

CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS

MEMORANDUM

January 14, 2021

To: J. Logan, General Manager (Los Altos Hills County Fire District)

From: Jason Feudale (Freyer & Laureta, Inc.)

Kimberly Yau (Freyer & Laureta, Inc.)

Reviewed: Jeffrey J. Tarantino, P.E. (Freyer & Laureta, Inc.)

RE: Concepcion – Fremont Water Main Replacement Project Review

Purissima Hills Water District, Los Altos Hills, California

INTRODUCTION AND BACKGROUND

Freyer & Laureta, Inc. (F&L) provides on-call engineering services for the Los Altos Hills County Fire District (District). When Purissima Hills Water District (PHWD) notifies the District of a planned capital improvement project to replace PHWD existing infrastructure, the District reviews the proposed improvement scope to evaluate reuse of existing fire hydrants, replacement of existing fire hydrants, and potential additional fire hydrants to improve fire protection.

PHWD has notified the District that Pakpour Consulting Group (PCG) is preparing the design of the Concepcion Road – Fremont Road Improvements Project (Project) to replace the existing water transmission main. The proposed project limits are shown on the draft 90% design submittal provided by PHWD and included as Exhibit 1 to this memorandum¹. PHWD proposes to reuse the existing fire hydrants affected by the proposed Project and requested that the District participate in a field walk to review the Project limits to determine if any additional fire hydrants would be required to be installed as part of the proposed Project.

PROJECT REVIEW SITE VISIT

On November 18, 2020, a site visit was held to review the proposed Project including evaluating the existing District-owned fire hydrants and current fire hydrant layout to

¹ Exhibit 1 includes select sheets from the 90% Design submittal provided by PHWD to focus on the project limits and the portions of the Project limits that included District-owned fire hydrants and District proposed fire hydrants.

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identify potential risk for fire suppression. The meeting attendees including title and organization the individual represented is provided in Table 1.

Name	Organization	Title
Anthony Stoloski	Purissima Hills Water District	Operations Manager
William Lai	Pakpour Consulting Group	Project Engineer
Denise Gluhan	Los Altos Hills County Fire District	Emergency Services Manager
Kathy Baker	Santa Clara County Fire Department	Deputy Fire Marshal
Rob Cambell	Santa Clara County Fire Department	Deputy Fire Marshal
Kenny Ip	Santa Clara County Fire Department	Deputy Fire Marshal
Jeff Tarantino, P.E.	Freyer & Laureta, Inc.	Vice President
Jason Feudale	Freyer & Laureta, Inc.	Associate Engineer

Table 1 – Meeting Attendee List

The meeting attendees walked the Project limits shown in Exhibit 1 to observe the location of the existing fire hydrant locations as well as the condition of the existing fire hydrant. The District's Emergency Services Manager and the Santa Clara County Fire Department (SCCFD) Deputy Fire Marshals evaluated the spacing of the existing fire hydrants and field conditions to determine whether additional fire hydrants would be recommended to improve fire suppression coverage.

Exhibit 1 includes markups of the PHWD Project 90% design submittal that indicates:

- 1) A total of five existing fire hydrant locations to be relocated to proposed adjusted location (within 5') required for constructability including confirming the existing fire hydrant and check valve can be reused including the following:
 - a) Concepcion Road at Station (Sta) 10+53 (see Sheet C3.1)
 - b) Concepcion Road at Sta 16+41 (see Sheet C3.2)
 - c) Fremont Road at Sta 12+17 (see Sheet C4.1)
 - d) Fremont Road at Sta 15+74 (see Sheet C4.2)
 - e) Fremont Road at La Paloma Road (see Sheet C4.3)
- 2) One Existing fire hydrant to be relocated to proposed adjusted location (relocated 50') required for constructability including confirming the existing fire hydrant and check valve can be reused including the following:
 - a) Concepcion Road at Sta 49+88 (see Sheet C3.11)
- 3) Three new fire hydrant to limit maximum spacing between fire hydrants to no more than 500 feet including the following:
 - a) Concepcion Road at approximate Sta 25+60 (see Sheet C3.5)
 - b) Concepcion Road at approximate Sta 32+90 (see Sheet C3.6)
 - c) Concepcion Road at approximate Sta 45+00 (see Sheet C3.9)

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ANTICIPATED IMPROVEMENTS

Based on the site visit and potential improvements identified by the Project team, the following work for District-owned infrastructure is anticipated:

- For the five hydrant locations in Item 1 and single hydrant location in Item 2 from the section above, where the existing hydrant and check valve will be salvaged and reused, the work will include:
 - Install new gate valve at the PHWD main;
 - Install new lateral ductile iron pipe of varying length depending on location;
 - Install new hydrant bury;
 - o Install salvaged check valve, and;
 - Install salvaged hydrant
- For the three new hydrant locations in Item 3, the work will include:
 - o Install new gate valve at the PHWD main;
 - o Install new lateral ductile iron pipe of varying length depending on location;
 - Install new hydrant bury;
 - o Install new check valve, and;
 - Install new hydrant

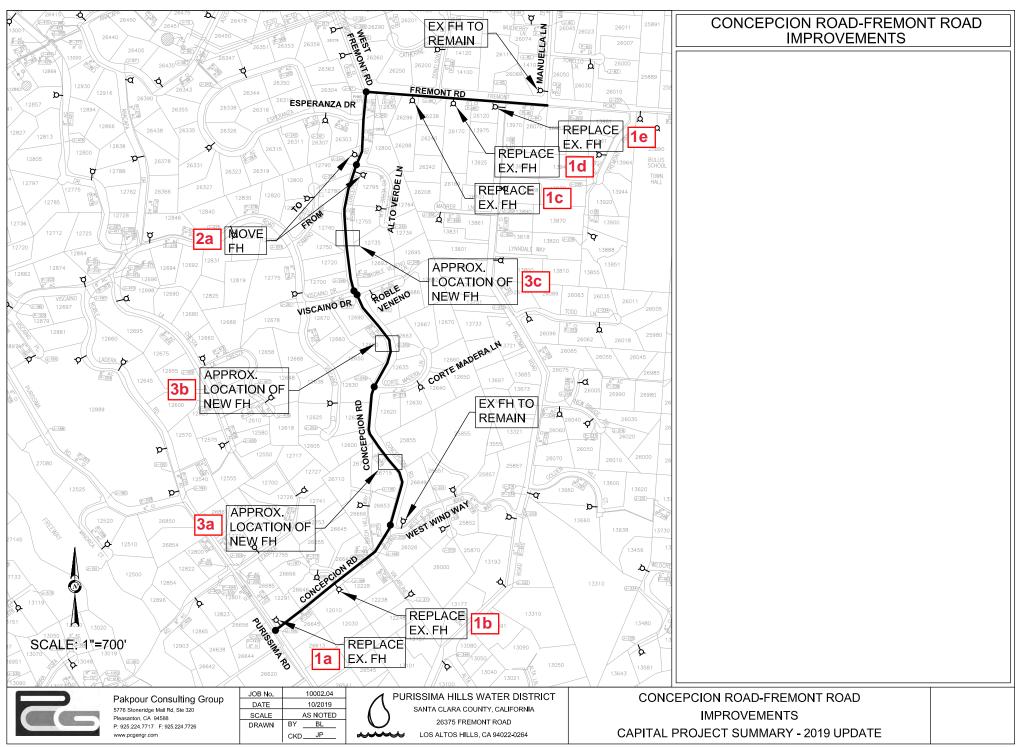
All work summarized above will be completed in accordance with PHWD Standard Drawing PH-08 Fire Hydrant Assembly.

