September 15, 2020

Mr. Jason Bichler
St. Michael-Albertville ISD #885
11343 50th Street NE
Albertville, MN 55301

Providing Trusted
Health and Safety Solutions

RE: Lead-in-Water First Draw – Resampling
IEA Project #201911210

Dear Mr. Bichler:

At the request of St. Michael-Albertville ISD #885, IEA collected nineteen (19) follow-up water samples for lead analyses, in response to elevated sample results of resampling conducted on July 31, 2020. The current sampling occurred on August 28, 2020, from the following buildings:

- High School (3 samples)
- Fieldstone Elementary (1 samples)
- Middle School West (1 samples)
- Community Ed (2 samples)
- St. Michael Elementary (12 samples)

The purpose of the resampling is to document lead content in the sampled locations.

INTRODUCTION

Minnesota Statute 121A.335 requires public school buildings serving pre-kindergarten through grade 12 to test for lead in potable water fixtures every five years. The *3Ts for Reducing Lead in Drinking Water Toolkit (2018)* and the Lead Contamination Control Act (LCCA) of 1988 were created by the Environmental Protection Agency (EPA) to identify and reduce lead in drinking water. Lead is a metal that usually enters drinking water through the distribution system, including pipes, solders, faucets, and valves. Lead content in water may increase when the water is allowed to sit undisturbed in the system. Exposure to lead is a health concern.

The EPA recommends taking action when elevated lead levels are noted in water fixtures. The MDH and MDE recommend taking a fixture out of service if levels are 20 parts per billion (ppb) or higher. The MDH and MDE also recommend taking action according to their guidelines for fixtures with levels of 2 parts per billion (ppb) or higher.

METHODOLOGY

IEA collected nineteen (19) first-draw (unless otherwise noted) samples of approximately 250 milliliters (ml) of water. "First draw" means the samples are collected before the fixture is used or flushed during the day. The first-draw sample results reflect a worst-case scenario, i.e., the highest lead level that would be consumed by building occupants. MDH recommends fixtures not be used 6 to 18 hours prior to sampling fixtures.

Water samples were analyzed by Minnesota Valley Testing Laboratories (MVTL) in New Ulm, Minnesota, which uses EPA-approved analytical methods and quality control/assurance procedures. Samples were analyzed using the ICP/MS EPA Method 200.8.

RESULTS & DISCUSSION

The lead-in-water sampling results ranged from below the level of detection (<0.5 ppb) to 13.8 ppb. There is 1 sample with results greater than the district designated level of 10 ppb. See *Table 1: Water Testing Results Exceeding 10 ppb*. The laboratory reports are provided in Appendix A. Laboratory results are reported in micrograms per liter (µg/L) which is equivalent to ppb.

Table 1: Water Testing Results Exceeding 10 ppb – August 28, 2020

Sample Number	Building	Sampling Location	Fixture Type	Lead Results (ppb)
08282020SMAME-05	St. Michael Elementary	Room 212	Sink	13.8

ppb – parts per billion

RECOMMENDATIONS

IEA recommends implementing one of the following treatment options for fixtures with elevated lead content. Fixtures should be retested after remediation to verify lead content reduction.

- Remove fixture from service by disconnecting it from the water supply and/or post signs that the water is not potable and notify staff accordingly.
- Provide bottled water to occupants which meet FDA and state standards. A written statement from the bottled water distributor guaranteeing the standards are met should be filed with the District.
- Replace lead pipes on the property and district's portion of the service line.
- Reconfigure plumbing system to redirect the water to bypass any known sources of lead contamination.
- Replace fixture with a "lead-free" fixture certified to NSF/ANSI 372 or NSF/ANSI 61-G. The *Reduction of Lead in Drinking Water Act* redefines "lead-free" as "not more than a weighted average of 0.25% lead when used with respect to wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures." Effective January 4, 2014, drinking water system components sold or installed must adhere to this new requirement.
- Install a drinking water treatment unit certified to NSF/ANSI 53 or NSF/ANSI 42 for lead reduction.
- Conduct flush testing in accordance with MDH, MDE, and EPA guidelines to determine if flushing will reduce lead content. If results indicate that flushing will reduce lead to acceptable levels:
  - Implement a flushing program which includes documentation of daily flushing and periodic program review.
  - Note that elevated levels can return quickly following flushing depending upon the age and condition of the plumbing. Replace the plumbing components and ensure any repair or replacement is done using only "lead-free" solder can address high lead levels.
  - Check existing wires in the building that could be grounded to lead piping. The electrical current produced may accelerate the corrosion of the pipes. Consider checking the wires and finding an alternative grounding system.

