



March 23, 2015

CUST ID No. 1308013

ATTN: Plumbing Inspector

JERAD KEIL
US WATER LLC
6905 VENTURE CIRCLE
WESTON WI 54476

BUILDING INSPECTION
TOWN OF PLOVER
5081 HOOVER RD SOUTH
PLOVER WI 54467

CONDITIONAL APPROVAL
PLAN APPROVAL EXPIRES: 03/23/2017

Identification Numbers
Transaction ID No. 2493672
Site ID No. 809025
Please refer to both identification numbers, above, in all correspondence with the agency.

SITE:

Smileys
5671 Pleasant Dr
Town of Plover, 54467
Portage County

FOR:

Facility: 747006 SMILEYS
5671 PLEASANT DR
PLOVER 54467

1 Interior Fixture(s)

Object Type: Commercial Water Treatment Device Regulated Object ID No.: 1517527

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:

This approval is contingent upon compliance with the following stipulation(s):

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturer's published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 267-9787.
- If this approved device is modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.

- This installation must undergo a final inspection prior to the device being put into service. The Plumbing Consultant having jurisdiction in this area is Bruce Meiners. Mr. Meiners can be contacted via the following:

Phone: 608-399-4156
Fax: 608-283-7452
E-mail: bruce.meiners@wi.gov

When the final inspection has been completed, this department will notify the Wisconsin Department of Natural Resources (WDNR). The WDNR will then monitor the performance of the device(s) to its satisfaction. A suggested frequency and overall duration of monitoring is provided elsewhere in this letter.

If these devices are installed and put in service prior to obtaining a final inspection, then any pertinent approval for the site specific device is immediately rendered null and void and the device may be ordered removed.

- 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 Peggy Norris-Neitzel. Ms. Norris-Neitzel can be contacted via the following:

Phone: 715-421-7833
E-mail: peggy.norris@wisconsin.gov

- The suggested monitoring interval for this installation is quarterly. As a minimum, the following tests should be performed:

1. nitrate
2. copper

The samples should be collected at a time of day when the device is under stress and at a time most remote from the last regeneration cycle as possible. Because this device is reportedly being installed on a copper water supply system, concerns relating to decreased alkalinity and subsequent corrosion are applicable. If copper is detected, then lead samples should also be collected. Lead and copper corrosion samples should be collected in accordance with the USEPA's Lead/Copper Rule (i.e. overnight dwell samples most remote from the point of entry as possible). If copper and/or lead is detected, then supplemental alkalinity addition downstream of the anion exchange device shall become mandatory.

- The anion exchange, nitrate reduction device being installed is the U.S. Water L.L.C. model NT202162 single tank system.
- Flow controls shall be installed to preclude each nitrate reduction device from exceeding its maximum rated service flow rate (i.e. 20 gpm).
- Any wall hydrant that is not served by the nitrate treatment device must have one, or more, of the following:
 1. The handles of the hydrant shall be removed;
 2. The hydrant shall be capped and sealed using solder; or
 3. Signage shall be posted immediately above the hydrant indicating the water is unfit for human consumption.
- All water distribution piping shall be marked as required by Table SPS 382.40-1a.
- Ongoing service and maintenance of this device shall be performed by U.S. Water LLC, 6905 Venture Circle, Weston WI 54476, 715-842-2215.

- The drain, waste and vent system shall be properly sized to handle the additional wastewater load generated by this device.
- The nitrate reduction device shall have a minimum of a 25% reserve capacity. This means, of the 7 ft.³ of resin contained within the nitrate reduction device, 1.75 ft.³ shall be held in reserve and not used to determine the setup of the system. For the purpose of programming the system, 5.25 ft.³ shall be used.

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, Technical Services
 (608) 267-1401, Monday – Thursday 8:30AM – 5:30PM, Friday 8:30AM – 12:30PM
 glen.schlueter@wisconsin.gov

cc: Bruce Emerson Meiners, Plumbing Consultant, (608) 399-4156 , Mon - Fri 8:00 am - 4:30 pm
 US Water LLC
 Larry Skrzypkowski , Smileys

Fee Required \$	160.00
Fee Received \$	160.00
Balance Due \$	0.00
WiSMART code: 7657	

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.