RECOMMENDATION

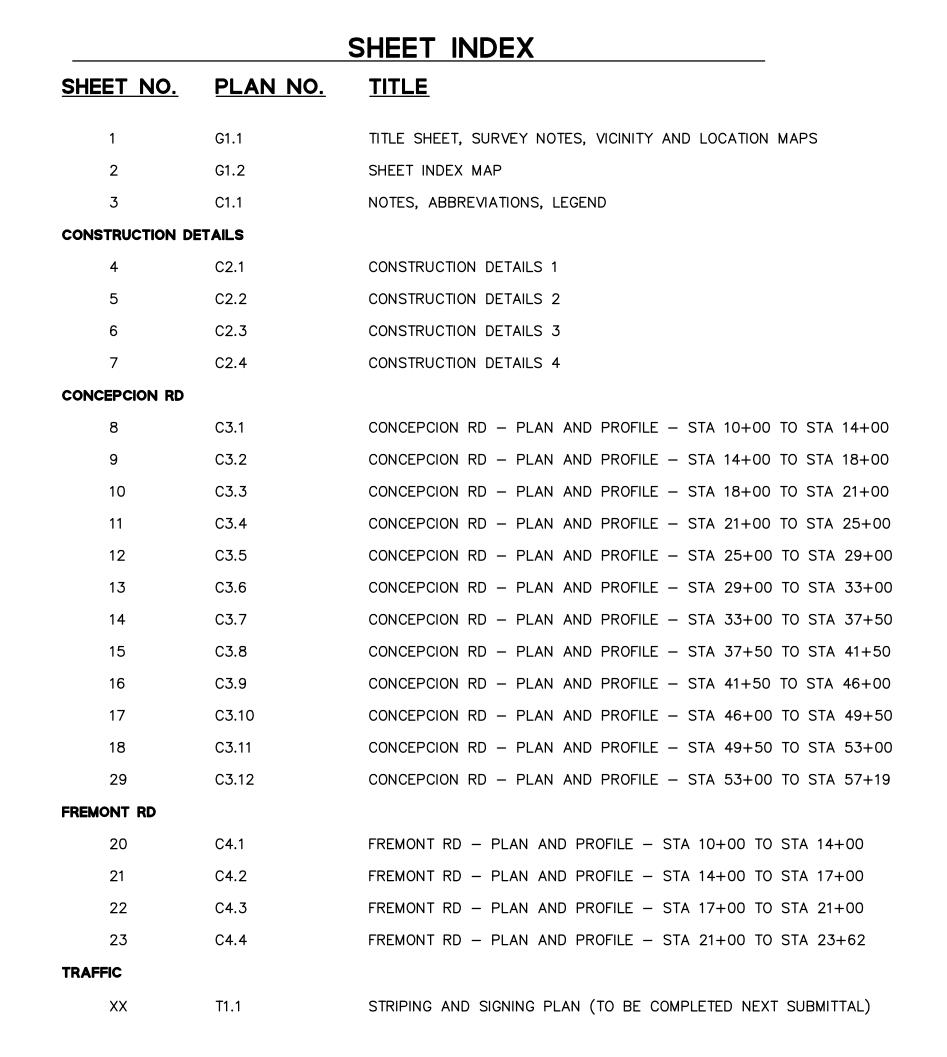
F&L recommends that the District coordinate with PHWD to incorporate the anticipated improvements described above including the installation of three new hydrants into the PHWD Project. The proposed improvements maximizes reuse of existing District materials and improves the level of fire protection by reducing the maximum spacing of fire hydrants within the project limits.

Please contact Jeff Tarantino at <u>tarantino@freyerlaureta.com</u> or (650) 619-3226 with any questions or comments.

EXHIBIT 1 PROPOSED FIRE HYDRANT IMPROVEMENTS



CONCEPCION ROAD-FREMONT ROAD IMPROVEMENTS PURISSIMA HILLS WATER DISTRICT SANTA CLARA COUNTY, CA





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BENCHMARK

ELEVATIONS SHOWN ON THIS DRAWING ARE BASED ON LOS ALTOS HILL BENCHMARK #23R DESCRIBED AS, "TOWN OF LOS ALTOS HILLS BENCHMARK, LOCATED ON A CONCRETE WING WALL 11' SOUTHERLY OF THE EDGE OF PAVING OF FREMONT ROAD OPPOSITE DONELSON PLACE", HAVING AN ELEVATION OF 207.70 (NAVD 1988 DATUM).