In addition, the MDH recommends labeling any water fixtures not included in the sampling program, including bathroom taps, hose bibbs, laboratory faucets/sinks or custodial closet sinks.

If the school receives its water from a community public water supply, such as a municipal water supply, MDH encourages the school to work with them to assess the source contribution of lead coming into the school.

It is recommended that a copy of the district's Lead in Water Testing Report be made available to staff and the public through the district's administrative offices. Per Minnesota Statutes, section 121A.335, a school district that has tested its buildings for the presence of lead shall make the results of the testing available to the public for review and must notify parents of the availability of the information.

GENERAL CONDITIONS

The analysis and opinions expressed in this report are based upon data obtained from St. Michael-Albertville ISD #885, at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental, health and safety practices. Other than as provided in the preceding sentence and in our Proposal #8088 dated April 17, 2020, regarding EH&S Management Services at St. Michael-Albertville ISD #885, including the General Conditions attached thereto, no warranties are extended or made.
Please contact IEA if you would like assistance with any of the above recommendations or have questions regarding this report.

Sincerely,

IEA, Inc.

Daniel Holcomb
Senior Project Manager

DH/wb 091520

Enc.

Appendix A

Laboratory Testing Reports and Maps

MINNESOTA VALLEY TESTING LABORATORIES, INC.

MVTL

1126 N. Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 E. Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Highway ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885
www.mvtl.com

MEMBER ACIL

Report Date: 14 Sep 2020

HEIDI SOLBERG
IEA/BROOKLYN PARK
9201 W BDWY STE #600
BROOKLYN PARK MN 55445

Work Order #: 12-13166
Account #: 002190
Purchase Order #: 201910512

Date Received: 31 Aug 2020
Date Sampled: 28 Aug 2020
Temperature at Receipt: 22.2C

PROJECT NAME: ST MICHAEL-ALBERTVILLE
PROJECT NUMBER: 201910512

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS		MCL	DATE ANALYZED	ANALYST
20-A41819	08282020SMAEME-1 131 SINK	1.14	ug/L	15.0	6 Sep 20	RMV
20-A41820	08282020SMAEME-2 132 SINK	1.79	ug/L	15.0	6 Sep 20	RMV
20-A41821	08282020SMAEME-3 134 SINK	2.43	ug/L	15.0	6 Sep 20	RMV
20-A41822	08282020SMAEME-4 108 SINK	0.94	ug/L	15.0	6 Sep 20	RMV
20-A41823	08282020SMAEME-5 212 SINK	13.8	ug/L	15.0	6 Sep 20	RMV
20-A41824	08282020SMAEME-6 118 SINK	1.09	ug/L	15.0	6 Sep 20	RMV
20-A41825	08282020SMAEME-7 119 SINK	1.16	ug/L	15.0	6 Sep 20	RMV
20-A41826	08282020SMAEME-8 122 SINK	3.70	ug/L	15.0	6 Sep 20	RMV

Approved by:

Dan O'Connell **David Smahel**
Chemistry Laboratory Managers New Ulm, MN

Analyses performed under our Minnesota Department of Health Accreditation conform to the current TNI standards.
The reporting limit was elevated for any analyte requiring a dilution as coded below:
@ = Due to sample matrix # = Due to concentration of other analytes
! = Due to sample quantity + = Due to internal standard response
CERTIFICATION: MN LAB # 027-015-125 ND WW/DW # R-040

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LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS		MCL	DATE ANALYZED	ANALYST
20-A41827	08282020SMAEME-9 123 SINK	0.64	ug/L	15.0	6 Sep 20	RMV
20-A41828	08282020SMAEME-10 124 SINK	1.93	ug/L	15.0	6 Sep 20	RMV
20-A41829	08282020SMAEME-11 203 SINK	1.87	ug/L	15.0	6 Sep 20	RMV
20-A41830	08282020SMAEME-12 149 SINK	1.68	ug/L	15.0	6 Sep 20	RMV
20-A41831	08282020SMAEME-13 306/305 OFFICE SINK	4.45	ug/L	15.0	6 Sep 20	RMV
20-A41832	08282020SMAEME-14 305/304 OFFICE SINK	5.86	ug/L	15.0	6 Sep 20	RMV
20-A41833	08282020SMAEME-15 326 SINK	3.16	ug/L	15.0	6 Sep 20	RMV
20-A41834	08282020SMAEME-16 1437 WEST SINK	3.64	ug/L	15.0	6 Sep 20	RMV

