that evolved over time through a specific activity or use. Examples include farms, industrial complexes, and agricultural landscapes.

4. Ethnographic landscapes: a landscape that encompasses a variety of natural and man-made features that are defined by their associated people (such as an indigenous tribal group) as heritage resources.

The study property in its current state of preservation, surrounded by commercial, residential, and institutional development, does not embody sufficient integrity to require further evaluation of the presence of a significant cultural landscape.

6.9 Application of the Seven Aspects of Integrity to the Study Parcel

The seven aspects of integrity (enumerated in Sections 6.4 and d 6.5 of this report) will be applied to the study parcel to determine if individual structures, features, buildings, or landscapes, retain enough integrity to an eligible resource at the State or National level. The evaluation of integrity will also provide information applicable to evaluating its eligibility for listing at the local level.

1) Location *"Location is the place where the significant activities that shaped a property took place. Geographical factors, including proximity to natural resources, soil fertility, climate, and accessibility, frequently determined the location of rural settlements. In some places, these factors have continued to spur growth and development. In others, they have insulated communities from change, fostering the preservation of historic characteristics, practices, and traditions. A rural landscape whose characteristics retain their historic location has integrity of location."*

The house and its semi-detached garage remain at their original locations. Therefore, the study parcel retains its integrity of location.

2) Design *"Design is the composition of natural and cultural elements comprising the form, plan, and spatial organization of a property. Design results from conscious and unconscious decisions over time about where areas of land use, roadways, buildings and structures, and vegetation are located in relationship to natural features and to each other. Design also relates to the functional organization of vegetation, topography, and other characteristics, for example, upland pastures bounded by forested hillsides and windbreaks sheltering fields or orchards."*

The house and semi-detached garage retains almost all of their original design features that identify the buildings' California Ranch style architecture. Therefore, the house and its semi-detached garage retain integrity of design. The agricultural landscape, which has been modified by the subdivision of the Doud's original acreage, the construction of Rio del Valle Middle School and residential development to the south and west of the study parcel, does not retain integrity of design.

3) Setting *"Setting is the physical environment within and surrounding a property. Large-scale features, such as bodies of water, mountains, rock formations, and woodlands, have a very strong impact on the integrity of setting. Small-scale elements such as individual plants and trees, gateposts, fences, milestones, springs, ponds, and equipment also cumulatively contribute to historic setting."*

While undeveloped acreage still surrounds the house and semi-detached garage, the encroachment of suburban residential development and institutional development has substantially eroded the ability of the property to convey its original rural setting. Therefore, the study parcel does not retain its integrity of setting.

4) Materials *"Materials within a rural property include the construction materials of buildings, outbuildings, roadways, fences, and other structures. The presence of native minerals, stone, and even soil can add substantially to a rural area's sense of time and place. These may be present in natural deposits or built construction."*

The house and semi-detached garage retain almost all of their original construction materials. Therefore, the buildings retain their integrity of materials. The fallow agricultural land surrounding the property's buildings can no longer convey the vernacular landscape that characterized the property until the 1970s. Therefore, the vernacular landscape does not retain integrity of materials.

5) Workmanship *"Workmanship is exhibited in the ways people have fashioned their environment for functional and decorative purposes. It is seen in the ways buildings and fences are constructed, fields are plowed, and crops harvested. The workmanship evident in the carved gravestones of a rural cemetery endures for a long time. Although the workmanship in raising crops is seasonal, it does contribute to a property's historic integrity if it reflects traditional or historic practices."*

The house and semi-detached garage retain almost all of their original construction materials, which allow the buildings to convey their original construction methods. Therefore, the buildings retain their integrity of workmanship. The fallow agricultural land surrounding the property's buildings no longer possesses their original design features such as windrows or large expanses of row crops and orchards. Therefore, the agricultural-related landscape does not retain its integrity of materials.

6) Feeling: *"Feeling, although intangible, is evoked by the presence of physical characteristics that reflect the historic scene. The cumulative effect of setting, design, materials, and workmanship creates the sense of past time and place. Alterations dating from the historic period add to integrity of feeling while later ones do not."*

The study parcel's ability to evoke its historic appearance during its period of significance has been eroded by the loss of farmland and surrounding development. Consequently, only the immediate setting of the house and its semi-detached garage retain integrity of feeling. Therefore, the immediate setting of the house and its semi-detached garage retains their integrity of feeling.

7) Association *"Association is the direct link between a property and the important events or persons that shaped it. Integrity of association requires a property to reflect this relationship. Continued use and occupation help maintain a property's historic integrity if traditional practices are carried on. Revived historic practices, traditional ceremonies or festivals, use of traditional methods in new construction, and continuing family ownership, although not historic, similarly reinforce a property's integrity by linking past and present. New technology, practices, and construction, however, often alter a property's ability to reflect historic associations."*

The study parcel retains sufficient integrity of location, design, materials, workmanship, and association to convey its association with the Doud family. Therefore, the house and its semi-detached garage retains its integrity of Association.

6.10 Eligibility for Nomination to the State of California Register of Historical Resources and Eligibility for Designation as a City of Oxnard Historic Resource

The study parcel will be evaluated for listing as a historic resource at the State, City of Oxnard, and national levels.

California Register of Historical Resources Criteria for Evaluation

The California Register of Historical Resources (California Register) is the authoritative guide to the state's significant historical and archeological resources. It serves to identify, evaluate, register, and protect California's historical resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for historic preservation grant funding, and affords certain protections under the California Environmental Quality Act (CEQA). All resources listed on or formally determined eligible for the National Register are automatically listed in the California Register. In addition, properties designated under municipal or county ordinances are also eligible for listing in the California Register.
The California Register criteria are modeled on the National Register criteria discussed above. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architecturally, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
) Is associated with the lives of persons important in our past;
) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
). Has yielded, or may be likely to yield, information important in prehistory or history.

The California Register automatically includes the following:

- California properties listed or formally determined eligible for listing in the National Register of Historic Places;
- California Registered Historical Landmarks from #0770 onward; and

- California Points of Historical Interest that have been evaluated by the Office of Historical Preservation (OHP) and have been recommended to the State Historical Resources Commission for inclusion in the California Register.

Other resources may be nominated for listing in the California Register based on the criteria stated above.

Identification of Historic Resources under the California Register of Historical Resources Criteria

The California Register criteria include the following:

1) *"Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage"*

The study parcel was the location of the farm and home of Michael Doud a member of one of the Oxnard Plain's farming families. While the Douds were successful and prosperous farmers, they do not appear to have played leading roles in the post-World War II era of farming in the Oxnard Plain. This era was characterized by the retrenchment of the farming industry and the sale and conversion of farmland to other uses. Therefore, the study property which is not associated with significant events related to farming in the Oxnard Plain does not meet Criterion 1.

2) *"Is associated with the lives of persons important in our past"*

As noted above, Michael Doud does not appear to have made such substantive contributions to the local agricultural industry or other ventures. Therefore, the study property does not meet Criterion 2.

3) *"Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values"*

No record of the house and semi-detached garage's architect, designer, or contractor could be located. The buildings were designed in the California Ranch style a motif that was nearly ubiquitous for residential construction in Southern California between the early 1950s and the mid-1970s. While the buildings are examples of this style they do not embody in their design or workmanship exemplars of their type. Instead, their design, workmanship and materials are consistent tract style California ranch style houses of the era rather than the more nuanced and facile interpretations of the style by leading architects of the era such as Cliff May. Therefore, the house and its detached garage do not meet Criteria 3.

4) *"Has yielded, or may be likely to yield, information important in prehistory or history"*

The application of this criterion to archaeological deposits is beyond the purview of this report.

6.11 California Environmental Quality Act (CEQA) Criteria

Section 21084.1 of the Public Resources Code provides the framework for determining whether a property is an historic resource for CEQA purposes. Historic resources that are listed in or eligible for listing in the California Register of Historical Resources (California Register), that are per se significant other resources, that are officially designated on a local register, or that are found to be significant by the State Historic Preservation Officer (SHPO) under Section 5024.1(j) of the Public Resources Code are presumed to be significant. According to CEQA, in determining potential impacts on historical

resources under CEQA, projects are reviewed according to the Secretary of the Interior's Standards (Standards.) (The Standards are discussed in detail below). A "substantial adverse change" means "demolition, destruction, relocation, or alteration of the resource such that the significance of an historical resource would be materially impaired." The setting of a resource should also be taken into account in that if too may contribute to the significance of the resource, as impairment of the setting could affect the significance of a resource.

Material impairment occurs when a project:

1. *Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;*
2. *Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or*
3. *Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.*

CEQA Section 15064.5 defines historical resources as follows:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources Commission (State CEQA Guidelines Section 5024.1, Title 14 CCR, Section 4850 et seq.).]

There are several ways in which a resource can be listed in the California Register, which are codified under Title 14 CCR, Section 4851.

- A resource can be listed in the California Register by the State Historical Resources Commission.
- If a resource is listed in or determined eligible for listing in the National Register of Historic Places (National Register), it is automatically listed in the California Register.
- If a resource is a California State Historical Landmark, from No. 770 onward, it is automatically listed in the California Register.

(2) A resource included in a local register of historical resources, as defined in section 5020.1 (k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

The requirements set forth in PRC 5024.1(g) for historical resources surveys are:
A resource identified as significant in an historical resource survey may be listed in the California Register if the survey meets all of the following criteria:

- The survey has been or will be included in the State Historic Resources Inventory.
- The survey and the survey documentation were prepared in accordance with office [of Historic Preservation] procedures and requirements.

- The resource is evaluated and determined by the office [of Historic Preservation] to have a significance rating of Category 1 to 5 on DPR Form 523.
- If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852)

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1 (j) or 5024.1.

Identification of Historical Resources under CEQA

Evaluation under CEQA Criterion 1

Criterion 1: *"A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources Commission (Public Resources Code Section 5024.1, Title 14 CCR, Section 4850 et seq.)." (CEQA Guidelines 15064.5(1).*

The study parcel is not listed in nor has it been determined eligible for listing in the California Register of Historical Resources. Therefore, the property does not meet Criterion 1.

Evaluation under CEQA Criterion 2

Criterion 2: *"A resource included in a local register of historical resources, as defined in section 5020.1 (k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant." (CEQA Guidelines 15064.5(2)."*

The study parcel is not listed in the local register of historical resources. Therefore, the study parcel does not meet Criterion 2.

Evaluation under CEQA Criterion 3

Criterion 3: *"Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852)*.

Criterion 3 under CEQA is based upon an analysis of significance under the California Register of Historic Places. Such an analysis was performed and is provided in Section 6.4.2, Evaluation under the California Register of Historical Resources Criteria, above. To summarize the findings, the study parcel is not eligible for listing under Criterion 3.

6.12 Eligibility for Designation as a City of Oxnard Historic Resource

In 1991 the City of Oxnard adopted by resolution the Ventura County Cultural Heritage ordinance (§§ 1360-1374 of Division 1, Chapter 3, Article 5 of the Ventura County Ordinance Code, dealing with Cultural Heritage (as amended). The ordinance adopted by the City of Oxnard uses the following criteria for the definition and designation of Cultural Heritage Sites:

a) Landmark

(1) It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural, or natural history;
(2) It is associated with persons or events which are significant in national, state or local history:
(3) It show evidence of habitation, activity or the culture of prehistoric man;
(4) It embodies elements of architectural design, details, materials, or craftsmanship which represents a significant structural or architectural achievement or innovation;
(5) It is representative of the work of a master builder, designer, architect or artist;
(6) It is imbued with traditional or legendary lore;
(7) It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar feature associated with a neighborhood, community or the City of Oxnard;
(8) It is one of the few remaining examples in the City of Oxnard possessing distinguishing characteristics of an architectural or historical type.

b) Site of Merit

(1) Sites of historical, architectural, community, or aesthetic merit which have not been designated as landmarks or points of interest, but which are deserving of special recognition; and
(2) County approved surveyed site s with a National Register status code of 5 or above.

c) Point of Interest

A) That is the site of a building, structure or object that no longer exists but was associated with historic events, important persons, or embodied a distinctive character or architectural style; or

B) That has historic significance, but has been altered to the extent that the integrity of the original workmanship, materials, or style has been substantially compromised: or
C) That is the site of a historic event which has not distinguishable characteristics other than that a historic event occurred at the site, and the site is not of sufficient historical significance to justify the establishment of a landmark.

Integrity

While the criteria used by the City of Oxnard do not include specific criterion for evaluating integrity, such as those found in the California Register of Historic Resources or the National Register of Historic Places, they do provide for a lower level designation (Point of Interest) for properties that have been altered or compromised. The ordinance's provision for a lower level designation that addresses the issue of alterations and integrity indicates that integrity should be evaluated, at least on a general level when assessing a resource's eligibility for listing as a Landmark or Point of Interest. It should be noted that the ordinance does not include a minimum age for listing (such as the 50-years-of-age criterion used by the National Register of Historic Places).

Eligibility for Listing as a City of Oxnard Landmark, Place of Merit, Point of Interest, or District

a. Landmark

Criterion 1: *"It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural, or natural history"*
The house and its semi-detached garage and the surrounding acreage which were part of the Doud farm, do not embody architectural characteristics that would make them exemplars of the California Ranch style. Therefore, the study property does not meet Criterion 1.

Criterion 2: *"Is associated with persons or events which are significant in national, state or local history"*

The study property has a direct association with Michael Doud, who was one of the Oxnard Plains late 19th and early 20th century farming families. While the Douds were engaged in the agricultural industry, their contributions to the post-World War II era of farming on the Oxnard Plain are not substantive enough to meet Criterion 2.

Criterion 3: *"It show evidence of habitation, activity or the culture of prehistoric man."*
The application of this criterion to archaeological deposits is beyond the purview of this report.

Criterion 4: *"It embodies elements of architectural design, details, materials, or craftsmanship which represents a significant structural or architectural achievement or innovation"*

The house and its semi-detached garage are not exemplars of the California Ranch style. Instead, their level of craftsmanship and design is comparable to suburban California Ranch style houses built in great numbers in the Oxnard area after World War II. Therefore, property does not meet Criterion 4.

Criterion 5: *"It is representative of the work of a master builder, designer, architect or artist"*

The house and its semi-detached garage cannot be attributed to a specific designer or architect. Therefore, the property does not meet criterion 5.

Criterion 6: *"It is imbued with traditional or legendary lore"*

A review of documentary sources did not reveal any information linking the property to traditional or legendary lore. Therefore, the study parcel does not meet Criterion 6.

Criterion 7: *"It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar feature associated with a neighborhood, community or the City of Oxnard"*

The property's improvements, which are located a considerable distance from North Rose Avenue, the at the northeast end of the parcel. Consequently they do not embody architectural characteristics or a location that would meet Criterion 7.

Criterion 8: *"It is one of the few remaining examples in the City of Oxnard possessing distinguishing characteristics of an architectural or historical type"*

Neither the study property's remaining farmland nor the house and its detached garage represent rare surviving examples of their type, i.e. farmland with an associated house built in the post-World War II era. Therefore, the study property does not meet Criterion 8.

The study parcel does not embody historical associations or a level of architectural significance, nor has it been previously assigned a status code of 5 or above, that would make the property eligible for listing as a Site of Merit under Criteria 1 or 2.

b. Point of Interest

A) That is the site of a building, structure or object that no longer exists but was associated with historic events, important persons, or embodied a distinctive character or architectural style;

This criterion does not apply to the study parcel, which retains its house and semi-detached garage. Therefore, the study parcel does not meet Criterion B.

B) That has historic significance, but has been altered to the extent that the integrity of the original workmanship, materials, or style has been substantially compromised:

The study property does not possess a level of architectural significance that would meet this criterion. Moreover the study property's existing improvements have not lost their integrity of workmanship, materials, or style. Therefore, the study parcel does not meet Criterion B.

C) That is the site of a historic event which has not distinguishable characteristics other than that a historic event occurred at the site, and the site is not of sufficient historical significance to justify the establishment of a landmark.

No documented events important to the interpretation of local, state, or national history occurred on the study property. Therefore, the study property does not meet Criterion C.

D. District

(1) Possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects

united historically or aesthetically by plan or physical development.
(2) *Has precisely mapped and defined exterior boundaries, which requires a description of what lies immediately on the edge of the district to allow rational exclusion of adjoining areas.*
(3) Has at least one of the criteria for significance of Section 1365-5a.1-8.
(4) Complies with the criteria for integrity contained in Section 1365-5a.6.

The study property and its environs do not encompass a concentration of resources linked by a related pattern of development or history. Therefore the study parcel does not meet the definition of a District.

7.0 SUMMARY STATEMENTOF SIGNIFICANCE

The current study has concluded that the study property at 2600 North Rose Avenue does not meet any of the criteria necessary for listing in the California Register of Historical Resources or for listing as a City of Oxnard Landmark or Point of Historic Interest. Therefore, the property is not a significant historic resource for the purposes of CEQA review.

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Appendix E – Joint Use Agreement for the Construction and Operation of the Rio Del Valle Junior High School Gymnasium

JOINT USE AGREEMENT FOR THE CONSTRUCTION AND OPERATION OF THE RIO DEL VALLE JUNIOR HIGH SCHOOL GYMNASIUM

THIS JOINT USE AGREEMENT is made and entered into this 24TH day of June 1997, by and between the County of Ventura, hereinafter called "County," and the Rio School District, hereinafter called "District."

RECITALS

WHEREAS, District is the owner and operator of certain real property located within the County of Ventura known as Rio del Valle Junior High School (hereinafter call "School"), located at 3100 North Rose Avenue, Oxnard, California. Said Rio del Valle School may be described as a junior high school with classrooms, administrative buildings, athletic fields, auditorium and parking lots; and

WHEREAS, California Education Code section 39470 et seq. authorizes the governing board of any school district to make vacant classrooms or other space on school grounds available for rent or lease to governmental units, such as the County of Ventura; and

WHEREAS, the District and the County have determined that the El Rio community will be best served by the construction and joint use of a proposed Rio del Valle Junior High School Gymnasium Complex at the School site, consisting of a gymnasium, multi-purpose rooms and meeting rooms, all within a building of approximately 12,500 square feet, hereinafter referred to as the "Facility"; and

WHEREAS, all the space in the proposed Facility is within the needs of the District; and

WHEREAS, the County desires the right to jointly use the Facility for the purpose of community groups and activities sponsored by the County; and

WHEREAS, it is the intent of the Parties that this Agreement shall generally outline the responsibilities and duties of the Parties to develop, construct, operate, maintain and jointly use the Facility, as well as specifically comply with the requirements for joint use agreements found in Education Code section 17751, as applicable to the State Allocation Board Eligibility Process for Joint Use Project Funding Applications.

NOW, THEREFORE, in consideration of the mutual promises in this Agreement, the Parties agree as follows:

Section 1

DESIGN AND CONSTRUCTION OF FACILITY

1.1 - **Design of Facility** The District shall contract for engineering, surveying, geotechnical and architectural services to prepare site and building design plans for the Facility pursuant to applicable state law. The District's Governing Board shall approve the final building design plans for the Facility, subject only to the review and acceptance of said plans by the County.

1.2 - **Construction of Facility** As owner of the Facility, the District shall have the sole responsibility for the final approval of the construction specifications, construction documents and for letting of the construction contracts and managing the construction of the Facility and final acceptance upon satisfactory completion of construction of the Facility.

1.3 - **Capital Costs** Capital Costs shall include the costs of surveying, geotechnical work, design, or other studies or reports necessary to obtain Division of State Architect approval, as well as site preparation, construction and furniture, fixtures and equipment. The Parties agree that the projected capital costs for the 12,500 square foot Facility are estimated at approximately $1,832,750. The Parties intend that the total capital cost for the Facility shall not exceed the aforementioned cost estimate; provided, however, that the Parties may mutually agree to adjustments of this amount, either for the original design or for future expansion and enhancement of the Facility if additional funds become available.

1.4 - **Project Funding** The Parties acknowledge that funding for the capital costs for the project flow from a variety of different sources, including federal Community Development Block Grant funds allocated by the Board of Supervisors, contributions by the County Sheriff's Department, expected contributions by the State Allocation Board of Proposition 203 (School Bond) moneys for Joint Use Projects, grants from foundations and community fundraising. In this regard, each Party hereto agrees to take all steps necessary on its part to secure such funding for the construction of the Facility. It is further agreed by the Parties that the District's obligation to cause the design and construction of the Facility shall not arise until sufficient funds have been secured.

1.5 - **Ownership of Facility** The District shall be the sole owner of the Facility.

1.6 - **Project Payments** All project funds other than Community Development Block Grant ("CDBG") funds and Proposition 203 funds shall be placed in the county school lease-purchase fund account for disbursement upon District requisition to pay project expenses. The District will submit an invoice to County along with copies of all consultant, contractor and vendor invoices, utility bills, and other cost items received by District for the actual design and construction of the Facility, by the 1st day of the month following the month in which the invoice is received, for reimbursement from CDBG funds. Payment to District shall be made by County within thirty (30) calendar days following receipt of this invoice. Any questions regarding

construction costs shall be raised by the last day of the month following the month in which that invoice is received. Any question about construction costs that cannot be resolved directly between the Parties shall be submitted to mediation.

Section 2
OPERATION AND MAINTENANCE OF THE FACILITY

2.1 - **Operation and Maintenance Costs** For purposes of this Agreement, annual operation and maintenance costs of the Facility once constructed shall include: Utility Costs, Janitorial Costs, Maintenance Equipment and Supplies, Maintenance and Ongoing Repair Costs. Also included in the annual operation and maintenance costs shall be a $15,000 contingency fund. The Parties agree that the Annual Operation and Maintenance Budget, for the first year, including contingency, is projected at $60,000. The Parties will meet no later than April 15, of each year; in order to determine the subsequent fiscal year's Annual Operation and Maintenance Budget. The agreed budget will be accepted by both Parties no later than June 15, of each year. If the Parties cannot agree upon the Annual Operation and Maintenance Budget by the date specified, the prior year's budget shall apply to the subsequent year until or unless the Parties agree to a new budget.

2.2 - **District's Obligation** The District shall be responsible for the operation, maintenance and repair of the Facility and shall employ and pay such persons as are deemed necessary by the District to perform such custodial and repair services. The District shall be responsible for 50 percent of the Annual Operation and Maintenance Budget provided, however, that the District's share shall not exceed $30,000 per year without prior approval of District's Governing Board.

2.3 - **County's Obligation** The County shall be responsible for 50 percent of the Annual Operation and Maintenance Budget provided, however, that the County's share shall not exceed $30,000 per year without prior approval of the County's Board of Supervisors.

2.4 - **Payment** An invoice from the District with attached copies of vendor invoices, utility bills, etc., received by the District for the actual costs of the operation and maintenance of the Facility will be provided to the County on a quarterly basis by the 15th day of the month following the end of the quarter. Payment shall be made to the District by County within thirty (30) calendar days following receipt of the invoice.

2.5 - **Materials and Equipment** Recreational equipment shall not be considered part of the Annual Operation and Maintenance Budget. Said equipment shall be purchased by the user Parties and kept segregated in locked facilities for each user's exclusive use. The acquisition of materials to be jointly used in the Facility, such as tables, chairs, etc., during the first year of the Facility's operation shall be part of the capital expense of the Facility.

Section 3
MAJOR ALTERATIONS AND IMPROVEMENTS

3.1 - Once the Facility is built, the Parties agree that any major alteration or improvements to the Facility will be deemed capital costs. Any major alteration to the Facility will require the approval of both the District and County, and must, at a minimum, meet all applicable requirements of the Education Code and other applicable state and local laws, rules, ordinances, and regulations regarding permissible uses of District property. The Party proposing the major alteration or improvement shall be responsible for the capital costs of that alteration or improvement, unless the Parties agree otherwise.

Section 4
JOINT USE, SCHEDULING AND PRIORITY

4.1 - **District's Exclusive Use** The Parties agree that the District shall have exclusive use of the Facility during regular and summer school days and hours throughout the school year.

4.2 - **County's Right to Use** Upon the payment of its share of the Operation and Maintenance Budget for the year, the County shall have the right to share use of the Facility, at no additional fee. County's right to use shall be during after-school hours and on days when school is not in session provided, however, that the District retains the "right of first refusal" for its use of the Facility for school related functions during said nonschool hours.

4.3 - **Master Scheduling Calendar** Prior to the start of each school year and before the end of July, the District shall prepare and the Parties shall agree to a Master Scheduling Calendar for the Facility and shall coordinate the preparation of that calendar with the County so as to ensure County's needs for use of the Facility are being addressed. In scheduling use, school events and programs shall have first priority, programs established by the County shall have second priority, and any other events by outside organizations shall have priority thereafter. The principal or designee of the School shall enforce the schedule. Pursuant to this Agreement and the Civic Center Act, Education Code section 40040 et seq., once the schedule is established, the principal can only cancel an approved County use of the Facility upon a showing of extraordinary circumstances and in such case the principal shall make every effort to procure a suitable alternative site for the displaced events. The Facility will be exclusively reserved for school functions from 8:00 a.m. to 4:00 p.m. when school is in session or as set annually by the District. The Parties shall review and update the Master Scheduling Calendar quarterly.

