

April 27, 2016

File: 0063.03881.7

Mr. Brian Finos
Manager of Facilities
Charter Development Company
3850 Broadmoor SE, Suite 201
Grand Rapids, Michigan 49512

Re: Environmental Assessment – Drinking Water Quality Report
Detroit Enterprise Charter Academy
11224 Kercheval Street, Detroit, Michigan

Dear Mr. Finos:

Rose & Westra, Inc. (R&W) is pleased to present this drinking water quality report with results from the recent sampling and testing for the Detroit Enterprise Charter Academy located at 11224 Kercheval Street, Detroit, Michigan (the Building). This work was requested due a concern about possible lead contaminates being present in the drinking water supplied to the Building. The water piping system to the Building is maintained by City of Detroit Water Department. The water within the piping system is also provided by the City of Detroit.

In summary, none of the tests conducted identified any contaminants exceeding the maximum contaminant levels (MCLs) or the Secondary MCLs allowed by the U. S. Environmental Protection Agency (U.S. EPA) for residential drinking water consumption.

Background

The Building is a multi-story structure constructed in several phases with the original Building constructed in 1920. Renovations and additions were completed in 2005 using new building materials. The City of Detroit maintains the water distribution system and provides the water within the piping system to the Building.

Drinking Water Sampling

On April 16, 2016, R&W staff collected water samples from 11 water fixtures in the Building. The fixtures sampled consist of drinking water fountain station (DFS) located next to Classroom 104 [DFS-104], DFS next to the Boy's Restroom (Room 128) [DFS-128], DFS across the hallway from Classroom 210 [DFS-210], DFS next to Classroom 220 [DFS-220], DFS across the hallway from Classroom 304 [DFS-304], DFS across the hallway from Classroom 309 [DFS-309], sink tap in the food prep room (Room 126) [FP-126], sink tap in the Teacher's Lounge (Room 227) [TL-227], sink tap in Kindergarten Classroom 105

[KS-105], sink tap in Kindergarten Classroom 106 [KS-106], and sink tap in Kindergarten Classroom 108 [KS-108]. The locations have been illustrated on Figures 1, 2, and 3 (Attachment 1). The sampling method used for the drinking water sample collection is known as first draw sampling, with a second sample collected from each location following a flush of the fixture. The first draw method required R&W staff to access the sampling location and flush the fixture to be sampled for a 30-minute period. Flushing the sampling locations was completed at 7:45 pm on April 15, 2016. Once the 30-minute flushing period was completed, R&W allowed each sample location to rest for a minimum of 6 hours. Each sample location was taped off to prevent use. The first draw water sample collection began at 8:25 am on April 16, 2016; thereby allowing for a 12-hour rest period. Once the first draw sample was collected from the sample locations, the fixtures were turned on for a 5-minute flush before the flushed sample was collected.

The first draw sample from each sample location has been identified in the sample name. The first draw samples are identified as DFS-104-FD, DFS-128-FD, DFS-210-FD, DFS-220-FD, DFS-304-FD, DFS-309-FD, FP-126-FD, TL-227-FD, KS-105-FD, KS-106-FD, and KS-108-FD. These water sample locations have been illustrated on Figures 1, 2, and 3 Attachment 1.

The flushed sample from each sample location has also been identified in the sample name. The flushed samples are identified as DFS-104-FL, DFS-128-FL, DFS-210-FL, DFS-220-FL, DFS-304-FL, DFS-309-FL, FP-126-FL, TL-227-FL, KS-105-FL, KS-106-FL, and KS-108-FL. These water sample locations have also been illustrated on Figures 1, 2, and 3, Attachment 1.

Analytical Testing

Water samples collected by R&W on April 16, 2016 were placed in clean sample containers (supplied by the lab), labeled, cooled, and stored for transportation. The samples were handled and transported to Prein & Newhof Environmental Laboratory, Inc. (Prein & Newhof Laboratory; Grand Rapids, Michigan) under chain-of-custody records using U.S. EPA and Michigan Department of Environmental Quality (MDEQ) recommended methods. The water samples were tested for several heavy metals (copper, iron, and lead). A copy of the laboratory report has been included in Attachment 2. The Prein & Newhof Laboratory has MDEQ Drinking Water Certification for testing water samples.

Evaluation of Testing Results

All of the lead results were reported as below the method detection limit (MDL) of <0.003 mg/L. These reported results are also below the MCL of 0.015 mg/L.

