PACE CIVIL, INC.

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COUNTY OF SHASTA
PERMIT COUNTER

Pat Minturn, Director
Department of Public Works
Shasta County
1855 Placer Street
Redding, CA 96001

Mark Rychlik
Romar Homes
18540 Bywood Drive
Cottonwood, CA 96022

Gentlemen:

Subject: Proposed Service to Cottonwood Heights & Panorama Estates by Cottonwood Wastewater Treatment Plant CSA No. 17

PACE Civil Inc. completed its impact study of the proposed Cottonwood Heights (320 residential units), Panorama Point (45 residential units), and Panorama Estates (45 residential units) on Shasta County Service Area No. 17 (CSA No.17), sewage collection and treatment system, for an approximate total of 420 residential units. The attached site plan illustrates the location of the projects.

The study included the following tasks:

- The existing collection system was entered into a computer model using the original CH2MHill design plans to determine individual sewer capacities based upon diameter and slope.

- Design criteria was established based upon the peak wet weather flow with a possible 20-year reoccurrence as estimated from the record plant flow of December 31, 2005.

- The capacity of the existing Black Lane Service Area was compared to the anticipated peak wet weather flow of the existing connections, and as the service area is developed with Panorama Estates, pre-paid connections and Cottonwood Heights.

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- The Wastewater Treatment Plant (WWTP) existing influent and proposed flows were compared to the existing design determine hydraulic and treatment capacities.

Collection System Improvements

It was tentatively determined that the Black Lane Service Area sewer collection system would need to be improved at a few locations in order to provide adequate sewer collection capacity, for the proposed Cottonwood Heights and Panorama Point Projects, north of the ACID Canal. However, subsequent analysis has highlighted the need for a sewage pump station and force main to the WWTP for Cottonwood Heights and Panorama Point independent of the Black Lane Service Area. The pump station is required primarily because the sewer system needs to cross the ACID Canal and the County does not want to maintain sewer siphons that are prone to clogging. The force main is required because downstream sewer capacity is inadequate to receive intermittent and relatively large flows from a pump station. Panorama Estates will be able to connect directly to the 6-inch sewer main at the east end of Trefoil Lane.

Treatment System Improvements

Recommended improvements at the Cottonwood WWTP to accommodate peak wet weather flow include a 1.5 million gallon Emergency Retention Basin/Sludge Storage Basin and ERB/SSB Return Pump Station. The ERB/SSB will require a double liner to meet regulatory requirements similar to the sludge storage basin recently constructed by the County. The ERB/SSB could also serve as a second sludge storage basin, which has been noted as a deficiency by the California Regional Water Quality Control Board. The ERB Return Pump Station will return stored sewage to the headworks, or sludge supernatant to the headworks, or the existing SSB. The ERB/SSB will need to have provisions for floating surface aerators to reduce the potential for odors. The concept of the ERB/SSB was discussed with CRWQCB staff on November 29, 2006, and was given tentative approval. It is time sensitive that the second SSB facility be installed in 2008 in order to meet the CRWQCB Waste Discharge Order No. R5-2005-0037. The County may choose to rehabilitate an existing SSB with a synthetic liner in order to meet the CRWQCB WDO.

Project Funding & Reimbursement Agreements

Shasta County has reviewed the conceptual plan of improvements outlined above and has sent a "will serve" letter to Romar Homes (Developer) for the entire project. Prior to providing service, the County recognizes that the basis for its Capital Improvement Fee (CIF) as determined in its Capacity Study, dated August 1996, needs to be updated to reflect the recent substantial increase in construction costs. Funding the study to update the CIF will take time and funds that are not readily available.

In order to move ahead with the proposed project, the following tasks and funding framework needs to be considered by the County and Developer:

1. The Developer and PACE will enter into an agreement to update the 1996 PACE report entitled "Cost Estimate for Cottonwood Wastewater Treatment Plant Expansion." The report will consider the improvements necessary to expand the facilities, provide phased project cost estimates, and arrive at an updated CIF. The report may take up to 6 months to prepare. The cost of the update will be paid for upfront by the Developer and should be considered for reimbursement by the County.

2. It is anticipated that the Panorama Estates sewer collection system south of the ACID Canal will flow by gravity into the existing 6-inch sewer system at the east end of the system on Trefoil Lane. The Developer needs to be aware of the relatively shallow manhole invert of 419.00 feet at the east end of Trefoil Lane. This may present minimum cover issues for the sewers in the proposed Panorama Estates. Elevations and minimum sewer size and slope need to be confirmed as part of the pre-design process.

   All sewer system improvements, including main line extension, will be designed, constructed, and inspected in accordance with County standards. Once accepted by the County, the facilities will become part of CSA No. 17. Construction of these improvements will be paid for by the Developer and are not reimbursable. The CIF in place at the time when the building permit is requested will be paid by the parcel developer as is the normal protocol for the County. The Collection System Improvement Fee is $0.00 for East Area developments per Shasta County Ordinance 639. The bi-monthly standby charge for unoccupied assessment units will not be applicable.

3. The Cottonwood Heights and Panorama Point sewer collection system improvements, including complete sewers, pump station, and force main to the Cottonwood WWTP, will be designed, constructed, and inspected in accordance with County standards. Once accepted by the County, the facilities will become part of CSA No. 17.

