



January 19, 2023

City of Marinette  
Attn: Brian Miller  
1905 Hall Ave  
Marinette, WI 54143

Subject: Approval to Manage Contaminated Soil under Wis. Admin. Code § NR 718.12 at a Different Site or Facility  
Generating Property: Ludington Street Right of Way  
Receiving Property: City Lot Adjacent to Ludington St, 1385 Ludington St, Marinette, WI, BRRTS #: 02-38-591174

Dear Mr. Miller:

On December 28, 2022, Bill Honea of Ayres Associates submitted a material management request on your behalf requesting to manage 1,260 cubic yards of contaminated soil from the Ludington Street Right of Way (ROW) on the City Lot Adjacent to Ludington St site in accordance with Wis. Admin. Code § NR 718.12. The Wisconsin Department of Natural Resources (DNR) received all applicable technical assistance and database fees for providing review and response, in accordance with Wis. Admin. Code § NR 749.04 (1).

Ludington Street is undergoing reconstruction activities including the addition of new subsurface utilities. The portion of Ludington Street between Ely and Stanton Streets overlies contaminated fill. It is understood that the primary sources of these contaminants are not within the right-of-way. The contaminated fill will be excavated during utility trench grading. The material generated during this process is structurally unsuitable for reuse as backfill and will require management off-site, at the City Lot Adjacent to Ludington St. The relocated material will be capped with a geosynthetic clay liner and 18 inches of soil to provide a low-permeability cover and direct-contact barrier cap.

#### **Wis. Admin. Code § NR 718.12 Approval**

This letter grants an approval to manage contaminated soil under Wis. Admin. Code § NR 718.12. Approval is based on the following:

#### **Compliance with Locational Criteria**

Managing contaminated soil in areas of the site identified on the Cut-fill and Capping Plan Figure of the material management request will meet the locational criteria listed under Wis. Admin. Code § NR 718.12 (1) (c), except for the following:

- Where the contaminated soil poses a threat to public health, safety or welfare or the environment.

#### **Grant of exemption to Wis. Admin. Code § NR 718.12 (1) (c) (7)**

In consideration of material being managed on an adjacent site with similar contamination and proposed geosynthetic clay liner and soil cover, the DNR grants an exemption to the locational criteria of Wis. Admin. Code § 718.12 (1) (c) (7) and will allow placement of contaminated soil where the contaminated soil poses a threat to public health, safety, or welfare or the environment.

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### **Characterization of Soil to be Excavated**

Soil samples were collected for analysis of contaminants previously detected or expected to be present at this site including volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), per- and polyfluoroalkyl substances (PFAS), arsenic, and lead, from areas most likely to contain residual contamination. Based on an estimated volume of 1,260 cubic yards of soil, and a sampling frequency of one sample per 180 cubic yards, the sampling protocol described in Wis. Admin. Code § NR 718.12 (1) (e) was not met. However, the DNR has determined that the soil was adequately characterized due to contaminant concentrations within the material being consistent with other impacts in the area.

### **Submittal of a Soil Management Plan**

A complete soil management plan, as defined by Wis. Admin. Code §§ NR 718.12 (2) (b) and (c), was provided to the DNR.

### **Assessment of Risk Posed by Soil Management**

The proposed management of contaminated soil at the City Lot Adjacent to Ludington St is expected to meet the criteria of Wis. Admin. Code §§ NR 726.13 (1) (b) 1. to 5.

### **Notice Provided Prior to Commencing Soil Management Activities**

Per Wis. Admin. Code § NR 718.12 (2), the DNR was provided with written notice at least seven days prior to commencing the proposed contaminated soil management.

### **Requirement of Continuing Obligations**

The current owner of the City Lot Adjacent to Ludington St acknowledged that the continuing obligations described below will be required as a condition of managing the contaminated soil on their property as proposed.

The current property owner of the City Lot Adjacent to Ludington St, and any subsequent property owners, must comply with the following continuing obligations at this site, established under Wis. Admin. Code § NR 718.12 (2) (d), to ensure that conditions will remain protective. DNR staff will conduct periodic, pre-arranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under Wis. Stat. ch. 292.11 to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Documents submitted to the DNR to request the Wis. Admin. Code § NR 718.12 approval meet the requirements of Wis. Admin. Code § NR 718.12 (2) (e) and are available in PDF on the DNR's Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW) and RR Sites Map (RRSM), to provide public notice of remaining contamination and continuing obligations. Both BOTW and RRSM are available at [dnr.wi.gov](http://dnr.wi.gov) and search "WRRD."