4.4 - **Uses Consistent With School Purposes** The Parties understand and agree that the use of the Facility by the County shall not, at any time, interfere with the regular conduct of school activities, nor shall such use be inconsistent with law or District policies including Board policy 1330(a), attached hereto and incorporated herein, concerning use of school buildings and grounds.

Section 5
ANNUAL OPERATIONAL AGREEMENT

5.1 - **Operational Agreement** Prior to the completion of the construction of the Facility, and thereafter annually before the beginning of each school year, an Annual Operational Agreement shall be approved by the Parties. Said Annual Operational Agreement will be a supplement to this Joint Use Agreement and shall provide a method to monitor and evaluate the adequacy of both District and County operating mechanisms and systems in place for joint use of the Facility. The Annual Operational Agreement shall provide specific guidelines in such areas as communication among the Parties, scheduling, fees, coordination with outside community groups, safety, security, maintenance responsibility, supervision and equipment.

5.2 - **Facility Supervision** The Facility shall be administered by the District. The County shall provide a staff supervisor to supervise the County use of the Facility.

Section 6
INSURANCE

6.1 - **Construction Phase** During the design and construction phase of the Facility, District shall obtain and maintain in full force appropriate liability, property and worker's compensation insurance acceptable to the County and shall include the County as an additional insured on said policy. Payment for this insurance shall be part of the capital cost of construction. County recognizes that District is self-insured and all insurance will be provided through its existing self-insurance program.

6.2 - **Operational Phase** During the operational term of this Agreement, the County shall bear liability for all uses during the periods of scheduled use by or on behalf of the County. The District understands and agrees that it bears liability with respect to all uses and times not otherwise scheduled for County use. Each Party recognizes that the other is currently self-insured, in whole or in part, and, except as provided hereinabove, each Party may purchase insurance as it deems appropriate.

The District shall provide insurance coverage for fire and other property damage for the Facility.

Section 7
INDEMNIFICATION

7.1 - **Development & Construction** Each Party agrees to indemnify, hold harmless and defend the other, its officers, employees, successors, assigns, attorneys, agents and representatives for all loss, expense, suits in law or equity, proceedings, claims (including worker's compensation

claims), damages, actions and judgments of any nature whatsoever, including all attorney's fees, arising out of or in any way connected with its actions or omissions with regard to the development and construction of the Facility on the Rio del Valle School site.

7.2 - **Operations** Each Party agrees to indemnify, hold harmless and defend the other, its officers, employees, successors, assigns, attorneys, agents, and representatives for all loss, expense, suits in law or equity, proceedings, claims (including worker's compensation claims), damages, actions and judgments of any nature whatsoever, including all attorney's fees, arising out of or in any way connected with its actions or omissions with regard to the use, operation, and maintenance of the Facility on the Rio del Valle School site.

Section 8
TERM

8.1 - The term of this Agreement shall be for the design and construction period plus the initial operating term of ten (10) years. To the extent that the financial obligations of either Party with respect to design and construction (Section 1) and to annual operation and maintenance (Section 2) of the Facility extend beyond the current fiscal year and are subject to limitations imposed under article XVI, section 18, of the California Constitution (relating to debt limitation), such obligations are subject to receipt of all necessary budgetary approvals from the governing board of said Party for future fiscal years. The design and construction term shall commence upon the date of approval of this Agreement by all Parties and the operational term shall begin with the acceptance of the completion of construction of the Facility by the District. Either Party may give written notice to the other by the end of the sixth year of the initial operating term of its intent to continue this Agreement, as modified by any negotiations, for a subsequent term of no less than five additional years from the end of the initial operating term. The Parties shall reach agreement concerning the new terms and renewal period by the end of the seventh year of the initial operating term.

8.2 - Upon termination of this Agreement, the materials and equipment housed in the Facility shall belong to the Party which purchased them. If there is no way to identify the purchaser, or if equipment was donated for use in the Facility, title shall be in the District.

Section 9
LAW GOVERNING

9.1 - This Agreement shall be governed and construed in accordance with the laws of the State of California and any action to enforce this Agreement shall be venued in the courts in Ventura County, California.

Section 10
AGREEMENT HEADINGS

10.1 - The headings (captions) of sections and paragraphs contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

Section 11
NOTICES

11.1 - All notices required or given under this Agreement shall be in writing and may be given by personal delivery or by mail. All notices shall be addressed or delivered as follows:

A. To the County: County of Ventura
Parks Department
Attn: Deputy Director
800 South Victoria Avenue, L#1030
Ventura, California 93009-0001

B. To the District: Rio School District
Attn: Superintendent
3300 Cortez Street
Oxnard, California 93030

Any Party may, by giving written notice in accordance with this paragraph, change the names or addresses of the persons or departments designated for receipt of future notices. When addressed in accordance with this paragraph and deposited in the United States mail, certified or registered mail, postage prepaid, notices shall be deemed given on the third day following such deposit in the United States mail. In all other instances, notices shall be deemed given at the time of actual delivery.

Section 12
TERMINATION

12.1 - **Termination** This Agreement may be terminated only by mutual agreement of the Parties or for cause.

Section 13
AMENDMENTS

13.1 - **Amendments** This Agreement constitutes the entire Agreement between the Parties. Any modification or amendment shall be effective only when agreed to in writing by both District and County.

Party, COUNTY OF VENTURA

By _____
CHAIR, BOARD OF SUPERVISORS

Party, RIO SCHOOL DISTRICT

By _____
[Authorized Signature]

Yolanda M. Benitez
[Printed Name]

Superintendent
[Title]

g:\common\jlm\board\juagree3.con

LEASE AGREEMENT
(EL RIO COMMUNITY GYMNASIUM)
(3100 ROSE AVENUE, OXNARD)

THIS LEASE, hereinafter called "Agreement" is made and entered into by and between:

RIO SCHOOL DISTRICT

hereinafter referred to as "District" and

COUNTY OF VENTURA,

hereinafter referred to as "County"

The parties agree that:

1. PROPERTY LEASED. District hereby leases to County and County hereby rents from District the Property, hereinafter called "Premises", located in the County of Ventura, State of California, described herein as:

> 393 USABLE SQUARE FEET LOCATED IN ROOMS IDENTIFIED ON THE ATTACHED FLOOR PLAN AS 06, AND 08.

The Premises are more particularly shown on Exhibit "A", which is attached hereto and made a part hereof by reference.

2. OPERATION AND MAINTENANCE COSTS. No rent shall become due or payable under this agreement. However, County shall pay District, in advance on the first day of each calendar month, $.00 per square foot, or $0.00, for County's share of operating expenses subject to annual adjustments pursuant to §2.1 of the Joint Use Agreement for the Construction and Operation of the Rio Del Valle Junior High School Gymnasium (JUA). Said Agreement is attached hereto as Exhibit "D" and incorporated herein by reference.

3. TERM. This Agreement shall be coterminous with the JUA.

4. HOLDOVER. Intentionally omitted.

5. USE. Premises shall be used for the following specified purpose and shall not be used for any other purpose without first obtaining the written consent of District:

The County Sheriff's Department shall use the Premises for law enforcement and community service purposes. County shall not use the Premises for any other purpose, without first obtaining District's express written consent. County shall not use Premises for any purpose inconsistent with Section 4.4 of the Joint Use Agreement. County shall not permit any known, suspected, or accused criminal, in, or, or about the Premises for any reason including, but not limited to detaining, processing, fingerprinting, or

interrogating criminal suspects. This section does not prohibit the County Sheriff's Department from detaining individuals suspected of criminal activities on school grounds.

6. SIGNS. Subject to District's approval of County's written signage requests; County shall have the right to install signs appropriate for the identification of the Premises. District's consent shall not be unreasonably withheld.

7. ALTERATIONS BY COUNTY. District hereby consents that during the term of the Agreement or any extension thereof; County shall have the right, at County's sole expense and with District's approval, to make installations, modifications and improvements to the Premises, provided, however, that the basic structure shall not be altered. All improvements, installations and modifications installed by the County during the term of this Agreement shall be considered personal property of County and County may, at its option, remove any or all of such items at any time during the term of this Agreement or any extension thereof. If County removes any of such items, County shall restore that portion of Premises affected by such removal, as nearly as practicable to its condition as of the date of occupancy by County, normal wear and tear excepted. County shall keep Premises free from any liens arising out of any work performed on Premises, for material furnished to Premises or for obligations incurred by County.

8. PARKING. County, its agents, invitees, employees, contractors and patrons shall be permitted use of parking spaces in District's paved parking area adjacent to Premises at a ratio of five (5) spaces per 1,000 usable square feet leased by County.

9. PRORATION OF OPERATION AND MAINTENANCE COSTS. If Operation and Maintenance Costs due under Agreement for any calendar month should be for less than a full month, Operation and Maintenance Costs amount due for that month shall be prorated on the basis of a 30 day month.

10. CONSTRUCTION OF TENANT IMPROVEMENTS BY DISTRICT.

(a) District shall, at its own cost and expense, as provided in subparagraph (h) (unless prevented or delayed by conditions over which District has no control), commence forthwith the erection of turn-key tenant improvements to Premises using mutually acceptable guidelines for design, permits, demolition, and construction, including but not limited to carpet and paint. Tenant Improvements shall be constructed per the space plans dated 3-31-99 (Exhibit "E") subject to the provisions of Exhibit "D" and subparagraphs c,d and f-i herein.

(b) ~~District shall immediately, upon execution of this Agreement, deliver floor plans of the Premises to County showing thereon the columns and other structural work in the Premises and as built space plans of the existing configuration. From said plans, County and District shall within 14 days, develop a layout of the required tenant improvements.~~

(c) Within forty-five (45) days after this lease is signed by both parties herein, District, shall cause to be prepared final plans and specifications for the

construction of such tenant improvements. ~~along with estimates of the Cost of Construction, as herein defined~~.

(d) The aforementioned plans and specifications shall then be approved by District and County, acting reasonably within fourteen (14) days after receipt thereof.

~~(e) District and County shall mutually agree on a fair estimate for the Costs of Construction, as herein defined, of the tenant improvements to be provided by District. Upon mutual agreement of said estimate, an amendment to this lease shall be mutually executed by and between District and County to document the Cost of Construction as defined herein.~~

(f) The tenant improvements to the Premises shall be constructed in accordance with said approved drawings and specifications, and District agrees to pursue the construction work diligently to completion, complying with all City, County, State, and Federal law, ordinances, and rules and regulations relating thereto, including, but not limited to, fair labor, asbestos, handicap accessibility, prevailing wage, bidding, and earthquake provisions applicable to such construction work.

(g) Any subsequent changes, modifications, or alterations requested by County shall be at the sole cost and expense of the County. No such changes, modifications, or alterations in the said approved drawings or specifications can be made without the written consent of District after written request therefor by County.

(h) District shall deliver the Premises, with the agreed tenant improvements substantially completed and ready for County's occupancy, within two (2) months after District and County approve the final plans and specifications, ~~estimates of the Cost of Construction~~ and permits are obtained from City.

(i) Operation and Maintenance Costs shall begin to accrue on the Completion Date as set forth in paragraph 3 (which is the date upon which tenant improvements are substantially complete and a Certificate of Occupancy is issued by City), regardless if County takes possession by said date and, the term of this Agreement shall commence on the Completion Date.

~~(j) Cost of Construction for tenant improvements, is defined herein as all actual costs and expenses incurred by District including Overhead at 10% and Profit at 5% in connection therewith for (i) Architects and Engineers; (ii) Federal, State, County and City permits and fees and (iii) the tenant improvements shown on the final plans and specifications. District will provide County with an ongoing accounting of such costs.~~

(k) ~~County shall pay to District as additional Operation and Maintenance Costs, an amount equal to the actual Cost of Construction, not to exceed the fair estimate as defined above, within 14 days of completion of construction as described in Article 10(i) and receipt of final accounting~~.

11. DELAY IN DELIVERY OF POSSESSION. If District, for any reason whatsoever, cannot deliver possession of the Premises on the date of commencement of the term of this Agreement, Operation and Maintenance Costs for the period between said date and the date that District can deliver possession shall be prorated and deducted from the Operation and Maintenance Costs due under this Agreement. The term of the Agreement shall not be extended by such delay. Notwithstanding any other provision of this Agreement, if possession is not delivered to County within ninety days after the date of commencement of the term of this Agreement, or if tenant improvements are not completed within 6 months after a building permit is obtained from the local building official, County may terminate this Agreement without further obligation by so advising District in writing.

12. FIRE INSURANCE. Fire and extended coverage insurance on the Premises herein leased shall be the sole concern of District. However, no use except that which is expressly provided in this Agreement shall be made, or permitted to be made, of the Premises.

13. TAXES AND ASSESSMENTS. District shall pay all ad valorem taxes and assessments levied against the Premises covered by this Agreement unless statutorily exempt.

14. REPAIRS AND MAINTENANCE BY DISTRICT. District shall maintain the Premises as set forth in Exhibit "C" and shall provide all maintenance and repair required to be performed in connection therewith. County shall have no responsibility for maintenance or repair not set forth in Exhibit "C." District, however, shall have no responsibility for interior painting after occupancy by County except as may be specifically provided elsewhere in this Agreement, or for maintenance which may be required by reason of neglect or misconduct of the County, its agents, servants, employees, contractors or patrons.

15. UTILITIES. District shall provide all utilities, including waste removal, water, gas, and electrical serving the Premises and shall make payments directly to the utility company furnishing same.

16. JANITORIAL SERVICES. County shall provide its own janitorial service to the Premises.

17. ENTRY BY DISTRICT. District may enter upon the Premises at all reasonable times to examine the condition thereof, and for the purpose of providing maintenance and making such repairs as District is obligated to make, provided that such right shall not be exercised in such a manner as to unreasonably interfere with any business conducted by County on the Premises.

18. CONTINGENCY. This Agreement is contingent upon approval of all applicable governmental agencies, including but not limited to Zoning, Building and Safety, and Fire Department regulations. If approval of said agencies is not obtained, County may terminate this Agreement by written notice to District and in such event, County shall not be liable to District for any subsequent Operation and Maintenance Costss.

If the Premises, and/or District's property on which Premises is located, is inspected to determine compliance with the provisions of the Occupational Safety and Health Act of 1970 or any related legislation, District shall make all installations, modifications or improvements required as a result of such inspection, except that County shall perform all installations, modifications or improvements made necessary by modification of Premises by or use of County.

19. ASSIGNMENT AND SUBLETTING. County shall have the right to assign this Agreement and/or sublet the Premises with the written consent of District which consent shall not unreasonably be withheld. In the event that the Premises are sold during the term of this Agreement, purchaser shall become District's assignee hereunder. All terms and conditions of this Agreement shall remain in full force and effect.

20. DEFAULT OR BREACH. Except as otherwise provided, at any time one party to this Agreement is in default or breach in the performance of any of the terms and conditions of this Agreement, the other party shall give written notice to remedy such default or breach. If said default or breach is remedied within 30 days following such notice, then this Agreement shall continue in full force and effect. If such default or breach is not remedied within 30 days following such notice, the other party may, at its option, terminate this Agreement. Such termination shall not be considered a waiver of damages or other remedies available to either party because of such default or breach. Each term and condition of this Agreement shall be deemed to be both a covenant and a condition.

21. HOLD HARMLESS. County hereby indemnifies and defends District against, and holds District harmless from, any loss or damage arising out of or relating to any death, bodily injury, or property damage resulting from, or in conjunction with the maintenance, use or occupation of the Premises by County, County's agents, invitees, employees, contractors or patrons under this Agreement. County shall provide District with proof of liability insurance for the Premises.

22. WAIVER. A waiver by either party of any default or breach by the other party in the performance of any of the covenants, terms or conditions of this Agreement shall not constitute or be deemed a waiver of any subsequent or other default or breach.

23. PARTIES BOUND AND BENEFITTED. The covenants, terms, and conditions herein contained shall apply to and bind the heirs, successors, executors, administrators, and assigns of all of the parties hereto, and all of the parties hereto shall be jointly and severally liable hereunder.

24. TIME. Time is of the essence of this Agreement.

25. HOLD HARMLESS. County hereby indemnifies and defends District against, and holds District harmless from, any loss or damage arising out of or relating to any death, bodily injury, or property damage resulting from, or in conjunction with, the

maintenance, use or occupation of the Premises by County, County's agents, invitees, employees, contractors or patrons under this Agreement.

26. DESTRUCTION OF PREMISES. If the Premises or the building in which the Premises are situated should be destroyed by any cause or declared unsafe or unfit for occupancy by any authorized public authority for any reason, either wholly or in such a degree as to impair County's use of said Premises, then all Operation and Maintenance Costs due under the terms of this Agreement shall cease as of the date of such destruction or declaration. If District makes the necessary repairs within 90 days rendering the Premises as suitable and serviceable as they existed the day County occupancy commenced, no right of termination by the County shall exist. If repairs are not made within 90 days, the County may terminate this Agreement effective on the 90th day after said destruction by mailing written notice to District of the County's intention to terminate. If during a period of partial destruction, the County should desire to continue occupancy, the Operation and Maintenance Costs shall be abated in the same ratio, as the portion of the Premises rendered for the time being unfit for occupancy shall bear to the whole Premises. Should the partial destruction of the Premises not be repaired within 90 days, the County shall have the option to terminate this Agreement or remain in possession at the reduced Operation and Maintenance Costs.

27. CONDEMNATION. If a public authority under the power of eminent domain should take the whole of the Premises, then the term of this Agreement shall cease on the day of possession by said public authority. If a part only of the Premises should be taken under eminent domain, County shall have the right to either terminate this Agreement or to continue in possession of the remainder of the Premises. If the County remains in possession, all of the terms hereof shall continue in effect, the Operation and Maintenance Costs payable being reduced proportionately for the balance of the term of this Agreement. If such taking under the power of eminent domain occurs, those payments attributable to the leasehold interest of the County shall belong to the County, and those payments attributable to the reversionary interest of the District shall belong to the District.

28. CONDITION OF PREMISES UPON TERMINATION. Upon the termination of this Agreement for any reason, County shall vacate the Premises and deliver it to District in good order and condition, damage by the elements, fire, earthquake, falling objects and ordinary wear and tear excepted.

29. ENTIRE AGREEMENT. This Agreement contains the entire understanding of the parties hereto and no obligation other than those set forth herein will be recognized.

30. CONFLICTING PROVISIONS. In the event this Lease conflicts with the JUA, "Exhibit D" the JUA shall govern.

31. AGREEMENT MODIFICATION. This Agreement may be terminated, extended, or amended in writing by the mutual consent of the parties hereto. Such modification may, be executed by an authorized representative, on behalf of the County.

32. PARTIAL INVALIDITY. If any term, covenant, condition or provision of this Agreement is found by a Court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

33. GENDER AND NUMBER. For the purpose of this Agreement, wherever the masculine or neuter form is used, the same shall include the masculine or feminine, and the singular number shall include the plural and the plural number shall include the singular, wherever the context so requires.

34. ARTICLE HEADINGS. Article headings in this Agreement are for convenience only and are not intended to be used in interpreting or construing the terms, covenants and conditions of this Agreement.

35. NOTICES AND PAYMENTS. All notices required under this Agreement, including change of address, shall be in writing and all notices and payments shall be made as follows:

A. All checks shall be made payable to RIO SCHOOL DISTRICT. Payments and notices to District shall be given or mailed to:

RIO SCHOOL DISTRICT
Attn: Superintendent
3300 Cortez Street
Oxnard, California 93030
T.I.N. 95-6002550

B. All payments and notices to County shall be given or mailed to:

County of Ventura
Chief Administrative Office
800 South Victoria Avenue
Ventura, California 93009
Attn: Real Estate Administrator

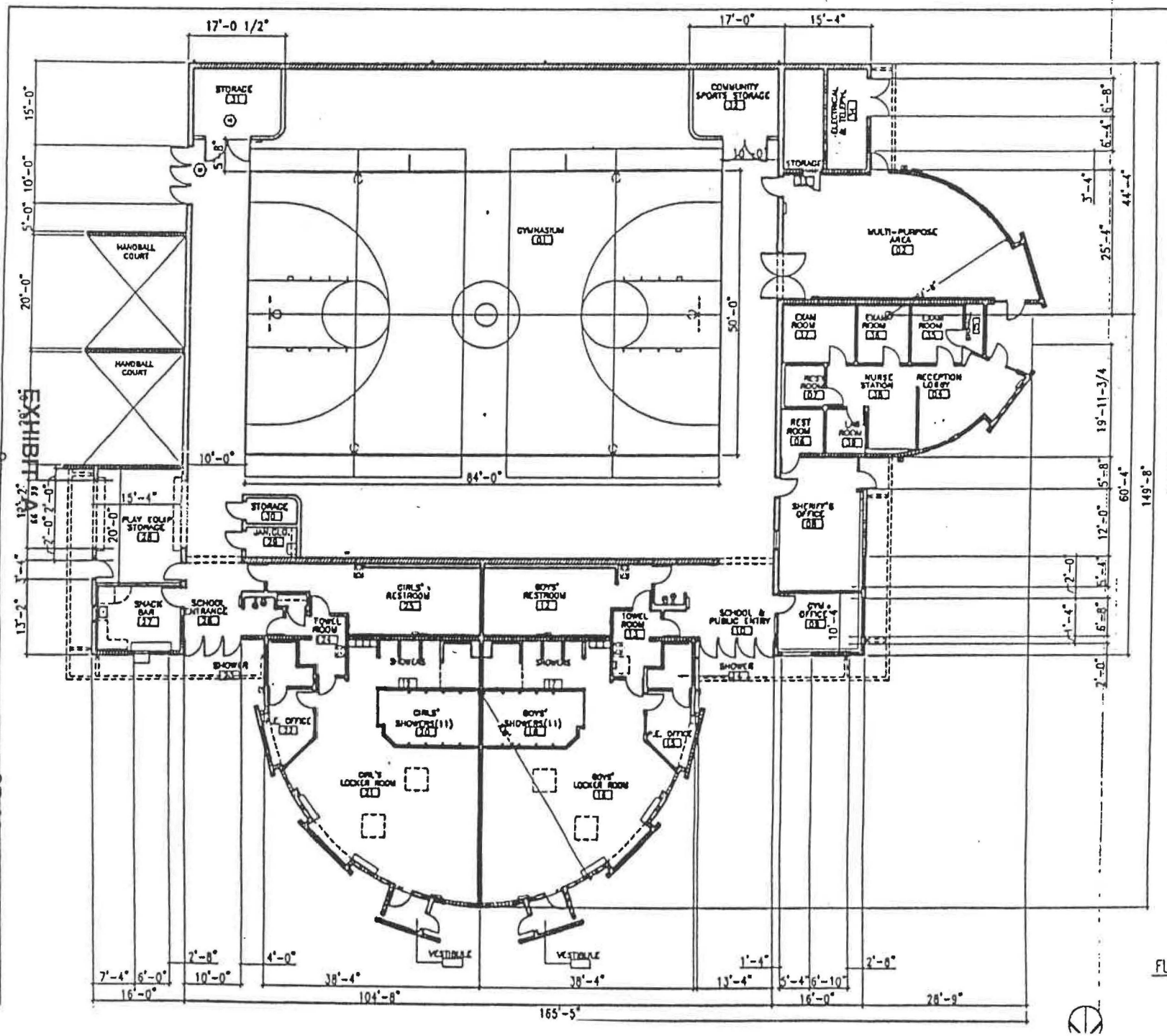
36. APPROVAL BY BOARD OF SUPERVISORS. This Agreement was approved by the Board of Supervisors by action of 3/13, ~~19~~2001, (Item No. 10). Execution of this Agreement by the Chief Administrative Officer is pursuant to the authority to execute leases delegated by the Board's action of November 25, 1997.

