DIVISION OF INDUSTRY SERVICES
PO BOX 7162
MADISON WI 53707-7162
Contact Through Relay
www.dsps.wi.gov/sb/
www.wisconsin.gov

Scott Walker, Governor
Dave Ross, Secretary

October 29, 2014

CUST ID No. 223045

ATTN: Plumbing Inspector

JAMES LUEDTKE
CULLIGAN WATER
2200 PIONEER AVENUE
RICE LAKE WI 54868

BUILDING INSPECTION
VILLAGE OF CAMERON
450 E POPLAR AVE
CAMERON WI 54822

CONDITIONAL APPROVAL
PLAN APPROVAL EXPIRES: 10/29/2016

Identification Numbers
Transaction ID No. 2466733
Site ID No. 802572
Please refer to both identification numbers, above, in all correspondence with the agency.

SITE:
Source Energy Services Proppants, Lp
2595 State Highway 8
Village of Cameron, 54822
Barron County

FOR:
Facility: 741701 SOURCE ENERGY SERVICES PROPPANTS, LP
2595 STATE HIGHWAY 8
CAMERON 54822

1 Interior Fixture(s)

Object Type: Commercial Water Treatment Device Regulated Object ID No.: 1507987

The submittal described above has been reviewed for conformance with applicable Wisconsin Administrative Codes and Wisconsin Statutes. The submittal has been CONDITIONALLY APPROVED. The owner, as defined in chapter 101.01(10), Wisconsin Statutes, is responsible for compliance with all code requirements.

No person may engage in or work at plumbing in the state unless licensed to do so by the Department per s.145.06, stats.

The following conditions shall be met during construction or installation and prior to occupancy or use:

- The adjustable output chemical injection pump (85MHP17) has undergone sufficient testing to document the device's ability to properly inject a chemical into a water supply system as specified in this approval letter:

  http://dsps.wi.gov/sb/sb-ppalopp/20120155.pdf

- For buildings not served by a municipal water supply, Department of Natural Resources (DNR) written approval may be required prior to installation of this product to inject a chemical into a water supply system. For more information contact the DNR Private Water Supply Systems Section, P.O. Box 7921, Madison, WI 53707, telephone (608) 266-3415.

- The sodium carbonate [Na_2CO_3 (aka soda ash)] injected into this water supply shall conform to ANSI/NSF Standard 60 and shall not exceed the listed maximum use concentration in the potable water supply. The maximum use concentration for FMC Corporation's "Soda Ash 100" is 150 mg/l:

  http://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=FMC+Corp&TradeName=&ChemicalName=Sodium+Carbonate&ProductFunction=&PlantState=&PlantCountry=&PlantRegion=

  Cross connection control is optional.

- Only a locking bypass shall be installed serving the chemical injection system.
- All water distribution piping shall be marked in accordance with Table SPS 382.40-1a.
- The finished installation shall undergo a final inspection prior to the treated water being used for consumptive purposes. The Plumbing consultant having jurisdiction in this region is Don Hough. Mr. Hough can be reached via the following:

  Phone: 715-634-4804 Email: don.hough@wi.gov

  If the treated water is used for consumptive purposes prior to passing a final inspection, then this approval may be rendered null and void and the treatment equipment ordered removed. The Plumbing Consultant shall provide a written indication of the results of the final inspection to the system owner.

  When the final inspection has been passed, the Plumbing Consultant will notify the Wisconsin department of Natural Resources (WDNR) field staff having authority over the well. The WDNR will then monitor the quality of the treated water to its satisfaction. Monitoring advice, which the WDNR is free to accept or reject, is provided elsewhere in this letter. The WDNR field staff having authority over this well is Lawrence Ruetz. Mr. Ruetz can be contacted via the following:

  Phone: 715-822-2671 Email: lawrence.ruetz@wisconsin.gov
- The suggested monitoring interval for this installation is monthly until a stable passivating layer has formed on the internal pipe surfaces which may be inferred copper and lead concentrations dropping off to below detectable levels. The following test should be performed:

  1. dissolved lead
  2. dissolved copper
  3. pH
  4. alkalinity

  The water quality samples should be collected at a time of day when the chemical injection system is as close to peak demand as possible. Untreated and treated water samples should be collected together in sets, the untreated samples taken upstream of all water treatment devices and the treated water samples from the most remote outlet from the point of chemical injection. The sampling should be "first draw" as is normally required under the USEPA's Lead & Copper Rule.
- Any wall hydrant not served by the chemical treatment system shall have one, or more, of the following:

  a. The handles of the hydrant shall be removed;

  b. The hydrant shall be capped and sealed using solder; or

  c. Signage shall be posted immediately above the hydrant indicating the water is unfit for human consumption.