More information on responsibilities related to continuing obligations can be found in the DNR publication "Continuing Obligations for Environmental Protection" (RR-819), which can be found at [dnr.wi.gov](http://dnr.wi.gov), search "RR-819."

Please send written notifications in accordance with the following requirements to Cody Heinze at [codyw.heinze@wisconsin.gov](mailto:codyw.heinze@wisconsin.gov).

Send documents to the DNR using the RR Program Submittal Portal at [dnr.wi.gov](http://dnr.wi.gov), search "RR submittal portal" (<https://dnr.wi.gov/topic/Brownfields/Submittal.html>). Questions on using this portal can be directed to the contact below or to the environmental program associate (EPA) for the regional DNR office. Visit [dnr.wi.gov](http://dnr.wi.gov), search "RR contacts" and select the EPA tab (<https://dnr.wi.gov/topic/Brownfields/Contact.html>). More

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information on submitting electronic documents can be found in the DNR publication “Guidance for Electronic Submittal for the Remediation and Redevelopment Program” (RR-690), which can be found at [dnr.wi.gov](http://dnr.wi.gov), search “RR-690.”

#### Residual Soil Contamination

If contaminated soil that was managed as proposed in the materials management request is excavated in the future, the property owner at the time of excavation will have the following responsibilities per Wis. Admin. Code § NR 727.05 (1) (d):

- determine if contamination is present;
- determine whether the soil is considered solid or hazardous waste; and
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules.

Excavated contaminated soil may be managed in accordance with Wis. Admin. Code § NR 718 with DNR pre-approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose a hazard, and special precautions may be necessary to prevent a health threat to humans.

The location(s) where contaminated soil is proposed to be managed at the City Lot Adjacent to Ludington St is depicted in the attached Cut-fill and Capping Plan Figure.

Depending on site-specific conditions, construction over contaminated soil or groundwater may also result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor intrusion and means of mitigation may need to be evaluated when planning any future redevelopment, and measures may need to be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

The DNR’s approval prior to well construction or reconstruction is required where contaminated soil was managed, in accordance with Wis. Admin. Code § NR 812.09 (4) (w). This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit DNR Form 3300-254 to the DNR Drinking and Groundwater Program’s regional water supply specialist. This form is available at [dnr.wi.gov](http://dnr.wi.gov), search “3300-254.”

#### Maintenance of a Cover

A geosynthetic clay liner and 18-inch soil cover is proposed to be installed and maintained over contaminated soil that will be managed at the City Lot Adjacent to Ludington St as proposed in the material management request. A draft maintenance plan is attached, which describes the inspection and maintenance activities that will apply to the proposed barrier. An updated maintenance plan must be provided to the DNR once the barrier has been constructed that addresses the necessary changes, listed below, and must address actual site conditions (Wis. Admin. Code § NR 724.15 (3) (h)). A map, Cut-fill and Capping Plan Figure, is attached which shows where contaminated soil is proposed to be managed and the extent of the proposed cover. Once constructed, inspections of the geosynthetic clay liner and soil cover will be required per Wis. Admin. Code § NR 724.13, and submittal of inspection reports may also be required per Wis. Admin. Code NR 727.05 (1) (b) 3.

The maintenance plan prohibits certain activities in areas where maintenance of a cover or barrier is intended to prevent contact with any remaining soil contamination. The following activities are prohibited on any portion of the property where the geosynthetic clay liner and soil cover is required, unless prior notification is provided to DNR to determine whether further action may be necessary to protect human health, safety, or welfare of the environment (Wis. Admin. Code § NR 727.07):

- removal of the existing barrier or cover;

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- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- growth of trees and/or large vegetation;
- construction or placement of a building or other structure; and
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital or similar residential exposure settings.

#### Vapor Intrusion - Future Concerns

Naphthalene remains in soil in the right of way and in soil managed at City Lot Adjacent to Ludington St, as shown in the materials management request, at concentrations that may be of concern for vapor intrusion in the future, if a building is constructed in an area where no building exists. At the time of this approval the area is right of way and vacant property without buildings.

Vapor control technologies are required for new construction unless the property owner assess the vapor pathway and the DNR agrees that vapor control technologies are not needed.