"DISTRICT"
RIO SCHOOL DISTRICT

By: Yolanda M. Benitez Dated: 2-08-01
YOLANDA M. BENITEZ
Superintendent of Schools

"COUNTY"
COUNTY OF VENTURA

By: Harry Hufford Dated: 3/16/01
~~**TERRY DRYER**~~
~~Chief Deputy Administrative Officer~~
HARRY HUFFORD
CHIEF ADMINISTRATIVE OFFICER



LEGEND

ROOM NO.	ROOM NAME	APPROXIMATE NUMBER OF OCCUPANTS	GROSS AREA (SQ. FEET)
01	GYMNASIUM	104	4811
02	MULTI-PURPOSE	94	940
03	CLAY ROOM	22	133
04	RECEPTION ROOM	13	188
05	STORAGE	1	28
06	RESTROOM	2	57
07	RESTROOM	2	53
08	P.E. OFFICE	3	117
09	GYMNASIUM OFFICE	4	151
10	SCHOOL AND PUBLIC ENTRY	12	178
11	NOT USED		
12	BOY'S RESTROOM	11	270
13	TOWEL ROOM	2	84
14	SHOWER	3	60
15	P.E. OFFICE	7	100
16	BOY'S LOCKER ROOM	37	905
17	SHOWER	7	115
18	BOY'S SHOWERS	10	161
19	SHOWERS	17	115
20	GIRL'S SHOWERS	10	161
21	GIRL'S LOCKER ROOM	37	905
22	P.E. OFFICE	7	100
23	SHOWER	5	10
24	TOWEL ROOM	2	84
25	GIRL'S RESTROOM	11	267
26	SCHOOL ENTRANCE	10	128
27	SNACK BAR	11	188
28	PLAY EQUIP. STORAGE	14	293
29	JANITOR'S CLOSET	3	63
30	STORAGE	1	11
31	STORAGE	10	182
32	COMMUNITY SPORTS STORAGE	23	178
33	STORAGE	5	126
34	ELECTRICAL AND TELEPHONE	2	37
35	CLAY ROOM	10	130
36	CLAY ROOM	10	92
37	CLAY ROOM	10	92
38	NURSE	10	180

INTENTIONALLY OMITTED

NO.	ITEM	DISTRICT	COUNTY
1	Electrical system, including wires, conduits, circuit breakers and breaker panels.	X	
2	Light switches and electrical outlets.		X
3	Ballast and transformers for florescent lights.		X
4	Light bulbs and/or florescent bulbs, including installation.		X
5	Plumbing system: water, sewer, gas and other underground lines.	X	
6	Plumbing blockage within the premises or from the premises to a community line.		X
7	Toilets, urinals, water closets, water faucets, paper towel & toilet tissue holders (not owned by supplier), mirrors and other restroom fixtures.		X
8	Water heater.	X	
9	Drinking fountains.	X	
10	Air conditioning & heating systems, including control switches & thermostats.	X	
11	Telephone & cable T.V. jacks.		X
12	Carpet, tile and/or linoleum.		X
13	Interior doors, door and window hardware and locks.		X
14	Drapes, window shades, blinds or other window covering.		X
15	Ceiling and counter tops.		X
16	Interior walls & partitions.		X
17	Broken window glass or door glass including plate glass windows.		X
18	Exterior walls, roof, drains & down spouts.	X	
19	Exterior parking lot, repair & maintenance.	X	
20	Grounds landscaping, gardening and debris clean up.	X	
21	Alarm system or systems.		X
22	Fire extinguishers.		X
23	Refuse, rubbish & garbage disposal.	X	
24	Janitorial service including window washing.		X
25	Paper supplies, dispensers & waste containers in restrooms and/or kitchen areas.		X
26	Pest control.	X	

However, it is understood and agreed that Lessor shall not be responsible for those items which require repair or maintenance due to the neglect or misconduct of the County, its agents, employees, contractors or patrons.

EXHIBIT "C"

Appendix F – Bus Maintenance Purchase Orders

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210/81

CHECK NO: 5009049288

ISSUE DATE: 04/04/23

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********615.83

VOID AFTER SIX MONTHS

PAY SIX HUNDRED FIFTEEN AND 83/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
ADVANCE AUTO PARTS
5008 AIRPORT ROAD
ROANOAKE, VA 24012

⑈5009049288⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $615.83

VENDOR NAME: ADVANCE AUTO PARTS 714537/1 CHECK NUMBER: 5009049288 DATE: 04/04/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/11/2023	9047307052503	B23-00087	R23-00100		615.83

0138154

B23-00087
(039995)

Service is our best part.®

Store 9047 2099 E. Thousand Oaks Blvd Ste A Thousand Oaks, CA 91362 Phone: (805) 277-8420
Questions or feedback? Contact the Commercial Customer Support Team at 1-877-280-5965 or email us at service@advanceautoparts.com

REMIT
Advance Auto Parts
AAP Financial Services
P.O. Box 742063
Atlanta, GA 30374-2063

Rio School District
2715 E. Vineyard Avenue

Oxnard, CA 93036
Phone: (805) 485-3111
Account ID: 1846146013

PO#: Jim
Date: 3/11/23
Register: 5
Store/Unit#:
Internet Order #:

Invoice/Trans: 904730705**2503**
Time: 10:34:04AM
Delivery: No
Salesperson: Paul
Payment Terms:
Submitter Name:

Product Line	Part #	Description	SKU	Warranty	Qty	List	Cost	Extended
FRAM Antifreeze	F201	FRAM ANT GREEN 50/50 1 E	12447464	REPLACE OR REFUND AT MGR DISCRETI(	12	29.16	14.58	174.96
FRAM Antifreeze	F601	FRAM ANT DEX 50/50 1 EA	12447462	REPLACE OR REFUND AT MGR DISCRETI(	12	34.64	17.32	207.84
FRAM Antifreeze	F201	FRAM ANT GREEN 50/50 1 E	12447464	REPLACE OR REFUND AT MGR DISCRETI(	6	29.16	14.58	87.48
		Location: Store S04669	ETA: WILL CALL	Qty: 6	TO Store: S09047			
FRAM Antifreeze	F601	FRAM ANT DEX 50/50 1 EA	12447462	REPLACE OR REFUND AT MGR DISCRETI(	6	34.64	17.32	103.92
		Location: Store S04669	ETA: WILL CALL	Qty: 6	TO Store: S09047			

*** In store payments on AAP Comm Credit accounts will be applied to oldest invoices by date ***

MERCHANDISE SUBTOTAL		574.20
T1 Tax @	7.2500%	41.63
TOTAL INVOICE		**615.83**
Tender Type	AAP Charge Account 1193 853012	615.83
CHANGE		0.00

D2QBL1FDSH1NJZ1BN5

Customer's signature below certifies that the tax free purchase items qualify for resale or other permitted tax or fee exemption. Customer will pay all taxes and government fees on taxable purchases including interest and penalties if applicable. All cores need to be in the original box and in rebuildable condition to receive full core credit. Invoice required as proof of purchase for all returns.

Customer Copy

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Advance Auto Parts DATE 3/22/2023

PURCHASE ORDER NUMBER ASSIGNED PB 2300087

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT SHOP SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

~~Parts~~ Supplies

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichtner

VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210/81

CHECK NO: 5009049725

ISSUE DATE: 05/02/23

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********685.15

VOID AFTER SIX MONTHS

PAY SIX HUNDRED EIGHTY FIVE AND 15/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
ADVANCE AUTO PARTS
5008 AIRPORT ROAD
ROANOKE, VA 24012

⑈5009049725⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $685.15

VENDOR NAME: ADVANCE AUTO PARTS 714537/1 CHECK NUMBER: 5009049725 DATE: 05/02/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/27/2023	9047308652922	B23-00087	R23-00100		234.77
03/28/2023	9047308752956	B23-00087	R23-00100		116.61
04/11/2023	9047310153461	B23-00087	R23-00100		333.77

0147347

(039995) B23-00087

Advance Auto Parts Professional

Service is our best part.®

Store 9047 2099 E. Thousand Oaks Blvd Ste A Thousand Oaks, CA 91362 Phone: (805) 277-8420

Questions or feedback? Contact the Commercial Customer Support Team at 1-877-280-5965 or email us at service@advanceautoparts.com

REMIT:
Advance Auto Parts
AAP Financial Services
P.O. Box 742063
Atlanta, GA 30374-2063

Customers Comment:

Rio School District
2715 E. Vineyard Avenue

Oxnard, CA 93036
Phone: (805) 485-3111
Account ID: 1846146013

PO#: Jim
Date: 3/27/23
Register: 5
Store/Unit#:
Internet Order #: S09047-20230327180938100

Invoice/Trans: 9047308652922
Time: 3:11:58PM
Delivery: No
Salesperson: Paul
Payment Terms: Monthly
Submitter Name: Michael Parker (CA)

Product Line	Part #	Description	SKU	Warranty	Qty	List	Cost	Extended
Peak	DEF002	DIESEL EXHAUST FLUID 1 E	10082203	REPLACE OR REFUND AT MGR DISCRETI(	10	43.78	21.89	218.90

*** In store payments on AAP Comm Credit accounts will be applied to oldest invoices by date. ***

MERCHANDISE SUBTOTAL		218.90
T1 Tax @	7.2500%	15.87
TOTAL INVOICE		234.77
Tender Type	AAP Charge Account 1193 628898	234.77
CHANGE		0.00

D2QCB1F23K1NJZ1CGD

Customer's signature below certifies that the tax free purchase items qualify for resale or other permitted tax or fee exemption. Customer will pay all taxes and government fees on taxable purchases, including interest and penalties if applicable. All cores need to be in the original box and in rebuildable condition to receive full core credit. Invoice required as proof of purchase for all returns.

Customer Copy

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Advance Auto Parts DATE 4/10/2023

PURCHASE ORDER NUMBER ASSIGNED B23-00087

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT Bus 1, 2, 52 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Parts

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

PurchaseRequest

(039945)
B23-00087

Advance Auto Parts Professional

Service is our best part.®

Store 9047 2099 E. Thousand Oaks Blvd Ste A Thousand Oaks, CA 91362 Phone: (805) 277-8424
Questions or feedback? Contact the Commercial Customer Support Team at 1-877-280-5965 or email us at service@advanceautoparts.com

REMIT:
Advance Auto Parts
AAP Financial Services
P.O. Box 742063
Atlanta, GA 30374-2063

Rio School District
2715 E. Vineyard Avenue

Oxnard, CA 93036
Phone: (805) 485-3111
Account ID: 1846146013

PO#: Jim

Date: 3/28/23
Register: 5
Store/Unit#:
Internet Order #:

Invoice/Trans: 904730875**2956**
Time: 11:59:25AM
Delivery: No
Salesperson: Paul
Payment Terms:
Submitter Name:

Product Line	Part #	Description	SKU	Warranty	Qty	List	Cost	Extended
Gates	27002	FUEL LINE HOSE 1 EA GATE	10505053	REPLACE OR REFUND AT MGR DISCRETIC	25	2.52	1.26	31.50
Gates	27003	FUEL LINE HOSE 1 EA GATE	10504762		25	2.52	1.26	31.50
	27004	3/8 FUEL HOSE	80010222		1		45.73	45.73

*** In store payments on AAP Comm Credit accounts will be applied to oldest invoices by date. ***

MERCHANDISE SUBTOTAL		108.73
T1 Tax @	7.2500%	7.88
TOTAL INVOICE		**116.61**
Tender Type	AAP Charge Account 1193 621681	116.61
CHANGE		0.00

D2QCC1F2JS1NJZ1BSP

Customer's signature below certifies that the tax free purchase items qualify for resale or other permitted tax or fee exemption. Customer will pay all taxes and government fees on taxable purchases, including interest and penalties if applicable. All cores need to be in the original box and in rebuildable condition to receive full core credit. Invoice required as proof of purchase for all returns.

THANK YOU FOR YOUR BUSINESS!

Customer Copy

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR ADVANCE AUTO PARTS DATE 4/10/2023

PURCHASE ORDER NUMBER ASSIGNED B23-00087

ACCOUNT NUMBER _ _ _ - _ _ _ _ - _ _ _ _ - _ - _ _ _ _ - _ _ _ _ - _ _ _ - _ _ _ - _ _ _ _ - _

SHORT ACCOUNT NUMBER 039995

PROJECT SHOP SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

SUPPLIES

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

(039995) B23-00087

Service is our best part.

Store 9047 2099 E. Thousand Oaks Blvd Ste A Thousand Oaks, CA 91362 Phone: (805) 277-8420
Questions or feedback? Contact the Commercial Customer Support Team at 1-877-280-5965 or email us at service@advanceautoparts.com

REMIT:
Advance Auto Parts
AAP Financial Services
P.O. Box 742063
Atlanta, GA 30374-2063

Customers Comment:

Rio School District
2715 E. Vineyard Avenue

Oxnard, CA 93036
Phone: (805) 485-3111
Account ID: 1846146013

PO#: Jim
Date: 4/11/23
Register: 5
Store/Unit#:
Internet Order #: S09047-20230410134230068

Invoice/Trans: 9047310153461
Time: 2:38:01PM
Delivery: No
Salesperson: Paul
Payment Terms: Monthly
Submitter Name: Michael Parker (CA)

Product Line	Part #	Description	SKU	Warranty	Qty	List	Cost	Extended
Solar	ES6000	TRUCK PAC BOOSTER 12 1 Location: 00144	11148440	CONTACT MANUFACTURER FOR WARRAN	1	321.58	305.51	305.51

Balance Summary
Outstanding Balance: 4,579.19

*** In store payments on AAP Comm Credit accounts will be applied to oldest invoices by date. ***

MERCHANDISE SUBTOTAL		305.51
T1 Tax @	9.2500%	28.26
TOTAL INVOICE		333.77
Tender Type	AAP Charge Account 1193 115419	333.77
CHANGE		0.00

D2QCQ1FFDD1NJZ1CD3

Customer's signature below certifies that the tax free purchase items qualify for resale or other permitted tax or fee exemption. Customer will pay all taxes and government fees on taxable purchases, including interest and penalties if applicable. All cores need to be in the original box and in rebuildable condition to receive full core credit. Invoice required as proof of purchase for all returns.

Customer Copy

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Advance Auto Parts DATE 4/13/2023

PURCHASE ORDER NUMBER ASSIGNED B2300087

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT Shop SITE/DEPARTMENT M.O.T.

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Tool

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fickta

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210(8)

CHECK NO: 5009050477

ISSUE DATE: 06/27/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********960.00

VOID AFTER SIX MONTHS

PAY NINE HUNDRED SIXTY AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
ANTONIO L. MONTES
DBA 101 AUTO UPHOLSTERY
630 E. 5TH STREET
OXNARD, CA 93030

⑈5009050477⑈ ⑆121000248⑆ 417438787⑧⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $960.00

VENDOR NAME: ANTONIO L. MONTES DBA 101 AUTO UPHOL:710351/1 CHECK NUMBER: 5009050477 DATE: 06/27/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
05/25/2023	600455	B23-00085	R23-00084		960.00

0166646

POT

B23-00085
(039999)

600455

101 Auto Uphostery
630 E. 5th Street
Oxnard, CA 93030
(805) 483-1200

CUSTOMER'S ORDER NO.	DEPARTMENT	DATE
		5/25/23

NAME: Rio School District

ADDRESS: 2500 Vineyard ave Suite 100

CITY, STATE, ZIP: Oxnard CA. 93036

SOLD BY	CASH	C.O.D.	CHARGE	ON. ACCT.	MDSE. RETD.	PAID OUT

	QUANTITY	DESCRIPTION	PRICE	AMOUNT
1				
2		P.O. # B~~23-00007~~		
3			EWK	
4		B23-00085		
5	2	Seats Reupholstery		
6		Top & Bottom	480	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18		TOTAL	$	960

RECEIVED BY

A-5805
T-46320/46350

KEEP THIS SLIP FOR REFERENCE

01-11

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR 101 Upholstery DATE 5/30/2023

PURCHASE ORDER NUMBER ASSIGNED B2300085

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT UNIT 22 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Refinish

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichtner

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VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210(8)

CHECK NO: 5009050867

ISSUE DATE: 07/27/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$**********330.00

VOID AFTER SIX MONTHS

PAY THREE HUNDRED THIRTY AND ZERO/100 DOLLARS**********

TO THE ORDER OF
ANTONIO L. MONTES
DBA 101 AUTO UPHOLSTERY
630 E. 5TH STREET
OXNARD, CA 93030

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009050867⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $330.00

VENDOR NAME: ANTONIO L. MONTES DBA 101 AUTO UPHOL:710351/1 CHECK NUMBER: 5009050867 DATE: 07/27/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
07/05/2023	600460	B24-00004	R24-00024		330.00

0175323

600460

101 Auto Uphostery
630 E. 5th Street
Oxnard, CA 93030
(805) 483 - 1200

CUSTOMER'S ORDER NO.	DEPARTMENT	DATE 07/05/13
NAME	Rio School District	
ADDRESS	3500 Vineyard Suite 100	
CITY, STATE, ZIP	Oxnard CA 93036	

SOLD BY	CASH	C.O.D.	CHARGE	ON. ACCT.	MDSE. RETD.	PAID OUT

	QUANTITY	DESCRIPTION	PRICE	AMOUNT
1				
2		P.O.# ~~B23 00[illegible]~~		
3		B24000004		
4				
5	1	Seat Repair		150 —
6				
7				
8				
9	1	Bottom Relight		180 —
10				
11				
12				
13				
14				
15				
16				
17				
18		Total	F	330 —

RECEIVED BY [signature]

A-5805
T-46320/46360

KEEP THIS SLIP FOR REFERENCE

01-11

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR 101 Auto Upholstery DATE 7/11/2023

PURCHASE ORDER NUMBER ASSIGNED B2400004

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT Unit 27 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

PurchaseRequest

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VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009050189

ISSUE DATE: 06/01/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********350.35

VOID AFTER SIX MONTHS

PAY THREE HUNDRED FIFTY AND 35/100 DOLLARS**********

TO THE ORDER OF
AUTO CITY GLASS
P.O. BOX 5306
OXNARD, CA 93031

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. T. Morales

⑈5009050189⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $350.35

VENDOR NAME: AUTO CITY GLASS 711341/1 CHECK NUMBER: 5009050189 DATE: 06/01/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
05/11/2023	97465	B23-00012	R23-00087		350.35

0158029

AUTO CITY GLASS LLC
255 LAMBERT STREET #2
OXNARD CA 93036
(805)278-6780
Fax#: (805)278-6782
Tax#: 77-0405635

B23-00012
(039995)

Invoice: 97465
Date: 5/11/23

Remit To
P.O BOX 5306
OXNARD, CA 93031

Customer:
RIO SCHOOL DISTRICT
ATTN: AP DEPT
2500 VINEYARD AVE
OXNARD CA 93036

(805)485-3914 F (805)485-7255
seskridge@rioschools.org

CSR	Tech	PO	Terms	Job #	Job Type
7233			NET 30		

Year	Make	Model	Style
2015	CHEVROLET	SILVERADO C3500	2 DOOR STANDARD

Qty.	Part/Description	List Price	Material	Labor	Total
1.00	DW02040GBY	$435.75	$217.88	$85.00	$302.88
	Windshield Green Tint/Blue Shade Windshield (w/Molding attached)(3/4 MOULDING)(Solar)(Electrochromic Mirror)				
2.00	HAH000004	$32.00	$12.50	$0.00	$25.00
	Adhesive(Nags) (Urethane,Dam,Primer)(2.00)				

Notes:
contact: Jim request to replace damaged windshield. / P&W Part #

We assure that all products we sell meet OEM"s specifications. Any product failing to meet such standards upon installation will be replaced. We guarante our workmanship & service for the lifetime of the installation, unless otherwise specified. Our guarante doesn't extend to new or used product not sold by us. All payments are due after the service has been completed. Accounts terms specified above. The buyer will pay for collection chargers & legal fees in the event of non-payment, and a (1.5%) interest rate will be charged to all outstanding balances. $50 dollars will be charged for all return checks. No Refunds or exchange privileges on electrical or special ordered parts. 25% handling charge on all items returned and must be in unused condition.
Please inspect merchandise at time of delivery. Merchandise Recieved in good condition Signature _____

Signature _____

Material	Labor	Taxes	Total	Payments	Balance
$242.88	$85.00	$22.47	$350.35	$0.00	$350.35

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Auto City Glass DATE 5/15/2023

PURCHASE ORDER NUMBER ASSIGNED B2300012

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT UNIT 15 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Replace Broken Windshield

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

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VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009050796

ISSUE DATE: 07/17/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********3,415.19

VOID AFTER SIX MONTHS

PAY THREE THOUSAND FOUR HUNDRED FIFTEEN AND 19/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

AUTO CITY GLASS
P.O. BOX 5306
OXNARD, CA 93031

⑈5009050796⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $3,415.19

VENDOR NAME: AUTO CITY GLASS 711341/1 CHECK NUMBER: 5009050796 DATE: 07/17/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
06/16/2023	97557	B23-00012	R23-00087		912.33
06/16/2023	97558	B23-00012	R23-00087		2,502.86

0171793

B23-00012 Kayden/Charlie

AUTO CITY GLASS LLC
255 LAMBERT STREET #2
OXNARD CA 93036
(805)278-6780
Fax#: (805)278-6782
Tax Id 77-0405635

Mobile Invoice 97557
Date: 6/16/23
Sched. Date: 6/16/2023 12:00 P

Remit To
P.O BOX 5306
OXNARD, CA 93031

Customer:
RIO SCHOOL DISTRICT
ATTN: AP DEPT
2500 VINEYARD AVE
OXNARD CA 93036

(805)485-3914 F (805)485-7255
seskridge@rioschools.org

CSR	Tech	PO	Terms	Job #	Job Type
7233	UNA		NET 30	rio del valle	

Year	Make	Model	Style	VIN

Stock #	Mileage	Plate #

Qty	Part/Description	List Price	Material	Labor	Total
22.50	FRONT DOOR WAY Front door 22.5 square solar controlled privacy film	$0.00	$7.00	$8.50	$348.75
34.00	SIDE WINDOW 3 unit frames (side windows) total square 34	$0.00	$7.00	$8.50	$527.00

Notes:
contact: Jose -Administrative room Rio Del Valle 3100 north Road ave

We assure that all products we sell meet OEM"s specifications. Any product failing to meet such standards upon installation will be replaced. We guarante our workmanship & service for the lifetime of the installation, unless otherwise specified. Our guarante doesn't extend to new or used product not sold by us. All payments are due after the service has been completed. Accounts terms specified above. The buyer will pay for collection chargers & legal fees in the event of non-payment, and a (1.5%) interest rate will be charged to all outstanding balances. $50 dollars will be charged for all return checks. No Refunds or exchange privileges on electrical or special ordered parts. 25% handling charge on all items returned and must be in unused condition.
Please inspect merchandise at time of delivery. Merchandise Recieved in good condition Signature _____

Signature _____

Material	Labor	Taxes	Total	Payments	Balance
$395.50	$480.25	$36.58	$912.33	$0.00	$912.33

B23-00012 Kayden/Charlie

AUTO CITY GLASS LLC
255 LAMBERT STREET #2
OXNARD CA 93036
(805)278-6780
Fax#: (805)278-6782
Tax Id 77-0405635

Mobile Invoice 97558
Date: 6/16/23
Sched. Date: 6/16/2023 12:00 P

Remit To
P.O BOX 5306
OXNARD, CA 93031

Customer:

RIO SCHOOL DISTRICT
ATTN: AP DEPT
2500 VINEYARD AVE
OXNARD CA 93036

(805)485-3914 F (805)485-7255
seskridge@rioschools.org

CSR	Tech	PO	Terms	Job #	Job Type
7233	UNA	storage corner room	NET 30		

Year	Make	Model	Style	VIN

Stock #	Mileage	Plate #

Qty	Part/Description	List Price	Material	Labor	Total
155.00	SNACK STORAGE ROOM	$0.00	$7.00	$8.50	$2,402.50
	17 different unit (privacy solar controlled color) 155 square feet				

Notes:
Corner storage room

We assure that all products we sell meet OEM"s specifications. Any product failing to meet such standards upon installation will be replaced. We guarante our workmanship & service for the lifetime of the installation, unless otherwise specified. Our guarante doesn't extend to new or used product not sold by us. All payments are due after the service has been completed. Accounts terms specified above. The buyer will pay for collection chargers & legal fees in the event of non-payment, and a (1.5%) interest rate will be charged to all outstanding balances. $50 dollars will be charged for all return checks. No Refunds or exchange privileges on electrical or special ordered parts. 25% handling charge on all items returned and must be in unused condition.
Please inspect merchandise at time of delivery. Merchandise Recieved in good condition Signature _____

Signature _____

Material	Labor	Taxes	Total	Payments	Balance
$1,085.00	$1,317.50	$100.36	$2,502.86	$0.00	$2,502.86

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

AUTI CITY GLASS #97557 & 97558

2 messages

Susan Eskridge <seskridge@rioschools.org> Mon, Jul 10, 2023 at 4:31 PM
To: Kayden Orozco <korozco@rioschools.org>, Charles Fichtner <cfichtner@rioschools.org>

Hello,

Please see the attached invoice and let me know if all items have been received and this is okay to pay.