  Also, all hose connections shall be protected with hose connection vacuum breakers that conform to American Society of Sanitary Engineers (ASSE) Standard 1011 or ASSE 1052.

A full size copy of the approved plans, specifications and this letter shall be on-site during construction and open to inspection by authorized representatives of the Department, which may include local inspectors. If plan index sheets were submitted in lieu of additional full plan sets, a copy of this approval letter and index sheet shall be attached to plans that correspond with the copy on file with the Department. If these plans were submitted in an electronic form, the designer is responsible to download, print, and bind the full size set of plans along with our approval letter. A department electronic stamp and signature shall be on the plans which are used at the job site for construction. All permits required by the state or the local municipality shall be obtained prior to commencement of construction/installation/operation.

In granting this approval the Division of Industry Services reserves the right to require changes or additions should conditions arise making them necessary for code compliance. As per state stats 101.12(2), nothing in this review shall relieve the designer of the responsibility for designing a safe building, structure, or component.

Inquiries concerning this correspondence may be made to me at the telephone number listed below, or at the address on this letterhead.

Sincerely,

Glen W Schlueter
Plumbing Product Reviewer , Integrated Services
(608)267-1401 , Monday-friday 7:15AM-4:00PM
glen.schlueter@wisconsin.gov

Fee Required $ 160.00

This Amount Will Be Invoiced.
When You Receive That Invoice,
Please Include a Copy With Your
Payment Submittal.
WiSMART code: 7657

cc: Donald D Hough, Plumbing Consultant II, (715) 634-4804
Ben Ebner, Source Energy Services Proppants, Lp

Note: Effective January 1, 2012, all codes under the jurisdiction of the Division of Industry Services (formerly Safety & Buildings) will be modified. Code references with prefixes starting with "Comm" have been replaced with "SPS" to recognize the relocation of the Division of Industry Services from the former Department of Commerce to the Department of Safety & Professional Services. Additionally, all IS (formerly S&B) codes have been renumbered and addressed in a "300" series. For future reference, the Wisconsin Commercial Building Code will be addressed by SPS Chapters 360-366.

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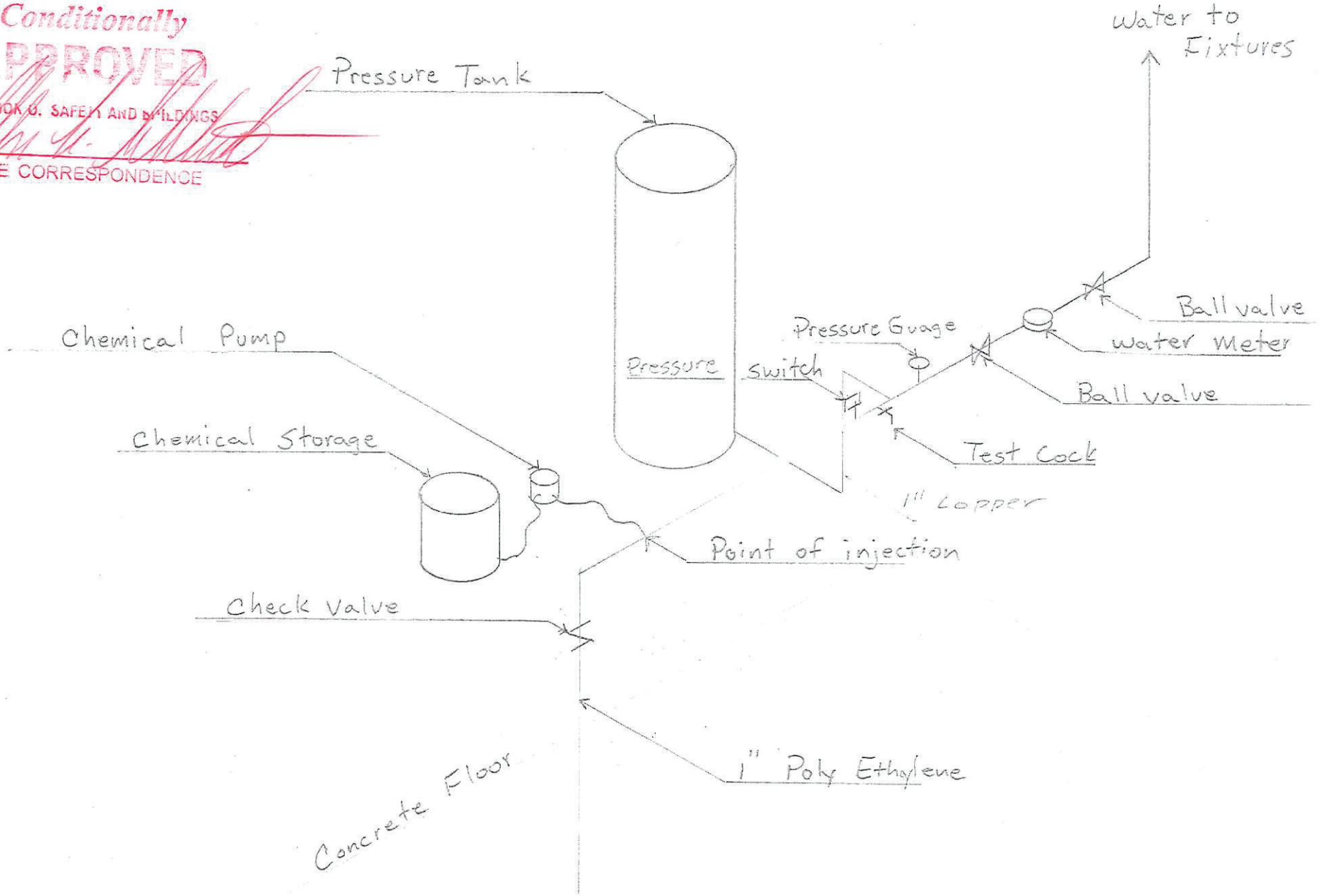