#### Other Information

- 1) Any hazardous substance discharge discovered during soil management activities must be reported to the DNR following the requirements of Wis. Admin. Code ch. NR 706.
- 2) Contaminated soil management activities approved by this letter are scheduled to be completed within 12 months. Notify the DNR if this schedule will change.
- 3) Unless otherwise directed by the DNR, documentation of contaminated soil management activities shall be provided within 60 days of the completion of this project (Wis. Admin. Code § NR 724.15 (1)). The documentation must comply with the requirements of Wis. Admin. Code § NR 724.05 (2) and § NR 724.15 (3). Documentation must include:
  - a. A cover letter that contains the information required by Wis. Admin. Code § NR 724.05(2) (e) 1.
  - b. Owner contact and property location information for the City Lot Adjacent to Ludington St.
  - c. Maps, drawings and cross sections that depict how contaminated soil was managed.
  - d. A synopsis of the work conducted and an explanation as to how it complied with the soil management plan and the conditions in this approval.
  - e. A description of any changes made to the planned management activity and an explanation as to why they were necessary for the project.
  - f. Any field observations or results of monitoring conducted during the management activity.
  - g. A description of how new site conditions are protective of human health, safety, welfare and the environment at the City Lot Adjacent to Ludington St.
  - h. A revised cover maintenance plan, including an updated description of the site location, an addition of a condition prohibiting trees and large vegetation, updated language describing the capped area as deeded property not right of way, all appropriate attachments, and an as-built figure of the cap and fill limits.

The DNR will request that incomplete documentation be amended as allowed by Wis. Admin. Code § NR 724.07 (2).

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- 4) This approval is granted under Wis. Admin. Code § NR 718.12 and applies only to the specific activities described within the submitted material management request. Any contaminated material that is excavated or otherwise disturbed, not covered under this or another approval, must be managed in compliance with the requirements of Wis. Admin. Code chs. NR 500 through NR 599. The management of contaminated material on a property that does not comply with these rules may be considered a hazardous substance discharge or environmental pollution and would be required to be addressed by the process outlined in Wis. Admin. Code chs. NR 700 to NR 799.
- 5) If material is encountered during excavation that contains solid or industrial waste or is obviously impacted with non-aqueous phase liquids (NAPL), the material shall be disposed of at a landfill.
- 6) The dewatering treatment system plan has not been reviewed as part of the materials management plan. The City of Marinette will need to work with the DNR Wastewater Program to determine if a pre-treatment engineering plan review is necessary.
- 7) The City of Marinette is responsible for obtaining any local, federal or other applicable state permits to carry out the project.

All remediation sites are included in DNR's Bureau of Remediation and Redevelopment Tracking System (BRRTS) database. Actions relating only to the management of contaminated soil at the City Lot Adjacent to Ludington St are tracked in the BRRTS system under activity # 02-38-591174.

We appreciate your efforts to protect the environment at this site. If you have any questions regarding this approval decision, please contact, Cody Heinze, by calling (920) 883-9383, or by email at [codyw.heinze@wisconsin.gov](mailto:codyw.heinze@wisconsin.gov).

Sincerely,



Roxanne N. Chronert  
Team Supervisor, Northeast Region  
Remediation & Redevelopment Program

Attachments:

- Maintenance Plan
- Cut-fill and Capping Plan

cc: Bill Honea, Ayers Associates, [HoneaW@ayersassociates.com](mailto:HoneaW@ayersassociates.com)  
Makayla Jacobs, Fincantieri Marinette Marine LLC, [Makayla.Jacobs@us.fincantieri.com](mailto:Makayla.Jacobs@us.fincantieri.com)  
Frank Dombrowski, WEC Energy Group, [frank.dombrowski@wecenergygroup.com](mailto:frank.dombrowski@wecenergygroup.com)  
Marinette County Association for Business & Industry, Inc., [operations@inventurenorth.com](mailto:operations@inventurenorth.com)  
Denice Nelson, Johnson Controls Inc., [denice.karen.nelson@jci.com](mailto:denice.karen.nelson@jci.com)

## COVER or BARRIER MAINTENANCE PLAN

December 2, 2022

Property Located at:

Ludington Street Right-of-Way

Part of Tax Parcel 251-00930.000

Part of Government Lot 4, in Section 6, T30N-R24E, in the City of Marinette, County of Marinette, State of Wisconsin, described as follows:

Commencing at the Southeast Corner of Section 6, T30N-R24E;

Thence S86°50'58"W, a distance 729.49 feet;

Thence N03°09'02", 1221.67 feet to the Point of Beginning;

Thence the N40°02'09", along the West line of Document Number 868114, a distance of 99.94 feet to the Southwest right of way line of Ludington Street;

Thence S50°14'55", along said Southwest right of way line, a distance of 125.02 feet to the East line of said Document;

Thence S39°37'17"W, along said East line, a distance of 100.55 feet;

Thence N49°58'12"W, 125.75 feet to the Point of Beginning.

