



December 7, 2017

Skagit Valley Hospitality Association
DBA: Friendship House
Attention: Ms. Tina Tate
P.O. Box 517
Mount Vernon, WA 98273

Reference: Seventh Day Adventist Temporary Emergency Shelter, PL17-131, Technically Complete Determination – **SENT VIA EMAIL**

Dear Tina:

The application materials submitted on November 21, 2017 for the above-captioned proposal have been deemed 'technically complete' for processing.

The items you submitted for this application have been reviewed by the City departments responsible for approving different aspects of your application. The following request for additional information is the result of this review.

- Additional information with regard to the procedures and protocols that will be practices and implemented to make sure the individuals sleeping in the church are able to quickly exit this structure are necessary. Please recall the City is asking for this information after receiving the attached fire flow statement from Skagit Public Utility District #1 indicating that the Seventh Day Adventist church building is 1,690 gallons per minute short of the required fire flow.

Pursuant to Mount Vernon Municipal Code (MVMC 14.05.130) a hold is placed on this application and the time it takes you to respond to this request for information is excluded in calculating permit processing timeframes.

If you have any questions about the contents of this letter; or if you need additional information, please do not hesitate to call me at (360) 336-6214; or to email me at: rebeccab@mountvernonwa.gov
Thank you,

A handwritten signature in blue ink that reads "R Lowell".

Rebecca Lowell,
Principal Planner

C: Mount Vernon Seventh Day Adventist Church

**PUBLIC UTILITY DISTRICT NO. 1 OF SKAGIT COUNTY
STATEMENT OF FIRE SUPPRESSION FLOW CAPACITY**

Date: November 16, 2017

From: Chris Shaff, P.E., Planning Engineer

Re: **FIRE SUPPRESSION FLOW CAPACITY** at 4520 East College Way
Mount Vernon – P24796 – 7th Day Adventist Church

Customer name: Ann w/ Sunrise Apartments

1. Definitions:

- Fire Flow. That volumetric water flow available for fire suppression from a water distribution system as measured at a residual pressure of 20 pounds per square inch (psi) at the fire hydrant(s).
- Fire Suppression Flow: That volumetric water flow available from a water distribution system, limited by the District's design criteria in some way, resulting in a residual pressure greater than 20 psi at the fire hydrant(s).

2. The District has performed a hydraulic analysis of the District's existing water distribution system to determine its capacity, and what improvements would be required (if any), to support fire suppression flows for the referenced project. The analysis was performed by District staff using

a computer-generated hydraulic model of the distribution system

manual hydraulic calculations

assuming peak hour water demands, a fully functional distribution system, and a fire suppression flow of **3,750** gpm, based on the Fire Marshal's requirements and/or Skagit County Coordinated Water System Plan Regional Supplement minimum flow requirements. Actual flows and pressures may vary from the flows and pressures projected here depending on the combination of actual domestic flow demands, actual fire suppression flow demands, and the condition of the distribution system at the time of review.

3. The analysis indicates that, under the stated conditions:

- a. the static pressure **at the FH at P24796** can be expected to be **68.8** psi.
- b. the existing distribution system can be expected to support **2,060** gpm fire suppression flow from an existing Fire Hydrant located **at P24796** at a residual pressure of **66.5** psi.

This flow:

meets the desired flow quantity in full compliance with District waterline-sizing design requirements.

is limited by District pressure design requirements (20 psi at all points within the distribution system).

is limited by District water velocity design requirements of (select one):

8 fps in the _____ distribution waterline

10 fps in the **8-inch Ductile Iron** _____ distribution waterline

At P24796

STATEMENT OF FIRE SUPPRESSION FLOW CAPACITY FOR:

Mount Vernon – P24796

Date: November 16, 2017

- 4. The existing infrastructure is:
 - a. adequate to support **2,060 gpm** fire suppression flow without further improvements to the water system. **Verify with the fire marshal the requirement for fire suppression flow.**
 - b. not rated by the District to safely deliver the desired fire suppression flow per the District’s required criteria. Additional analyses indicate that to attain the required flow, the existing distribution system must be improved by implementing **ONE** the following Improvements: **Replace approx.. 40 LF of 8-inch Ductile Iron pipe w/ 12-inch D.I. at P24796 at the PRV vault to the fire hydrant.**

Once these Improvements are incorporated into the existing distribution system, the Customer can expect the upgraded distribution system to have the capacity to provide **3,785** gpm fire suppression flow at **66.5** psi residual pressure, in full conformance with all District waterline-sizing design requirements.

- 5. If Block 4.b is checked above and the Improvements are NOT constructed, the existing distribution system might be expected to support **3,785** gpm Fire Flow from the fire hydrant located at **P24796** at a residual pressure of **65.7** psi.