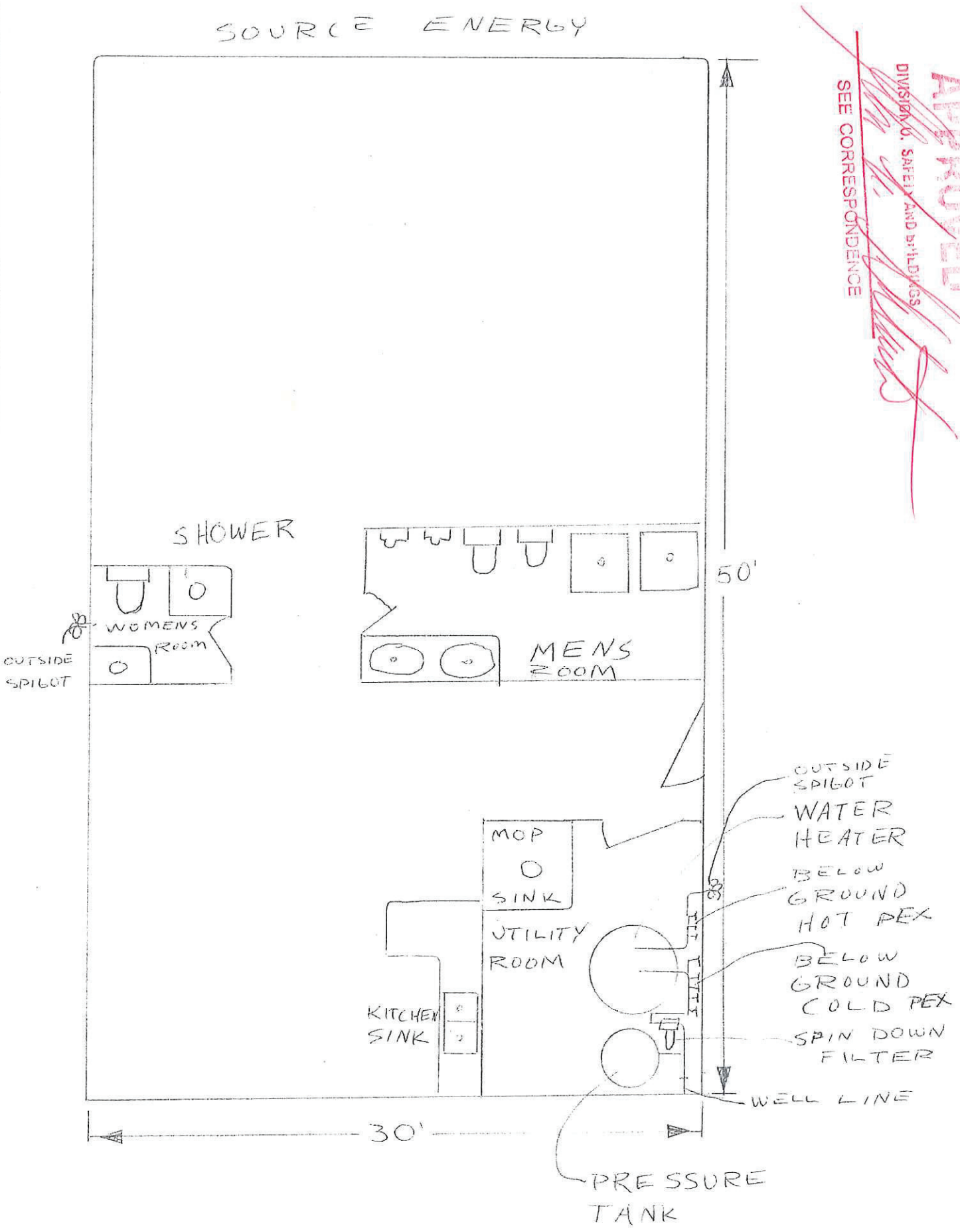
SOURCE ENERGY
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SHOWER
WOMENS ROOM
OUTSIDE SPIGOT
MENS ROOM
50'
OUTSIDE SPIGOT
WATER HEATER
MOP SINK
BELOW GROUND HOT PEX
UTILITY ROOM
BELOW GROUND COLD PEX
KITCHEN SINK
SPIN DOWN FILTER
WELL LINE
30'
PRESSURE TANK