### Introduction

This document is the Maintenance Plan for an engineered cap at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing soil cap and geosynthetic clay liner (GCL), which addresses or occupies the area over the contaminated soil.

More site-specific information about this property/site may be found in:

- The case file in the DNR Northeast Region office
- At <http://dnr.wi.gov/topic/Brownfields/wrrd.html>, which includes:
  - BRRTS on the Web (DNR's internet based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
  - RR Sites Map for a map view of the site, and
- The DNR project manager for Marinette County.

### **D.1. Descriptions:**

#### Description of Contamination

Roadway grading and utility excavations for the reconstruction of Ludington Street between Ely and Stanton Street intersect a layer of contaminated fill. Spoils generated from excavations within the fill contain refuse, PAHs, PFAS, benzene, naphthalene, arsenic, and lead. These contaminated spoils will be relocated to a 110-ft x 288-ft area in the right-of-way adjoining the south side of Ludington Street (receiving site). The spoils will be capped with a low-permeability GCL and 18 inches of clean soil. The extent of the contaminated spoils is shown on the attached drawing C-503.

#### Description of the [Cover/Barrier] to be Maintained

The cap is comprised of 18 inches of clean soil over a geosynthetic clay liner. It is located spoils receiving site, as shown on attached drawing C-503.

#### Cover/Building/Slab/Barrier Purpose

The soil and GCL over the contaminated spoils serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The cover/barrier also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property, City right-of-way, the barrier should function as intended unless disturbed.

#### Annual Inspection

The soil and GCL overlying the contaminated spoils and as depicted in drawing C-503 will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into or exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed [[and] where infiltration from the surface will not be effectively minimized] will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site; or, if there is no acceptable place (for example, no building is present) to keep it at the site, at the address of the property owner and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

#### Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the soil and GCL overlying the contaminated spoils are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the soil and GCL cap, will maintain a copy of this Maintenance Plan at the site; or, if there is no acceptable place to keep it at the site (for example, no building is present), at the address of the property owner and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

The following activities are prohibited on any portion of the property where soil cover, engineered cap or other barrier is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

Contact Information

December 2022

Site Owner and Operator:       City of Marinette  
  Brian Miller, City Engineer  
  1905 Hall Avenue  
  Marinette, WI 54143  
  715.732.5180

Signature: \_\_\_\_\_

Consultant:                       Ayres Associates  
  3376 Packerland Drive  
  Ashwaubenon, WI 54115  
  (920) 498-1200

DNR:                               Sarah Krueger, PG  
  2984 Shawano Avenue  
  Green Bay, WI 54313  
  920.510.8277

