

Mr. Tom Hutchings

City of Flint Water Pollution
Water Pollution Control Facilities
G4652 Beecher Rd.
Flint, MI, 48532

RE: *Request for Ground/Surface Water Discharge Variance*

Permit No.: 6-08-04-04-GML1

FILE: 15388/75178/Docs

Dear Mr. Hutchings:

In accordance with requirements of the above referenced discharge permit, we are providing you with the attached Request for Ground/Surface Water Discharge Variance fact sheet and supporting information for the RACER Trust Coldwater Road Landfill facility, located at 6220 Horton Avenue, Flint, Michigan for your consideration.

August 5, 2020

Please call me at 313-333-0211 if you have any questions.

Yours sincerely



Clifford S. Yantz

Senior Hydrogeologist
1943864 - MIDWEST EAST Resources 056

M 313.333.0211

Clifford.yantz@ramboll.com

Ramboll
2260 E. Saginaw Street
East Lansing, MI 48823
USA

T 414-837-3607

F 414-837-3608

<https://ramboll.com>

cc: Mr. Kevin Forbes – Beecher Metropolitan District, Flint, MI
Mr. Jacob Runge – EGLE (via email)
Mr. David Favero – RACER Trust
Mr. Kevin Schneider – Ramboll

City of Flint Water Pollution Control Division
Request for Ground/Surface Water Discharge Variance Fact Sheet

1. Identify the person or party requesting a variance for authorizing the discharge of ground/surface water into the sanitary sewer system:

O'Brien & Gere Engineers, Inc. (OBG), a Ramboll company, on behalf of RACER Trust are requesting a variance for authorizing the discharge of decontamination pad water into the sanitary sewer system for the Coldwater Road Facility (discharge permit no. 6-08-04-04-GML1) located at 6220 Horton Avenue, Flint, Michigan.

2. State the date on which the discharge of ground/surface water to the sanitary sewer system is to commence and the date on which the discharge will be permanently terminated:

Commencement date: On or after August 17, 2020 Termination date: November 30, 2020

3. Describe the location of the proposed discharge:

The proposed discharge will be Outfall No. 001 for the Coldwater Road Facility (our normal outfall), and the water will be pretreated to remove PFAS through our existing GAC pretreatment system prior to discharge.

4. State the reason(s) why a variance for the discharge is being requested:

A variance for discharging decontamination water is being requested due to the need to store and commingle decontamination water with our permitted leachate and leak detection water. Decontamination water is being generated as a part of implementing stormwater management improvements at the Site to mitigate discharge of PFAS-impacted storm and surface water to the waters of the state. Decontamination water may contain PFAS and in particular PFOS at concentrations, exceeding surface water criteria of 12 ng/l, and therefore require disposal. We would like to collect accumulated liquids from our equipment decontamination operations and discharge those liquids to the on-site accumulation tank at the Facility for subsequent discharge through the existing PFAS pretreatment system and then to outfall (No. 001) to the sanitary sewer and POTW.

5. Describe the source of the ground/surface water to be discharged (i.e., an aquifer, a sand lense, a trench, etc.):

The decontamination water is potable (city) water utilized to decontaminate equipment at the Site during construction activities. Although the decontamination pad will be covered when not in use, there is a possibility that some precipitation could comingle with the decontamination water.

6. Describe how the proposed discharge will be introduced into the sanitary sewer system, and attach a schematic drawing of the system for conveying the ground/surface water from its source to the point of discharge:

The decontamination water will be pumped through a bag filter system to remove fines prior to being transferred into the accumulation tank through our existing piping that allows leak detection vault water to be added to the tank and then discharged through the existing discharge piping, flow meter, and pretreatment system utilized to remove sediment and PFOS from the discharged water. The attached pretreatment system drawings show the configuration of the tank and pretreatment system.

7. Describe the hydrogeological conditions (i.e., the location of aquifers, direction of ground/surface water flow, composition and distribution of subsurface materials, etc.) existing at the site of the source of the proposed discharge:

None. The source of the water is municipal water (either Beecher Metropolitan District or the City of Flint).

8. List all potentially harmful substances (as defined below) known, assumed, expected or suspected to be dissolved or suspended in, or combined with, the ground/surface water to be discharged (before the alteration or removal of any substances prior to discharge); and explain the basis of this information:

It is assumed that there will be no known, assumed, expected, or suspected dissolved or suspended potentially harmful substances in the decontamination water based on Site sampling history, except for the potential presence of PFAS and in particular PFOS at concentrations above its 12 ng/l surface water criteria.