Trace copper levels were reported in most water samples collected. The reported copper concentrations ranged from <0.010 mg/l to 0.272 mg/L; however, all reported concentrations are well below the MCL of 1.300 mg/L.

Mr. Brian Finos
April 27, 2016
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Trace iron levels were reported in all water samples collected. The reported iron concentrations ranged from 0.041 mg/L to 0.067 mg/L. The Secondary MCL for iron has been established at 0.300 mg/L for taste and color. All reported sample results were below the Secondary MCL for iron.

Conclusions

Based on the water sampling and chemical analyses conducted, none of the tests conducted identified any contaminants that exceeded the MCLs or Secondary MCLs allowed by the U. S. EPA for residential drinking water consumption.

If you have any questions regarding the information or data presented in this letter, please feel free to contact our staff.

Sincerely,

ROSE & WESTRA, INC.



William J. Bosze, P.E.

wjb/jac

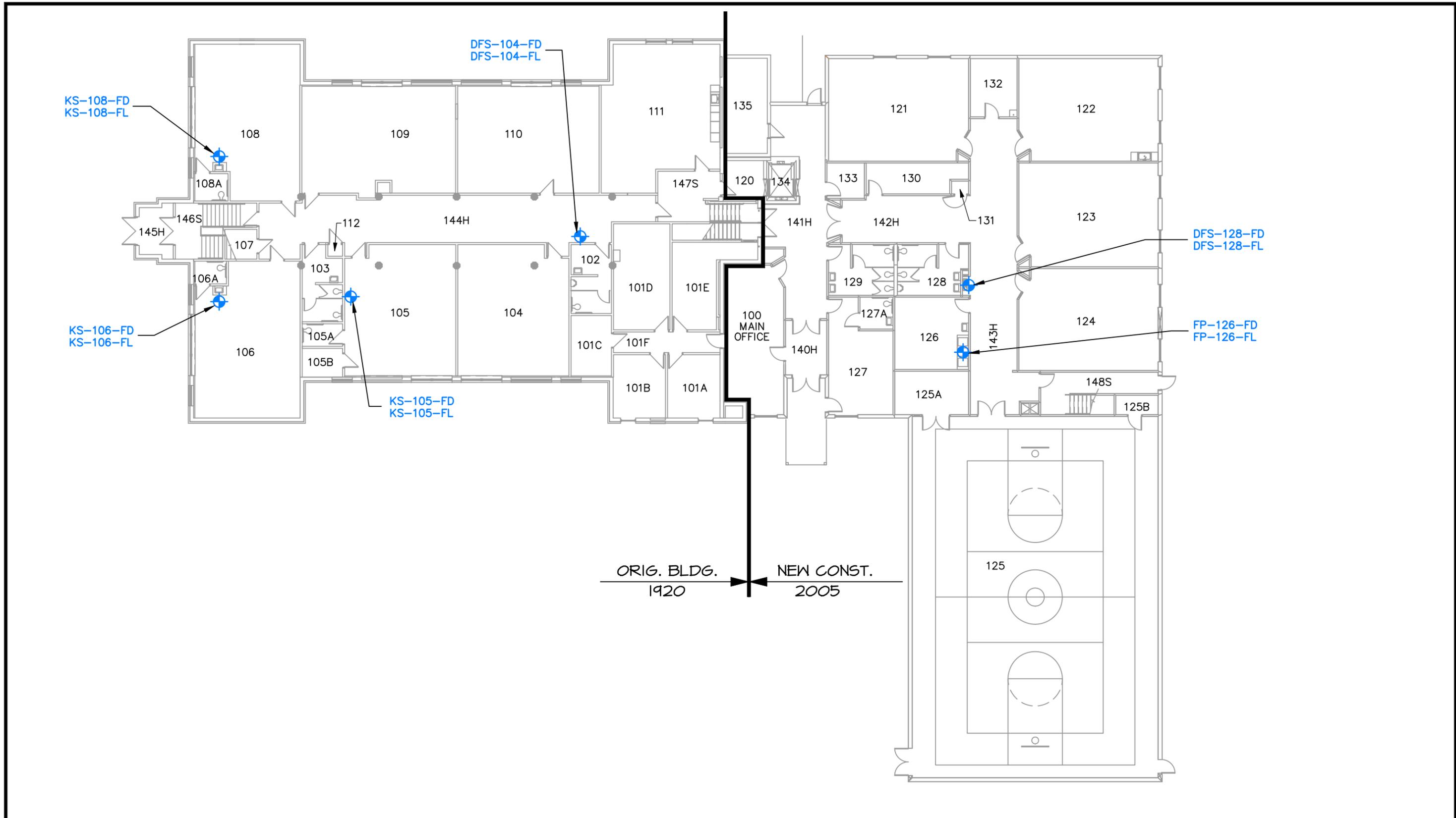
Attachments:

- Attachment 1: Figure 1 – First Floor Plan – Sample Locations – April 16, 2016
- Figure 2 – Second Floor Plan – Sample Locations – April 16, 2016
- Figure 3 – Third Floor Plan – Sample Locations – April 16, 2016

Attachment 2: Prein & Newhof Laboratory Report

Sent via Email Only

ATTACHMENT 1
FIGURES 1, 2, AND 3
DRINKING WATER SAMPLE LOCATIONS – APRIL 16, 2016

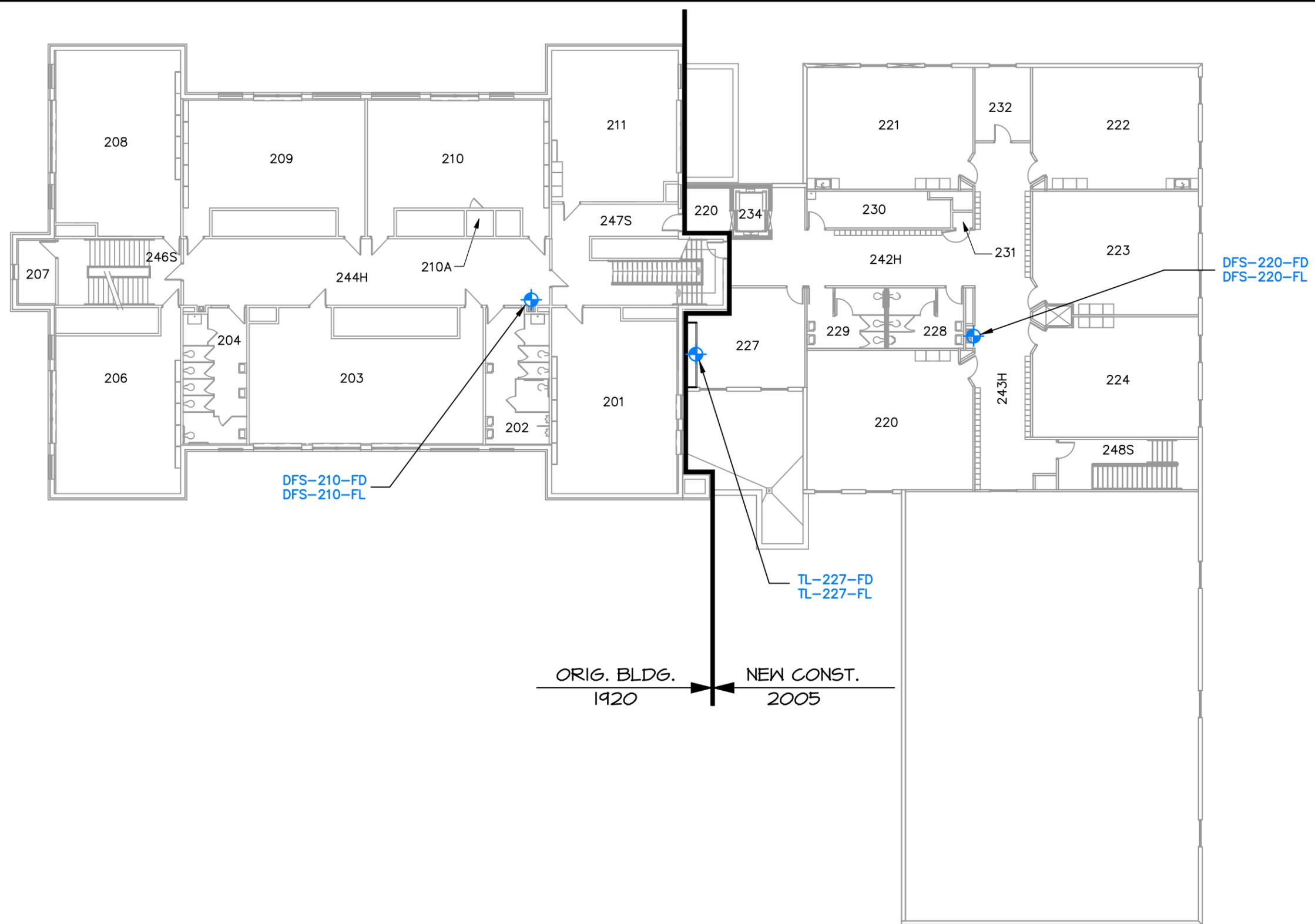


LEGEND

 = WATER SAMPLE LOCATION

SCALE: 1" = 20'