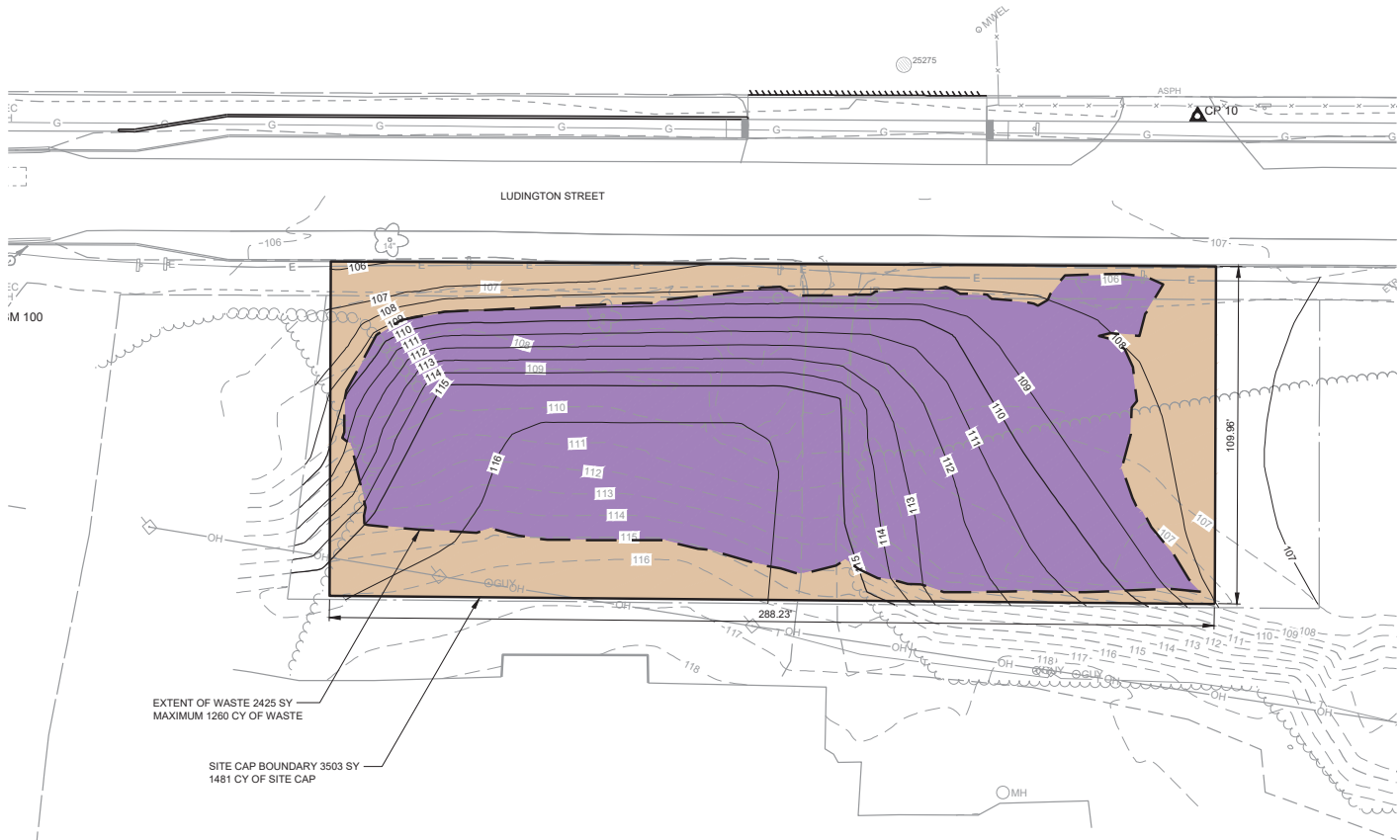
- D.2    Location Map(s)**
- D.3    Photographs of Cover/Barrier**
- D.4    Continuing Obligations Inspection and Maintenance Log [Form 4400-305](#)**





**LEGEND**

- SITE CAP BOUNDARY
- EXTENT OF WASTE

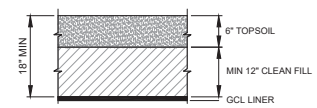


EXTENT OF WASTE 2425 SY  
 MAXIMUM 1260 CY OF WASTE

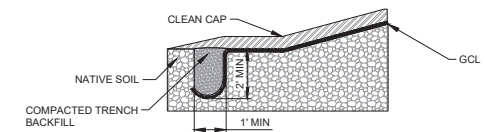
SITE CAP BOUNDARY 3503 SY  
 1481 CY OF SITE CAP

**NOTES:**

1. PROPOSED CONTOURS REPRESENT GRADING WITH MAXIMUM AMOUNT OF WASTE PLACED. DEPENDING ON QUANTITY OF MATERIAL, FINAL CONTOURS MAY VARY FROM WHAT IS SHOWN.
2. SLOPES SHALL NOT EXCEED 4:1.



SUBGRADE  
**1 SITE CAP**  
 NOT TO SCALE



SUBGRADE  
**2 GCL TRENCH ANCHOR**  
 NOT TO SCALE

A:\2022\10-25-22\100\Marinette City\25-0289-00\Main\Drawings\Area Improvements\GCL\25-0289-00-Subgrade\Sheet C-503.dwg

DES BY	TAH	PROJ NO					
CR BY	JWS	25-0289-00					
CHK BY	CRS	OCTOBER 2022	NO	DATE	REVISION	NO	DATE

**DOWNTOWN AREA IMPROVEMENTS**  
**LUDINGTON, WELLS AND MAIN STREETS**  
**CITY OF MARINETTE**



**CUT-FILL AND CAPPING PLAN**

SHEET NO.  
**C-503**