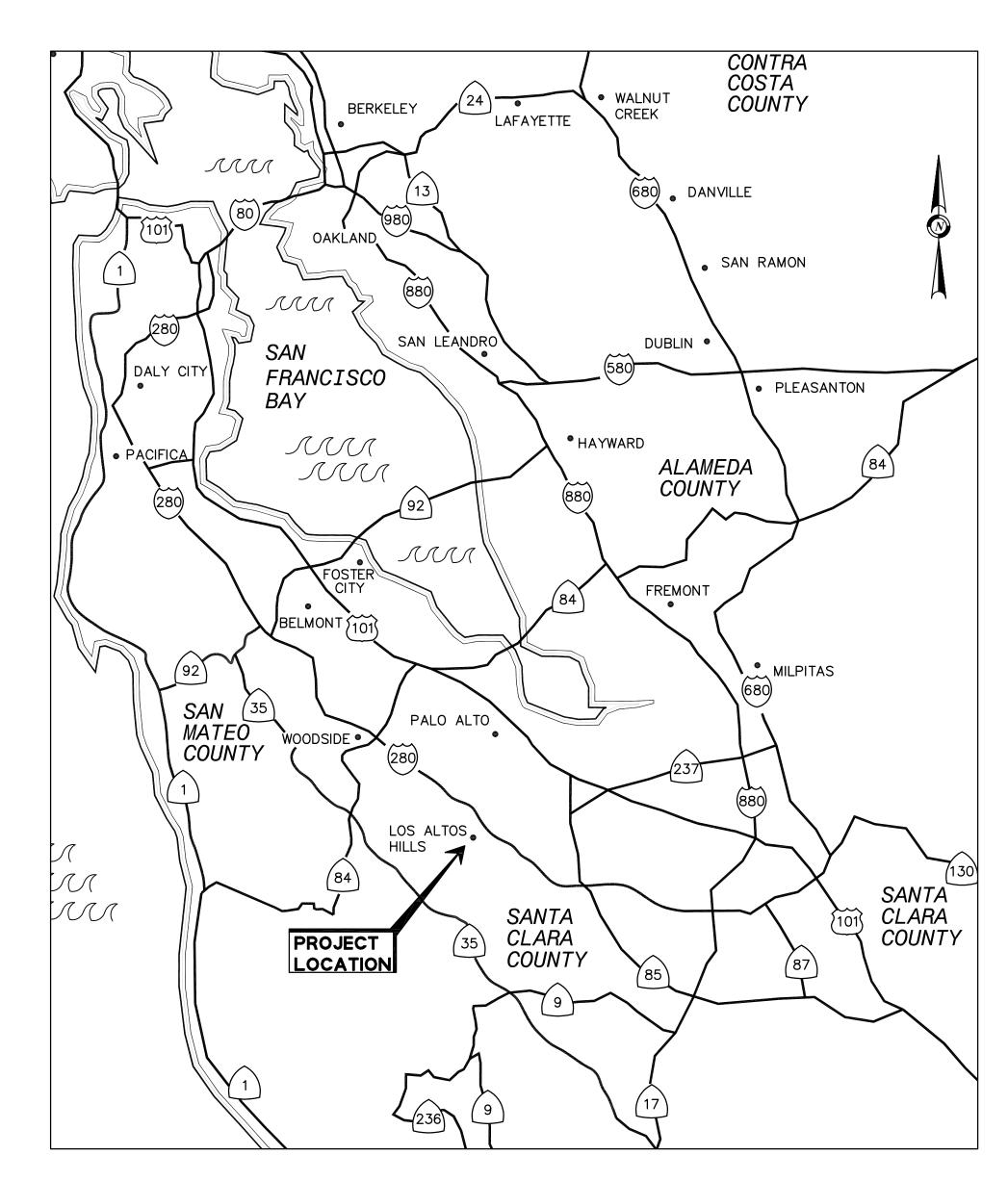


BASIS OF BEARINGS

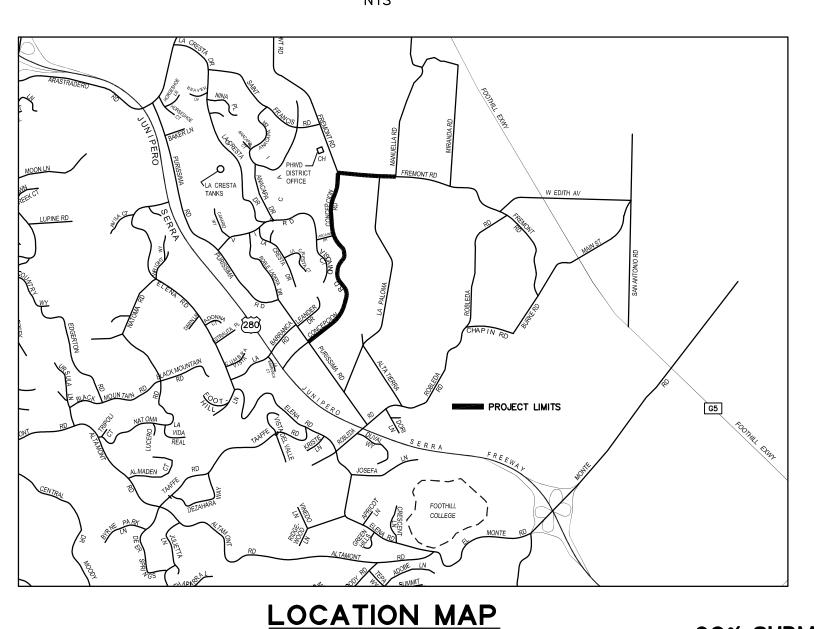
THE BEARINGS SHOWN HEREON WERE DERIVED FROM THE TRIMBLE VSN RTK NETWORK AND ARE BASED ON THE NAD 83 CALIFORNIA COORDINATE SYSTEM.