NOTE: Please provide a PO# for payment.

****Please note: As we get closer to year end it's important that I hear from you as soon as you receive your items in order to close out POs for this fiscal year.****

Thank you,

Susie
Ext 2107

AUTO CITY GLASS #97557 & #97558.pdf
535K

Kayden Orozco <korozco@rioschools.org> Tue, Jul 11, 2023 at 8:03 AM
To: Susan Eskridge <seskridge@rioschools.org>
Cc: Charles Fichtner <cfichtner@rioschools.org>

okay to pay
B23-00012

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

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VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009049163

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********192.00

VOID AFTER SIX MONTHS

PAY ONE HUNDRED NINETY TWO AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

AUTO TECH
2872 E. VINEYARD AVE
OXNARD, CA 93036

⑈5009049163⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $192.00

VENDOR NAME: AUTO TECH 714396/1 CHECK NUMBER: 5009049163 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/09/2023	I076726	B23-00013	R23-00089		192.00

0136991

B23-00013
(032014)

AUTO TECH
2872 E.Vineyard Ave.
Oxnard, CA 93036
Tel: 8059881923
AUTOTECHOXNARD@GMAIL.COM •
WWW.AUTOTECHOXNARD.COM

Invoice I016726

Service Advisor: Joel Alonso
Technician: Roberto
Date: 3-9-2023
R/O: J016707

Customer

Rio School District (RIO004)
1800 Solar Dr Ste 3
Oxnard CA 93030

*Cell: 16262244337

Alternative Contact: jim

Vehicle

2007 Chevrolet Silverado 1500 LT
4.8 GAS
1GCEC14C87Z528687

Miles In: 62,911
Miles Out: 62,911
License Plate: 1242136 CA

Work Performed

Brake Shoe

Labor		Tech	Hrs	Price	Total
Replace - Brake Shoe - Rear Shoes			1.60	120.00	192.00
Parts	**Part No**		**Qty**	**Price**	**Total**
CUSTOMER PROVIDED PARTS	CNVCUST PRV.		1.00	0.00	0.00

Brake Shoe SubTotal $192.00

Total

Labor	192.00
Parts	0.00
Hazmat*	0.00
Supplies*	0.00
Taxes	0.00
Invoice Total	**$192.00**

* Shop Supply & Hazmat Fees: This charge represents costs and profits (where applicable) to this repair facility for miscellaneous shop supplies, and/or waste removal

Authorization

Original Estimate Total:
Authorization Method: ☐ email ☐ text ☐ phone ☐ fax ☐ in person
Date: Contact Details:
Authorized By:

X _____
Customer Signature

Save replacement parts for inspection or return? (Core may apply) ☐ Yes ☐ No

WARRANTY: FROM DATE OF DELIVERY FOR A PERIOD OF 4,000 MILES OR 90 DAYS, WHICHEVER COMES FIRST, THIS FIRM WILL REPAIR FREE OF CHARGE ANY DEFECTS IN MATERIAL AND WORKMANSHIP TO THE REPAIRS STATED ON THIS INVOICE. ALL WORK TO BE DONE IN THIS SHOP ONLY.

EPA#CAL000263485 BAR#ARD237933

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Auto Tech DATE 3/10/2023

PURCHASE ORDER NUMBER ASSIGNED B 2300013

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 032014

PROJECT ~~0~~ UNIT 28 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichtner

DOCUMENT CONTAINS ASSIGNED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049731

ISSUE DATE: 05/02/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********228.00

VOID AFTER SIX MONTHS

PAY TWO HUNDRED TWENTY EIGHT AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
AUTO TECH
2872 E. VINEYARD AVE
OXNARD, CA 93036

⑈5009049731⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $228.00

VENDOR NAME: AUTO TECH 714396/1 CHECK NUMBER: 5009049731 DATE: 05/02/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
04/05/2023	I016944	B23-00013	R23-00089		228.00

0147353

B23-00013

AUTO TECH
2872 E.Vineyard Ave.
Oxnard, CA 93036
Tel: 8059881923
AUTOTECHOXNARD@GMAIL.COM •
WWW.AUTOTECHOXNARD.COM

Invoice I016944

Service Advisor: Joel Alonso
Technician: NACHO
Date: 4-5-2023
R/O: J016927

Customer

Rio School District (RIO004)
1800 Solar Dr Ste 3
Oxnard CA 93030

*Cell: 16262244337

Alternative Contact: jim

Vehicle

1999 Ford F-350 Super Duty XL
5.4 GAS
1FTSF30L3XEC19552

Miles In: 112,635
Miles Out: 112,635
License Plate: 1028038 CA

Work Performed

Vacuum Brake Booster

Labor	Tech	Hrs	Price	Total
Replace - Vacuum Brake Booster - Without Hydro-Boost		0.90	120.00	108.00
Replace - Brake Master Cylinder - Master Cylinder - Without Hydro-Boost		1.00	120.00	120.00

Vacuum Brake Booster SubTotal $228.00

Total

Labor	228.00
Parts	0.00
Hazmat*	0.00
Supplies*	0.00
Taxes	0.00
Invoice Total	**$228.00**

* Shop Supply & Hazmat Fees: This charge represents costs and profits (where applicable) to this repair facility for miscellaneous shop supplies, and/or waste removal

Authorization

Original Estimate Total:
Authorization Method: ☐ email ☐ text ☐ phone ☐ fax ☐ in person
Date: Contact Details:
Authorized By:

X _____
Customer Signature

Save replacement parts for inspection or return? (Core may apply) ☐ Yes ☐ No

WARRANTY: FROM DATE OF DELIVERY FOR A PERIOD OF 4,000 MILES OR 90 DAYS, WHICHEVER COMES FIRST, THIS FIRM WILL REPAIR FREE OF CHARGE ANY DEFECTS IN MATERIAL AND WORKMANSHIP TO THE REPAIRS STATED ON THIS INVOICE. ALL WORK TO BE DONE IN THIS SHOP ONLY.

EPA#CAL000263485 BAR#ARD237933

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Auto Tech DATE 4/10/2023

PURCHASE ORDER NUMBER ASSIGNED B2300087

ACCOUNT NUMBER ___-____-____-__-____-____-___-___-____-__

SHORT ACCOUNT NUMBER 039999

PROJECT UNIT 19 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

PurchaseRequest

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009049173

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********330.00

VOID AFTER SIX MONTHS

PAY THREE HUNDRED THIRTY AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

C & M AUTO TRUCK ELECTRIC
P.O. BOX 5403
OXNARD, CA 93031

⑈5009049173⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $330.00

VENDOR NAME: C & M AUTO TRUCK ELECTRIC 006529/1 CHECK NUMBER: 5009049173 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/15/2023	031523	B23-00095	R23-00076		330.00

0137001

B23-00095

Kayden

carbonless repair order

GT3810/GT3811 - 3-part 3869 - 4-part

C & M Auto Electric
PO Box 5403
Oxnard Ca 93031
805.485.6593

NAME Rio School Dist. PHONE
ADDRESS
2ND AUTHORIZED NAME PHONE
MAKE | TYPE OR MODEL | YEAR | RECEIVED (DATE & TIME) A.M. P.M.
SERIAL #/VIN | ENGINE NO. | PROMISED (DATE & TIME) A.M. P.M.
ODOMETER | LICENSE NO. | TERMS | PHONE WHEN READY ☐ YES ☐ NO
M/V# | ORDER WRITTEN BY | CUSTOMER'S ORDER NO.

DSS	ISJ	LABOR CHARGE
LUBRICATION	☐	
CHANGE OIL	☐	
CHANGE OIL FILTER CART.	☐	
CHANGE TRANS.	☐	
CHANGE DIFF.	☐	
PACK FRONT WHEEL BRGS	☐	
ADJUST BRAKES	☐	
ROTATE TIRES	☐	
WASH POLISH	☐	
STATE INSPECTION	☐	

MATERIAL USED
ALL PARTS NEW UNLESS SPECIFIED: U-USED, R-REBUILT, RC-RECONDITIONED

QTY.	PART NO.	DESCRIPTION	PRICE	WARRANTY T/S

OUTSIDE REPAIRS
PARTS SAVED
RETURNED
BROUGHT FORWARD
TOTAL PARTS

QTY.	ACCESSORY NO.	ACCESSORIES	PRICE

A-GT3810/GT3811 / T-3869 03-11
TOTAL ACCESSORIES

OPER. NO.	INSTRUCTIONS	
	CHARGE FOR HAZARDOUS OR OTHER WASTE REMOVAL*	
	Service Call to R. Del Mar. Bus # 5 intersection and extended arm light issue.	165-
	Found open circuit and switch issue for intersection lights	
	Temp verified repair	1.5 165-

Estimated cost $ Estimate Charge
Basis for Charge

PLEASE READ CAREFULLY, CHECK ONE OF THE STATEMENTS BELOW, AND SIGN:
I UNDERSTAND THAT, UNDER STATE LAW, I AM ENTITLED TO A WRITTEN ESTIMATE, INCLUDING A COMPLETION DATE, IF MY FINAL BILL WILL EXCEED $100. ($50 in Maryland)
___ I REQUEST A WRITTEN ESTIMATE. THE FINAL BILL MAY NOT EXCEED THIS ESTIMATE WITHOUT MY WRITTEN APPROVAL.
___ I DO NOT REQUEST A WRITTEN ESTIMATE, AS LONG AS THE REPAIR COSTS DO NOT EXCEED $_____. THE SHOP MAY NOT EXCEED THIS AMOUNT WITHOUT MY WRITTEN OR ORAL APPROVAL.
___ I DO NOT REQUEST A WRITTEN ESTIMATE.

You are entitled by law to the return of all parts replaced, except those for which there is a core charge, unless you agree otherwise by initialing the following ___. I do not desire the return of any of the parts that are replaced during the authorized repairs.

Estimate good for 30 days. Not responsible for damage caused by theft, fire or acts of nature. I authorize the above repairs, along with any necessary materials. I authorize you and your employees to operate my vehicle for the purpose of testing, inspection, and delivery at my risk. An express mechanic's lien is hereby acknowledged on the above vehicle to secure the amount of the repairs thereto. If I cancel repairs prior to their completion for any reason, a tear-down and reassembly fee of $_____ will be applied.

SIGNED
DATE 3/15/27

*Checked lines apply (Preparer must check at least one):
___ This charge represents costs and profits to the motor vehicle repair facility for miscellaneous shop supplies or waste disposal.
___ This amount includes a charge of $_____, which is required under _____ law.

METHOD OF PAYMENT: ☐ CASH ☐ CHECK ☐ CHARGE
LABOR ☐ FLAT RATE ☐ HOURLY ☐ BOTH
☐ RETAIN PARTS ☐ DESTROY PARTS

GAS, OIL, & GREASE	PRICE
GALS. GAS @	
QTS. OIL @	
LBS. GREASE @	
TOTAL GAS, OIL, & GREASE	

Daily storage fee after repair work has been completed and customer has been notified. No charges shall accrue or be due and payable for a period of 3 working days from date of notification. $_____
GUARANTEED ITEM(S)
GUARANTEE EFFECTIVE UNTIL: TIME MILEAGE

TOTAL LABOR	330-
TOTAL PARTS	
ACCESSORIES	
GAS, OIL, & GREASE	
OUTSIDE REPAIRS	
STORAGE FEE (if applies)	
TAX	
TOTAL AMOUNT	330-

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

Bus 8

1 message

Edward Portillo <cmautotruck1978@gmail.com> Wed, Mar 15, 2023 at 5:32 PM
To: Jimmy Henschel <seskridge@rioschools.org>

$330
Sent from my iPhone



image0.jpeg
4076K

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

C&M Auto #03-15-23

2 messages

Susan Eskridge <seskridge@rioschools.org> Wed, Mar 22, 2023 at 4:35 PM
To: Kayden Orozco <korozco@rioschools.org>

Hi Kayden,

Is the attached invoice ok to pay? ***If so, which PO/account number are we paying from?***

Thanks,

Susie

C & M Auto 03-15-23.pdf
589K

Kayden Orozco <korozco@rioschools.org> Fri, Mar 24, 2023 at 8:23 AM
To: Susan Eskridge <seskridge@rioschools.org>

B23-00095

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009050342

ISSUE DATE: 06/13/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,118.88

VOID AFTER SIX MONTHS

PAY ONE THOUSAND ONE HUNDRED EIGHTEEN AND 88/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

C & M AUTO TRUCK ELECTRIC
P.O. BOX 5403
OXNARD, CA 93031

⑈5009050342⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,118.88

VENDOR NAME: C & M AUTO TRUCK ELECTRIC 006529/1 CHECK NUMBER: 5009050342 DATE: 06/13/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
05/23/2023	05-23-23	B23-00095	R23-00076		495.00
05/28/2023	05-28-23	B23-00095	R23-00076		623.88

0161158

B23-00095 Kayden

C & M Auto Electric
PO Box 5403
Oxnard Ca 93031
805.485.6593

ADDRESS

2ND AUTHORIZED NAME | PHONE

MAKE | TYPE OR MODEL | YEAR | RECEIVED (DATE & TIME) A.M. P.M.
1998 international

SERIAL #/VIN | ENGINE NO. | PROMISED (DATE & TIME) A.M. P.M.

ODOMETER | LICENSE NO. | TERMS | PHONE WHEN READY ☐ YES ☐ NO

MV# | ORDER WRITTEN BY | CUSTOMER'S ORDER NO.

LUBRICATION	
CHANGE OIL	☐
CHANGE OIL FILTER CART.	☐
CHANGE TRANS.	☐
CHANGE DIFF.	☐
PACK FRONT WHEEL BRGS	☐
ADJUST BRAKES	☐
ROTATE TIRES	☐
WASH POLISH	☐
STATE INSPECTION	☐

MATERIAL USED

ALL PARTS NEW UNLESS SPECIFIED: U-USED, R-REBUILT, RC-RECONDITIONED

QTY.	PART NO.	DESCRIPTION	PRICE	WARRANTY T/N

OUTSIDE REPAIRS

BROUGHT FORWARD

PARTS SAVED ____ RETURNED ____ TOTAL PARTS

QTY.	ACCESSORY NO.	ACCESSORIES	PRICE

TOTAL ACCESSORIES

OPER. NO.	INSTRUCTIONS	
	CHARGE FOR HAZARDOUS OR OTHER WASTE REMOVAL*	
	Revs #6	
X	Service call to diag brake light problem	165-
X	installed 2 new beaks on tabs customer supplied parts	330-

Estimated cost $ ____ Estimate Charge

Basis for Charge

PLEASE READ CAREFULLY, CHECK ONE OF THE STATEMENTS BELOW, AND SIGN:
I UNDERSTAND THAT, UNDER STATE LAW, I AM ENTITLED TO A WRITTEN ESTIMATE, INCLUDING A COMPLETION DATE, IF MY FINAL BILL WILL EXCEED $100. ($50 in Maryland)

___ I REQUEST A WRITTEN ESTIMATE. THE FINAL BILL MAY NOT EXCEED THIS ESTIMATE WITHOUT MY WRITTEN APPROVAL.

___ I DO NOT REQUEST A WRITTEN ESTIMATE, AS LONG AS THE REPAIR COSTS DO NOT EXCEED $_____. THE SHOP MAY NOT EXCEED THIS AMOUNT WITHOUT MY WRITTEN OR ORAL APPROVAL.

___ I DO NOT REQUEST A WRITTEN ESTIMATE.

You are entitled by law to the return of all parts replaced, except those for which there is a core charge, unless you agree otherwise by initialing the following: _____ I do not desire the return of any of the parts that are replaced during the authorized repairs.

Estimate good for 30 days. Not responsible for damage caused by theft, fire or acts of nature. I authorize the above repairs, along with any necessary materials. I authorize you and your employees to operate my vehicle for the purpose of testing, inspection, and delivery at my risk. An express mechanic's lien is hereby acknowledged on the above vehicle to secure the amount of the repairs thereto. If I cancel repairs prior to their completion for any reason, a tear down and reassembly fee of $_____ will be applied.

SIGNED _____

DATE 5-23-23

*Checked lines apply (Preparer must check at least one):

___ This charge represents costs and profits to the motor vehicle repair facility for miscellaneous shop supplies or waste disposal.

___ This amount includes a charge of $ _____, which is required under _____ law.

METHOD OF PAYMENT: ☐ CASH ☐ CHECK ☐ CHARGE

LABOR ☐ FLAT RATE ☐ HOURLY ☐ BOTH

☐ RETAIN PARTS ☐ DESTROY PARTS

GAS, OIL, & GREASE	PRICE
GALS. GAS @	
QTS. OIL @	
LBS. GREASE @	
TOTAL GAS, OIL, & GREASE	

Daily storage fee after repair work has been completed and customer has been notified. No charges shall accrue or be due and payable for a period of 3 working days from date of notification. $ _____

GUARANTEED ITEMS) _____

GUARANTEE EFFECTIVE UNTIL: _____

TIME _____

MILEAGE _____

TOTAL LABOR	495-
TOTAL PARTS	
ACCESSORIES	
GAS, OIL, & GREASE	
OUTSIDE REPAIRS	
STORAGE FEE (if applies)	
TAX	
TOTAL AMOUNT	495-

B23-00095 Kayden

C & M Auto Electric
PO Box 5403
Oxnard Ca 93031
805.485.6593

NAME Bd Rio School Dist PHONE
ADDRESS
2ND AUTHORIZED NAME PHONE
MAKE TYPE OR MODEL YEAR RECEIVED (DATE & TIME) A.M. P.M.
SERIAL #/VIN ENGINE NO. PROMISED (DATE & TIME) A.M. P.M.
ODOMETER LICENSE NO. TERMS PHONE WHEN READY ☐ YES ☐ NO
MV# ORDER WRITTEN BY CUSTOMER'S ORDER NO.

DSS	IGJ	LABOR CHARGE
LUBRICATION	☐	
CHANGE OIL	☐	
CHANGE OIL FILTER CART.	☐	
CHANGE TRANS.	☐	
CHANGE DIFF.	☐	
PACK FRONT WHEEL BRGS	☐	
ADJUST BRAKES	☐	
ROTATE TIRES	☐	
WASH POLISH	☐	
STATE INSPECTION	☐	

MATERIAL USED

ALL PARTS NEW UNLESS SPECIFIED U-USED, R-REBUILT, RC-RECONDITIONED

QTY.	PART NO.	DESCRIPTION	PRICE	WARRANTY YR.
1		Alternator	269-	
		Jesse Neville H.S.		
		OUTSIDE REPAIRS		
		BROUGHT FORWARD		
		TOTAL PARTS		

PARTS SAVED ____
RETURNED ____

QTY.	ACCESSORY NO.	ACCESSORIES	PRICE
		TOTAL ACCESSORIES	

OPER. NO.	INSTRUCTIONS	
	Bus #8 CHARGE FOR HAZARDOUS OR OTHER WASTE REMOVAL*	
☆	Service call to diag no start.	$165-
☆	found alternator to be charging low.	
☆	tested batteries	
☆	installed alternator 1.5	165-

Estimated cost $ ____ Estimate Charge ____
Basis for Charge

PLEASE READ CAREFULLY, CHECK ONE OF THE STATEMENTS BELOW, AND SIGN:
I UNDERSTAND THAT, UNDER STATE LAW, I AM ENTITLED TO A WRITTEN ESTIMATE, INCLUDING A COMPLETION DATE, IF MY FINAL BILL WILL EXCEED $100. ($50 in Maryland)

___ I REQUEST A WRITTEN ESTIMATE. THE FINAL BILL MAY NOT EXCEED THIS ESTIMATE WITHOUT MY WRITTEN APPROVAL.
___ I DO NOT REQUEST A WRITTEN ESTIMATE, AS LONG AS THE REPAIR COSTS DO NOT EXCEED $_____. THE SHOP MAY NOT EXCEED THIS AMOUNT WITHOUT MY WRITTEN OR ORAL APPROVAL.
___ I DO NOT REQUEST A WRITTEN ESTIMATE.

You are entitled by law to the return of all parts replaced, except those for which there is a core charge, unless you agree otherwise by initialing the following. _____ I do not desire the return of any of the parts that are replaced during the authorized repairs.

Estimate good for 30 days. Not responsible for damage caused by theft, fire or acts of nature. I authorize the above repairs, along with any necessary materials. I authorize you and your employees to operate my vehicle for the purpose of testing, inspection and delivery at my risk. An express mechanic's lien is hereby acknowledged on the above vehicle to secure the amount of the repairs thereto. If I cancel repairs prior to their completion for any reason, a tear down and reassembly fee of $_____ will be applied.

SIGNED ____
DATE 5-28-23

*Checked lines apply (Preparer must check at least one):

___ This charge represents costs and profits to the motor vehicle repair facility for miscellaneous shop supplies or waste disposal.
___ This amount includes a charge of $_____, which is required under _____ law.

Daily storage fee after repair work has been completed and customer has been notified. No charges shall accrue or be due and payable for a period of 5 working days from date of notification. $ ____

GUARANTEED ITEM(S) ____

GUARANTEE EFFECTIVE UNTIL
TIME ____
MILEAGE ____

METHOD OF PAYMENT: ☐ CASH ☐ CHECK ☐ CHARGE
LABOR ☐ FLAT RATE ☐ HOURLY ☐ BOTH
☐ RETAIN PARTS ☐ DESTROY PARTS

GAS, OIL, & GREASE	PRICE
GALS. GAS @	
QTS. OIL @	
LBS. GREASE @	
TOTAL GAS, OIL, & GREASE	

TOTAL LABOR	330-
TOTAL PARTS	269-
ACCESSORIES	
GAS, OIL, & GREASE	
OUTSIDE REPAIRS	
STORAGE FEE (if applies)	
TAX	24.88
TOTAL AMOUNT	623.88

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

C&M AUTO B23-00095 5/23, 5/28

2 messages

Susan Eskridge <seskridge@rioschools.org> Wed, Jun 7, 2023 at 10:10 AM
To: Kayden Orozco <korozco@rioschools.org>

Hi Kayden,

Are the attached invoices ok to pay?

Thanks,

Susie

C&M AUTO 5-23, 5-28.pdf
958K

Kayden Orozco <korozco@rioschools.org> Mon, Jun 12, 2023 at 9:10 AM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

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VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/8)

CHECK NO: 5009053484

ISSUE DATE: 01/30/24

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$**********86.66

VOID AFTER SIX MONTHS

PAY EIGHTY SIX AND 66/100 DOLLARS**********

TO THE ORDER OF

CARQUEST AUTO PARTS
PO BOX 404875
ATLANTA, GA 30384

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009053484⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $86.66

VENDOR NAME: CARQUEST AUTO PARTS 714537/3 CHECK NUMBER: 5009053484 DATE: 01/30/24

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
01/08/2024	8291-1285599	B24-00029	R24-00019		86.66

0227213

Great people, great products, great prices!℠

CARQUEST AUTO PARTS

CQ OF OXN-DOWNTOWN CA # 7308
1555 S. OXNARD BLVD
OXNARD, CA 93030
(805) 487-0447
REMIT TO: CARQUEST AUTO PARTS
PO BOX 404875
ATLANTA, GA 30384-4875

PAGE 1 OF 2
REF# 1886495

B24-00029
(039995)

212024010808291000128559900018864950 24

eORDER TYPE: CPP # S04049-20240108171924794

ANY PRODUCT RETURNED FOR CREDIT MUST BE ACCOMPANIED BY THIS RECEIPT.

BILL TO
RIO SCHOOL DISTRICT
1800 SOLAR DR. FLOOR 3
OXNARD, CA 93030

SEE CARQUEST STORE FOR DETAILS OF THE COAST TO COAST GUARANTEE.

SHIP TO
RIO SCHOOL DISTRICT
2715 E. VINEYARD AVENUE
OXNARD, CA 93036

INVOICE NO.	CUSTOMER NO.	DATE	CUST. P.O. NO.	SALES ID	TEAMMATE ID	FORM OF PYMT.
8291-1285599	2555523	1/8/2024	JIM		LC0060	CHARGE

	MFG. PART NUMBER	ORDERED	SHIPPED	LIST PRICE	NET	NET CORE	EXT. AMOUNT	TAX
	* Note: Deliver tomorrow							
	* Order Submitted By: Michael Parker (CA)							
	2001 CHEVROLET TAHOE							
1	ARM 40320 TIRE FOAM PROTECT	5	5	13.22	6.61	0.00	33.05	Y/Y
2	ARM 40320 TIRE FOAM PROTECT	7 SPECIAL ORDER	7 BO	13.22	6.61	0.00	46.27	Y/Y

sku 24499469

WARRANTY DISCLAIMER: The manufacturer's warranty, if any, constitutes the only warranty with respect to the sale of all goods. SELLER HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seller does not authorize any person to grant any warranty or assume any liability by Seller.