   Project costs for these improvements will be paid for by the Developer and are not reimbursable, unless the County chooses to increase the capacity of some of the facilities to accommodate growth from adjacent parcels, which is not anticipated at this time. The Collection System Improvement Fee will not be applicable. The bi-monthly standby charge for unoccupied assessment units will not be applicable. The CIF will be proportionately offset, dollar-for-dollar, through construction of the facilities discussed below in Item 4.

4. The 1.5 MG ERB/SSB and ERB/SSB Return Pump Station will be designed, constructed, and inspected in accordance with County standards. Once accepted by the County, the facilities will become part of CSA No. 17. The project costs, including engineering design, construction, and engineering services during construction of these improvements, will be paid for by the Developer through the County as a public works project. The project costs incurred will be credited to the Developer, or its assignee for future sewer connection CIF applicable to Cottonwood Heights and Panorama Point.

   If project costs are greater than the sum of the anticipated CIFs collected, then a Reimbursement Agreement for improvements to the Cottonwood Wastewater Treatment Plant will be executed between Shasta CSA No. 17 and the Developer. The Reimbursement Agreement will include the maximum reimbursable amount equal to the total project cost (engineering costs for design and services during construction, and construction costs) minus the total CIFs assigned to Cottonwood Heights and Panorama Point. One-half of future CIFs collected for connections throughout CSA No. 17 over the next 20 years will be reimbursed to the Developer or its assignee until the maximum reimbursable amount has been paid off. If total project costs associated with the ERB and ERB Pump Station are less than the sum of the applicable CIFs, then the remaining CIFs will be paid by future parcel developers at the time the building permit is requested.

It is recommended that the County, Developer, and PACE meet to resolve outstanding issues. Subsequent to the meeting, it is envisioned that a formal Memorandum of Understanding with draft Reimbursement Agreement will be prepared and incorporated into the conditions of a tentative map. PACE will contact the County and Developer to arrange a time and place for the meeting. Please call with any questions that you have regarding the issues discussed herein.

Sincerely,

Thomas W. Warnock
Principal Engineer

TWW
Enclosures
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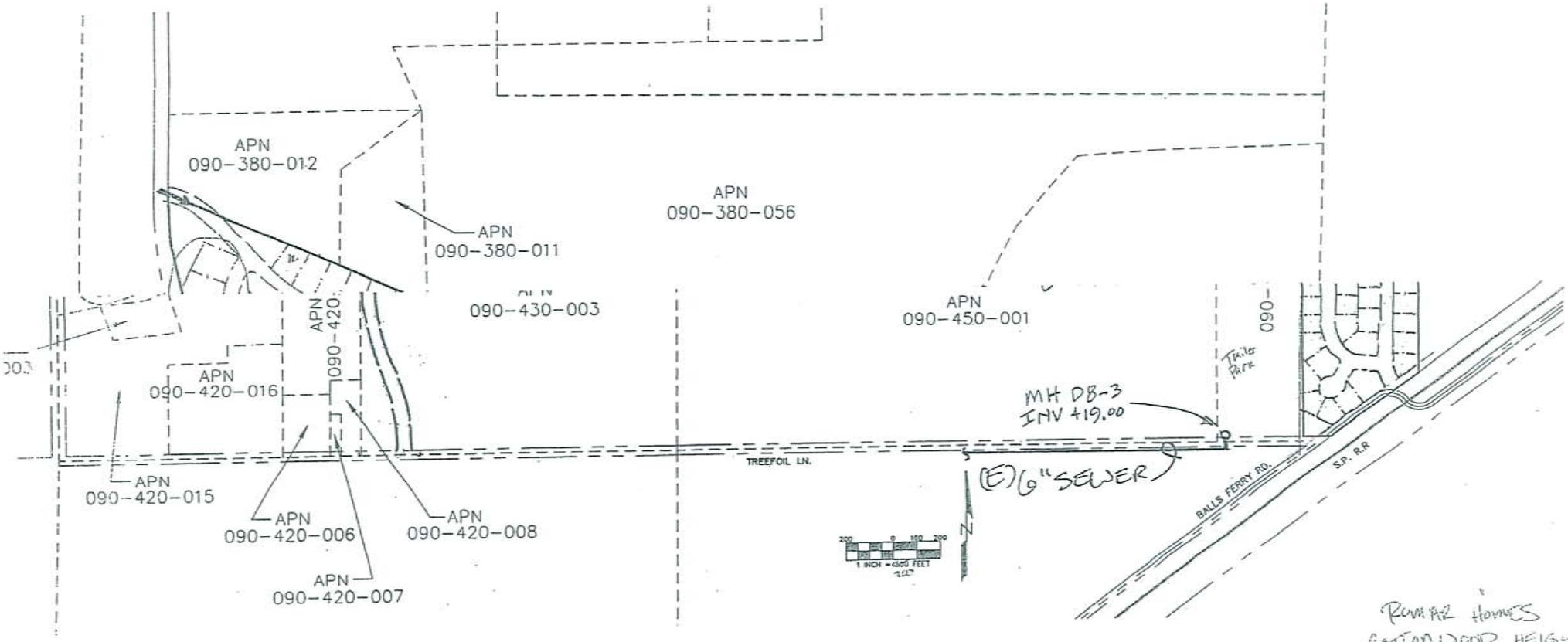

ROMAR HOMES COTTONWOOD HEIGHTS, PANORAMA POINT & PANORAMA ESTATES

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