HOWEVER: The Fire Flow indicated in paragraph 5 above would result in water velocity in excess of **20.0** fps in the waterline(s), could result in catastrophic failure of the waterline(s) due to surge pressures, would violate the District’s development regulations (design requirements) and is in no way endorsed by the District. By allowing the proposal to proceed without replacing the length(s) of waterline indicated above, against the policies and over the objection of the District, the Fire Marshal and his/her governing body is assuming the liability for actual and consequential damages arising from the failure of the water pipelines in that area under Fire Flow conditions at the proposed site.

6. In Summary:

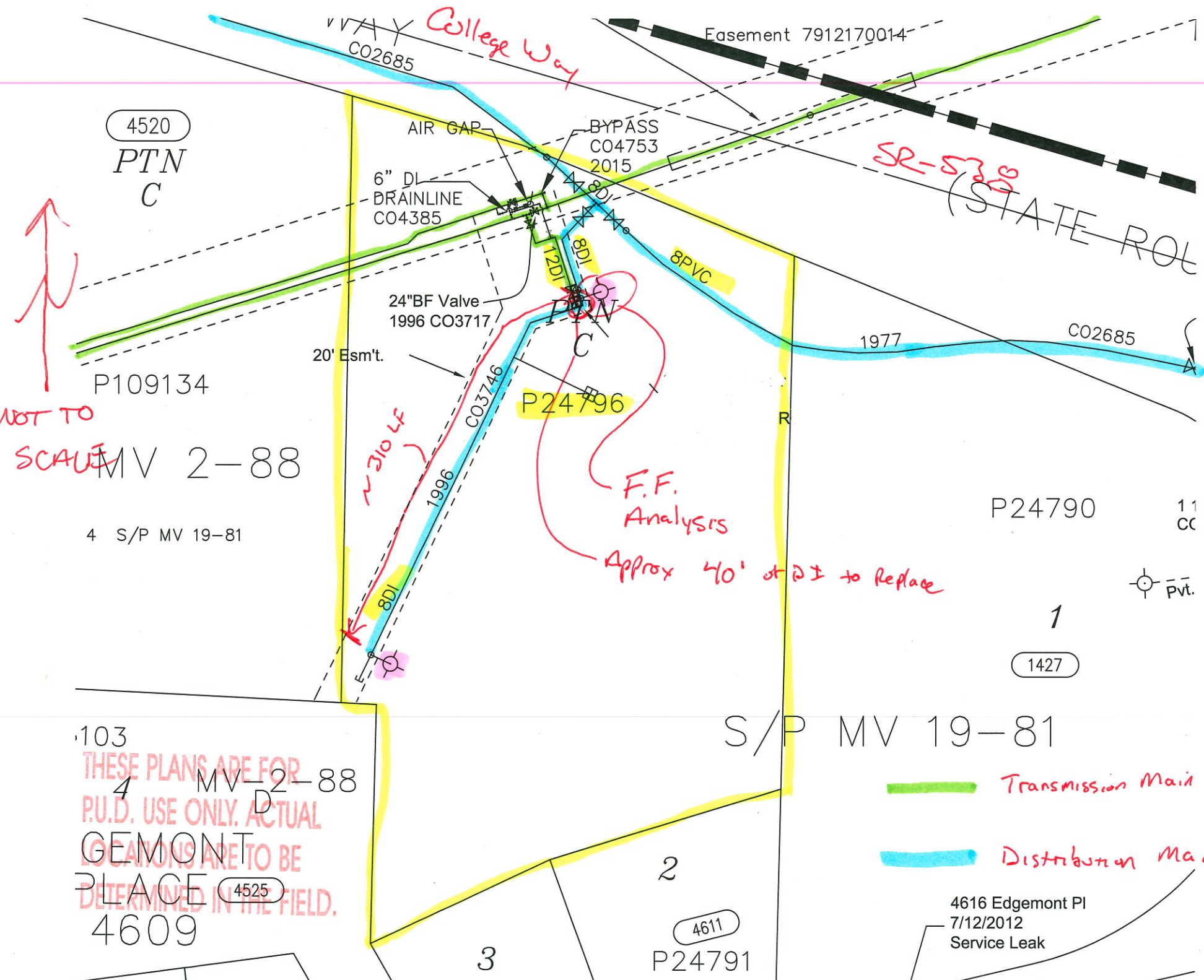
- static pressure is **68.8** psi.
- the existing infrastructure can support **2,060** gpm fire suppression flow at **66.5** psi residual.
- water system improvements are addressed above.
- Fire Flow at 20 psi cannot be achieved at that site without violating District regulations and transferring the associated liability to the City of **Mount Vernon** [] Skagit County.
- [] Attached pages (qty: _____)

Copy to:

- Project File (CO _____)
 - [] Customer
 - [] Engineer
 - [] Fire Marshal (please acknowledge receipt below and return a copy to the District.)
- Receipt acknowledged by Fire Marshal:

PRINTED NAME

SIGNATURE



THESE PLANS ARE FOR
 P.U.D. USE ONLY. ACTUAL
 DIMENSIONS ARE TO BE
 DETERMINED IN THE FIELD.

Transmission Main
 Distribution Main

4616 Edgemont Pl
 7/12/2012
 Service Leak