SHIP VIA	DELV. TIME	DELV. ID	FREIGHT	TAXABLE AMT.	SALES TAX	TOTAL CORE	PREV. DEPOSIT

02:29 PM

RECEIVED BY X

CUSTOMER COPY

PAY THIS AMOUNT ▶

CONTINUED

Great people, great products, great prices!℠

CARQUEST AUTO PARTS

CQ OF OXN-DOWNTOWN CA # 7308
1555 S. OXNARD BLVD
OXNARD, CA 93030
(805) 487-0447
REMIT TO: CARQUEST AUTO PARTS
PO BOX 404875
ATLANTA, GA 30384-4875

PAGE 2 OF 2
REF# 1886495

212024010808291000128559900018864950 24

eORDER TYPE: CPP # S04049-20240108171924794

ANY PRODUCT RETURNED FOR CREDIT MUST BE ACCOMPANIED BY THIS RECEIPT.

BILL TO
RIO SCHOOL DISTRICT
1800 SOLAR DR. FLOOR 3
OXNARD, CA 93030

SEE CARQUEST STORE FOR DETAILS OF THE COAST TO COAST GUARANTEE.

SHIP TO
RIO SCHOOL DISTRICT
2715 E. VINEYARD AVENUE
OXNARD, CA 93036

INVOICE NO.	CUSTOMER NO.	DATE	CUST. P.O. NO.	SALES ID	TEAMMATE ID	FORM OF PYMT.
8291-1285599	2555523	1/8/2024	JIM		LC0060	CHARGE

MFG. PART NUMBER	ORDERED	SHIPPED	LIST PRICE	NET	NET CORE	EXT. AMOUNT	TAX
* RE: 40320 2M INV (AAP 9483)							

sku 24499469

WARRANTY DISCLAIMER: The manufacturer's warranty, if any, constitutes the only warranty with respect to the sale of all goods. SELLER HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seller does not authorize any person to grant any warranty or assume any liability by Seller.

SHIP VIA	DELV. TIME	DELV. ID	FREIGHT	TAXABLE AMT.	SALES TAX	TOTAL CORE	PREV. DEPOSIT
				79.32	7.34		86.66

02:29 PM

RECEIVED BY X

CUSTOMER COPY

PAY THIS AMOUNT ▶

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Car Quest (Advance Auto) DATE 1/11/2024

PURCHASE ORDER NUMBER ASSIGNED B2400029

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT Buses SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Cleaning Supplies

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor _____

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210(8)

CHECK NO: 5009049182

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********30.01

VOID AFTER SIX MONTHS

PAY THIRTY AND 01/100 DOLLARS**********

TO THE ORDER OF
COGGS TIRE SERVICE
2670 CORTEZ STREET
P.O. BOX 7006
OXNARD, CA 93030

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009049182⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $30.01

VENDOR NAME: COGGS TIRE SERVICE 000182/1 CHECK NUMBER: 5009049182 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/03/2023	328179	B23-00014	R23-00090		30.01

0137010

B23-00014
(032014)

Coggs TIRE SERVICE

Invoice #: 328179
Invoice Date: Mar 3, 2023
Page: 1

Voice: (805) 485.2211
(805) 485.7032
(805) 485.0981

2670 Cortez St. - P.O. Box 7006 - Oxnard CA 93036
Website: https://www.coggstires.com
Email: coggstireservice@gmail.com

Bill To:	Ship to:
RIO SCHOOL DISTRICT 2500 VINEYAR AVE. OXNARD, CA 93036	EQ#21 FORD E-350 LIC#1322709 POS: L/R/O

Customer ID	Customer PO	Payment Terms	
1832		Net 30 Days	
Sales Rep ID	**WORK ORDER#**	**Ship Date**	**Due Date**
ALA	EF/EB		4/2/23

Quantity	Item	Description	Unit Price	Amount
1.00	42002	FLAT REP-LT225/75R16	22.50	22.50
1.00	4180	#4 PATCH	7.00	7.00

*** NO WARRANTY ON ALL OVER THE COUNTER (PICK-UP) TRANSACTIONS ***

Check/Credit Memo No:

Subtotal	29.50
Sales Tax	0.51
Total Invoice Amount	30.01
Payment/Credit Applied	
TOTAL	30.01

Signature

PSI: RF___LF___RR___LR___

Invoices due NET on the 10th of the month. A service charge of 1.5% (18% annually) or the maximum allowable rate under the Law will be charged on all past due accounts. When passenger or light truck tires used in normal service become unsafe or unserviceable due to defects in workmanship or materials, the tire will be replaced on a pro-rated basis charging only the portion of tread worn off, down to the last 1/16th of an inch of tread. Out of round tires are adjustable during the first 10% of the tires life only. Road hazards are not covered by this warranty. All credit & debit card transactions include a processing fee of 3% made towards A/R payments.

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Coggs DATE 3/3/2023

PURCHASE ORDER NUMBER ASSIGNED B23 00014

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 032014

PROJECT UNIT 21 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

FLAT Rep

Attach receipt/paperwork and send to Purchasing

Signature of Employee Jon Hardy Signature of ~~Supervisor~~ Charles Fichter

PurchaseRequest

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009049299

ISSUE DATE: 04/04/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,087.79

VOID AFTER SIX MONTHS

PAY ONE THOUSAND EIGHTY SEVEN AND 79/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

COGGS TIRE SERVICE
2670 CORTEZ STREET
P.O. BOX 7006
OXNARD, CA 93030

⑈5009049299⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,087.79

VENDOR NAME: COGGS TIRE SERVICE 000182/1 CHECK NUMBER: 5009049299 DATE: 04/04/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/22/2023	328313	B23-00014	R23-00090		53.60
03/24/2023	328333	B23-00014	R23-00090		1,034.19

0138165

(032014) B23-00014

Coggs TIRE SERVICE

Invoice #: 328313
Invoice Date: Mar 22, 2023
Page: 1

Voice: (805) 485.2211
(805) 485.7032
(805) 485.0981

2670 Cortez St. - P.O. Box 7006 - Oxnard CA 93036
Website: https://www.coggstires.com
Email: coggstireservice@gmail.com

Bill To:	Ship to:
RIO SCHOOL DISTRICT 2500 VINEYAR AVE. OXNARD, CA 93036	EQ# 13 FRONT AXLE

Customer ID	Customer PO	Payment Terms	
1832	B23-00014	Net 30 Days	
Sales Rep ID	WORK ORDER#	Ship Date	Due Date
DH	AA/EMA/DH		4/21/23

Quantity	Item	Description	Unit Price	Amount
2.00	4200	WHEEL ROTATION LT245/75R17 - NO CHARGE		
2.00	4200B	COMPUTERIZED HIGH SPEED BALANCE - NO CHARGE		
2.00	4180W	WHEEL WEIGHT FEE R/F	10.00	20.00
1.00	42002	FLAT REP-LT245/75R17	22.50	22.50
1.00	4180	PLUG PATCH	9.00	9.00

*** NO WARRANTY ON ALL OVER THE COUNTER (PICK-UP) TRANSACTIONS ***

Check/Credit Memo No:

Subtotal	51.50
Sales Tax	2.10
Total Invoice Amount	53.60
Payment/Credit Applied	
TOTAL	53.60

Signature

PSI: RF___LF___RR___LR___

Invoices due NET on the 10th of the month. A service charge of 1.5% (18% annually) or the maximum allowable rate under the Law will be charged on all past due accounts. When passenger or light truck tires used in normal service become unsafe or unserviceable due to defects in workmanship or materials, the tire will be replaced on a pro-rated basis charging only the portion of tread worn off, down to the last 1/16th of an inch of tread. Out of round tires are adjustable during the first 10% of the tires life only. Road hazards are not covered by this warranty. All credit & debit card transactions include a processing fee of 3% made towards A/R payments.

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR COGG'S TIRE DATE 3/22/2023

PURCHASE ORDER NUMBER ASSIGNED B23 00014

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 032014

PROJECT UNIT 13 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichtner

(032014) B23-00014

Coggs TIRE SERVICE

Invoice #: 328333
Invoice Date: Mar 24, 2023
Page: 1

Voice: (805) 485.2211
(805) 485.7032
(805) 485.0981

2670 Cortez St. - P.O. Box 7006 - Oxnard CA 93036
Website: https://www.coggstires.com
Email: coggstireservice@gmail.com

Bill To:	Ship to:
RIO SCHOOL DISTRICT 2500 VINEYAR AVE. OXNARD, CA 93036	EQ# LD595 KALAMAR AC FORKLIFT R/R & FRONT AXLE

Customer ID	Customer PO	Payment Terms	
1832	B23-00014	Net 30 Days	
Sales Rep ID	WORK ORDER#	Ship Date	Due Date
DH	ALL		4/23/23

Quantity	Item	Description	Unit Price	Amount
		R/R		
1.00	4000	NEW TIRE GALAXY YARD MASTER 6.00-9	129.99	129.99
1.00	CAFEE2191	CA REQUIRED ENVIRONMENTAL FEE	1.75	1.75
1.00	420	DISMOUNT & REMOUNT SPLIT WHEEL	35.99	35.99
1.00	4100	NEW TUBE	22.99	22.99
1.00	4100	NEW FLAP	11.99	11.99
1.00	4290	RECYCLING	9.99	9.99
		FRONT AXLE		
2.00	4000	NEW TIRE GALAXY YARDMASTER 7.00-12 12 PLY	219.99	439.98
2.00	CAFEE2191	CA REQUIRED ENVIRONMENTAL FEE	1.75	3.50
2.00	4200P	PRESS SERVICE OFF SOLID FILL	48.00	96.00
2.00	420	REMOUNT SPLIT WHEEL	22.99	45.98
2.00	4100	NEW TUBE	29.99	59.98
2.00	4100	NEW FLAP	12.99	25.98
2.00	4290	RECYCLING OLD POLY FILL TIRE	49.99	99.98

*** NO WARRANTY ON ALL OVER THE COUNTER (PICK-UP) TRANSACTIONS ***

Check/Credit Memo No:

Subtotal	984.10
Sales Tax	50.09
Total Invoice Amount	1,034.19
Payment/Credit Applied	
TOTAL	1,034.19

Signature

PSI: RF___LF___RR___LR___

Invoices due NET on the 10th of the month. A service charge of 1.5% (18% annually) or the maximum allowable rate under the Law will be charged on all past due accounts. When passenger or light truck tires used in normal service become unsafe or unserviceable due to defects in workmanship or materials, the tire will be replaced on a pro-rated basis charging only the portion of tread worn off, down to the last 1/16th of an inch of tread. Out of round tires are adjustable during the first 10% of the tires life only. Road hazards are not covered by this warranty. All credit & debit card transactions include a processing fee of 3% made towards A/R payments.

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Coggs Tire DATE 3/27/2023

PURCHASE ORDER NUMBER ASSIGNED B23-00014

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 032014

PROJECT UNIT 13 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

FLAT TIRE Repair & Rebalance

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210(8)

CHECK NO: 5009049213

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$*******14,770.31

VOID AFTER SIX MONTHS

PAY FOURTEEN THOUSAND SEVEN HUNDRED SEVENTY AND 31/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
GIBBS INTERNATIONAL
P. O. BOX 748062
LOS ANGELES, CA 90074-8062

⑈5009049213⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $14,770.31

VENDOR NAME: GIBBS INTERNATIONAL 000322/3 CHECK NUMBER: 5009049213 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/13/2023	447806V	B23-00037	R23-00122		234.96
03/08/2023	459961	B23-00037	R23-00122		6,183.10
03/10/2023	459994	B23-00037	R23-00122		8,352.25

0137041

B23-00037 (039999)

CUSTOMER #: 71705
UNIT# 9

459994

INVOICE

Gibbs INTERNATIONAL TRUCK CENTERS

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030
HOME:805-485-3111 CONT:805-485-3111
BUS: 485-3914 CELL:

SERVICE ADVISOR: 136 JACK JEFFREY

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN / OUT	TAG
	10	INTERNATIONAL REAR E	4DRBWAAR6AA109936	1348302	95210/95210	9 T4777

DEL. DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
15JUN10 DD			17:00 02MAR23		198.00	CHG	10MAR23

R.O. OPENED	READY	OPTIONS:
11:00 02MAR23	16:48 10MAR23	

LINE	OPCODE	TECH	TYPE	HOURS	LIST	NET	TOTAL

SERVICE DEPT HOURS: M-F 8:00AM TO 5:00PM
PARTS & SERVICE: SATURDAY 8:00AM TO 12:00PM
PARTS & SERVICE 24 HOUR EMERGENCY ROAD CALL

OIL CHANGE, BRAKE WORK SEE QUIK IN QUIK OUT
2200 AUTO CENTER DR, OXNARD, CA 93036
805-988-8913 HOURS: M-F 8:00AM TO 5:00PM

2201 E. Ventura Blvd.
Oxnard, CA 93036
(805) 485-0551

2712 South Fourth St.
Fresno, CA 93725
(559) 445-9690

3525 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 327-5222

365 W. Betteravia Rd.
Santa Maria, CA 93455
(805) 922-5778

2200 Auto Center Drive
Oxnard, CA 93036
(805) 988-8913

STATEMENT OF DISCLAIMER

The factory warranty constitutes all of the warranties with respect to the sale of this item/items. The Seller hereby expressly disclaims all warranties either express or implied, including any implied warranty of merchantability or fitness for a particular purpose. Seller neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this item/items.

CUSTOMER SIGNATURE

DESCRIPTION	TOTALS
LABOR AMOUNT	2197.80
PARTS AMOUNT	5499.74
OIL, LUBE, PAINT	0.00
SUBLET AMOUNT	0.00
MISC. CHARGES	153.85
TOTAL CHARGES	7851.39
LESS INSURANCE	0.00
SALES TAX	500.86
PLEASE PAY THIS AMOUNT	8352.25

THANK YOU, WE APPRECIATE YOUR BUSINESS!!

CUSTOMER COPY

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RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Gibbs International DATE 3/13/2023

PURCHASE ORDER NUMBER ASSIGNED B23 00037

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT Bus # 9 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

B23-00037 (039999)

CUSTOMER #: 71705
UNIT# 7

459961

INVOICE



RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030
HOME:805-485-3111 CONT:805-485-3111
BUS: 485-3914 CELL:

PAGE 2

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

SERVICE ADVISOR: 136 JACK JEFFREY

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN / OUT	TAG
	00	INTERNATIONAL 3800	1HVBBAAM1YH332952	1092409	166449/166449	7 ~~T4755~~

DEL. DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
06AUG01 DD			17:00 24FEB23	B2100098	198.00	CHG	08MAR23

R.O. OPENED	READY	OPTIONS:
13:35 24FEB23	10:58 08MAR23	STK:6917 ENG:001241784 1)CONTACT ; JIM @ 485-3914

LINE	OPCODE	TECH	TYPE	HOURS	LIST	NET	TOTAL

SERVICE DEPT HOURS: M-F 8:00AM TO 5:00PM
PARTS & SERVICE: SATURDAY 8:00AM TO 12:00PM
PARTS & SERVICE 24 HOUR EMERGENCY ROAD CALL

OIL CHANGE, BRAKE WORK SEE QUIK IN QUIK OUT
2200 AUTO CENTER DR, OXNARD, CA 93036
805-988-8913 HOURS: M-F 8:00AM TO 5:00PM

2201 E. Ventura Blvd.
Oxnard, CA 93036
(805) 485-0551

2712 South Fourth St.
Fresno, CA 93725
(559) 445-9690

3525 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 327-5222

365 W. Betteravia Rd.
Santa Maria, CA 93455
(805) 922-5778

2200 Auto Center Drive
Oxnard, CA 93036
(805) 988-8913

STATEMENT OF DISCLAIMER

The factory warranty constitutes all of the warranties with respect to the sale of this item/items. The Seller hereby expressly disclaims all warranties either express or implied, including any implied warranty of merchantability or fitness for a particular purpose. Seller neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this item/items.

CUSTOMER SIGNATURE

DESCRIPTION	TOTALS
LABOR AMOUNT	2673.00
PARTS AMOUNT	3054.34
OIL, LUBE, PAINT	0.00
SUBLET AMOUNT	0.00
MISC. CHARGES	187.11
TOTAL CHARGES	5914.45
LESS INSURANCE	0.00
SALES TAX	268.65
PLEASE PAY THIS AMOUNT	6183.10

THANK YOU, WE APPRECIATE YOUR BUSINESS!!

CUSTOMER COPY

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RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Gibbs International DATE 3/13/2023

PURCHASE ORDER NUMBER ASSIGNED B23 00037

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT Bus #7 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Repairs

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichtner

B23-00037
(039995)

Gibbs INTERNATIONAL TRUCK CENTERS

2201 E. Ventura Blvd.
Oxnard, CA 93036
(805) 485-0551

3525 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 327-5222

2712 South Fourth St.
Fresno, CA 93725
(559) 445-9690

2200 Auto Center Drive
Oxnard, CA 93036
(805) 988-8913

365 W. Betteravia Rd.
Santa Maria, CA 93455
(805) 922-5778

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

ISUZU TRUCK

SALES · PARTS · SERVICE · RENTAL · PAINT

DATE ENTERED	YOUR ORDER NO.	DATE SHIPPED	INVOICE DATE	INVOICE NUMBER
13 MAR 23	B2300037	13 MAR 23	13 MAR 23	447806V

SOLD TO

ACCOUNT NO. 71705

RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030

SHIP TO

SHIP VIA	SLSM.	B/L NO.	TERMS	F.O.B. POINT
WC	DR		NET 30	OXNARD CA

QUANTITY ORD	QUANTITY SHIP	QUANTITY B.O.	PART NO.	DESCRIPTION	LIST	NET	AMOUNT
2	2	0	598860C1	SWITCH LOW	137.00	106.56	213.12
			SRCHRG	FUEL SURCHARGE			1.95

THANK YOU FOR YOUR BUSINESS
GIBBS IS YOUR ONE STOP
RESOURCE FOR ALL YOUR ON-OFF ROAD DPF
SALES, INSTALLATION AND CLEANING
NEEDS. SMOKE TESTS ALSO AVAILABLE

PARTS	215.07
SUBLET	
FREIGHT	0.00
SALES TAX	19.89
TOTAL	$234.96

CUSTOMER'S SIGNATURE
X

Thank You For Your Business!

NO REFUND WITHOUT THIS INVOICE.
20% HANDLING CHARGE ON ALL RETURNED PARTS.

NO REFUND AFTER 10 DAYS.
NO RETURNS ON ELECTRICAL OR SPECIAL ORDER PARTS.

Copyright 2015 CDK Global, LLC PARTS INVOICE 9.1.1.69_P3C1 - IMAGING

CUSTOMER COPY 2

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Gibbs International DATE 3/14/2023

PURCHASE ORDER NUMBER ASSIGNED B2300037

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT B. Bus # 6 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

PARTS

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichtner

PurchaseRequest

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049493

ISSUE DATE: 04/13/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,464.18

VOID AFTER SIX MONTHS

PAY ONE THOUSAND FOUR HUNDRED SIXTY FOUR AND 18/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

GIBBS INTERNATIONAL
P. O. BOX 748062
LOS ANGELES, CA 90074-8062

⑈5009049493⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,464.18

VENDOR NAME: GIBBS INTERNATIONAL 000322/3 CHECK NUMBER: 5009049493 DATE: 04/13/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/10/2023	447730V	B23-00037	R23-00122		182.26
03/15/2023	70450	B23-00037	R23-00122		1,088.64
03/15/2023	70451	B23-00037	R23-00122		193.28

0139991

B23-00037 Kayden

Gibbs INTERNATIONAL TRUCK CENTERS

2201 E. Ventura Blvd.	3525 Buck Owens Blvd.	2712 South Fourth St.	2200 Auto Center Drive	365 W. Betteravia Rd.
Oxnard, CA 93036	Bakersfield, CA 93308	Fresno, CA 93725	Oxnard, CA 93036	Santa Maria, CA 93455
(805) 485-0551	(661) 327-5222	(559) 445-9690	(805) 988-8913	(805) 922-5778

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

ISUZU TRUCK

SALES · PARTS · SERVICE · RENTAL · PAINT

DATE ENTERED	YOUR ORDER NO.	DATE SHIPPED	INVOICE DATE	INVOICE NUMBER
08 MAR 23	B23-00037	10 MAR 23	10 MAR 23	447730V

SOLD TO

ACCOUNT NO. 71705

RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030

SHIP TO

SHIP VIA	SLSM.	B/L NO.	TERMS	F.O.B. POINT
	DR		NET 30	OXNARD CA

QUANTITY ORD	QUANTITY SHP	QUANTITY B/O	PART NO.	DESCRIPTION	LIST	NET	AMOUNT
1	1	0	FLTH225	PAD SET, B	183.79	164.88	164.88
			SRCHRG	FUEL SURCHARGE			1.95

Thank You For Your Business!

THANK YOU FOR YOUR BUSINESS
GIBBS IS YOUR ONE STOP
RESOURCE FOR ALL YOUR ON-OFF ROAD DPF
SALES, INSTALLATION AND CLEANING
NEEDS. SMOKE TESTS ALSO AVAILABLE

CUSTOMER'S SIGNATURE
X

PARTS	166.83
SUBLET	
FREIGHT	0.00
SALES TAX	15.43
TOTAL	$182.26

NO REFUND WITHOUT THIS INVOICE.
20% HANDLING CHARGE ON ALL RETURNED PARTS.

NO REFUND AFTER 10 DAYS.
NO RETURNS ON ELECTRICAL OR SPECIAL ORDER PARTS.

Copyright 2015 CDK Global, LLC PARTS INVOICE 19.0.0.P.3C1 - IMAGING

CUSTOMER COPY

B23-00037

CUSTOMER #: 71705
UNIT# 12

70451

INVOICE

Gibbs TRUCK CENTERS

PAGE 1

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030
HOME:805-485-3111 CONT:805-485-3111
BUS: 485-3914 CELL:

SERVICE ADVISOR: 322 Damian Martinez

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN / OUT	TAG
	08	INTERNATIONAL IC BUS	4DRBWAAR88A636371	1258048	0/0	T12

DEL. DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
07SEP07 DD			17:00 13MAR23	JIMMY	152.00	CHG	15MAR23

R.O. OPENED	READY	OPTIONS: 1) JIMMY @ 626-224-4337
13:19 13MAR23	15:43 15MAR23	

LINE OPCODE TECH TYPE HOURS	LIST	NET	TOTAL
A REPAIR WATER LEAK			
BR REMOVE SILICON AROUND FRONT CLEARANCE LAMPS AND RESEAL / RESEAL ANTENNA			
153 CPP 1.00	150.00		150.00
SUBL SILICON			
CPSP	30.00		30.00

PARTS: 0.00 LABOR: 150.00 OTHER: 30.00 TOTAL LINE A: 180.00

****

CUSTOMER PAY SHOP SUPPLIES FOR REPAIR ORDER 10.50

SERVICE DEPT HOURS: M-F 8:00AM TO 5:00PM
PARTS & SERVICE: SATURDAY 8:00AM TO 12:00PM
PARTS & SERVICE 24 HOUR EMERGENCY ROAD CALL

OIL CHANGE, BRAKE WORK SEE QUIK IN QUIK OUT
2200 AUTO CENTER DR, OXNARD, CA 93036
805-988-8913 HOURS: M-F 8:00AM TO 5:00PM

2201 E. Ventura Blvd.
Oxnard, CA 93036
(805) 485-0551

2712 South Fourth St.
Fresno, CA 93725
(559) 445-9690

3525 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 327-5222

365 W. Betteravia Rd.
Santa Maria, CA 93455
(805) 922-5778

2200 Auto Center Drive
Oxnard, CA 93036
(805) 988-8913

STATEMENT OF DISCLAIMER

The factory warranty constitutes all of the warranties with respect to the sale of this item/items. The Seller hereby expressly disclaims all warranties either express or implied, including any implied warranty of merchantability or fitness for a particular purpose. Seller neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this item/items.

CUSTOMER SIGNATURE

DESCRIPTION	TOTALS
LABOR AMOUNT	150.00
PARTS AMOUNT	0.00
OIL, LUBE, PAINT	0.00
SUBLET AMOUNT	30.00
MISC. CHARGES	10.50
TOTAL CHARGES	190.50
LESS INSURANCE	0.00
SALES TAX	2.78
PLEASE PAY THIS AMOUNT	193.28

THANK YOU, WE APPRECIATE YOUR BUSINESS!!

