

**OLD CAF
ITEM NO: 18
DATE: 08/25/20**

To: Mayor and City Council

From: John Dunn, Director, W&PC

Date: August 11, 2020

Subject: Request to Waive Fees for Damaged Water Meter at 5212 Lincoln Way

On July 28, Council received an email from Mr. Dan Craig appealing fees that his property was assessed as a result of a frozen water meter. Council referred that appeal to staff for a background memo.

BACKGROUND:

According to the County Assessor's website, the home was constructed in 1900. It was originally constructed as a single-family home that was later converted to a two-family dwelling.

On Saturday, April 4, 2020, a Water Meter Repair Technician was dispatched to the home in response to a trouble call that came to the Water Plant reporting a leaking water meter. The Technician noted on his service order that the problem found was a "frozen meter" located in the basement of the property. He noted on the service ticket that he replaced the meter body. The Technician reported that there is a single-pane window above the meter and an unheated crawl space that is open to the basement area.

The Technician noted on the service order that he contacted Mr. Craig by phone to let him know that there would be a prorated charge for the frozen meter; and that Mr. Craig "wasn't happy but understood." The Technician also noted that he gave some recommendations to Mr. Craig about how to insulate the meter to avoid having the same problem in the future.

Mr. Craig subsequently received an invoice from the City for \$325 for the damaged water meter. Mr. Craig returned the invoice with a notation that he would not be paying the charge. Mr. Craig was not present when the meter was replaced and has declined offers from the Water Meter Division to visit their office to view the damage to the meter.

Ames Municipal Code

The Ames Municipal Code specifies that water meters are owned by the City of Ames.

Sec. 28.203. METERS FURNISHED AND OWNED.

(1) All water meters shall be furnished and owned by the City. The customer shall pay for the water meter(s) according to the current schedule of fees for meter installation as stated in Appendix Q of the Municipal Code.

According to the Municipal Code, the City will provide routine maintenance for the water meters. In return, the customer is responsible for protecting the meter from damage due to carelessness or negligence. Explicitly included in the Municipal Code is a requirement to protect the meter from freezing.

Sec. 28.205. LOCATION AND ACCESSIBILITY

(1) **Basement mechanical room.** The water meter(s) shall be located in the basement or mechanical/utility room if one is provided. The water meter shall be placed where the water service line comes through the basement wall or basement floor. Where no basement is provided, the meter(s) shall be placed where the service line comes through the floor of the utility room. **Meters shall be indoors and protected from freezing.** A floor drain shall be located in the room containing the meter(s). Meters cannot be located above the first or ground floor level under any conditions. Only the individual water meter(s) serving a dwelling unit can be located within the private occupancy space of that dwelling unit.

Sec. 28.210. METER REPAIRS AND COST

(1) The Water Utility will service and maintain city-owned water meters without charge and will replace a defective or malfunctioning water meter without charge. However, if it is found that damage to the meter has resulted through carelessness and/or negligence on the part of the customer, or as a result of the customer's plumbing system or internal operations, then the customer shall be liable for the expense of the repair of the meter.

(2) In the event of an emergency where the meter is discovered out of order to such an extent as to cause property damage by leakage, the meter may be removed by the customer or the customer's representative and immediately returned to the Water Meter Division for repair.

(3) Where a water meter fails to register accurately, the customer shall be charged the average rate as shown by the previous readings of the meter when in order.

(Ord. No. 854, Sec. 30; Code 1956, Sec. 31-30; Ord. No. 3199, Sec. 1, 9-24-92)

(Ord. No. 4327, 11-28-17)

Sec. 28.211. PROTECTION OF METERS.

(1) Protection of the meter from freezing or any other damage shall be the obligation of the owners and occupants of the premises for which installed. **Cost of any repairs for damaged meters shall be assessed as described in Sec. 28.210.**

(2) Unprotected construction meters will only be set between May 15 and October 15. If the construction is protected from the elements, a construction meter may be used at any time.