“Potentially harmful substance”, as used herein, means:

- a. any corrosive substance which has a pH of less than or equal to 2.0 Standard Units or greater than or equal to 12.0 Standard Units;
 - b. any ignitable substance which has a closed-cup flash point of less than 140° F (60 °C);
 - c. any reactive substance which is normally unstable and readily undergoes violent change without detonating; reacts violently with water; forms potentially explosive mixtures with water; when mixed with water, generates toxic gases, vapors, or fumes in a quantity sufficient to endanger humans; or is capable of detonation or explosive reaction;
 - d. any biocide (i.e., disinfectant, insecticide, herbicide, etc.);
 - e. any substance listed in the City of Flint Register of Potentially Harmful Substances; and/or
 - f. any other substance which, if discharged in an excessive amount, could potentially violate the discharge prohibitions stipulated in Section 46-146 of the City of Flint Wastewater Disposal Regulations.
9. List all other substances (other than “potentially harmful substances”) known, assumed, expected or suspected to be dissolved or suspended in, or combined with, the ground/surface water to be discharged (before the alteration or removal of any substances prior to discharge); and explain the basis of this information:

None.

10. State the expected or intended maximum and average rate, in gallons per minute, and the maximum, average, and overall total volume, in gallons per day, of the proposed discharge; and explain basis of this information:

The current discharge permit limit of 5,000 gallons per day can be maintained, which equates to a continuous average flow rate of approximately 3.4 gallons per minute with a potential maximum, shorter term, flow rate of 10 gpm. At this rate it may take 2 to up to 4 days (longer if not consecutive) to discharge a total volume of up to 20,000 gallons of decontamination water through the system. The decontamination water will be discharged along with other accumulated liquids (i.e., leachate and leak detection liquids) already permitted by our discharge permit on at least a quarterly basis. It is likely that the discharge of decontamination water will occur in both the third and fourth quarters of 2020 and that sampling of the combined decontamination water and routine accumulated liquids will be collected for each quarterly discharge as required by the existing permit.

11. Describe the expected or intended timing of the proposed discharge (i.e., continuous, intermittent, daily, etc.), and explain the basis of this information:

The expectation and intent is to discharge continuously at approximately 3.4 gallons per minute until the water has been discharged through the pretreatment system. We will manually control the flow rate to stay below the maximum daily flow rate of 5,000 gallons.

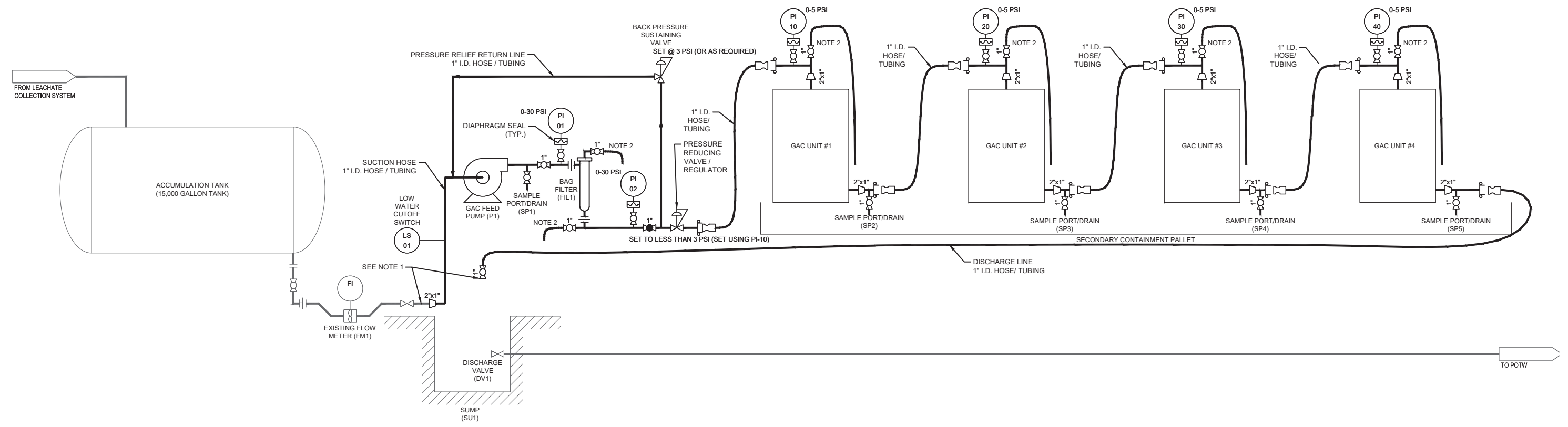
12. Describe any systems or procedures to be used for measuring, controlling, and reporting the rate, volume, and/or timing of the proposed discharge (i.e., tanks, lagoons, pumps, etc.):

The flow rate for the tank discharges are controlled by adjusting the pressure reducing and ball (and other) valves that are built into the pretreatment and discharge system. The valve(s) are opened and are adjusted based on obtaining the desired flow rate as measured by the flow meter (totalizer reading[s]) and time between readings, such as measuring the time that is needed to discharge 10 or 20 gallons, or measuring how much water is discharged over one or two minutes. The volume discharged will be the volume present at the time the discharge begins (plus any additional volume pumped via the automatic system from the landfill, which would be expected to be less than 1,000 gallons). The timing of the discharge will be dependent on the amount of decontamination water generated by the construction activities and will continue until the completion of the construction/decontamination activities and all of the water has been discharged through the system, which is expected to take 2 to 4 days of discharge per quarter. However, it is likely the discharge of decontamination water will occur in both the third and fourth quarters of 2020 and that sampling of the combined decontamination water and routine accumulated liquids will be collected for each quarterly discharge as required by the existing permit.