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CUSTOMER COPY

B23-00037

CUSTOMER #: 71705
UNIT# 4

RIO SCHOOL DIST**********
1800 SOLAR DR 3RD FLR
OXNARD, CA 93030
HOME:805-485-3111 CONT:805-485-3111
BUS: 485-3914 CELL:

70450

INVOICE

PAGE 1

Gibbs INTERNATIONAL TRUCK CENTERS

PLEASE REMIT TO: P.O. BOX 748062, LOS ANGELES, CA 90074-8062

SERVICE ADVISOR: 322 Damian Martinez

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN / OUT	TAG
	99	INTERNATIONAL REAR E	1HVBJADN5XA088060	994230	0/0	T4

DEL. DATE	PROD. DATE	WARR. EXP.	PROMISED	PO NO.	RATE	PAYMENT	INV. DATE
01DEC98 DD			17:00 13MAR23	JIMMY	152.00	CHG	15MAR23

R.O. OPENED	READY	OPTIONS:
11:55 13MAR23	15:31 15MAR23	1) CONTACT ; JIM @ 485-3914

LINE OPCODE TECH TYPE HOURS	LIST	NET	TOTAL
A BODY REPAIRS			
BR REMOVE FRONT CLEARANCE LAMPS AND RESEAL/RESEAL STOP LIGHTS/RESEAL ANTENNA/R&I FT EXIT HATCH AND RESEAL/REPLACE RR EXIT HATCH AND SEAL			
159 CPP 6.00		900.00	900.00
LUBE CAULKING BLACK/WHITE			
CPSP		115.00	115.00

PARTS: 0.00 LABOR: 900.00 OTHER: 115.00 TOTAL LINE A: 1015.00

****

CUSTOMER PAY SHOP SUPPLIES FOR REPAIR ORDER 63.00

SERVICE DEPT HOURS: M-F 8:00AM TO 5:00PM
PARTS & SERVICE: SATURDAY 8:00AM TO 12:00PM
PARTS & SERVICE 24 HOUR EMERGENCY ROAD CALL

OIL CHANGE, BRAKE WORK SEE QUIK IN QUIK OUT
2200 AUTO CENTER DR, OXNARD, CA 93036
805-988-8913 HOURS: M-F 8:00AM TO 5:00PM

2201 E. Ventura Blvd.
Oxnard, CA 93036
(805) 485-0551

2712 South Fourth St.
Fresno, CA 93725
(559) 445-9690

3525 Buck Owens Blvd.
Bakersfield, CA 93308
(661) 327-5222

365 W. Betteravia Rd.
Santa Maria, CA 93455
(805) 922-5778

2200 Auto Center Drive
Oxnard, CA 93036
(805) 988-8913

STATEMENT OF DISCLAIMER

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CUSTOMER SIGNATURE

DESCRIPTION	TOTALS
LABOR AMOUNT	900.00
PARTS AMOUNT	0.00
OIL, LUBE, PAINT	115.00
SUBLET AMOUNT	0.00
MISC. CHARGES	63.00
TOTAL CHARGES	1078.00
LESS INSURANCE	0.00
SALES TAX	10.64
PLEASE PAY THIS AMOUNT	1088.64

THANK YOU, WE APPRECIATE YOUR BUSINESS!!

Copyright 2015 CDK Global, LLC SERVICE INVOICE TYPE 2 - S2C - 8MAR2015

CUSTOMER COPY

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

GIBBS #447730V, #70451, #70450

2 messages

Susan Eskridge <seskridge@rioschools.org> Thu, Apr 6, 2023 at 11:38 AM
To: Kayden Orozco <korozco@rioschools.org>

Hi Kayden,

Are the attached invoices ok to pay? ***If so, which PO/account number are we paying from?***

Thanks,

Susie

3 attachments

- **GIBBS B23-00037 #447730V.pdf**
  270K
- **GIBBS #70451.pdf**
  66K
- **GIBBS #70450.pdf**
  330K

Kayden Orozco <korozco@rioschools.org> Mon, Apr 10, 2023 at 8:24 AM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

B23-00037

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

...SCRIBED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210(8)

CHECK NO: 5009051290

ISSUE DATE: 08/29/23

AMOUNT
$********1,280.00

VOID AFTER SIX MONTHS

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2024

PAY ONE THOUSAND TWO HUNDRED EIGHTY AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
MARLENE A. JONES
DBA MOBILE OPACITY TESTING
512 NIVEO LANE
OXNARD, CA 93030

⑈5009051290⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,280.00

VENDOR NAME: MARLENE A. JONES DBA MOBILE OPACITY710094/2 CHECK NUMBER: 5009051290 DATE: 08/29/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
08/02/2023	277	P24-00493	R24-00723		1,280.00

0184788

P24-00493

Mobile Opacity Testing

512 Niveo Lane
Oxnard, Ca. 93030
Phone: 805-824-4245 (Marlene) or 805-612-5243 (John)

Invoice #277

Date: 8/2/2023

To:
Rio School District
2715 Vineyard Ave
Oxnard, CA 93030
Phone: 805-524-3939

Ship To:
Recipient Name
Company Name
Street Address
City, ST ZIP Code
Phone: Phone

SALESPERSON	CUSTOMER P.O. NUMBER	REQUISITIONER	F.O.B. POINT	TERMS
John Dotsy				Net 30

QTY	Date of Service	DESCRIPTION	UNIT PRICE	TOTAL
16	8/1/23	Annual PSI & HDVI Opacity Testing and Inspection	$ 80.00	$ 1,280.00
			SUBTOTAL	$ 1;280.00
			SALES TAX	
			SHIPPING & HANDLING	
			TOTAL due	$ 1,280.00

Make all checks payable to **Mobile Opacity Testing**

If you have any questions concerning this invoice, contact Marlene Jones (805) 824-4245
Thank you for your business!

Rio Elementary School District

PURCHASE ORDER
NO: **P24-00493**
DATE **08/28/2023**

(805) 485-3111 ext 2109 FAX (805) 981-7746

SHIP TO:
FACILITIES
2715 Vineyard Avenue
Oxnard, CA 93036

Vendor Phone: FAX:
Marlene A. Jones
DBA Mobile Opacity Testing
512 Niveo Lane
Oxnard, CA 93030

BILL TO:
Rio Elementary School District
1800 Solar Drive, 3rd Floor
Oxnard, CA 93030
SEskridge@rioschools.org

ORDER LOCATION	VENDOR #	REQUISITIONER	REQUISITION #
FCLT - FACILITIES	710094/2	Kayden Orozco	R24-00723

DATE REQUIRED	F.O.B.	TERMS OF PAYMENT	SHIP VIA	BUYER	RPQ #

ITEM	QTY	UNIT	DESCRIPTION	UNIT COST	EXTENSION
			invoice 277 attached		
1	1	EACH	Testing for all buses 2023-2024	1,280.00	$1,280.00

IMPORTANT INSTRUCTIONS TO VENDOR

1. Itemized INVOICES in Duplicate.
2. Enclose PACKING LIST with ALL shipments.
3. No deviation in PRICE or SUBSTITUTION in kind permitted.
4. All deliveries F.O.B. Destination unless otherwise specified. If freight is to be charged, prepay, and add to invoice.
5. THE LAW REQUIRES MATERIAL SAFETY DATA SHEETS FOR PRODUCTS ON THIS ORDER. PLEASE ENCLOSE WITH INVOICE.
6. Purchase order number must appear on all packing slips and invoices.
7. Charges for the purchase in excess of 10% must be verified before delivery.

Order Sub-Total	$1,280.00
Sales Tax	.00
Shipping	.00
Adjustment	.00
Order Total	**$1,280.00**

AUTHORIZED BY:

Vendor

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

P24-00493 (Mobile Opacity)

1 message

Heather Pena <hpena@rioschools.org>
To: Susan Eskridge <seskridge@rioschools.org>

Mon, Aug 28, 2023 at 5:09 PM

Hi Susie,

Please pay the attached invoice for P24-00493.

Thanks!

--

Heather Peña
Purchasing Assistant
Rio School District
(805) 485-3111 (ext. 2106)

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2 attachments

P24-00493.pdf
45K

Mobile Opacity invoice # 277.pdf
51K

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009051594

ISSUE DATE: 09/26/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********4,850.00

VOID AFTER SIX MONTHS

PAY FOUR THOUSAND EIGHT HUNDRED FIFTY AND ZERO/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

TO THE ORDER OF

MATTHEW CAUDILLO
CA TRANSP SOLUTIONS
5885 EAST MADISON AVE.
FRESNO, CA 93727

⑈5009051594⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $4,850.00

VENDOR NAME: MATTHEW CAUDILLO CA TRANSP SOLUTIO/714899/1 CHECK NUMBER: 5009051594 DATE: 09/26/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
08/21/2023	1080	P24-00744	R24-00932		4,850.00

0192201

P24-00744

California Transportation Solutions 2.0

5885 E Madison Ave
Fresno, CA 93727
(559) 203-8327
ctsoperationsmanagement@gmail.com

INVOICE

BILL TO
Rio Unified School District
1800 Solar Drive
Oxnard, CA 930303 USA

INVOICE	1080
DATE	08/21/2023
DUE DATE	08/21/2023

ACTIVITY	DESCRIPTION	QTY	AMOUNT
Labor	Labor to perform inspections on 14 buses and determine what parts if any are needed to make systems functional. Spreadsheet to be forwarded to Mr. Lewis of findings. Flat rate fee of $250 per inspection. Bus#'s inspected: 1,11,12,52,8,54,7,3,56,9,10,2,6,55 3 buses were not onsite and unable to be reviewed.	14	3,500.00
Labor	6 hours total travel time	6	600.00
Labor	Reimbursement for 2 nights hotel accommodations	1	300.00
Labor	Bus# 3 & 10 -- Labor to remove DVR's from both buses send in RMA for repair to SEON. Left DVR's with customer to return for repair.	1	450.00

BALANCE DUE **$4,850.00**

Rio Elementary School District

PURCHASE ORDER
NO P24-00744
DATE 09/20/2023

(805) 485-3111 ext 2109 FAX (805) 981-7746

SHIP TO:
FACILITIES
2715 Vineyard Avenue
Oxnard, CA 93036

Vendor Phone: FAX:
Matthew Caudillo
CA Transp Solutions
5885 East Madison Ave.
Fresno, CA 93727

BILL TO:
Rio Elementary School District
1800 Solar Drive, 3rd Floor
Oxnard, CA 93030
SEskridge@rioschools.org

ORDER LOCATION	VENDOR #	REQUISITIONER	REQUISITION #
FCLT - FACILITIES	714899/1	Kayden Orozco	R24-00932

DATE REQUIRED	F O B	TERMS OF PAYMENT	SHIP VIA	BUYER	RPO #

ITEM	QTY	UNIT	DESCRIPTION	UNIT COST	EXTENSION
			Inv 1080 attached		
1	1	EACH	Bus DVR inspections	4,850.00	$4,850.00

IMPORTANT INSTRUCTIONS TO VENDOR

1. Itemized INVOICES in Duplicate.
2. Enclose PACKING LIST with ALL shipments.
3. No deviation in PRICE or SUBSTITUTION in kind permitted.
4. All deliveries F.O.B. Destination unless otherwise specified. If freight is to be charged, prepay, and add to invoice.
5. THE LAW REQUIRES MATERIAL SAFETY DATA SHEETS FOR PRODUCTS ON THIS ORDER. PLEASE ENCLOSE WITH INVOICE.
6. Purchase order number must appear on all packing slips and invoices.
7. Charges for the purchase in excess of 10% must be verified before delivery.

Order Sub-Total	$4,850.00
Sales Tax	.00
Shipping	.00
Adjustment	.00
Order Total	**$4,850.00**

AUTHORIZED BY:

Vendor

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

P24-00744 (Matthew Caudillo)

1 message

Heather Pena <hpena@rioschools.org> Wed, Sep 20, 2023 at 10:00 AM
To: Susan Eskridge <seskridge@rioschools.org>

Hi Susie,

Please pay the attached invoice for P24-00744.

Thanks!

--

Heather Peña
Purchasing Assistant
Rio School District
(805) 485-3111 (ext. 2106)

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2 attachments

Invoice #1080 (California Transportation Solutions).pdf
41K

P24-00744.pdf
47K

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009050666

ISSUE DATE: 07/06/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********8,966.02

VOID AFTER SIX MONTHS

PAY EIGHT THOUSAND NINE HUNDRED SIXTY SIX AND 02/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

MOBILE DIESEL SMOKE
TESTING SERVICES
125 SHIRLEY LANE
SANTA MARIA, CA 93455

⑈5009050666⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $8,966.02

VENDOR NAME: MOBILE DIESEL SMOKE TESTING SERVICES 713715/1 CHECK NUMBER: 5009050666 DATE: 07/06/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
04/14/2023	5005	B23-00049	R23-00134		1,824.22
04/12/2023	5009	B23-00049	R23-00134		800.00
04/12/2023	5010	B23-00049	R23-00134		750.00
04/13/2023	5012	B23-00049	R23-00134		837.74
04/13/2023	5013	B23-00049	R23-00134		750.00
04/11/2023	5014	B23-00049	R23-00134		750.00
04/11/2023	5015	B23-00049	R23-00134		750.00
04/10/2023	5016	B23-00049	R23-00134		800.00
04/10/2023	5017	B23-00049	R23-00134		852.03
04/10/2023	5018	B23-00049	R23-00134		852.03

0169257

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5005

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. _____ Date 4-14 20 23

Name Rio School Dist

Address _____

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	Aftertreatment DP Filter			1699.22
	Shipping			125.=
	REC'D JUN 29 2023			

Please pay from this invoice

Thank You For Your Business

PARTS		1824.22
LABOR		
TAX		
TOTAL		1824.22
DEPOSIT		
AMT. DUE		1824.22

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5009

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus #5 Date 4-12 20 23

Name Rio School Dist

Address _____

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DP Filter			250 =
	Bake & clean Filter			400 =
	Service call			150 =
	REC'D JUN 29 2023			

Please pay from this invoice

Thank You For Your Business

PARTS		
LABOR		800.=
TAX		
TOTAL		800 =
DEPOSIT		
AMT. DUE		800.=

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5010

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus # 4 Date 4-12 20 23

Name Rio School Dist

Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DP F.H.			250.=
	Bake's clean F.H.			400
	Service Call			100.=
	REC'D JUN 29 2023			
	PARTS			
	LABOR			750
	TAX			
	TOTAL			750
	DEPOSIT			
	AMT. DUE			750.=

Please pay from this invoice

Thank You For Your Business

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5012

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus # 2 Date 4-13 20 23

Name Rio School Dist

Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DP F.H.			250.=
	Bake's clean F.H.			400.=
	clean Doc		85.=	N/C
	Gaskets	2	26.31	52.62
	Gaskets	2	14.03	28.06
	Service Call			100.=
	REC'D JUN 29 2023			
	PARTS			80.68
	LABOR			~~750.=~~
	TAX			7.06
	TOTAL			837.74
	DEPOSIT			
	AMT. DUE			837.74

Please pay from this invoice

Thank You For Your Business

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979



No. 5013

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus #11 Date 4-13 20 23

Name Rio School Dist.

Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DP Filter			250.00
	Bake & clean Filter			400.00
	Server call			100.00
	REC'D JUN 29 2023			

Please pay from this invoice

Thank You For Your Business

PARTS		
LABOR		750.00
TAX		
TOTAL		750.00
DEPOSIT		
AMT. DUE		750.00

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979



No. 5014

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus #10 Date 4-11 20 23

Name Rio School Dist.

Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DP Filter			250.00
	Bake & clean Filter			400.00
	Service call			100.00
	REC'D JUN 29 2023			

Please pay from this invoice

Thank You For Your Business

PARTS		
LABOR		750.00
TAX		
TOTAL		750.00
DEPOSIT		
AMT. DUE		750.00

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5015

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus # 3 Date 4-11 20 23
Name Rio School Dist.
Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DPF Filter			250.=
	Bake & clean Filter			400.=
	Service call			100.=
	REC'D JUN 29 2023			
	PARTS			
	LABOR			750.=
	TAX			
	TOTAL			750.=
	DEPOSIT			
	AMT. DUE			750.=

Please pay from this invoice

Thank You For Your Business

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979

No. 5016

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus # 8 Date 4-10 20 23
Name Rio School Dist
Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DPF Filter			250.=
	Bake & clean Filter			400.=
	Service call			150.=
	REC'D JUN 29 2023			
	PARTS			
	LABOR			800.=
	TAX			
	TOTAL			800.=
	DEPOSIT			
	AMT. DUE			800.=

Please pay from this invoice

Thank You For Your Business

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979



No. 5017

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus #12 Date 4-10 2023
Name Rio School Dist.
Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DPF Filter			250.00
	Bake & clean Filter			400.00
	Gaskets	2	23.92	47.84
	Service Call			150.

REC'D JUN 29 2023

Please pay from this invoice	PARTS		47.84
	LABOR		800.00
	TAX		4.19
Thank You For Your Business	TOTAL		852.03
	DEPOSIT		
	AMT. DUE		852.03

Mobile Diesel Smoke Testing Services
310 W. Betteravia Rd. #C
Santa Maria, CA 93455
805-478-0979



No. 5018

Mailing Address
125 Shirley Lane
Santa Maria, CA 93455

Customer's Order No. Bus #54 Date 4-10 2023
Name Rio School Dist.
Address

ITEM	DESCRIPTION	QUANT.	PRICE	TOTAL
	R&R DPF Filter			250.00
	Bake & clean Filter			400.00
	Gaskets	2	23.92	47.84
	Service Call			150

REC'D JUN 29 2023

Please pay from this invoice	PARTS		47.84
	LABOR		800.00
	TAX		4.19
Thank You For Your Business	TOTAL		852.03
	DEPOSIT		
	AMT. DUE		852.03

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Mobile Diesel Smoke DATE 6/12/2023

PURCHASE ORDER NUMBER ASSIGNED B2300049

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT Buses SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

D.P.F Filter Cleaning

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

REC'D JUN 29 2023

PurchaseRequest

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A
11-24
1210/81

CHECK NO: 5009052550

ISSUE DATE: 11/20/23

DISTRICT NAME: Rio Elementary School District
FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$**********213.65

VOID AFTER SIX MONTHS

PAY TWO HUNDRED THIRTEEN AND 65/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF
O'REILLY AUTO PARTS
PO BOX 9464
SPRINGFIELD, MO 65801-9464

⑈5009052550⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $213.65

VENDOR NAME: O'REILLY AUTO PARTS 713091/1 CHECK NUMBER: 5009052550 DATE: 11/20/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
11/07/2023	2737-120196	B24-00075	R24-00075		235.65
03/29/2023	2737-432313	B24-00075	R24-00075	22.00-	

0207429

Kayden

(039995)

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD,
OXNARD, CA 93036 (805) 485-6226

Invoice	2737-432313
Sale Type	CREDIT TO ACCOUNT
Date	03/29/2023 11:49 AM
Ship Via	
PO Number	Core

Bill To:

RIO SCHOOL DISTRICT
.
1800 SOLAR DR FL 3
OXNARD, CA 93030
(805) 485-3111

Counter #	Customer Account	Ordered By	Special Instructions
91994	1400553	RioSchool	

Qty	Line	Item Number	Description	Warr	Unit	Tax	List	Net	Extended
1	SSB	24REXTJ	Core Return		EA	N		-22.00	-22.00

** Historical Reprint **

1 Item

Sub-Total	-22.00
Sales Tax	0.00
Total	-22.00

X
Customer Signature

WWW.FIRSTCALLONLINE.COM

Warranty/Garantia: www.firstcallonline.com/warranty

WE APPRECIATE YOUR BUSINESS!

2737WS187 Remit To: PO BOX 9464, SPRINGFIELD, MO 65801-9464

(039995) B2A-00075 Kayden

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93030 (805) 485-6226

Invoice	2737-120196
Sale Type	CHARGE SALE
Date	11/07/2023 10:40 AM
Ship Via	
PO Number	PartsOrder

Bill To:

RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
91994	1400553	RioSchool	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
6	MOB	1-0-20-5QT	5Qtmotoroil	MD	EA	T	64.39	35.95	215.70

6 Items

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	215.70
Sales Tax	19.95
Total	235.65

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

Susan Eskridge <seskridge@rioschools.org>

O'Reilly B24-00075 #2737-120196 & Credit Memo #2737-432313

2 messages

Susan Eskridge <seskridge@rioschools.org> Thu, Nov 16, 2023 at 7:05 AM
To: Kayden Orozco <korozco@rioschools.org>

Hello,

Please see the attached invoices and let me know if all items have been received and they're okay to pay.

NOTE: Please provide an account # for the credit memo.

Thank you,

Susie
Ext 2107

2 attachments

O'REILLY #2737-120196.pdf
191K

O'REILLY CREDIT MEMO #2737-432313.pdf
225K

Kayden Orozco <korozco@rioschools.org> Thu, Nov 16, 2023 at 7:55 AM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

039995

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009053456

ISSUE DATE: 01/25/24

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$**********476.90

VOID AFTER SIX MONTHS

PAY FOUR HUNDRED SEVENTY SIX AND 90/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

O'REILLY AUTO PARTS
PO BOX 9464
SPRINGFIELD, MO 65801-9464

Dr. C. A. Morales

⑈5009053456⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $476.90

VENDOR NAME: O'REILLY AUTO PARTS 713091/1 CHECK NUMBER: 5009053456 DATE: 01/25/24

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
12/29/2023	2737-139114	B24-00075	R24-00075		178.59
12/29/2023	2737-139124	B24-00075	R24-00075		4.51
12/29/2023	2737-139156	B24-00075	R24-00075	183.10-	
01/10/2024	2737-143262	B24-00075	R24-00075		41.50
01/11/2024	2737-143923	B24-00075	R24-00075		294.78
01/16/2024	2737-145708	B24-00075	R24-00075		75.12
09/27/2023	OCBO943112	B24-00075	R24-00075		65.50

0224285

Kayden B24-00075

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93036 (805) 485-6226

Invoice	2737-139114
Sale Type	CHARGE SALE
Date	12/29/2023 11:18 AM
Ship Via	DELIVER
PO Number	

Bill To:
RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:
Rio School Yard
2715 Vineyard
Oxnard CA, CA 93036

Counter #	Customer Account	Ordered By	Special Instructions
18633	1400553	jimmy	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
2	PTQ	A2621	ENGINE MOUNT	LT	EA	T	52.53	14.38	28.76
1	ENS	3.1108G	TRANS MOUNT	1Y	EA	T	76.25	44.99	44.99
1	MBH	K060956	MICRO-V BELT	1Y	EA	T	79.64	28.53	28.53
1	MBH	K060970	MICRO-V BELT	1Y	EA	T	57.61	27.60	27.60
1	PTQ	FK171	A/T FILTER	1Y	EA	T	28.80	16.98	16.98
1	PTQ	FK106	A/T FILTER	1Y	EA	T	28.80	16.61	16.61

7 Items

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	163.47
Sales Tax	15.12 ✓
Total	178.59

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

Rayden B24-00075

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93036 (805) 485-6226

Invoice	2737-139124
Sale Type	CHARGE SALE
Date	12/29/2023 11:27 AM
Ship Via	
PO Number	

Bill To:

RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
18633	1400553	JIMMY	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
1	MGD	33481	FUEL FILTER	1Y	EA	T	20.32	4.13	4.13

1 Item

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	4.13
Sales Tax	.38 ✓
Total	4.51

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

O'REILLY B24-00075 DEC 29 INVOICES

2 messages

Susan Eskridge <seskridge@rioschools.org> Wed, Jan 10, 2024 at 9:28 AM
To: Kayden Orozco <korozco@rioschools.org>

Hello,

Please see the attached invoice and let me know if all items have been received and this is okay to pay.

Thank you,

Susie
Ext 2107

O'REILLY B24-00075 DEC 29 INVOICES.pdf
618K

Kayden Orozco <korozco@rioschools.org> Wed, Jan 10, 2024 at 9:58 AM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

Kayden B24-00075

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93036 (805) 485-6226

Invoice	2737-139156
Sale Type	CREDIT ACCOUNT
Date	12/29/2023 12:12 AM
Ship Via	
PO Number	

Bill To:

RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
18633	1400553	JIMMY	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
2	PTQ	A2621	ENGINE MOUNT	LT	EA	T	-52.53	-14.38	-28.76
	New Return								
1	ENS	3.1108G	TRANS MOUNT	1Y	EA	T	-76.25	-44.99	-44.99
	New Return								
1	MBH	K060956	MICRO-V BELT	1Y	EA	T	-79.64	-28.53	-28.53
	New Return								
1	MBH	K060970	MICRO-V BELT	1Y	EA	T	-57.61	-27.60	-27.60
	New Return								
1	PTQ	FK171	A/T FILTER	1Y	EA	T	-28.80	-16.98	-16.98
	New Return								
1	PTQ	FK106	A/T FILTER	1Y	EA	T	-28.80	-16.61	-16.61
	New Return								
1	MGD	33481	FUEL FILTER	1Y	EA	T	-20.32	-4.13	-4.13
	New Return								

8 Items

Original Invoice #: 139124 Original Invoice Date: Original Counter #: ******** RETURN AUTHORIZATION ********

Sub-Total	-167.60
Sales Tax	-15.50 ✓
Total	-183.10

x _____

Customer Signature

WE APPRECIATE YOUR BUSINESS!