FIRST FLOOR PLAN - SAMPLE LOCATIONS 4/16/16			
 NORTH ORIENTATION	 ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	NATIONAL HERITAGE ACADEMIES DETROIT ENTERPRISE ACADEMY 11224 KERCHIEVAL STREET, DETROIT, MICHIGAN DRINKING WATER TESTING	
		CREATED BY: KJB APPROVED BY: WJB DATE: 4/25/16 FILE NAME: 038817_ENTERP_DWT	PROJECT NO. 0063.03881.7 <div style="font-size: 2em; font-weight: bold; text-align: center;">1</div> FIGURE NO.

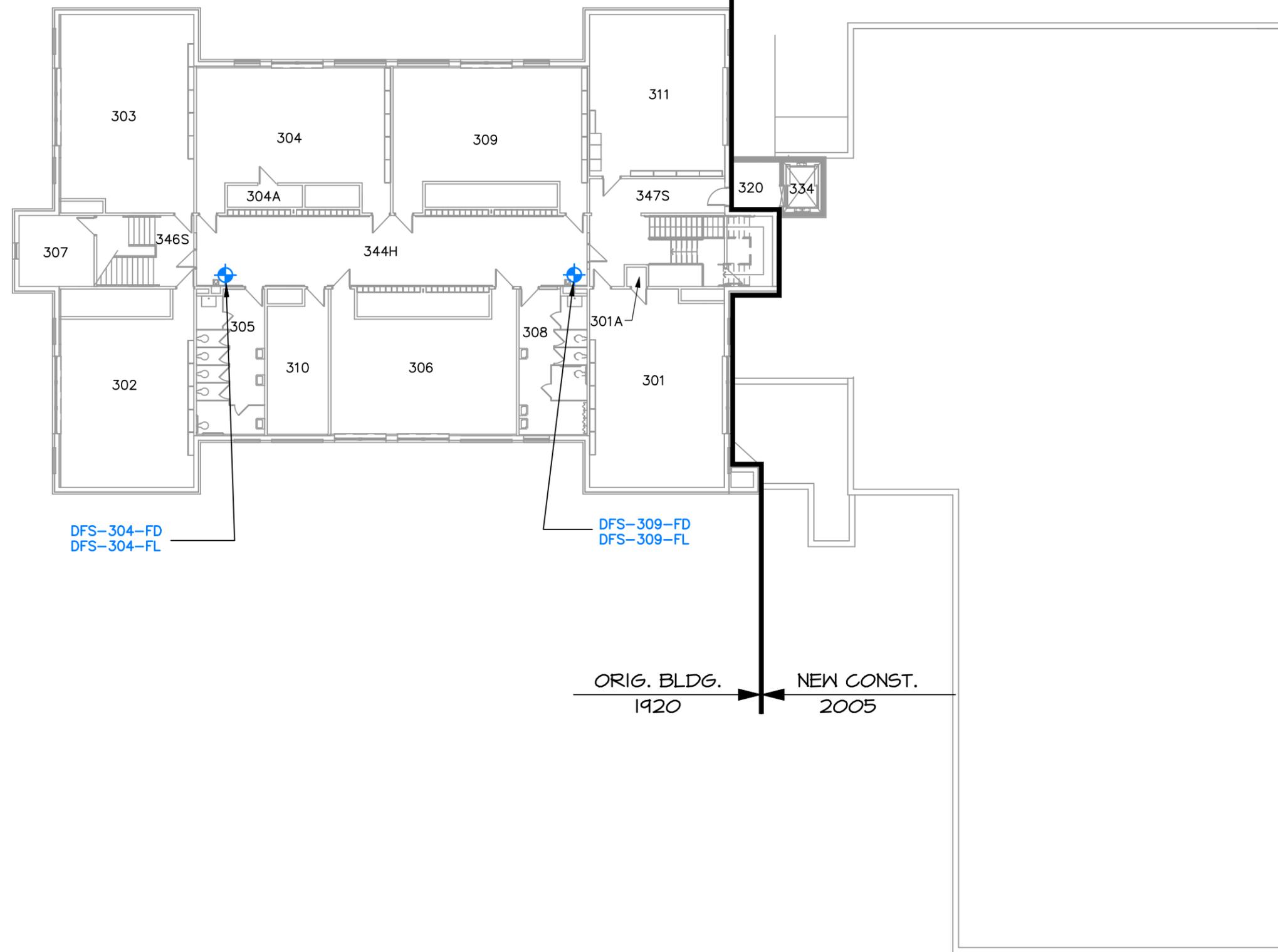


LEGEND

= WATER SAMPLE LOCATION

SCALE: 1" = 20'