REVIEWED AND APPROVED BY PURISSIMA HILLS WATER DISTRICT

PHIL WITT, GENERAL MANAGER DATE



VICINITY MAP



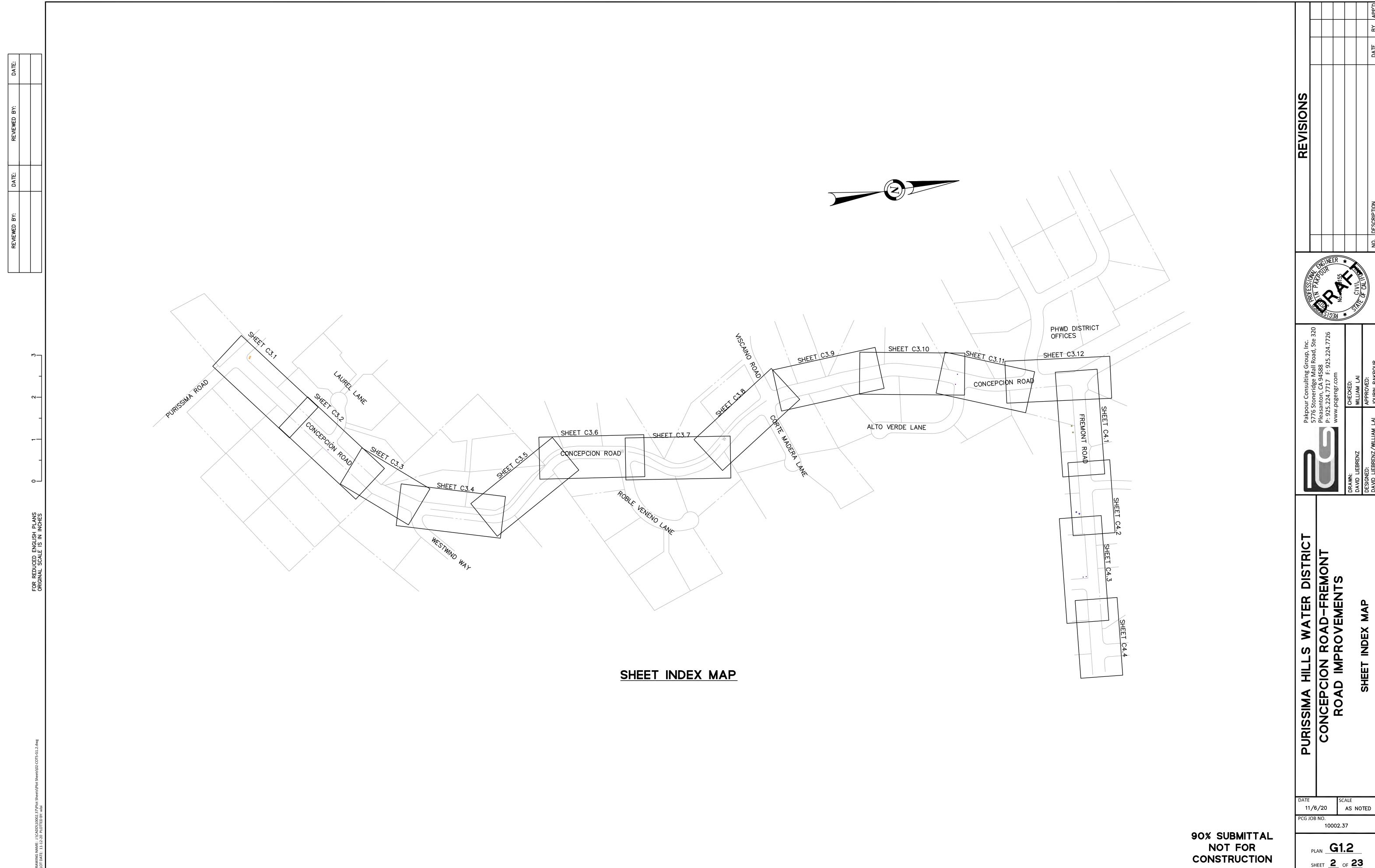
90% SUBMITTAL NOT FOR CONSTRUCTION CONCEPCION R
ROAD IMPR
TITLE SHEET, S
VICINITY AND L

WATER DISTRICT
AD-FREMONT
VEMENTS

REVISIONS

OATE SCALE
11/6/20 AS NOTED
PCG JOB NO.
10002.37

PLAN **G1.1**SHEET **1** OF **23**



SHEET **2** OF **23**