WWW.FIRSTCALLONLINE.COM

Remit To: PO Box 9464, Springfield, MO 65801-9464

B24-00075 Kayden

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 95304 (805) 485-6226

Invoice	2737-145708
Sale Type	CHARGE SALE
Date	01/16/2024 7:19 AM
Ship Via	
PO Number	

Bill To:
RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
461050	1400553	jimmy	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
1	SSB	U1LUH	BATTERY	9A	EA	T	106.76	56.93	66.93 ✓
			CORE CHARGE					10.00	
1	TAX	BATTERY FEE	BATTERY FEE	OZ	EA	NA	3.39	2.00	2.00

2 Items

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	68.93
Sales Tax	6.19 ✓
Total	75.12

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

B24-00075 Kayden

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93036 (805) 485-6226

Invoice	2737-143923
Sale Type	CHARGE SALE
Date	01/11/2024 3:53 PM
Ship Via	DELIVER
PO Number	

Bill To:
RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:
Rio School Yard
2715 Vineyard
Oxnard CA, CA 93036

Counter #	Customer Account	Ordered By	Special Instructions
18633	1400553	jimmy	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
18	AFZ	ORDEX50/50	1GalAntifrez	3D	EA	T	25.41	14.99	269.82

18 Items

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	269.82
Sales Tax	24.96
Total	294.78

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

RIO SCHOOL DISTRICT

Susan Eskridge <seskridge@rioschools.org>

O'REILLY 145708, 143923, 145941

2 messages

Susan Eskridge <seskridge@rioschools.org> Wed, Jan 24, 2024 at 3:28 PM
To: Kayden Orozco <korozco@rioschools.org>

Hello,

Please see the attached invoices and let me know if all items have been received and they're okay to pay.

NOTE: Please provide a PO# for payment.

Thank you,

Susie
Ext 2107

O'REILLY 145708, 143923, 145941.pdf
575K

Kayden Orozco <korozco@rioschools.org> Thu, Jan 25, 2024 at 7:42 AM
To: Susan Eskridge <seskridge@rioschools.org>

B24-00075

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

B24-00075
(039995)

O'Reilly FIRST CALL

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD
OXNARD, CA 93030 (805) 485-6226

Invoice	2737-143262
Sale Type	CHARGE SALE
Date	01/10/2024 8:19 AM
Ship Via	
PO Number	

Bill To:
RIO SCHOOL DISTRICT
1800 SOLAR DR FL 3
OXNARD, CA 93030-2655

Ship To:

Counter #	Customer Account	Ordered By	Special Instructions
461050	1400553	jimmy	

Qty	Line	Item Number	Description	Warranty	Unit	Tax	List	Net	Extended
1	PTT	9482800	CARGO STRAPS	90	EA	T	64.39	37.99	37.99

1 Item

Original Invoice #: Original Invoice Date: Original Counter #:

Sub-Total	37.99
Sales Tax	3.51
Total	41.50

x

Customer Signature

WE APPRECIATE YOUR BUSINESS!

WWW.FIRSTCALLONLINE.COM

Remit To: PO Box 9464, Springfield, MO 65801-9464

O'Reilly AUTO PARTS

DEDICATED TO THE PROFESSIONAL

Store 2737, 1941 NORTH OXNARD BLVD,
OXNARD, CA 93036 (805) 485-6226

Invoice	**2737-143262**
Sale Type	CHARGE SALE
Date	01/10/2024 8:19 AM
Ship Via	
PO Number	

Bill To:

RIO SCHOOL DISTRICT

1800 SOLAR DR FL 3
OXNARD, CA 93030
(805) 485-3111

Counter #	Customer Account	Ordered By	Special Instructions
461050	1400553	jimmy	

Qty	Line	Item Number	Description	Warr	Unit	Tax	List	Net	Extended
1	PTT	9482800	CARGO STRAPS	90	EA	Y	64.39	37.99	37.99

**** Reprint # 1 ****

1 Item

Select Super Start Batteries come with Roadside Assistance. Ask for details.

X
Customer Signature

Sub-Total	37.99
Sales Tax	3.51
Total	**41.50**

WWW.FIRSTCALLONLINE.COM

Warranty/Garantia: www.firstcallonline.com/warranty

WE APPRECIATE YOUR BUSINESS!

2737WS182 Remit To: PO BOX 9464, SPRINGFIELD, MO 65801-9464

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR O'Reilly Auto Parts DATE 6/11/2024

PURCHASE ORDER NUMBER ASSIGNED B24000

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT UNIT 13 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

PARTS

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor _____

B24-00075 (039995)

INVOICE NUMBER# OCBO943112

CUSTOMER #: **1400553**

CUSTOMER NAME: RIO SCHOOL DISTRICT

ADDRESS:

REMIT TO: PO BOX 9464, Springfield MO 65801-9464

DATE	SHIP VIA	CUSTOMER ORDER NO.		FILLED BY	CHECKED BY	
	DESCRIPTION	LIST	NET	DISC OR PER	CORE	AMOUNT
9/27/2023	**CB CK 5009051473 127.81 env. 6152358 lists inv. 2737-486341 for -65.50 however this credit was a debit crd refund causing a shortage of 65.50**					**65.50**
If you have questions, please call (417) 829-5818				**TOTAL**		**65.50**

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049246

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********76.18

VOID AFTER SIX MONTHS

PAY SEVENTY SIX AND 18/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

PACIFIC EQUIPMENT
3897 N SOUTH BANK ROAD
OXNARD, CA 93036

⑈5009049246⑈ ⑆121000248⑆ 4174387878⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $76.18

VENDOR NAME: PACIFIC EQUIPMENT 713151/1 CHECK NUMBER: 5009049246 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/10/2023	51453	B23-00055	R23-00140		76.18

0137074

Pacific Equipment
3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

B23-00055
(039999)

Invoice

Date	Invoice #
3/10/2023	51453

Bill To	Ship To
Rio School District **1800 Solar Dr. 3rd Floor** **Oxnard, CA 93030**	

P.O. Number	Terms	Rep	Ship
B23-00055	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
		Service Gear Box on Exmark 96 Mower Sr # 405110577 603.1hrs		
1	80w-90	80w-90 Gear Oil	12.70	12.70T
0.5	Shop Labor		125.00	62.50
			Sales Tax (7.75%)	$0.98
			Total	$76.18

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR pacific equipment DATE 3/10/2023

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT _____ SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

oil change for mower maintenance

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049764

ISSUE DATE: 05/02/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,126.54

VOID AFTER SIX MONTHS

PAY ONE THOUSAND ONE HUNDRED TWENTY SIX AND 54/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

PACIFIC EQUIPMENT
3897 N SOUTH BANK ROAD
OXNARD, CA 93036

⑈5009049764⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,126.54

VENDOR NAME: PACIFIC EQUIPMENT 713151/1 CHECK NUMBER: 5009049764 DATE: 05/02/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/31/2023	51522	B23-00055	R23-00140		623.74
04/10/2023	51554	B23-00055	R23-00140		502.80

0147386



Pacific Equipment

3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

Invoice

Date	Invoice #
3/31/2023	51522

Bill To	Ship To
Rio School District **1800 Solar Dr. 3rd Floor** **Oxnard, CA 93030**	

P.O. Number	Terms	Rep	Ship
B23-0005	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
6	116-0588	BRACKET,MOUNT	62.98	377.88T
6	140-4417	U-BOLT	13.70	82.20T
6	3256-4	WASHER-FLAT	1.86	11.16T
6	3296-39	NUT-LOCK, NI 3/8"-16 nyloc	2.94	17.64T
3	ECH 102922455	SAFETY GLASSES - TIGER	15.00	45.00T
3	ECH 102922457	SAFETY GLASSES - JET	15.00	45.00T

Received By

Sales Tax (7.75%)	$44.86
Total	$623.74

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR PACIFIC EQUIPMENT DATE 3/31/23

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 014095

PROJECT PARTS / PPE SITE/DEPARTMENT GROUNDS

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

PARTS FOR EX-MARK LAWN MOWERS, SAFETY GLASSES PPE

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

Pacific Equipment

3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

Invoice

Date	Invoice #
4/10/2023	51554

Bill To	Ship To
Rio School District 1800 Solar Dr. 3rd Floor Oxnard, CA 93030	

P.O. Number	Terms	Rep	Ship
B23-0005	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
1	ECH DPB-2500C1	56V HH BLOWER W/2.5AH BATT/CHRG	199.99	199.99T
1	ECH LBP-56V250A	56V LI-ION BATTERY - 5.0AH	266.65	266.65T

Sales Tax (7.75%)	$36.16
Total	$502.80

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR PACIFIC EQUIPMENT DATE 4/10/23

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 014095

PROJECT NEW BLOWER FOR CUSPPIANS SITE/DEPARTMENT RIO DEL NORTE

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

NEW BATTERY BLOWER AND EXTRA BATTERY FOR RIO DEL NORTE CUSTODIANS (REFERENCE WORK ORDER 32463)

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichtner

PATRICK

PurchaseRequest

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009050095

ISSUE DATE: 05/22/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********910.69

VOID AFTER SIX MONTHS

PAY NINE HUNDRED TEN AND 69/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

TO THE ORDER OF

PACIFIC EQUIPMENT
3897 N SOUTH BANK ROAD
OXNARD, CA 93036

⑈5009050095⑈ ⑆121000248⑆ 4174387878⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $910.69

VENDOR NAME: PACIFIC EQUIPMENT 713151/1 CHECK NUMBER: 5009050095 DATE: 05/22/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
05/01/2023	51634	B23-00055	R23-00140		284.37
05/05/2023	51652	B23-00055	R23-00140		229.98
05/05/2023	51653	B23-00055	R23-00140		396.34

0153273

B23-00055

Pacific Equipment
3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

Invoice

Date	Invoice #
5/1/2023	51634

Bill To	Ship To
Rio School District **1800 Solar Dr. 3rd Floor** **Oxnard, CA 93030**	

P.O. Number	Terms	Rep	Ship
B23-0005	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
8	116-5171-S ROT	BLADE 24-1/2" X 15/16" EXMARK COMMERCIAL MULCH	32.99	263.92T

Sales Tax (7.75%)	$20.45
Total	$284.37

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR PACIFIC EQUIPMENT DATE 5/1/23

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER ___-_____-____-_-____-____-___-___-_____-_

SHORT ACCOUNT NUMBER 014095

PROJECT LAWN MOWER BLADES SITE/DEPARTMENT GROUNDS

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

NEW BLADES FOR EXMARK MOWERS

Attach receipt/paperwork and send to Purchasing

Signature of Employee PATRICK Signature of Supervisor Charles Fichter

B23-00055

Pacific Equipment
3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

Invoice

Date	Invoice #
5/5/2023	51652

Bill To	Ship To
Rio School District **1800 Solar Dr. 3rd Floor** **Oxnard, CA 93030**	

P.O. Number	Terms	Rep	Ship
B23-0005	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
8	109-9220 EX	Screw, SEMS (1/2-20 x 2.19, Gr5)	6.69	53.52T
8	103-3037 ROT	Bushing-Splined	19.99	159.92T

Received By

Sales Tax (7.75%)	$16.54
Total	$229.98

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR PACIFIC EQUIPMENT DATE 5/5/23

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 014095

PROJECT EQUIPMENT PARTS SITE/DEPARTMENT GROUNDS

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

PARTS FOR EXMARK RIDING MOWERS

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

PATRICK

B23-00055

Pacific Equipment

3897 N. Southbank Rd.
Oxnard, CA 93036
805-983-4000
www.toropacific.com

Invoice

Date	Invoice #
5/5/2023	51653

Bill To	Ship To
Rio School District **1800 Solar Dr. 3rd Floor** **Oxnard, CA 93030**	

P.O. Number	Terms	Rep	Ship
B23-0005	Net 30	GVB	

QTY	Item Code	Description	Price Each	Amount
3	6479 ROT	JOHN DEERE BLADE 21" X 7/8"	23.95	71.85T
1	ECH 99944200532	SPLIT BOOM POWER PRUNER ATTCH SER# S068002173247	225.99	225.99T
1	ECH 99944200536	3 ft. Extension for Power Pruner	69.99	69.99T
		Subtotal		367.83
		Sales Tax (7.75%)		$28.51
		Total		$396.34

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR PACIFIC EQUIPMENT DATE 5/5/23

PURCHASE ORDER NUMBER ASSIGNED B23-00055

ACCOUNT NUMBER _ _ _ - _ _ _ _ - _ _ _ _ - _ - _ _ _ _ - _ _ _ _ - _ _ _ - _ _ _ - _ _ _ _ - _

SHORT ACCOUNT NUMBER 014095

PROJECT EQUIPMENT PARTS/ACCESORIES SITE/DEPARTMENT GROUNDS

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

JOHN DEERE LAWN MOWER BLADES / ECHO MACHINE ACCESORIES

Attach receipt/paperwork and send to Purchasing

Signature of Employee PATRICK Signature of Supervisor Charles Fichter

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009050412

ISSUE DATE: 06/15/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,109.89

VOID AFTER SIX MONTHS

PAY ONE THOUSAND ONE HUNDRED NINE AND 89/100 DOLLARS**********

TO THE ORDER OF

PARKHOUSE TIRE, INC.
PO BOX 2430
BELL GARDENS, CA 90202-2430

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009050412⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,109.89

VENDOR NAME: PARKHOUSE TIRE, INC. 712843/2 CHECK NUMBER: 5009050412 DATE: 06/15/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
05/30/2023	4020173709	B23-00017	R23-00093		1,109.89

0161768

ORIGINAL

B23-00017 Kaydon

Parkhouse TIRE, INC.

MEMBER ATTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020173709

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ PTI YARD
OXNARD, CA
93030

BUSINESS: 805/485-3111 0
PO NUMBER: B22-00077
VEHICLE: BUS 4
SALESMAN: CARLOS GAYTAN
LICENSE: E994230 CA MILEAGE: 188478
INVOICE DATE: 05/30/23
DUE: 06/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
000278	12R22.5 H BST R268 ECOPIA	2	434.40	868.80
CRF	CA. RECYCLING FEE - NON-TAXABLE	2	1.75	3.50
SCHOOL BUS PRGRM				
YL12	YARD DISMOUNT/MOUNT-ON VEHICLE	2	32.00	64.00
YL16	COMPUTER SPIN BALANCE MED. TRK	2	35.00	70.00
SP6	TR-572 3 3/4 BRASS VALVE STEM	2	10.63	21.26

INSTALLED STEERS(2)/OFF TIRES FOR CC/ TECH ALEX JACINTO
05/30/23 11:22:44 MRG

MERCHANDISE:	890.06
LABOR:	134.00
OTHER:	3.50
SALES TAX:	82.33
INVOICE TOTAL:	1109.89
ON ACCOUNT A/R	1109.89

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
For qualified commercial and wholesale accounts terms of net 10th prox are extended. All account balances are due in full on or before the 10th day of the month following the month of sale.

Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
SAN DIEGO • 4660 RUFFNER STREET • SAN DIEGO, CA 92111 • (858) 565-8473 • FAX (858) 292-9018
ESCONDIDO • 841 ROCK SPRINGS ROAD • ESCONDIDO, CA 92025 • (760) 291-1199 • FAX (760) 291-0201
BAKERSFIELD • 115 UNION AVENUE • BAKERSFIELD, CA 93307 • (661) 324-4532 • FAX (661) 324-4590
INLAND EMPIRE • 13655 SANTA ANA AVENUE • FONTANA, CA 92337 • (909) 428-1415 • FAX (909) 428-0257
PALM SPRINGS / INDIO • 72171 VARNER ROAD • THOUSAND PALMS, CA 92276 • (760) 343-1018 • FAX (760) 343-1022
VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
ORANGE COUNTY • 711 S. GRAND AVENUE • SANTA ANA, CA 92705 • (714) 542-4161 • FAX (714) 542-4676
VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

Susan Eskridge <seskridge@rioschools.org>

PARKHOUSE TIRE B23-00017 #4020173709

2 messages

Susan Eskridge <seskridge@rioschools.org> Tue, Jun 13, 2023 at 8:20 AM
To: Kayden Orozco <korozco@rioschools.org>

Hi Kayden,

Is the attached invoice ok to pay?

Thanks,

Susie

PARKHOUSE TIRE B23-00017 #4020173709.pdf
309K

Kayden Orozco <korozco@rioschools.org> Tue, Jun 13, 2023 at 9:00 AM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210/81

CHECK NO: 5009051118

ISSUE DATE: 08/14/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********3,873.37

VOID AFTER SIX MONTHS

PAY THREE THOUSAND EIGHT HUNDRED SEVENTY THREE AND 37/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

PARKHOUSE TIRE, INC.
PO BOX 2430
BELL GARDENS, CA 90202-2430

⑈5009051118⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $3,873.37

VENDOR NAME: PARKHOUSE TIRE, INC. 712843/2 CHECK NUMBER: 5009051118 DATE: 08/14/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
07/17/2023	4020174963	B24-00092	R24-00081		912.57
07/19/2023	4020175060	B24-00092	R24-00081		2,960.80

0179158

ORIGINAL

Parkhouse TIRE, INC.

MEMBER ATTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

B24-00092

INVOICE #: 4020174963

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ OXNARD PTI

BUSINESS: 805/485-3111 0
PO NUMBER: B22-00077
VEHICLE: TRK 28
SALESMAN: JOSH CALDERON SR
MILEAGE: 1
INVOICE DATE: 07/17/23
DUE: 08/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
000019	LT265/70R17 E BST D-A/T-REVO 3	4	183.91	735.64
CRF	CA. RECYCLING FEE - NON-TAXABLE	4	1.75	7.00
YL15	COMPUTER SPIN BALANCE LT TRUCK	4	22.00	88.00
SP12	HIGH TEMPERATURE VALVE CORE	4	.66	2.64
D2	DISPOSAL/ENVIRONMENTAL FEE L TRK	2	5.50	11.00

2 OFF TIRES BACK WITH DRIVER
7-17-23 ALL TIRE POS TECH: JERAMIE
JT/JML

MERCHANDISE:	749.28
LABOR:	88.00
OTHER:	7.00
SALES TAX:	68.29
INVOICE TOTAL:	912.57
ON ACCOUNT A/R	912.57

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
For qualified commercial and wholesale accounts terms of net 10th prox are extended. All account balances are due in full on or before the 10th day of the month following the month of sale.

Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
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VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
ORANGE COUNTY • 711 S. GRAND AVENUE • SANTA ANA, CA 92705 • (714) 542-4161 • FAX (714) 542-4676
VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

DELIVERY COPY

Parkhouse TIRE, INC.

MEMBER ACTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020174963

B24-00092
UNIT
28

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ OXNARD PTI

BUSINESS: 805/485-3111 0
PO NUMBER: B22-00077
VEHICLE: TRK 28
SALESMAN: JOSH CALDERON SR
MILEAGE: 1
INVOICE DATE: 07/17/23
DUE: 08/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
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CRF	CA. RECYCLING FEE - NON-TAXABLE	4	1.75	7.00
YL15	COMPUTER SPIN BALANCE LT TRUCK	4	22.00	88.00
SP12	HIGH TEMPERATURE VALVE CORE	4	.66	2.64
D2	DISPOSAL/ENVIRONMENTAL FEE L TRK	2	5.50	11.00

2 OFF TIRES BACK WITH DRIVER
7-17-23 ALL TIRE POS TECH: JERAMIE
JT/JML

MERCHANDISE:	749.28
LABOR:	88.00
OTHER:	7.00
SALES TAX:	68.29
INVOICE TOTAL:	912.57
ON ACCOUNT A/R	912.57

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Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
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PALM SPRINGS / INDIO • 72171 VARNER ROAD • THOUSAND PALMS, CA 92276 • (760) 343-1018 • FAX (760) 343-1022
VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
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VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Part-House Tire DATE 7/18/2023

PURCHASE ORDER NUMBER ASSIGNED B 2400092

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT UNIT 28 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Replace Four Tires

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichtner

ORIGINAL

Parkhouse TIRE, INC.

MEMBER ATTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020175060

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ OXNARD PTI

BUSINESS: 805/485-3111 0

PO NUMBER: # B24-00092

VEHICLE: UNIT 1

SALESMAN: JOSH CALDERON SR LICENSE: 1545783 CA MILEAGE: 22724

INVOICE DATE: 07/19/23 DUE: 08/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
000278	12R22.5 H BST R268 ECOPIA	6	388.50	2331.00
CRF	CA. RECYCLING FEE - NON-TAXABLE	6	1.75	10.50
***SCHOOL BUS PRGRM**				
YL12	YARD DISMOUNT/MOUNT-ON VEHICLE	6	32.00	192.00
YL16	COMPUTER SPIN BALANCE MED. TRK	2	35.00	70.00
SP6	TR-572 3 3/4 BRASS VALVE STEM	6	10.63	63.78
D3	DISPOSAL/ENVIRONMENTAL FEE TRUCK	6	12.00	72.00

7-19-23 ALL TIRE POS TECH: JACINTO/ALEX
JT/JO

MERCHANDISE:	2466.78
LABOR:	262.00
OTHER:	10.50
SALES TAX:	221.52
INVOICE TOTAL:	2960.80

ON ACCOUNT A/R 2960.80

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
For qualified commercial and wholesale accounts terms of net 10th prox are extended. All account balances are due in full on or before the 10th day of the month following the month of sale.

Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X

Print Name

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
SAN DIEGO • 4660 RUFFNER STREET • SAN DIEGO, CA 92111 • (858) 565-8473 • FAX (858) 292-9018
ESCONDIDO • 841 ROCK SPRINGS ROAD • ESCONDIDO, CA 92025 • (760) 291-1199 • FAX (760) 291-0201
BAKERSFIELD • 115 UNION AVENUE • BAKERSFIELD, CA 93307 • (661) 324-4532 • FAX (661) 324-4590
INLAND EMPIRE • 13655 SANTA ANA AVENUE • FONTANA, CA 92337 • (909) 428-1415 • FAX (909) 428-0257
PALM SPRINGS / INDIO • 72171 VARNER ROAD • THOUSAND PALMS, CA 92276 • (760) 343-1018 • FAX (760) 343-1022
VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
ORANGE COUNTY • 711 S. GRAND AVENUE • SANTA ANA, CA 92705 • (714) 542-4161 • FAX (714) 542-4676
VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

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Parkhouse TIRE, INC.

MEMBER ATTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020175060

PAGE: 1

#1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ OXNARD PTI

BUSINESS: 805/485-3111 0
PO NUMBER: #
VEHICLE: UNIT 1
SALESMAN: JOSH CALDERON SR
LICENSE: 1545783
CA MILEAGE: 22724
INVOICE DATE: 07/19/23
DUE: 08/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
000278	12R22.5 H BST R268 ECOPIA	6	388.50	2331.00
CRF	CA. RECYCLING FEE - NON-TAXABLE	6	1.75	10.50
***SCHOOL BUS PRGRM**				
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YL16	COMPUTER SPIN BALANCE MED. TRK	2	35.00	70.00
SP6	TR-572 3 3/4 BRASS VALVE STEM	6	10.63	63.78
D3	DISPOSAL/ENVIRONMENTAL FEE TRUCK	6	12.00	72.00

7-19-23 ALL TIRE POS TECH: JACINTO/ALEX
JT/JO

MERCHANDISE:	2466.78
LABOR:	262.00
OTHER:	10.50
SALES TAX:	221.52
INVOICE TOTAL:	2960.80

ON ACCOUNT A/R 2960.80

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
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Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY · 5960 SHULL STREET · BELL GARDENS, CA 90201 · (562) 927-8333 · FAX (562) 928-6750
LOS ANGELES · 11764 SHELDON STREET · SUN VALLEY, CA 91352 · (818) 767-4929 · FAX (818) 767-4913
SAN DIEGO · 4660 RUFFNER STREET · SAN DIEGO, CA 92111 · (858) 565-8473 · FAX (858) 292-9018
ESCONDIDO · 841 ROCK SPRINGS ROAD · ESCONDIDO, CA 92025 · (760) 291-1199 · FAX (760) 291-0201
BAKERSFIELD · 115 UNION AVENUE · BAKERSFIELD, CA 93307 · (661) 324-4532 · FAX (661) 324-4590
INLAND EMPIRE · 13655 SANTA ANA AVENUE · FONTANA, CA 92337 · (909) 428-1415 · FAX (909) 428-0257
PALM SPRINGS / INDIO · 72171 VARNER ROAD · THOUSAND PALMS, CA 92276 · (760) 343-1018 · FAX (760) 343-1022
VICTORVILLE · 16350 "D" STREET · VICTORVILLE, CA 92392 · (760) 241-4455 · FAX (760) 241-6744
ORANGE COUNTY · 711 S. GRAND AVENUE · SANTA ANA, CA 92705 · (714) 542-4161 · FAX (714) 542-4676
VENTURA COUNTY · 663 MAULHARDT AVENUE · OXNARD, CA 93030 · (805) 604-0461 · FAX (805) 604-0851
EL CENTRO · 1002 S. DOGWOOD ROAD · EL CENTRO, CA 92243 · (760) 353-5500 · FAX (760) 353-5501

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Park House Tire DATE 7/19/2023

PURCHASE ORDER NUMBER ASSIGNED B 2400492

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039999

PROJECT Bus #1 SITE/DEPARTMENT M.O.T

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Replace six tires

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009051296

ISSUE DATE: 08/29/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********2,767.53

VOID AFTER SIX MONTHS

PAY TWO THOUSAND SEVEN HUNDRED SIXTY SEVEN AND 53/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

PARKHOUSE TIRE, INC.
PO BOX 2430
BELL GARDENS, CA 90202-2430

Dr. C. Morales

⑈5009051296⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $2,767.53

VENDOR NAME: PARKHOUSE TIRE, INC. 712843/2 CHECK NUMBER: 5009051296 DATE: 08/29/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
08/04/2023	4020175525	B24-00092	R24-00081		2,767.53

0184794

ORIGINAL

Parkhouse TIRE, INC.