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Dan O'Connell **David Smahel**
Chemistry Laboratory Managers New Ulm, MN

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PROJECT NAME: ST MICHAEL-ALBERTVILLE
PROJECT NUMBER: 201910512

LAB NUMBER	SAMPLE DESCRIPTION	LEAD RESULTS	MCL	DATE ANALYZED	ANALYST
20-A41835	08282020SMAEME-17 1437 EAST SINK	6.22 ug/L	15.0	10 Sep 20	KAM
20-A41836	08282020SMAEME-18 HS CONCESSIONS S KITCHEN SINK	0.51 ug/L	15.0	6 Sep 20	RMV
20-A41837	08282020SMAEME-19 MSW CONCESSIONS WATER COOLER	< 0.5 ug/L	15.0	6 Sep 20	RMV

Approved by:

Dan O'Connell **David Smahel**
Chemistry Laboratory Managers New Ulm, MN

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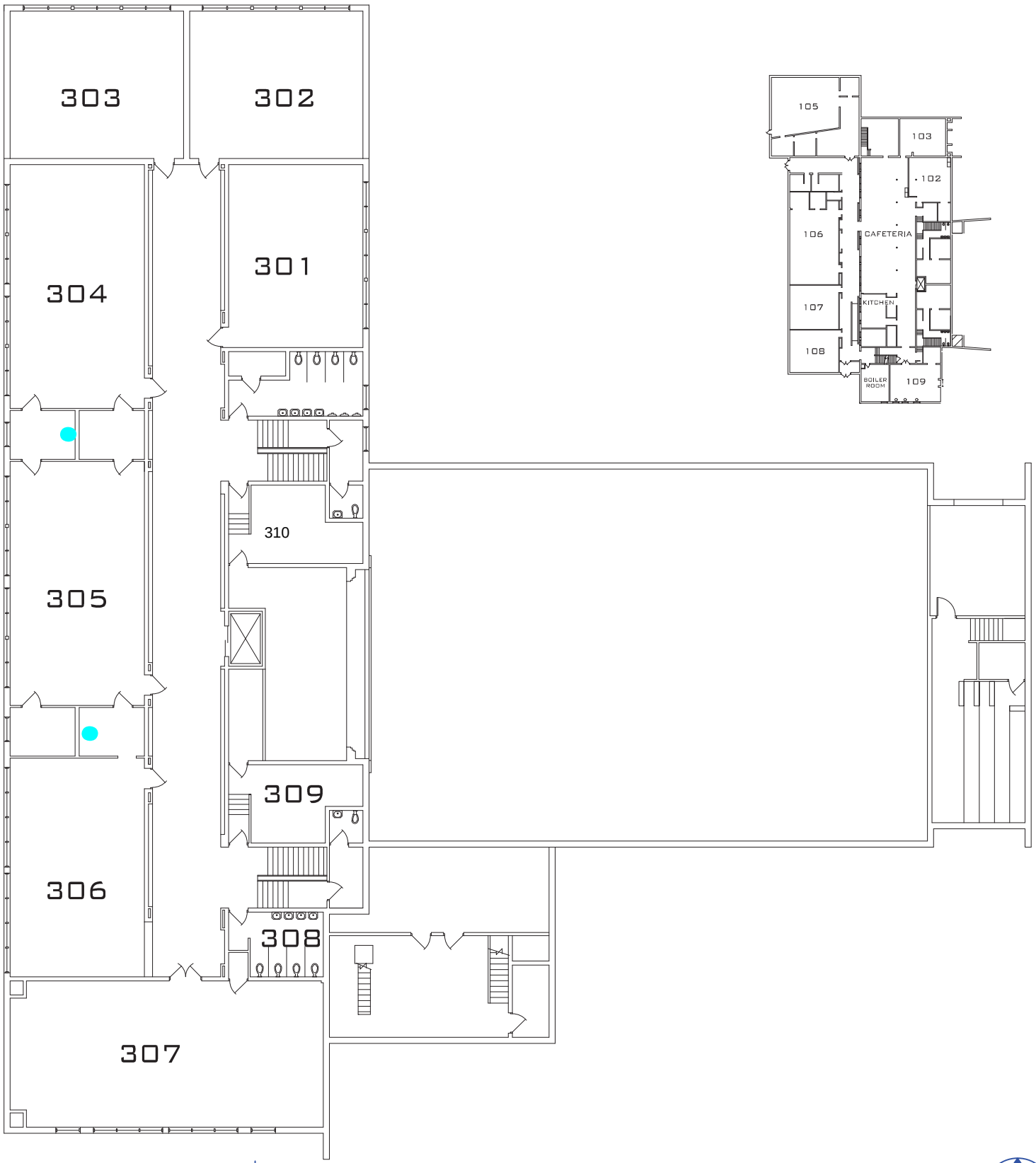
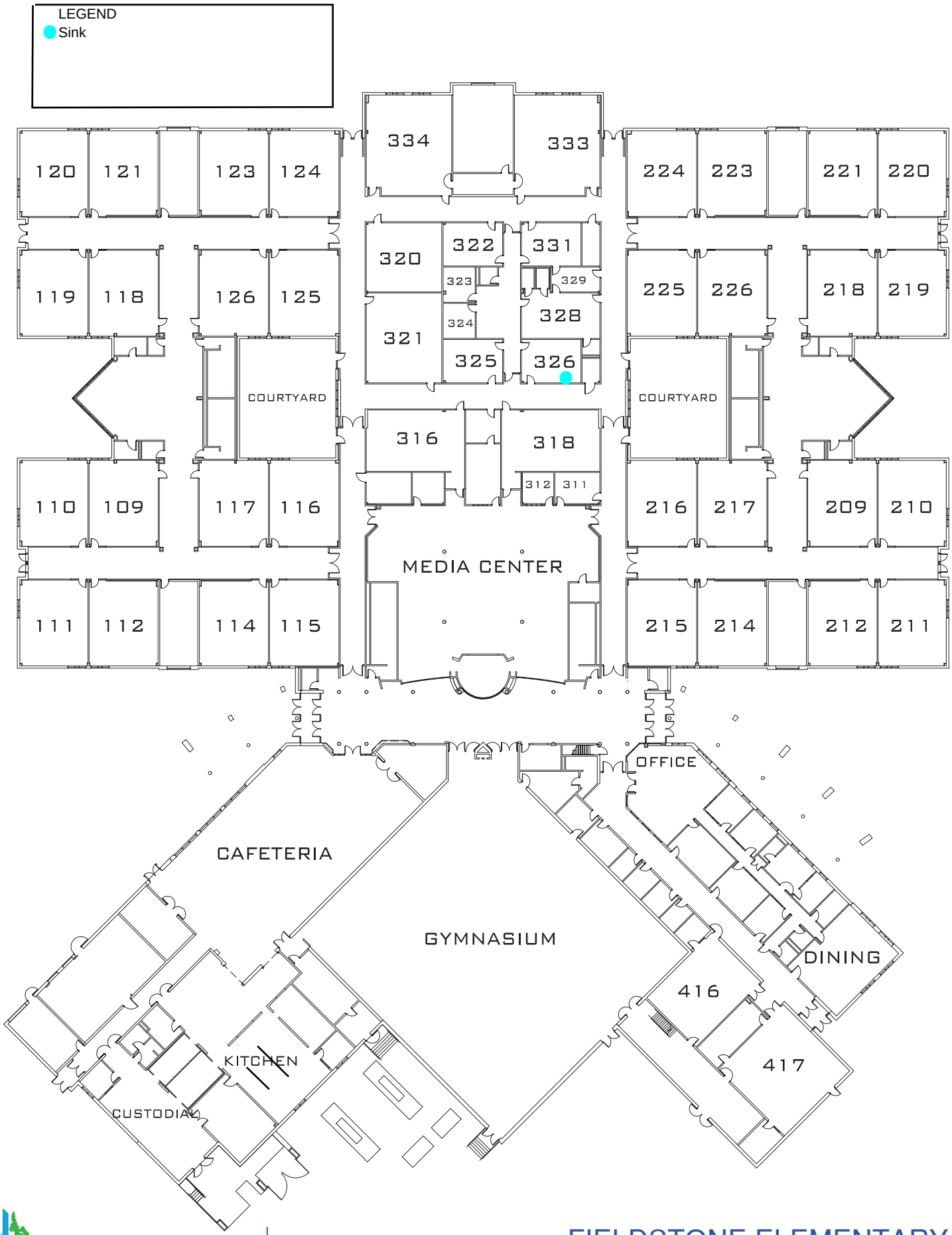


