RICK™
ENGINEERING COMPANY

August 27, 2009

Mr. David Chantarangsu
City of Glendora
Planning Department
116 East Foothill Boulevard
Glendora, California 91741

SUBJECT: DRAFT/PROGRESS HYDROLOGY REPORT IN SUPPORT OF THE SPECIFIC PLAN FOR DEVELOPMENT OF MONROVIA NURSERY IN THE CITY OF GLENDORA (RICK ENGINEERING COMPANY JOB NUMBER 15927)

Dear David:

At the request of the City of Glendora, Rick Engineering Company has prepared a preliminary hydrology study for the above-mentioned project, titled "Draft/Progress Hydrologic Analyses for Monrovia Nursery," dated June 15, 2009. The report has been prepared to analyze the hydrologic impacts of development for the north and south portions of the City of Glendora Monrovia Nursery project area. Please find a copy of the report as Attachment 1 of this transmittal letter, and a copy of the latest Conceptual Land Plan for the project as Attachment 2.

The purpose of this transmittal is to provide the City of Azusa an opportunity to review the draft conceptual land plan as it may relate to the City of Azusa along the city boundary. As you may be aware from the Monrovia Nursery project in the City of Azusa, portions of the two project areas share the same overall watershed and are tributary to an existing LACDPW storm drain line, 1264 Drain – 78-inch RCP, located adjacent to Citrus Avenue near the railroad crossing. Therefore, during planning stages for the Glendora project, our design team has reviewed the design criteria utilized and approved by the City of Glendora, City of Azusa, and LA County DPW for allowable discharge rates into this downstream storm drain system. A report was prepared by RBF Consulting and approved by all three parties titled "Hydrology Study for MTD 1761, Monrovia Nursery, San Gabriel River Watershed," dated August 8, 2005.

The August 8, 2005 report identified two detention basins that were to be constructed by the City of Azusa project, known as Detention Facilities 2B and 4D, while the storage volume for 4D was also designed to accept runoff from a large area of the Glendora portion of the watershed on a temporary basis. With the development of the Glendora project, an additional Detention Facility, G1, will be constructed at the southwest corner of the Glendora project. With the construction of G1 in this location, the Glendora portion of 4D can be filled and runoff that had been temporarily conveyed to the detention facility 4D will be conveyed within a proposed storm drain system down Baldy Vista Avenue and directed into G1. During later stages of engineering, a geotechnical engineer will provide recommendations for over-excavation and compaction requirements for the filling of this part of G1.

The following provides an overview of the names and locations of detention basins for reference purposes, followed by an overview of the content provided within the draft/progress hydrology study.

Overview for Names and Locations of Detention Basins

Throughout the many previous reports prepared as part of the Azusa project and within the attached report for the Glendora project, several detention basins are discussed and identified. To help provide clarity to the names and locations of these various basins, the basins relevant to the Glendora project are listed below with a brief description:

(Existing) Facility 2B (or Area D Basin), at Node 2a – this is located just west of West Leadora Avenue, on the City of Azusa side of the City boundary line. It was constructed as part of the Azusa project and was designed to discharge less than 40 cfs.

(Existing) Facility 4D (or Citrus Basin) – this is located further south along the City boundary line, and south of the existing Cemetery. It is the basin partially within the City of Azusa, partially within the City of Glendora.

(Proposed) Facility G-1 – this is to be located at the southwest corner of the Glendora project and is intended to replace the Glendora portion of Facility 4D. It would be placed on the northeast corner of the Citrus Avenue and Existing Railroad intersection.

Other Detention Basins – many more detention basins were constructed throughout the Azusa project and are part of the regional detention plan implemented as part of these two projects. However, only the basins listed above are located within the same watershed as the Glendora project.

Overview of Draft/Progress Hydrology Study

It is important to note that only a portion of the preliminary hydrology study has been completed thus far. The initial focus was to prepare the hydrologic and detention analyses for the proposed Glendora project in order to obtain preliminary volumes and discharge rates at each of the detention facilities. Since the project plans to fill the Glendora portion of Detention Facility 4D and redirect the Glendora runoff to Detention Facility G-1, it was important to analyze each of these facilities for the proposed conditions. With respect to Detention Facility 2B, the Glendora project will redirect a small portion of the tributary area away from 2B and into the storm drain system within the Glendora project, therefore, impacts will not be significant for 2B.

The preliminary hydrology study includes a comprehensive analysis of the overall watershed, including both the City of Azusa and City of Glendora project areas that are tributary to the 1264 Drain. For the Glendora project, the existing condition is considered the proposed condition from the City of Azusa project, with the north and south portions of the Glendora project undeveloped. The proposed condition for the Glendora project models the north and south portions as developed, and uses a proposed storm drain alignment that conveys flows from the north to the south within Baldy Vista Avenue to the southwest corner of the project into Facility G-1. For the purposes of the preliminary hydrology study, the previously prepared Tentative Map layouts were utilized for the Glendora project, not the latest Conceptual Land Plan. However, the results are appropriate since the land use assumptions will remain the same, the travel time throughout the study area will remain the same (i.e. – storm drain flow from the north to the southwest corner), and the drainage area boundaries to each detention facility will remain the same.

The results are best summarized in tabular form in Appendix A of the preliminary hydrology study. As shown within the table, Detention Basin 2B will see a decrease in tributary area of about 8.8 acres, a decrease in the maximum Water Surface Elevation (WSEL) of about 0.5-feet, and a decrease in maximum outflow of about 8 cfs (from 34.5 cfs to 27.7 cfs, as compared to the approved August 2005 report). The reductions are due to portions of the Glendora project area no longer draining into the facility, as there are no physical modifications proposed for Detention Basin 2B. Detention Basin 4D will see a decrease in tributary area from 462.1 acres to 181.3 acres, an increase in the maximum WSEL of about 0.9-feet, and a decrease in maximum outflow from 516 cfs to 212 cfs. The increase in the maximum WSEL is acceptable since the maximum WSEL is 678.1-feet, well below the top of basin elevation that is approximately 684-feet. Detention Basin G1 will be constructed as part of the Glendora project and would receive runoff from about 359.3 acres, have a maximum WSEL of 661.6 (plus freeboard), and a maximum outflow of 403 cfs. The resulting discharge rate at Outfall 2C, into LACDPW 1264 Drain (78-inch RCP) would be approximately 630 cfs, less than the approved post-project flow rates in the August 2005 report of 639 cfs, and significantly less than the approved design discharge flowrate of 920 cfs for the 1264 Drain (as stated in the August 2005 report).

Attachments

Attachment 1 – Draft/Progress Hydrologic Analyses for Monrovia Nursery, dated June 15, 2009 (Bound Report)

Attachment 2 – Draft Conceptual Land Plan – "Site Study: North and South Study Areas," dated August 13, 2009. (Two Exhibits)

If you have questions regarding this letter and/or attachments, please contact Brendan Hastie at (619) 291-0707.

Sincerely,

RICK ENGINEERING COMPANY

Jayne Janda-Timba
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Associate

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Attachments

cc: Mr. Brendan Hastie - Rick Engineering Company
Mr. Dennis Bowling – Rick Engineering Company
Mr. Martin Flores – Rick Engineering Company
Mr. Yen-Hsu Chen – Tetra Tech