MEMBER ATCTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020175525

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ OXNARD PTI

BUSINESS: 805/485-3111 0
PO NUMBER: B24-00092
VEHICLE: BUS9
SALESMAN: JOSH CALDERON SR
LICENSE: 1348302
CA MILEAGE: 100497
INVOICE DATE: 08/04/23
DUE: 09/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
248817	11R22.5 H BST R268 ECOPIA	6	370.00	2220.00
CRF	CA. RECYCLING FEE - NON-TAXABLE	6	1.75	10.50
YL12	YARD DISMOUNT/MOUNT-ON VEHICLE	6	32.00	192.00
YL16	COMPUTER SPIN BALANCE MED. TRK	2	35.00	70.00
SP6	TR-572 3 3/4 BRASS VALVE STEM	6	10.63	63.78

SCHOOL BUS PRGRM--OFF TIRES FOR POSSIBLE CREDIT
8-4-23 ALL TIRE POS TECH: JERAMIE/JACINTO
JT/JO

MERCHANDISE:	2283.78
LABOR:	262.00
OTHER:	10.50
SALES TAX:	211.25
INVOICE TOTAL:	2767.53
ON ACCOUNT A/R	2767.53

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
For qualified commercial and wholesale accounts terms of net 10th prox are extended. All account balances are due in full on or before the 10th day of the month following the month of sale.

Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
SAN DIEGO • 4660 RUFFNER STREET • SAN DIEGO, CA 92111 • (858) 565-8473 • FAX (858) 292-9018
ESCONDIDO • 841 ROCK SPRINGS ROAD • ESCONDIDO, CA 92025 • (760) 291-1199 • FAX (760) 291-0201
BAKERSFIELD • 115 UNION AVENUE • BAKERSFIELD, CA 93307 • (661) 324-4532 • FAX (661) 324-4590
INLAND EMPIRE • 13655 SANTA ANA AVENUE • FONTANA, CA 92337 • (909) 428-1415 • FAX (909) 428-0257
PALM SPRINGS / INDIO • 72171 VARNER ROAD • THOUSAND PALMS, CA 92276 • (760) 343-1018 • FAX (760) 343-1022
VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
ORANGE COUNTY • 711 S. GRAND AVENUE • SANTA ANA, CA 92705 • (714) 542-4161 • FAX (714) 542-4676
VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Park House Tire DATE 8/14/2023

PURCHASE ORDER NUMBER ASSIGNED B2400092

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 039995

PROJECT Bus #9 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

6 New Tires

Attach receipt/paperwork and send to Purchasing

Signature of Employee _____ Signature of Supervisor Charles Fichter

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009051683

ISSUE DATE: 09/28/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2024

AMOUNT
$********1,033.60

VOID AFTER SIX MONTHS

PAY ONE THOUSAND THIRTY THREE AND 60/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

PARKHOUSE TIRE, INC.
PO BOX 2430
BELL GARDENS, CA 90202-2430

⑈5009051683⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,033.60

VENDOR NAME: PARKHOUSE TIRE, INC. 712843/2 CHECK NUMBER: 5009051683 DATE: 09/28/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
09/08/2023	4020176371	B24-00092	R24-00081		1,033.60

0192801

ORIGINAL

Parkhouse TIRE, INC.

MEMBER ATTN AMERICAN COMMERCIAL TIRE NETWORK

PARKHOUSE TIRE - OXNARD
663 MAULHARDT AVENUE

OXNARD, CA 93030

805/604-0461

INVOICE #: 4020176371

PAGE: 1

CUSTOMER: RIO SCHOOL DISTRICT
1800 SOLAR DR 3RD FLOOR
19294
OXNARD CA
9303000000

SHIP TO: WORK DONE @ PARKHOUSE
OXNARD, CA
93030

BUSINESS: 805/485-3111 0
PO NUMBER: B24-00092
VEHICLE: BUS 2
SALESMAN: JOSH CALDERON SR
LICENSE: 1541653
CA MILEAGE: 40751
INVOICE DATE: 09/08/23
DUE: 10/10/23

PRODUCT	DESCRIPTION	QUANTITY	PRICE	EXTENSION
000278	12R22.5 H BST R268 ECOPIA	2	388.50	777.00
CRF	CA. RECYCLING FEE - NON-TAXABLE	2	1.75	3.50
SCHOOL BUS PRGRM				
YL12	YARD DISMOUNT/MOUNT-ON VEHICLE	2	32.00	64.00
YL16	COMPUTER SPIN BALANCE MED. TRK	2	35.00	70.00
SP6	TR-572 3 3/4 BRASS VALVE STEM	2	10.63	21.26
D3	DISPOSAL/ENVIRONMENTAL FEE TRUCK	2	12.00	24.00
9-8-23 STEERS	TECH: NATHAN/JACINTO			
JO				

MERCHANDISE:	822.26
LABOR:	134.00
OTHER:	3.50
SALES TAX:	73.84
INVOICE TOTAL:	1033.60
ON ACCOUNT A/R	1033.60

UNIMOUNT WHEELS REQUIRE RE-TORQUING AT 50 TO 100 MI. AFTER INSTALLS.

TERMS:
For qualified commercial and wholesale accounts terms of net 10th prox are extended. All account balances are due in full on or before the 10th day of the month following the month of sale.

Please remit all payments to:
PARKHOUSE TIRE, INC.
P.O. BOX 2430 • BELL GARDENS, CA 90202
TELEPHONE: (562) 928-0421

MERCHANDISE OR SERVICE RECEIVED BY:

Customer Signature X _____

Print Name _____

LOS ANGELES COUNTY • 5960 SHULL STREET • BELL GARDENS, CA 90201 • (562) 927-8333 • FAX (562) 928-6750
LOS ANGELES • 11764 SHELDON STREET • SUN VALLEY, CA 91352 • (818) 767-4929 • FAX (818) 767-4913
SAN DIEGO • 4660 RUFFNER STREET • SAN DIEGO, CA 92111 • (858) 565-8473 • FAX (858) 292-9018
ESCONDIDO • 841 ROCK SPRINGS ROAD • ESCONDIDO, CA 92025 • (760) 291-1199 • FAX (760) 291-0201
BAKERSFIELD • 115 UNION AVENUE • BAKERSFIELD, CA 93307 • (661) 324-4532 • FAX (661) 324-4590
INLAND EMPIRE • 13655 SANTA ANA AVENUE • FONTANA, CA 92337 • (909) 428-1415 • FAX (909) 428-0257
PALM SPRINGS / INDIO • 72171 VARNER ROAD • THOUSAND PALMS, CA 92276 • (760) 343-1018 • FAX (760) 343-1022
VICTORVILLE • 16350 "D" STREET • VICTORVILLE, CA 92392 • (760) 241-4455 • FAX (760) 241-6744
ORANGE COUNTY • 711 S. GRAND AVENUE • SANTA ANA, CA 92705 • (714) 542-4161 • FAX (714) 542-4676
VENTURA COUNTY • 663 MAULHARDT AVENUE • OXNARD, CA 93030 • (805) 604-0461 • FAX (805) 604-0851
EL CENTRO • 1002 S. DOGWOOD ROAD • EL CENTRO, CA 92243 • (760) 353-5500 • FAX (760) 353-5501

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Park House Tire DATE 9/14/2023

PURCHASE ORDER NUMBER ASSIGNED B2400092

ACCOUNT NUMBER _____

SHORT ACCOUNT NUMBER 034995

PROJECT Bus # 2 SITE/DEPARTMENT MOT

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Replace Two Front Tires

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049280

ISSUE DATE: 03/30/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,533.39

VOID AFTER SIX MONTHS

PAY ONE THOUSAND FIVE HUNDRED THIRTY THREE AND 39/100 DOLLARS**********

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

TO THE ORDER OF

VELOCITY TRUCK CENTER
PO BOX 101284
PASADENA, CA 91189-1284

⑈5009049280⑈ ⑆121000248⑆ 417438787⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,533.39

VENDOR NAME: VELOCITY TRUCK CENTER 711318/3 CHECK NUMBER: 5009049280 DATE: 03/30/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/13/2023	XA400070163-01	B23-00021	R23-00098		318.07
03/14/2023	XA400070467-01	B23-00021	R23-00098		1,215.32

0137108

B23-00021 Kayden

PARTS INVOICE # XA400070467:01

Buswest
A Division of Velocity Vehicle Group
21107 Chico St
CARSON, CA 90745
(866) 707-7800
www.VelocityVehicleGroup.com

Please Remit Payment to:
Buswest, LLC
PO Box 101284
Pasadena, CA 91189-1284

Paperless: Yes

Date Shipped:	3/14/2023
Date Invoice:	3/14/2023
Terms:	30
PO#	B17-00118
Ship Via	Dropship to Customer
Salesperson:	PETE. S (10202)
Unit ID:	
VIN#	

Bill to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD, CA 93030
P: (805) 485-3914

Deliver to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD CA 93030
P: (805) 485-3914

QTY SHP	QTY B/O	ITEM	DESCRIPTION	BIN 1	Bin 2	UNIT PRICE	EXTD PRICE
2	2	400Z/2211898C1	ROOF HATCH-INTERNATIONAL	NOLOC	NOLOC	514.97	1,029.94
		DROP SHIP					
1		IBFRT	INBOUND FREIGHT			90.11	90.11

QC: _____

SUB-TOTAL	$ 1,029.94
TAX	$ 95.27
SHIPPING	$ 90.11
TOTAL	**$ 1,215.32**

Disclaimers of Warranties
Any warranties on the product sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither assumes nor authorizes any other person to assume for it any liability in connections with the sale of said merchandise.

Return Policy
No returns without invoice. No return on electrical parts. No return on special orders. 20% restocking charge on returns. No returns after 30 days including cores. Core credited after inspection. Cash refunds in excess of $500 will be refunded by check, all other payments will be refunded in the tender which was submitted.

California Prop 65 Warning : Diesel Engine Exhaust and/or Chemicals are known to the State of California to cause cancer, reproductive harm or birth defects including Cumene, Ethylbenzene, n-Hexane, Methyl isobutyl ketona, Silica, Tetrafluoroethylene, Titanium dioxice and toluene. These Chemicals can be found in items sold in the Parts Department, distributed to employees in the Service Department or inhaled on Facility Property. For more information go to www.P65Warnings.ca.gov (Title 27 Sec. 25603,25604,25605,25506)

SIGNATURE X _____

Paid by: NET 30 **Origin:**

B23 00021 Hayden

PARTS INVOICE # XA400070163:01

Buswest
A Division of Velocity Vehicle Group
21107 Chico St
CARSON, CA 90745
(866) 707-7800
www.VelocityVehicleGroup.com

Please Remit Payment to:
Buswest, LLC
PO Box 101284
Pasadena, CA 91189-1284

Paperless: Yes

Date Shipped:	3/7/2023
Date Invoice:	3/13/2023
Terms:	30
PO#	B17-00118
Ship Via	Dropship to Customer
Salesperson:	PETE. S (10202)
Unit ID:	
VIN#	

Bill to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD, CA 93030
P: (805) 485-3914

Deliver to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD CA 93030
P: (805) 485-3914

QTY SHP	QTY B/O	ITEM	DESCRIPTION	BIN 1	Bin 2	UNIT PRICE	EXTD PRICE
2		400Z/ICB 2006987C91	SHIFT HANDLE ASSY	NOLOC	NOLOC	123.99	247.98
		DROP SHIP					
1		IBFRT	INBOUND FREIGHT			47.15	47.15

Disclaimers of Warranties
Any warranties on the product sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither assumes nor authorizes any other person to assume for it any liability in connections with the sale of said merchandise.

QC: _____
_____

SUB-TOTAL	$ 247.98
TAX	$ 22.94
SHIPPING	$ 47.15
TOTAL	**$ 318.07**

Return Policy
No returns without invoice. No return on electrical parts. No return on special orders. 20% restocking charge on returns. No returns after 30 days including cores. Core credited after inspection. Cash refunds in excess of $500 will be refunded by check, all other payments will be refunded in the tender which was submitted.

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SIGNATURE X _____

Paid by: NET 30 **Origin:**

3/13/23 4:08 pm

Susan Eskridge <seskridge@rioschools.org>

BUSWEST B23-00021 #XA400070467-01 & #XA400070163-01

2 messages

Susan Eskridge <seskridge@rioschools.org> Wed, Mar 29, 2023 at 12:23 PM
To: Kayden Orozco <korozco@rioschools.org>

Hi Kayden,

Are the attached invoices ok to pay?

Thanks,

Susie

2 attachments

BUSWEST #XA400070467-01.pdf
281K

BUSWEST #XA400070163-01.pdf
283K

Kayden Orozco <korozco@rioschools.org> Wed, Mar 29, 2023 at 12:24 PM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION

VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049451

ISSUE DATE: 04/11/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$********1,323.33

VOID AFTER SIX MONTHS

PAY ONE THOUSAND THREE HUNDRED TWENTY THREE AND 33/100 DOLLARS**********

TO THE ORDER OF

VELOCITY TRUCK CENTER
PO BOX 101284
PASADENA, CA 91189-1284

EXAMINED, APPROVED & ALLOWED

DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009049451⑈ ⑆121000248⑆ 417438787 8⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $1,323.33

VENDOR NAME: VELOCITY TRUCK CENTER 711318/3 CHECK NUMBER: 5009049451 DATE: 04/11/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/22/2023	XA400070467-02	B23-00021	R23-00098		1,189.21
03/22/2023	XA400070837-01	B23-00021	R23-00098		134.12

0139455

Rayden B23-00021

PARTS INVOICE # XA400070837:01

Buswest
A Division of Velocity Vehicle Group
21107 Chico St
CARSON, CA 90745
(866) 707-7800
www.VelocityVehicleGroup.com

Please Remit Payment to:
Buswest, LLC
PO Box 101284
Pasadena, CA 91189-1284

Paperless: Yes

Date Shipped:	3/22/2023
Date Invoice:	3/22/2023
Terms:	30
PO#	B17-00118
Ship Via	Ship to Customer
Salesperson:	PETE. S (10202)
Unit ID:	
VIN#	

Bill to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD, CA 93030
P: (805) 485-3914

Deliver to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD CA 93030
P: (805) 485-3914

QTY SHP	QTY B/O	ITEM	DESCRIPTION	BIN 1	Bin 2	UNIT PRICE	EXTD PRICE
1		400x/10001973	CUP HOLDER	NOLOC	NOLOC	47.17	47.17
2		400x/10051382	BLADE-WIPER	NOLOC	NOLOC	25.17	50.34
		UPS GROUND 1ZA4757W0347721735					
1		OBFRT	OUTBOUND FREIGHT			27.59	27.59
		PULLED: TS					

Disclaimers of Warranties
Any warranties on the product sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither assumes nor authorizes any other person to assume for it any liability in connections with the sale of said merchandise.

QC: _____
_____

SUB-TOTAL	$ 97.51
TAX	$ 9.02
SHIPPING	$ 27.59
TOTAL	**$ 134.12**

Return Policy
No returns without invoice. No return on electrical parts. No return on special orders. 20% restocking charge on returns. No returns after 30 days including cores. Core credited after inspection. Cash refunds in excess of $500 will be refunded by check, all other payments will be refunded in the tender which was submitted.

California Prop 65 Warning : Diesel Engine Exhaust and/or Chemicals are known to the State of California to cause cancer, reproductive harm or birth defects including Cumene, Ethylbenzene, n-Hexane, Methyl isobutyl ketona, Silica, Tetrafluoroethylene, Titanium dioxice and toluene. These Chemicals can be found in items sold in the Parts Department, distributed to employees in the Service Department or inhaled on Facility Property. For more information go to www.P65Warnings.ca.gov (Title 27 Sec. 25603,25604,25605,25506)

SIGNATURE X _____

Paid by: NET 30 **Origin:**

B23-00021

PARTS INVOICE # XA400070467:02

Buswest
A Division of Velocity Vehicle Group
21107 Chico St
CARSON, CA 90745
(866) 707-7800
www.VelocityVehicleGroup.com

Please Remit Payment to:
Buswest, LLC
PO Box 101284
Pasadena, CA 91189-1284

Paperless: Yes

Date Shipped:	3/14/2023
Date Invoice:	3/22/2023
Terms:	30
PO#	B17-00118
Ship Via	Dropship to Customer
Salesperson:	PETE. S (10202)
Unit ID:	
VIN#	

Bill to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD, CA 93030
P: (805) 485-3914

Deliver to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD CA 93030
P: (805) 485-3914

QTY SHP	QTY B/O	ITEM	DESCRIPTION	BIN 1	Bin 2	UNIT PRICE	EXTD PRICE
2		400Z/2211898C1	ROOF HATCH-INTERNATIONAL	NOLOC	NOLOC	514.97	1,029.94
		DROP SHIP					
1		IBFRT	INBOUND FREIGHT			64.00	64.00

Disclaimers of Warranties
Any warranties on the product sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither assumes nor authorizes any other person to assume for it any liability in connections with the sale of said merchandise.

Return Policy
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California Prop 65 Warning : Diesel Engine Exhaust and/or Chemicals are known to the State of California to cause cancer, reproductive harm or birth defects including Cumene, Ethylbenzene, n-Hexane, Methyl isobutyl ketona, Silica, Tetrafluoroethylene, Titanium dioxice and toluene. These Chemicals can be found in items sold in the Parts Department, distributed to employees in the Service Department or inhaled on Facility Property. For more information go to www.P65Warnings.ca.gov (Title 27 Sec. 25603,25604,25605,25506)

QC: _____

SUB-TOTAL	$ 1,029.94
TAX	$ 95.27
SHIPPING	$ 64.00
TOTAL	**$ 1,189.21**

SIGNATURE X _____

Paid by: NET 30 **Origin:**

Susan Eskridge <seskridge@rioschools.org>

BUSWEST XA400070837-01, XA400070467-02, XA410040811-01

2 messages

Susan Eskridge <seskridge@rioschools.org> Fri, Mar 31, 2023 at 2:46 PM
To: Kayden Orozco <korozco@rioschools.org>

Hello,

Please see the attached invoices and let me know if all items have been received and they're okay to pay.

Thank you,

Susie
Ext 2107

BUSWEST XA40070467-02, XA400070837-01, XA410040811-01.pdf
858K

Kayden Orozco <korozco@rioschools.org> Fri, Mar 31, 2023 at 2:58 PM
To: Susan Eskridge <seskridge@rioschools.org>

okay to pay

Kayden Orozco
Department Manager
Maintenance, Operations, and Transportation Department
Rio School District
(805) 983-1329

[Quoted text hidden]

ORIGINAL DOCUMENT CONTAINS A COLORED BACKGROUND ON WHITE PAPER. VOID WITHOUT BACKGROUND.

VENTURA COUNTY OFFICE OF EDUCATION
VENTURA COUNTY, CALIFORNIA

WELLS FARGO BANK,N.A

11-24
1210(8)

CHECK NO: 5009049337

ISSUE DATE: 04/04/23

DISTRICT NAME: Rio Elementary School District

FUND NUMBER: 7900 FISCAL YEAR: 2023

AMOUNT
$**********294.37

VOID AFTER SIX MONTHS

PAY TWO HUNDRED NINETY FOUR AND 37/100 DOLLARS**********

TO THE ORDER OF
VELOCITY TRUCK CENTER
PO BOX 101284
PASADENA, CA 91189-1284

EXAMINED, APPROVED & ALLOWED
DR. CÉSAR MORALES
COUNTY SUPERINTENDENT OF SCHOOLS

Dr. C. A. Morales

⑈5009049337⑈ ⑆121000248⑆ 417438787⑧⑈

DISTRICT NAME: Rio Elementary School District (805)485-3111 CHECK AMOUNT: $294.37

VENDOR NAME: VELOCITY TRUCK CENTER 711318/3 CHECK NUMBER: 5009049337 DATE: 04/04/23

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	REQUISITION NO.	CREDIT AMOUNT	INVOICE AMOUNT
03/22/2023	XA410040811-01	B23-00021	R23-00098		294.37

0138203

B23-00021

PARTS INVOICE # XA410040811:01

Buswest North
A Division of Velocity Vehicle Group
210 North East Street
Woodland, CA 95776
(866) 707-7800
www.VelocityVehicleGroup.com

Please Remit Payment to:
Buswest, LLC
PO Box 101284
Pasadena, CA 91189-1284

Paperless: Yes

Date Shipped:	3/22/2023
Date Invoice:	3/22/2023
Terms:	30
PO#	B17-00118
Ship Via	Ship to Customer
Salesperson:	PETE. S (10202)
Unit ID:	
VIN#	

Bill to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD, CA 93030
P: (805) 485-3914

Deliver to:
RIO SCHOOL DISTRICT - 110923
1800 SOLAR DR 3RD FLOOR
OXNARD CA 93030
P: (805) 485-3914

QTY SHP	QTY B/O	ITEM	DESCRIPTION	BIN 1	Bin 2	UNIT PRICE	EXTD PRICE
2		410Z/00126976	WIPER ARM	NOLOC	NOLOC	119.02	238.04
		GLS GROUND					
1		OBFRT	OUTBOUND FREIGHT			34.31	34.31
		GLS TRACKING #: 559048786					

QC: _____

SUB-TOTAL	$ 238.04
TAX	$ 22.02
SHIPPING	$ 34.31
TOTAL	**$ 294.37**

Disclaimers of Warranties
Any warranties on the product sold hereby are those made by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and the seller neither assumes nor authorizes any other person to assume for it any liability in connections with the sale of said merchandise.

Return Policy
No returns without invoice. No return on electrical parts. No return on special orders. 20% restocking charge on returns. No returns after 30 days including cores. Core credited after inspection. Cash refunds in excess of $500 will be refunded by check, all other payments will be refunded in the tender which was submitted.

California Prop 65 Warning : Diesel Engine Exhaust and/or Chemicals are known to the State of California to cause cancer, reproductive harm or birth defects including Cumene, Ethylbenzene, n-Hexane, Methyl isobutyl ketona, Silica, Tetrafluoroethylene, Titanium dioxice and toluene. These Chemicals can be found in items sold in the Parts Department, distributed to employees in the Service Department or inhaled on Facility Property. For more information go to www.P65Warnings.ca.gov (Title 27 Sec. 25603,25604,25605,25506)

SIGNATURE X _____

Paid by: NET 30 **Origin:**

RIO SCHOOL DISTRICT

MAINTENANCE PURCHASE ORDER REQUEST

VENDOR Bus West (Velocity) DATE 3/22/23

PURCHASE ORDER NUMBER ASSIGNED B23-00021

ACCOUNT NUMBER ___-____-____-__-____-____-___-___-____-__

SHORT ACCOUNT NUMBER 039995

PROJECT Bus 52 SITE/DEPARTMENT M.O.T.

REASON FOR PURCHASE AND/OR ITEMS PURCHASED(itemized packing slip is sufficient)

Needs wiper arm replaced

PARTS

Attach receipt/paperwork and send to Purchasing

Signature of Employee [signature] Signature of Supervisor Charles Fichter