13. Describe any systems or procedures to be used for controlling the quality of the proposed discharge (i.e, wastewater treatment, best management practices, etc.):

The intent is to discharge the water through the existing pretreatment system consisting of four GAC drums to remove PFAS. The pretreatment system also contains a 1 micron bag filter to remove sediment prior to entering the GAC drums. No other treatment is conducted on the water that is discharged.

- NOTES**
- REFER TO DRAWING G-01 FOR EQUIPMENT LAYOUT AND SYSTEM CONNECTION POINTS.
 - PURGE WATER DURING WETTING OR RE-WETTING FROM AIR RELIEF / VENTS SHALL BE COLLECTED IN A 5 GALLON BUCKET (OR SIMILAR) AND RETURNED TO THE ACCUMULATION TANK FOR TREATMENT.
 - PRETREATMENT SYSTEM WILL BE WETTED OR RE-WETTED PRIOR TO EACH USE WITH MUNICIPAL POTABLE WATER AND COMPLETELY DRAINED AT THE END OF EACH QUARTERLY DISCHARGE EVENT.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT.

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR TO DETERMINE THE ACTUAL SCALE. DRAWING IS NOT SCALABLE IF NO SCALE BAR IS PRESENT.

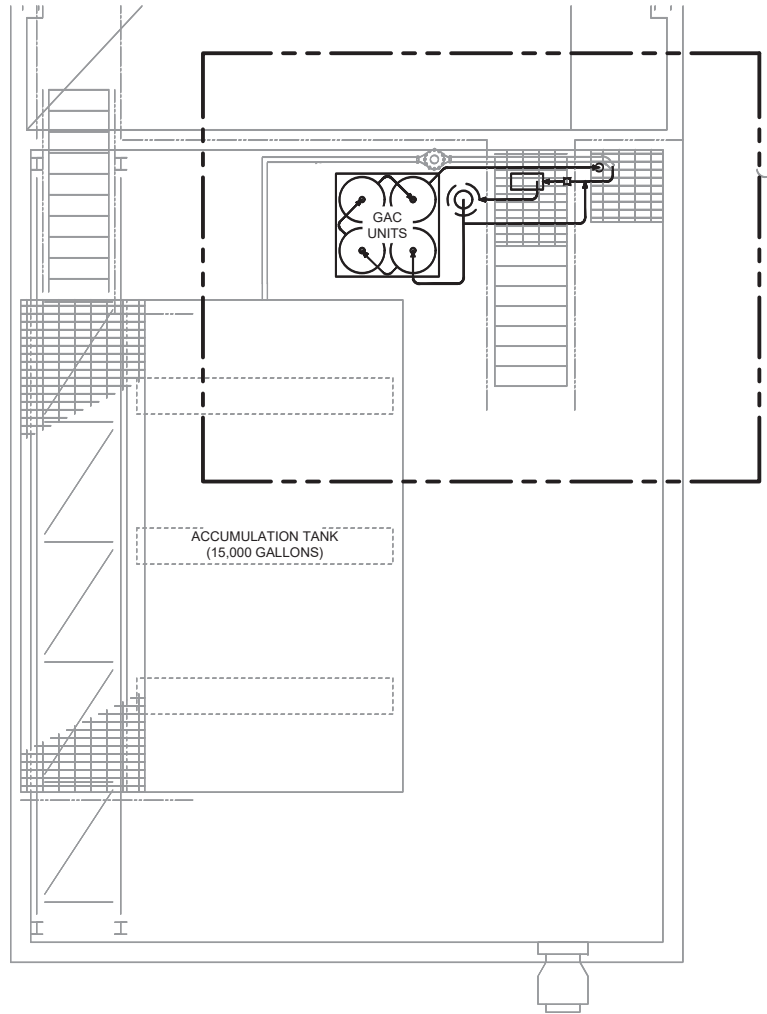
IN CHARGE OF	C. YANTZ				
DESIGNED BY	J. RIDGWAY				
CHECKED BY	T. KOMAR	B	04/15/2019	REVISED TO ADD IN FOURTH GAC DRUM ISSUED FOR REVIEW	CSY
DRAWN BY	B. WELLS	A	02/08/2018		JRR
		NO.	DATE	REVISION	INT.