SECOND FLOOR PLAN - SAMPLE LOCATIONS 4/16/16			
 NORTH ORIENTATION	 ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	NATIONAL HERITAGE ACADEMIES DETROIT ENTERPRISE ACADEMY 11224 KERCHIEVAL STREET, DETROIT, MICHIGAN DRINKING WATER TESTING	
		CREATED BY: KJB APPROVED BY: WJB DATE: 4/19/16 FILE NAME: 038817_ENTERP_DWT	PROJECT NO. 0063.03881.7 <div style="font-size: 2em; font-weight: bold; text-align: center;">2</div> FIGURE NO.



LEGEND

 = WATER SAMPLE LOCATION

SCALE: 1" = 20'


THIRD FLOOR PLAN - SAMPLE LOCATIONS 4/16/16				
 NORTH ORIENTATION	 ROSE & WESTRA, INC. ENVIRONMENTAL CONSULTANTS Grand Rapids, Michigan	NATIONAL HERITAGE ACADEMIES DETROIT ENTERPRISE ACADEMY 11224 KERCHIEVAL STREET, DETROIT, MICHIGAN DRINKING WATER TESTING		PROJECT NO. 0063.03881.7
		CREATED BY: KJB APPROVED BY: WJB DATE: 4/16/16 FILE NAME: 038817_ENTERP_DWT		 FIGURE NO.

ATTACHMENT 2
PREIN & NEWHOF LABORATORY REPORT

Customer Name: Rose & Westra, Inc.
4328 3 Mile Rd NW
Grand Rapids, MI 49544

Contact Name: Rose & Westra, Inc.
4328 3 Mile Rd NW
Grand Rapids, MI 49544

Project: 0063.03881.7

Project No: 2160001

Lab Order: 1604490

Matrix: DRINKING WATER
Sampled By: W. Bosze

Lab ID: 1604490-001A
Client Sample ID: DFS-304-FD

Collection Date: 4/16/2016 8:25 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.091	mg/L	0.010	1.3	SB	4/19/2016	EPA 200.7
Iron	0.052	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-002A
Client Sample ID: DFS-304-FL

Collection Date: 4/16/2016 8:30 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.101	mg/L	0.010	1.3	SB	4/19/2016	EPA 200.7
Iron	0.055	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-003A
Client Sample ID: DFS-309-FD

Collection Date: 4/16/2016 8:29 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.111	mg/L	0.010	1.3	SB	4/19/2016	EPA 200.7
Iron	0.055	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-004A
Client Sample ID: DFS-309-FL

Collection Date: 4/16/2016 8:34 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.166	mg/L	0.010	1.3	SB	4/19/2016	EPA 200.7
Iron	0.055	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-005A
Client Sample ID: DFS-210-FD

Collection Date: 4/16/2016 8:41 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT Limit	M.C.L.	Analyst	Date Analyzed	Method #
Copper	0.071	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.057	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Project: 0063.03881.7

Project No: 2160001

Lab Order: 1604490

Matrix: DRINKING WATER

Sampled By: W. Bosze

Lab ID: 1604490-006A
Client Sample ID: DFS-210-FL

Collection Date: 4/16/2016 8:46 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.100	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.052	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-007A
Client Sample ID: TL-227-FD

Collection Date: 4/16/2016 8:51 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.197	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.067	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-008A
Client Sample ID: TL-227-FL

Collection Date: 4/16/2016 8:56 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.025	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.057	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-009A
Client Sample ID: DFS-220-FD

Collection Date: 4/16/2016 8:54 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.103	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.054	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-010A
Client Sample ID: DFS-220-FL

Collection Date: 4/16/2016 8:59 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.094	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.049	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-011A
Client Sample ID: KS-105-FD