(Ord. No. 854, Sec. 40; Code 1956, Sec. 31-48; Ord. No. 3199, Sec. 1, 9-24-92)

(Ord. No. 4327, 11-28-17)

WATER METER DESIGN:

Water meters used in climates where frozen water lines are a possibility are designed with the bottom plate (often referred to as a "frost plate") as the weakest part of the meter. (See AWWA Standard C700-15: Cold-Water Meters – Displacement Type.) The frost plate is designed to break when the meter freezes in order to protect both the meter and the customer's premise plumbing from more catastrophic damage.

WHY DO WATER METERS FREEZE?

Problems with frozen water meters are an all too common occurrence. The Ames Water Meter Division experiences approximately two dozen frozen meters per year. Even when occupied parts of a home are kept at a comfortable temperature, the location where the water meter sits is often

much colder. Unoccupied basements and crawl spaces are typically not heated, and in older homes not even insulated. Frequently, homeowners will frame in a water meter to hide it, unintentionally preventing warm air being circulated through the room from reaching the plumbing or the water meter.

Any number of factors could explain why two meters can sit side-by-side, and one might freeze while the other does not. It could be due to slight differences in air drafts in the room, or distance from an outside wall. It could be that one meter had enough 55° water flowing through it during a cold snap that it kept the meter from freezing, while the other meter sat with stagnant water that got cold enough to freeze.

Similarly, there are multiple explanations of why a meter might not freeze when it is -30°F but does freeze when it is +24°F. Again, it could be because there was 55° water flowing through the meter on the -30°F night, but not on the +24°F. Or a window or door could have been inadvertently left ajar on the second night, allowing cold outside air into the space.

It is worth noting that frequently the meter will not leak while the meter body is frozen. The leaks begin once the meter thaws back out and water begins moving through the pipes again.

CHARGES FOR DAMAGED METERS:

The fees and charges associated with a frozen water meter are contained in Appendix Q in the Ames Municipal Code.

Frozen/damaged meter	
Construction Meter.....	\$160.00
Meters 1-1/2" and larger.....	\$125.00 trip fee + repairs/replacement
Meters 1" and smaller.....	\$80.00 trip fee + Depreciated Value
Depreciated Value is a straight line depreciation of the Meter and Setting Fees above, based on length of time meter has been in service.	
< 1 year	100%
< 2 years.....	90%
< 3 years.....	80%
< 4 years.....	70%
< 5 years.....	60%
< 6 years.....	50%
< 7 years.....	40%
< 8 years.....	30%
< 9 years.....	20%
<10 years.....	10%
>10 years.....	0%

Meters that are 1½” and larger are cost effective to rebuild; thus the charge is a trip fee plus the actual cost to repair. Meters 1” and smaller are not cost-effective to rebuild and are replaced when damaged. Most meters in this size range are residential meters that are replaced on a 10-15-year cycle depending on the volume of water that has passed through the meter over its life. If a meter must be replaced early due to being frozen, the fee is based on the depreciated value (or remaining life) of the meter, as a percentage of the current cost to install a new meter.