**Conditionally
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 SEE CORRESPONDENCE

Smiley's
Name of Project

INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION:		
1-	Demand of building in water supply fixture units (WSFU);	(WSFU) <u>22</u>
1.a.	Demand of building in WSFU converted to Gallons Per Minute: (Table SPS 382.40-3)	(GPM) <u>20</u>
2-	Elevation difference from main or external pressure tank to building control valve; (feet)	
3-	Size of water meter (when required) 5/8" <u> </u> 3/4" <u> </u> 1" <u> </u> other <u>1 1/4</u>	
4-	Developed length from main or external pressure tank to building control valve; (feet)	<u>7</u>
5-	Low pressure at main in street or external pressure tank.	(psi) <u>40</u>

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)	<u>40</u>
7-	Determine pressure loss due to friction in <u>Pressure Tank Inside</u> inch diameter water service. Water service piping material is <u>Copper</u> Pressure loss per 100 ft. = <u> </u> X <u> </u> (decimal equivalent of service length, i.e. 65 ft = 0.65)	Subtotal <u>40</u>
8-	Determine pressure loss or gain due to elevation, (multiply the value of # 2 above by .434)	Subtotal <u>0</u>
9-	Available pressure after the bldg. control valve.	Subtotal <u>40</u>

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

B.	Available pressure after the bldg. control valve. (from "9" above)	Value of "B" <u>40</u>
C.	Pressure loss of water meter (when meter is required)	Subtotal <u>40</u>
D.	Pressure at controlling fixture*. (Controlling fixture is: <u>Water Softener</u>). (*Controlling 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.)	Subtotal <u>3.3</u>
E.	Difference in elevation between building control valve and the <u>controlling fixture</u> in feet; <u>4</u> X .434 psi/ft.	Subtotal <u>1.74</u>
		Subtotal <u>31.26</u>

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SEE CORRESPONDENCE

Water Calc Worksheet

Smiley's
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; Water Softener/Nitride).

F1. WSFU Downstream of Water Treatment Device; 22.5

F2. Convert wsfu to GPM using Table 382.40-3; 20

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") 14

Subtract value of F4 14

Subtotal 17.26

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

Hot water WSFU's; _____ convert to; GPM = _____ (Table 382.40-3)

Refer to manufacturer's pressure loss graph to determine loss at the required GPM;

_____ pressure loss. Subtract value of "G" 0

Subtotal 17.26

H. Developed length from building control valve to controlling fixture in feet 2.1 X 1.5

Divide by value "H" 6

Subtotal 2.88

Multiply by: 100

A. Pressure available for uniform loss

"A" = 288

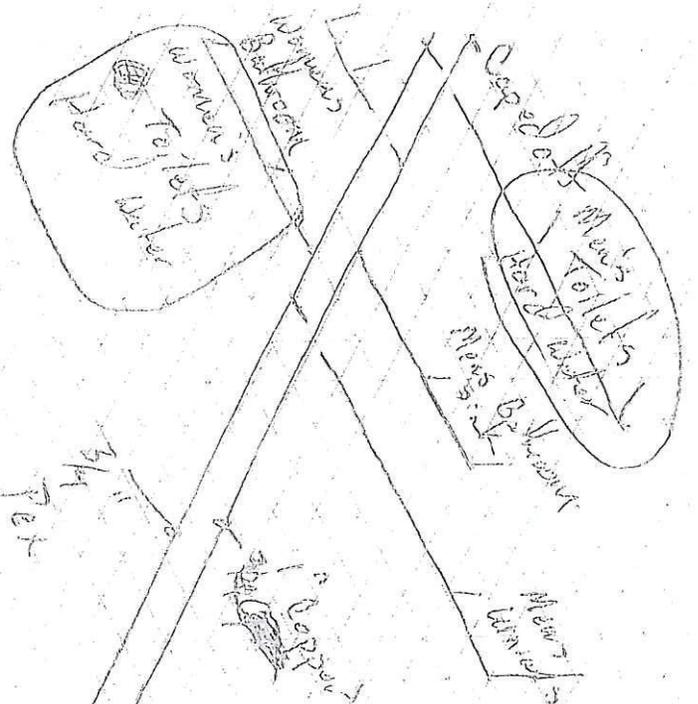
Water distribution piping is: Copper / Pex

*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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[Handwritten Signature]
SEE CORRESPONDENCE



Master plumber

Copy
230753



Water # NTAD 016A

Conditionally APPROVED

[Signature]

SEE CORRESPONDENCE

DRAWN BY Jerard SKETCH NO. _____
 DATE DRAWN 7/30/14
 DATE NEEDED _____

JOB NAME Smiley's JOB NO. _____