Collection Date: 4/16/2016 9:11 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		Date		Method #
			Limit	M.C.L.	Analyst	Analyzed	
Copper	0.114	mg/L	0.010	1.3	SB	4/21/2016	EPA 200.7
Iron	0.053	mg/L	0.006		SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003	0.015	SB	4/23/2016	SM3113B

Prein&Newhof

Project: 0063.03881.7

Project No: 2160001

Lab Order: 1604490

Matrix: DRINKING WATER

Sampled By: W. Bosze

Lab ID: 1604490-012A
Client Sample ID: KS-105-FL

Collection Date: 4/16/2016 9:16 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.050	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.046	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-013A
Client Sample ID: KS-106-FD

Collection Date: 4/16/2016 9:13 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.231	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.050	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-014A
Client Sample ID: KS-106-FL

Collection Date: 4/16/2016 9:18 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.070	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.041	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-015A
Client Sample ID: KS-108-FD

Collection Date: 4/16/2016 9:15 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.244	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.064	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-016A
Client Sample ID: KS-108-FL

Collection Date: 4/16/2016 9:20 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.047	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.046	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-017A
Client Sample ID: DFS-104-FD

Collection Date: 4/16/2016 9:23 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.034	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.064	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Prein&Newhof

Project: 0063.03881.7

Project No: 2160001

Lab Order: 1604490

Matrix: DRINKING WATER

Sampled By: W. Bosze

Lab ID: 1604490-018A
Client Sample ID: DFS-104-FL

Collection Date: 4/16/2016 9:28 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	< 0.010	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.057	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-019A
Client Sample ID: DFS-128-FD

Collection Date: 4/16/2016 9:35 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.064	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.056	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-020A
Client Sample ID: DFS-128-FL

Collection Date: 4/16/2016 9:40 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.052	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.050	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-021A
Client Sample ID: FP-126-FD

Collection Date: 4/16/2016 9:37 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.272	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.053	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Lab ID: 1604490-022A
Client Sample ID: FP-126-FL

Collection Date: 4/16/2016 9:42 am
Received Date: 4/18/2016 8:20 am

Analyses	Result	Units	RPT		M.C.L.	Date		Method #
			Limit			Analyst	Analyzed	
Copper	0.047	mg/L	0.010		1.3	SB	4/21/2016	EPA 200.7
Iron	0.049	mg/L	0.006			SB	4/22/2016	EPA 200.7
Lead	< 0.003	mg/L	0.003		0.015	SB	4/23/2016	SM3113B

Prein & Newhof

Engineers ■ Surveyors ■ Environmental ■ Laboratory

3260 Evergreen Drive NE
Grand Rapids, MI 49525

t. 616-364-7600
f. 616-364-4222

Client: Rose & Westra Inc.

Project Name: 0063.03881.7

Project #: 0063.03881.7

Send Results to: William Bozse

Sampling Personnel: William Bozse

wjbozse@rosewestra.com

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CHAIN OF CUSTODY

Air	A
Drinking Water	D
Groundwater	W
Soil	S
Sludge	L
Oil	O
Other	X

Lab Use	Sample Information			MATRIX	Preservative						Analysis Requested														
					None	H2SO4	HNO3	HCl	NaOH	Other	Lead	Copper	Zn												
Lab Sample ID #	Date	Time	Sample Description and Location (e.g. MW-1)																						
4490-1	4/16/16	8:25a	DFS-304-FD	D	X							X	X	X											
2	4/16/16	8:30a	DFS-304-FL	D	X							X	X	X											
3	4/16/16	8:29a	DFS-309-FD	D	X							X	X	X											
4	4/16/16	8:34a	DFS-309-FL	D	X							X	X	X											
5	4/16/16	8:41a	DFS-210-FD	D	X							X	X	X											
6	4/16/16	8:46a	DFS-210-FL	D	X							X	X	X											
7	4/16/16	8:51a	TL-227-FD	D	X							X	X	X											
8	4/16/16	8:56a	TL-227-FL	D	X							X	X	X											
9	4/16/16	8:54a	DFS-220-FD	D	X							X	X	X											
10	4/16/16	8:59a	DFS-220-FL	D	X							X	X	X											

Comments:

Relinquished By: (Signature) <i>William Bozse</i>	Date 4/18/16	Time 8:20a	Received By: (Signature)	Date	Time	Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time	Method of Shipment:			Bill of Lading:		
Received for Laboratory By: <i>Mary Anderson</i>	Date 4/18/16	Time 8:20a	Data Package Relinquished By:	Date	Time	Data Received By:	Date	Time	No. 31262		