INSTITUTE FOR ENVIRONMENTAL ASSESSMENT
9201 West Broadway Brooklyn Park, MN 55445
Tel: 763.315.7900 Toll Free: 800.233.9513
Fax: 763.315.7920

COMMUNITY EDUCATION BLDG

UPPER LEVEL FLOOR PLAN

ST. MICHAEL-ALBERTVILLE ISD #885
JULY 2014



INSTITUTE FOR ENVIRONMENTAL ASSESSMENT
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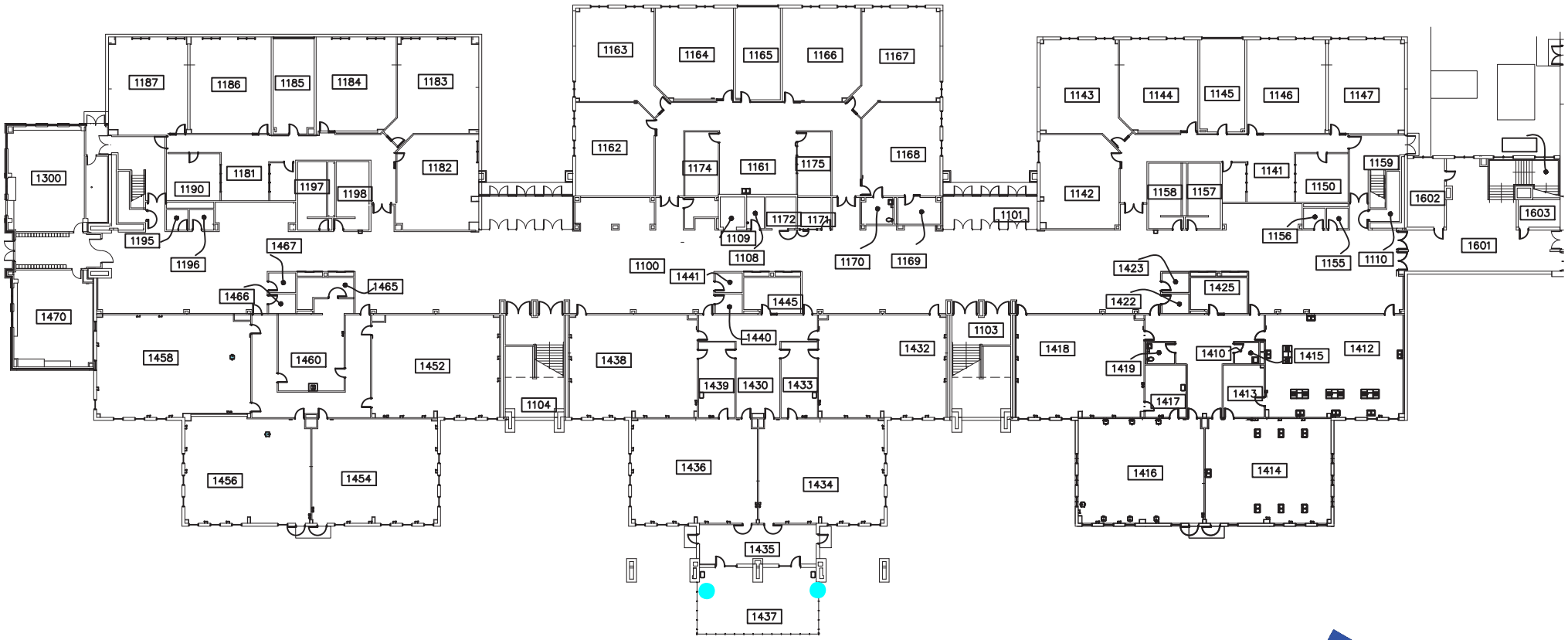
Fax: 763.315.7920

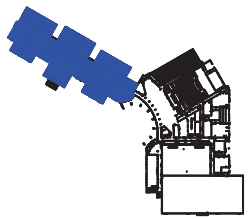
FIELDSTONE ELEMENTARY

FIRST LEVEL FLOOR PLAN | ST. MICHAEL-ALBERTVILLE ISD #885
JULY 2014

LEGEND
Sink

Not Pictured:
Concessions S Kitchen





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Fax: 763.315.7920

ST. MICHAEL-ALBERTVILLE HIGH SCHOOL
LOWER LEVEL FLOOR PLAN | SEPT 2018

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Fax: 763.315.7920

ST. MICHAEL ELEMENTARY

FIRST LEVEL FLOOR PLAN

ST. MICHAEL-ALBERTVILLE ISD #885
APRIL 2015

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