O'BRIEN & GERE ENGINEERS, INC

RACER TRUST
COLDWATER ROAD LANDFILL FACILITY
 6220 HORTON AVENUE FLINT, MICHIGAN

GENERAL
PROCESS FLOW DIAGRAM

FILE NO.	15388.72202	PFD-01
DATE	04/15/2019	

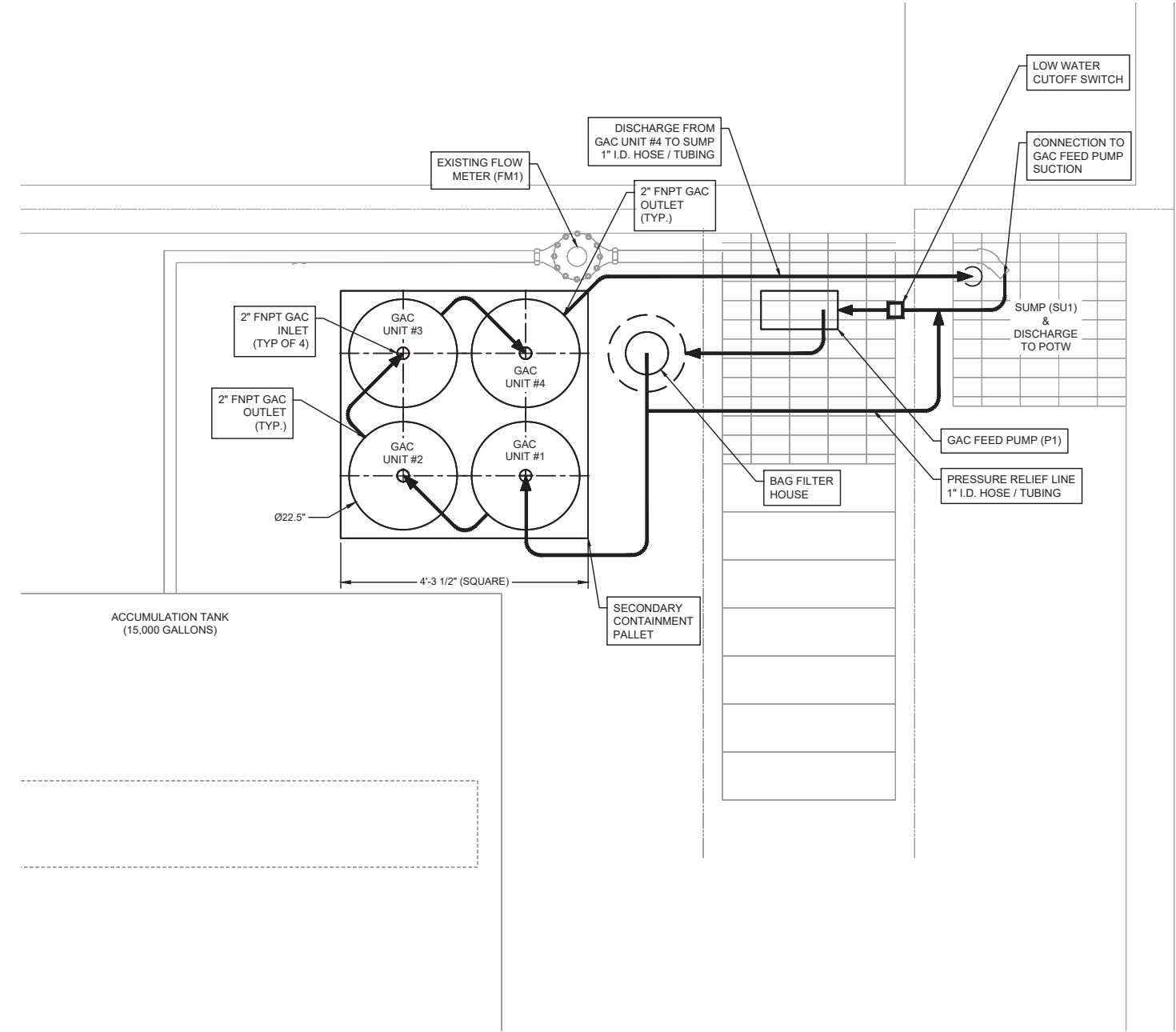


PLAN NORTH

1 PLAN - OVERALL

1/4"=1'-0"

4' 2' 0' 2' 4'



PLAN NORTH

2 PLAN - ENLARGEMENT

3/4"=1'-0"

6" 3" 0' 1' 2'

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O'BRIEN & GERE ENGINEERS, INC

RACER TRUST
COLDWATER ROAD LANDFILL FACILITY
6220 HORTON AVENUE FLINT, MICHIGAN

GENERAL
GENERAL ARRANGEMENT

FILE NO.	15388.72202
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G-01