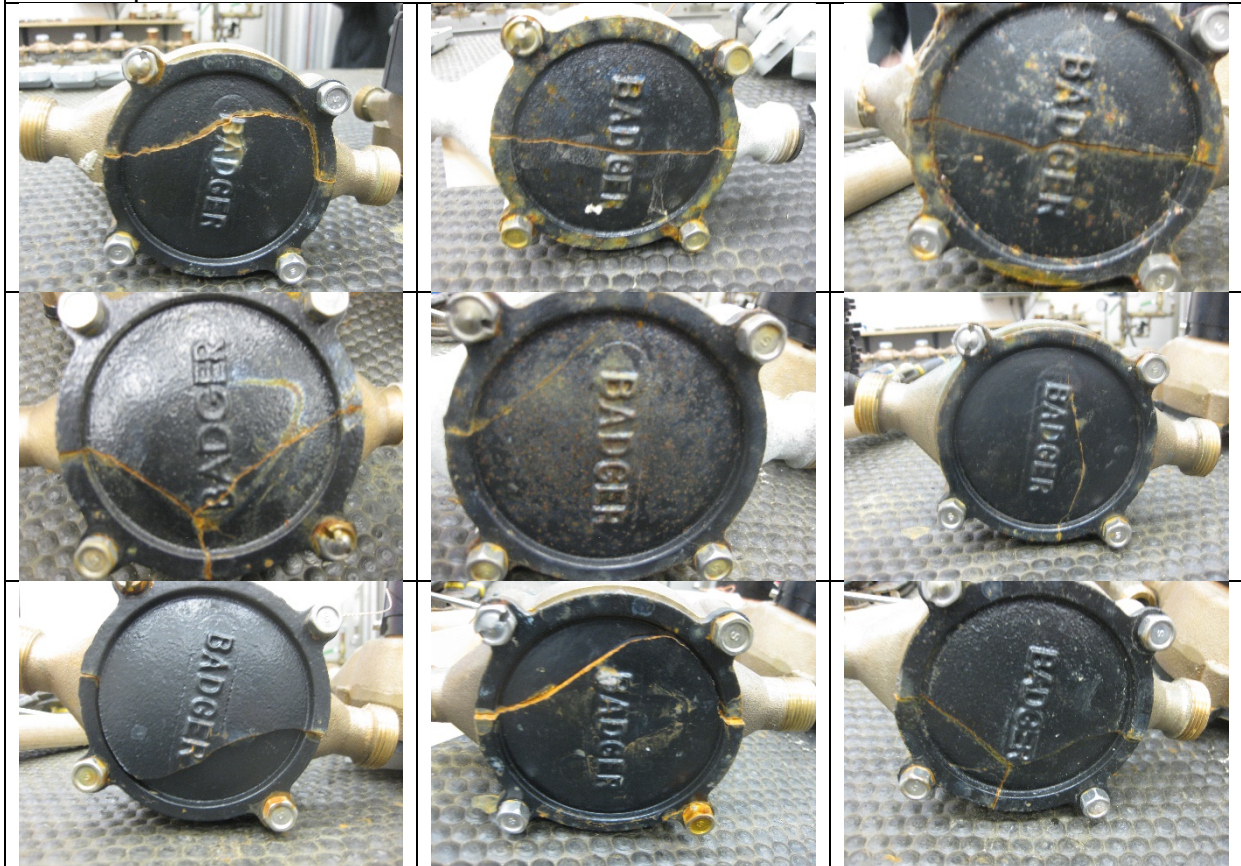
METER FROM 5212 LINCOLN WAY:

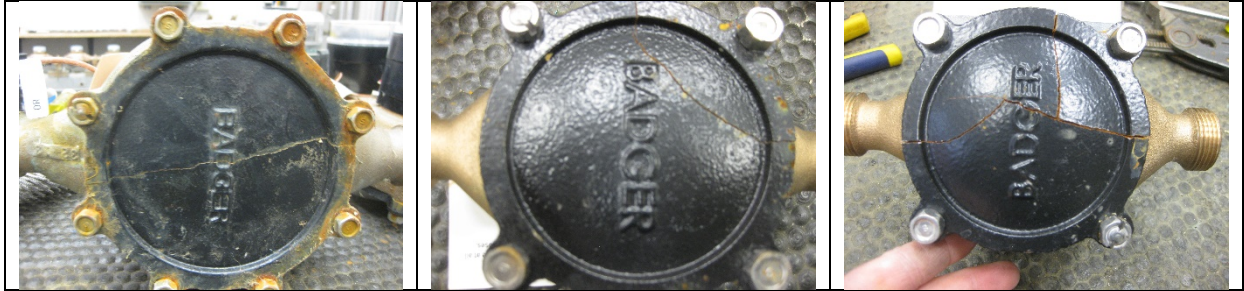
Regardless of how it happened, it is clear in staff's professional judgement that the meter removed from 5212 Lincoln Way had been frozen. Frozen meters are something staff experiences multiple times every winter, and the visual signs are very easy to spot. The following page contains a photo of the meter from 5212 Lincoln Way, and a library of photos from other locations where the water meter froze.



Photo of damaged meter from 5212 Lincoln Way

Below are examples of other frozen water meters. Note the similarity in the type of damage to the frost plate.