Water Calc. Worksheet — Source Energy

Name of Project

INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION:

1-	Demand of building in water supply fixture units (WSFU);	(WSFU) 26
1.a.	Demand of building in WSFU converted to Gallons Per Minute: (Table SPS 382.40-3)	(GPM) 17
2-	Elevation difference from main or external pressure tank to building control valve;	(feet) 5
3-	Size of water meter (when required) 5/8"____ 3/4" ____ 1" ____ other ____	n/a
4-	Developed length from main or external pressure tank to building control valve;	(feet) 20
5-	Low pressure at main in street or external pressure tank.	(psi) 40

CALCULATE WATER SERVICE PRESSURE LOSS
(unnecessary for internal pressure tanks)

6- Low pressure at main in street or external pressure tank. (value of # 5 above) 40

7- Determine pressure loss due to friction in 1" inch diameter water service.
Water service piping material is Polyethylene
Pressure loss per 100 ft. = 7.0 X .2 (decimal equivalent of service length, i.e. 65 ft = 0.65)
Subtract value of "7" 1.4
Subtotal 38.6

8- Determine pressure loss or gain due to elevation, (multiply the value of # 2 above by .434)
Subtract value of "8" 2.17

9- Available pressure after the bldg. control valve. Subtotal 36.43

CALCULATE THE PRESSURE AVAILABLE FOR UNIFORM LOSS (VALUE OF "A")

B. Available pressure after the bldg. control valve. (from "9" above) Value of "B" 36.43

C. Pressure loss of water meter (when meter is required)
Subtract value of "C" n/a
Subtotal 36.43

D. Pressure at controlling fixture*.
(Controlling fixture is: Shower Valve).
Subtract value of "D" 20
Subtotal 16.43
(*Contolling fixture is the fixture with the most demanding pressure to operate properly which includes the following when determining fixture performance; loss due to instantaneous water heaters, water treatment devices, and backflow preventers which serve the controlling fixture.)

E. Difference in elevation between building control valve and the controlling fixture in feet; 5 X .434 psi/ft.
Subtract value of "E" 2.17
Subtotal 14.26

Water Calc Worksheet Source Energy
Name of Project

F. Pressure loss due to water treatment devices and backflow preventers which serve the controlling fixture. (Water softeners, filters, etc.)

(Pressure loss due to; _____).

F1. WSFU Downstream of Water Treatment Device; n/a

F2. Convert wsfu to GPM using **Table 382.40-3**: _____

or

F3. Convert wsfu to GPM using **Table 382.40-3e*** _____
(For individual dwellings only)

F4. Refer to manuf. graph to obtain pressure loss: _____
(If no water treatment device enter "0")

Subtract value of F4 0

Subtotal 14.26

G. Pressure loss through tankless water heaters, combination boiler / hot water heaters, heat exchangers which serve the controlling fixture;

Hot water WSFU's; 6.5 convert to; GPM = 5.0 (Table 382.40-3)
Refer to manufacturer's pressure loss graph to determine loss at the required GPM;
3 pressure loss.

Subtract value of "G" 3

Subtotal 11.26

H. Developed length from building control valve to controlling fixture in feet 20 X 1.5

Divide by value "H" 30

Subtotal .3753

Multiply by: 100

A. Pressure available for uniform loss **"A" =** 37.53

Water distribution piping is: 1" K Copper, 3/4" & 1/2" PEX

*Note: The "A" value obtained by using Table 382.40-3e can only be used for an individual dwelling when sizing the water treatment device (water softeners, etc) and no hose bibbs, hydrants, or high flow fixtures are being served by the water treatment device.

Note: High flow fixtures are defined as fixtures that exceed a flow rate of 4 gpm @ 80 psi, and water velocity not exceeding 8 ft. per second.

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