Attachment A: Service Order Ticket

CITY OF AMES

UT500L

** SERVICE ORDER **

CYCLE/ROUTE: 06 69

** COMPLAINT MADE TO MTR LAB **

CREW CODE: WMTR WATER METER LAB SVC ORDER NO.: 114405
 SECTION: 0382 RTES 40 41 69 89 ISSUE DATE: 4/04/20
 LOCATION ID: 22810 CLASS: RESIDENTIAL ISSUE TIME: 18:55:13
 ADDRESS: 5212 LINCOLN WAY 2 REQUEST DATE: 4/04/20
 CITY: AMES USER ID: DEVOS
 CUSTOMER ID: 230395 NAME: WOJCIK, ANDREW G PHONE: 515 [REDACTED]
 SPECIAL CODE: _____

SERVICE/SEQ: WA 000 WATER

-- CURRENT --

-- NEW --

METER NUMBER : 45456315 ✓
 MAKE : B BADGER
 SIZE : P 5/8 X 3/4"
 STYLE : M25 BADGER MODEL 25
 MULTIPLIER : 1.0000
 LOCATION : _____
 SPECIFIC LOC: 13 AMR
 READING SEQ : 600

35216849

*dcraig33333-
@gmail.com*

5/8X3/4" PERM, 1" COPPER SVC, 1-^{3/4} ADAPT
 NW BSMT IN APT #1. BOTH APTS HAVE ACCESS
 TO BASEMENT. 2 METERS HERE
 10/18/16 OUTREAD 14120, NEW IN AT 0

ASSOCIATED DEVICES: TYPE SERIAL NUMBER

1 : ER 16002570 ✓
 2 : RF 71741667 ✓
 3 : TA 00
 4 : VA 1" LMV
 5 : _____

Same #'s

PREVIOUS- 3/16/20 CURRENT READING: NEW READINGS:
 CF 7872.00 CF 8060 _____

----- COMPLETION INFORMATION -----

DATE: 4/4/20 MISC CHARGE: AMT:
 ACTION: 700-800 COMPLETION METHOD: SVC ORDER MAINTENANCE

NOTE: LEAKING METER

Bill
 Landlord
 Dan Craig
 515-291-2690
 Explained pro-rata
 meter charge for
 meter. Not happy, but
 advised Dan to insulate a few areas around meters to prevent freezing again.
 Can use bill Dan Craig instead of statement at his house (Adv...??)

*Frozen Meter. Replaced meter body
 Internal HRE/ERT # to remain the same*

*Advised Dan to insulate a few areas around meters to prevent freezing again.
 Can use bill Dan Craig instead of statement at his house (Adv...??)*

Attachment B: Appeal Request

Diane Voss

From: Dan Craig <dcraig33333@gmail.com>
Sent: Tuesday, July 21, 2020 6:06 PM
To: Diane Voss
Cc: dcraig33333@gmail.com
Subject: Appeal to the City Council to be relieved of charges of broken water meter

[External Email]

Diane,

Please forward the following, per your last email, to the Mayor and the City Council, for this appeal.

To Whom it May Concern,

For the charge of \$325 for a broken water meter, invoice dated 4/30/20, reference number 176858, I submit the following appeal.

A letter from the City of Ames dated April 16, 2020, states "The technician found the water meter 'was frozen' and needed to be replaced." My tenants reported there was no ice on or anywhere near the water meter at the date and time the technician speaks of here.

On July 10, 2020, an email from Dave Blumer at City of Ames, states "The technician that responded found the bottom cap of the meter was cracked. In our experience, this 'generally indicates that the meter was frozen at some time and was now leaking' ." The report on April 16 indicating that the meter "was frozen" and the email on July 10th saying it was "cracked" with a rather hypothetical conclusion, are very conflicting. Also I have spoken with the manufacturer of the water meter who stated that a cracked water meter "may be indicative of having been frozen", but it is not proof of such.

In the dwelling in question, there are two water meters placed less than 2' apart. One is absolutely fine. Why is one being questioned to be frozen while the other, just less than 2' away, is functioning properly? There are exposed water lines in close proximity of the water meter; they were not frozen at this time in question. There is a hose bib in the crawl space which did not malfunction whatsoever at this time in question. Tenants reported that the thermostat was set at 72 degrees at the time in question. Also the night before the report of a frozen water meter, on 4/3/20, it was 24 degrees outside. As a legitimate reference, on 1/30/19 it was negative 30degrees with a 58 below wind chill, and the water meter did Not freeze at that time. Why would it not freeze when it is negative 30 outside, versus the night before this report it was 24 degrees?

I have been a City of Ames utilities customer for 50 years and have never paid a bill late nor requested relief for any charge on my account. This charge is unfounded. Please cancel this charge.

Respectfully,
Dan Craig

Attachment C: Council Referral

COUNCIL ACTION SUMMARY

Meeting Date: July 28, 2020

Agenda Item #: Disposition

SUBJECT: Email from Dan Craig regarding appealing charges incurred due to a broken/replaced water meter

ACTION TAKEN: Directed to staff for a memo

MOTION BY: Gartin

SECOND BY: Betcher

VOTING AYE: Beatty-Hansen, Betcher, Corrieri, Gartin, Junck, Martin

VOTING NAY: None

ABSENT: None

By: Amy L. Colwell, Deputy City Clerk

Sent to: John Dunn, Water and Pollution Control Director
Dave Blumer, Water and Pollution Control Supervisor

Attachment D: Invoices

STATEMENT OF ACCOUNT

PAGE 1

CITY OF AMES
515 CLARK AVENUE BOX 811
AMES, IA 50010-0811

(515) 239-5113

DATE: 5/29/20

TO: DAN CRAIG
1612 REAGAN DR
AMES, IA 50010

CUSTOMER NO: 1812/1136170

TYPE: WM - WATER METER

CHARGE DATE DESCRIPTION REF-NUMBER DUE DATE TOTAL AMOUNT

4/30/20 BEGINNING BALANCE 325.00

*I will gladly pay this if
it is proven to me that the water
meter froze. Dan Craig 291-2090*

STATEMENT REFLECTS CHARGES/PAYMENTS RECEIVED
THROUGH MAY 29TH. \$20.00 CHARGE FOR NSF CHECKS.

Current OVER 30 OVER 60 OVER 90

325.00

PAYMENT DUE: 325.00
TOTAL DUE: \$325.00

PLEASE DETACH AND SEND THIS COPY WITH REMITTANCE

DATE: 5/29/20
CUSTOMER NO: 1812/1136170

NAME: CRAIG, DAN
TYPE: WM - WATER METER

REMIT AND MAKE CHECK PAYABLE TO:
CITY OF AMES
515 CLARK AVENUE BOX 811
AMES IA 50010-0811
(515) 239-5113

TOTAL DUE: \$325.00

CITY OF AMES
515 CLARK AVENUE BOX 811
AMES, IA 50010-0811

(515) 239-5113

DATE: 6/30/20

TO: DAN CRAIG
1612 REAGAN DR
AMES, IA 50010

CUSTOMER NO: 1812/1136170

TYPE: WM - WATER METER

CHARGE	DATE	DESCRIPTION	REF-NUMBER	DUE DATE	TOTAL AMOUNT
--------	------	-------------	------------	----------	--------------

5/29/20 BEGINNING BALANCE

325.00

*Save your
paper*

*Meter did not freeze
and I am not
paying this*

PAST DUE

*Dan Craig
7-1-20*

STATEMENT REFLECTS CHARGES/PAYMENTS RECEIVED
THROUGH JUNE 30TH. \$20.00 CHARGE FOR NSF CHECKS.

Current	OVER 30	OVER 60	OVER 90
		325.00	

PAYMENT DUE: 325.00
TOTAL DUE: \$325.00

PLEASE DETACH AND SEND THIS COPY WITH REMITTANCE

DATE: 6/30/20
CUSTOMER NO: 1812/1136170

NAME: CRAIG, DAN
TYPE: WM - WATER METER

REMIT AND MAKE CHECK PAYABLE TO:
CITY OF AMES
515 CLARK AVENUE BOX 811
AMES IA 50010-0811
(515) 239-5113

TOTAL DUE: \$325.00